Written Corrective Feedback: The need for collaboration and multidirectional interaction

NICHOLAS CARR AND MICHIKO WEINMANN
Deakin University

Abstract: *Over the last two decades, there has been significant debate surrounding the potential benefits, or potential harm, generated from the provision of written corrective feedback (WCF) on the writing of language learners. The majority of research in the field has been conducted within a positivist paradigm, which often adopted experimental research designs that measured language development in the form of correct output of targeted linguistic items, with the output sometimes being limited to a single writing task. Through the use of an interpretive paradigm and a socio-culturally informed theoretical framework, this case study examines language development reflected by progression within the language learners' zone of proximal development (ZPD), generated via the provision of direct WCF. Retrospective interviews provide rich qualitative data that highlight the experiences of participants as they process three different types of WCF. This case study found that WCF was not able to generate any significant shifts towards self-regulation within the participants' ZPD, and thus learning generated via WCF was, at best, minimal. The need for learners to collaborate in order to co-construct their ZPDs during both the processing of WCF and construction stage of writing tasks was identified. Pedagogical implications for language teachers are discussed.*

Keywords: *written corrective feedback, sociocultural theory, zone of proximal development, TESOL, adult learners*

Introduction

The provision of written corrective feedback to comprehensively address errors was a considered standard practice for many years (Kepner, 1991). The issue of whether or not it was beneficial for learners was largely unquestioned until Truscott (1996) called for its abandonment. Since Truscott's seminal article, there have been over two decades of research and debate into the benefits of WCF,

with studies in the area often producing incongruent results. However, the literature has highlighted that feedback is an extremely important aspect of learning (Black & Wiliam, 1998); it is perceived as a pedagogical tool by language teachers (Lee, 2004, 2008); language learners perceive it as a necessary aspect of learning (Diab, 2005); and it has the potential to evoke negative feelings towards writing in the target language (Semke, 1984). In the Australian context, the importance of feedback in language learning is further evidenced by the resources the Victorian Department of Education and Training (n.d.-a) dedicates to improving the quality of WCF in its Tools to Enhance Assessment Literacy project (TEAL).

Key definitions
Direct WCF: feedback which provides the exact location and correct form of the error. It may include a meta-linguistic explanation.

Indirect WCF: feedback which does not provide the correct form of the error. Depending on the level of implicitness, it may, or may not, identify the location or type of error.

Focussed: feedback which addresses a limited number of errors.

Unfocussed: feedback which addresses multiple, if not all, errors.

Written corrective feedback and explicit knowledge
The provision of WCF has been argued to create or prime explicit knowledge (Bitchener, 2012). It has also been argued that language development can occur with the single provision of the feedback (Bitchener & Knoch, 2009a, 2009b, 2010), with development being retained in the long-term (Bitchener & Knoch, 2009b, 2010). Much of the literature arguing for the use of WCF points towards it being more beneficial when it is highly focused (Ellis, Sheen, Murakami, & Takashima, 2008; Shintani, Ellis, & Suzuki, 2014), with some studies only addressing one linguistic item—in particular, the referential usage of articles (Bitchener & Knoch, 2009a, 2009b, 2010; Sheen, 2007). However, such highly focused feedback is not reflective of real classroom practices (van Beuningen, De Jong, & Kuiken, 2012), and does not meet learners' preferences (Amrhein & Nassaji, 2010). When WCF has addressed multiple linguistic items, the results have been less encouraging. For example, in Sheen, Wright, and Moldawa (2009), writing practice itself was found to be more beneficial than the provision

of unfocused WCF, and in Truscott and Hsu (2008) the benefits displayed in the short term were found not to carry over to new writing tasks. Therefore, there is a need to consider if the research design of studies focusing on article usage only has truly reflected the interlanguage of its participants (Xu, 2009).

The aforementioned studies, while robust in design, have also been critiqued for a lack of consideration of affective factors (Storch, 2010). Researchers have called for the need for research designs to go beyond written output and consider the context surrounding learners and their individual characteristics (Ferris, Liu, Sinha, & Senna, 2013) and argued for the value of qualitative studies to assist with the understanding of quantitative studies (Liu & Brown, 2015). Ferris and colleagues argue that examining only written texts will not generate information on how, why and if WCF is helpful. Learners' reactions to and utilisation of WCF have been found to be highly individualistic (Hyland, 1998), with negative reactions not being uncommon in Lee's (2008) study. Storch and Wigglesworth (2010) also found that affective factors have a significant impact on the uptake of written feedback. These studies highlight the importance of considering affective factors due to the influence they have on the potential learning benefits of WCF, i.e. positive or negative results may not be due to the feedback itself, but may be more closely related with other affective variables.

Sociocultural theory, the zone of proximal development and WCF
Within a Socio-cultural (SCT) framework, learning and cognitive development are conceptualised as being facilitated within social interactions (Lantolf, Thorne, & Poehner, 2014). In other words, language development happens through collaborating and interacting with other speakers. A key construct in SCT is the ZPD, traditionally defined as the difference between what can be achieved independently and what can be achieved when receiving assistance from, or working in collaboration with, an expert or a more capable peer (Vygotsky, 1978). However, as Ohta (2005) explains, this original definition was penned with child development in mind, and not adult language learners. Consequently, Ohta has proposed that when applying the ZPD to language learning, assistance can come from not only an expert or more advanced peer, but also peers of the same level and literary sources — with literary sources referring to materials such as text-books, dictionaries, and worksheets. This type of assistance

is important to note, as this goes beyond inter-individual interactions and includes learners interacting with WCF.

Due to the ZPD focusing on what a learner can achieve with assistance, development may not be visible in actual performance, but rather be reflected in quality of assistance required. Accordingly, within SCT, the instruments used to analyse learning should not be limited to language output, but should also consider the assistance required to complete a task (Lantolf et al., 2014). Past studies have realised this paradigm shift by analysing activity within a learner's ZPD, with development being evidenced by a shift towards less-explicit WCF when self-editing texts. WCF cannot provide a learner with feedback that is dynamic and spontaneous, and is thus not able to attune its level of explicitness to the ZPD of a learner in real time. Therefore, studies set within an SCT framework have traditionally provided feedback orally, with the level of explicitness changing as per learner needs on a case-by-case basis. The first study to adopt this approach was that of Aljaafreh and Lantolf (1994). They found that learners were able to develop a pattern of requiring less explicit feedback over the course of the study, and concluded that a learner's ZPD is co-constructed dialogically — with dialogic activity in their study referring to the expert and novice discovering the level of assistance required through an oral interaction between two individuals. Subsequent studies that have adopted a similar approach to Aljaafreh and Lantolf include Nassaji and Swain (2000); Nassaji (2012); and Erlam, Ellis, and Batstone (2013). With the exception of Erlam et al. (2013), the results have been congruent with those of Aljaafreh and Lantolf. It should be noted that due to possible design flaws in relation to the differing language levels of participants in the study, the results of Erlam and colleagues should be interpreted with care (Bitchener & Storch, 2016).

While these studies, overall, show that language development can be generated via feedback attuned to the learner's ZPD, provision of such dynamic and multidirectional feedback has been reported as very time-consuming, taking an average of above 26 minutes for the provision of feedback per individual student in Erlam et al. (2013). Without denying the benefits of such an approach, there is difficulty in considering it a practical approach in real classroom environments. Therefore, there is a need to investigate if there are more practical methods to create shifts within a learner's ZPD. One option in attempting to attune

feedback to a learner's ZPD is to provide direct WCF for learner-specific problems on one writing task, followed by indirect feedback for the same problematic areas on a subsequent writing task. The difference in explicitness between direct and indirect WCF provides a learner with the opportunity to display development through a shift in the quality of assistance required to edit their texts.

Based on the extant literature, we argue the following points of interest emerge: there is a need for further investigation of WCF that utilises feedback that is not so highly focused; there is a need to look beyond output when assessing language development; and there is a need for affective factors to be considered when investigating the potential benefits of WCF.

Aims of this study

This study aims to investigate if the single provision of direct WCF with a meta-linguistic explanation (hereafter referred to as 'direct WCF') can increase explicit knowledge and later become a linguistic resource the learner can draw upon to co-construct their ZPD when utilising less explicit feedback in subsequent writing tasks.

To date, we are unaware of any study which investigates this issue. Furthermore, unlike many previous studies, the current study utilises writing tasks that are freer and therefore provide a more natural and authentic instrument for participants to display language development. Finally, this study utilises rich qualitative data in the form of retrospective interviews to track the reactions the provision of WCF evoked in the participants—data that has often been missing in previous studies.

Based on these research aims, the following research questions were developed:

1. How is the knowledge that is created or primed through the provision of direct WCF enabling learners to move towards less explicit other-mediation?

2. What are the reactions participants experience as they process three different types of WCF: content, direct WCF, and indirect feedback?

Methodology

A case-study approach was implemented for this study to enable rich qualitative data to be collected in interviews and facilitate

evidence of language development beyond output only. This case study forms part of a larger study involving several case studies (see Carr & Weinmann, 2016). This study re-examines the experiences of two participants in particular—two adult learners of English in Japan: Yumi and Terumi (Pseudonyms have been used to ensure the anonymity of the participants).

Participants were receiving tuition from one member of the research team and pursuing English education for non-professional reasons. Backgrounds of participants are analogous: both were born and raised in Japan, and completed all primary, secondary and tertiary education in Japan. Both participants received six years of English instruction as part of their secondary education. After completing tertiary level studies, both participants spent time studying in an English-speaking country. Since returning to Japan, participants have intermittently continued their English studies in an informal one-to-one format.

An overall score of band 6 for the IELTS (International English Language Testing System) test allows Yumi to have achieved a generally effective mastery of the language, despite some errors and misunderstandings (IELTS, n.d.-a). With a writing band score of 5.5, Yumi's writing skills can be described as capable of only a limited number of structures, with complex structures causing difficulties (IELTS, n.d.-b).

Terumi's score of 855 on the Test of English for International Communication (TOEIC) indicates the ability to understand the main ideas of concrete and abstract topics (Education Testing Services, n.d.). Furthermore, such a result on a TOEIC test suggests she is able to communicate with high-level English speakers without causing difficulty for either party, express her opinion and produce clearly written texts on a variety of topics (Educational Testing Services, n.d.).

In this study, participants produced three writing tasks, with each task consisting of two drafts, over an eight-week period. Each task received a different type of feedback: content, direct and indirect. Content feedback was utilised for the first task in order to ensure participants were comfortable with the genre—explanatory essays—before proceeding with the investigation of the first research question. Participants received multiple lessons on the genre before this study began. The sequence of the study is summarised in Table 1.

Table 1: Sequence of Study

Stage 1	• Writing task 1, draft 1 – Content feedback provided
	• Writing task 1, draft 2 – General feedback provided
Stage 2	• Writing task 2, draft 1 – Direct written FB provided
	• Writing task 2, draft 2 – General feedback provided
Stage 3	• Writing task 3, draft 1 – Indirect WCF provided
	• Writing task 3, draft 2 – General feedback provided
Stage 4	• Retrospective interviews conducted

The errors to be targeted with direct WCF were not predetermined, and varied according to each participant. Due to the freer nature of the writing tasks, errors addressed in the second writing task did not necessarily appear in the third writing task. In line with the aims of the study, the indirect WCF used in the third writing task focused on errors that had been addressed with direct WCF in each of the participant's previous writing task. The second draft of the third writing task was then analysed for evidence of the participants being able to utilise less explicit feedback in the form of self-correction.

Example of direct WCF: Error location, correct form and meta-linguistic explanation provided:

First, the ① *Sports* in Melbourne ② *is* very exciting to watch.

❶ Sports → sports. Capitals are used at the beginning of sentences, for names of people, institutions and places. "Sports" is not either of these.

❷ is → are. The subject of the sentence is "the sports in Melbourne" which is plural. Therefore the verb needs to match a plural subject.

The indirect feedback utilised in the third writing task did not indicate the type of error or its exact location. Sentences containing the targeted errors were highlighted. The rationale for this was that the errors that reappeared in the third writing task

were mostly concerned with plural forms of nouns, article usage and subject and verb agreement errors. If the location or type of error were provided for such errors, self-correction could be easily guessed, for example, adding an 's' to construct the plural form of a noun.

Example of indirect WCF

> I have seen many type of movies which are action, comedy or suspense. I enjoy watching them every time.

Semi-structured interviews were used to gain insights into how participants experienced the feedback. The semi-structured interviews enabled each participant's individual experiences and insights to be uncovered while ensuring a sufficient amount of congruent data was collected. The interviews were primarily conducted in English; however, there were instances in which participants expressed themselves in Japanese[1].

Discussion of findings

Yumi received direct WCF and then indirect feedback in the subsequent writing task for the following errors: singular/plural form of countable nouns; articles (with countable, non-specific nouns); and subject–verb agreement. Of the six occasions Yumi received indirect WCF for subject–verb errors, she was able to self-correct on two occasions. Yumi received indirect WCF for errors concerned with the incorrect use (or, more specifically, the omission) of the indirect article with non-specific singular countable nouns on three occasions. She was able to identify and correct these errors on one occasion. Yumi also received indirect feedback concerning the use of the singular form of countable nouns when the plural form was required on two occasions. Yumi corrected one of these with the use of an alternative solution. With the assistance of indirect WCF, Yumi was able to resolve only four of 11 errors, and as such did not display a pattern of shifting towards a reliance on less explicit other-regulation within her ZPD. See Table 2 for a visual representation of this data.

---

[1] Both members of the research team are fluent in Japanese

Table 2: Yumi's Results

	SINGULAR/ PLURAL WITH COUNTABLE NOUNS	INDEFINITE ARTICLE WITH COUNTABLE, NON-SPECIFIC NOUN	SUBJECT–VERB AGREEMENT
Draft 1 of task 2 Instances of provision of direct WCF	3	4	1
Draft 1 of task 3 Instances of provision of indirect WCF	2	3	6
Draft 2 of task 3 Instances of self-correction	0 (1)*	1	2

*Indicates alternative resolution using disparate linguistic forms

Terumi received direct WCF and then indirect feedback in the subsequent writing task for the following errors: singular/plural form of countable nouns; indefinite article (with countable, non-specific nouns); definite article with general expressions; and subject–verb agreement. Terumi was not able to identify and self-correct any of the three errors with the singular/plural form of countable nouns that received indirect WCF. Three errors regarding the indefinite article with non-specific countable nouns, in which the article had been omitted, received indirect WCF. Of these, Terumi was able to identify and correct the error on one occasion. On the second writing task, Terumi received direct feedback on two occasions concerning the use of the definite article in two separate general expressions. One of these expressions was again incorrectly used in the third writing task and received indirect WCF. This error was not able to be identified and corrected through the provision of indirect WCF. Terumi was able to resolve all three subject–verb agreement errors that received indirect WCF. In a similar vein to Yumi, Terumi was only

able to resolve four of 11 errors with the assistance of indirect WCF, and thus did not display a pattern of shifting towards a reliance on less explicit other-regulation within her ZPD when considering errors as a whole. However, when considering the type of errors individually, Terumi did show a pattern of shifting towards less explicit feedback being required to self-correct subject–verb agreement errors. This was evident from her ability to correct all three subject–verb agreement errors. See Table 3 for a summary of Terumi's results.

Table 3: Terumi's Results

	SINGULAR/ PLURAL WITH COUNTABLE NOUNS	INDEFINITE ARTICLE WITH COUNTABLE, NON-SPECIFIC NOUN	ARTICLES: GENERAL EXPRESSION[2]	SUBJECT– VERB AGREEMENT
Draft 1 of task 2 Instances of provision of direct WCF with a metalinguistic explanation	5	2	2	2
Draft 1 of task 3 Instances of provision of indirect WCF	3	3	1	3
Draft 2 of task 3 Instances of self-correction	0	1	0	3

When considering the overall experiences of participants over the course of this study, they were unable to show any

---

[2] Terumi received direct WCF on their use of the definite article within a set expression on two occasions. The set expressions were: 'the whole year round' and 'the weather is ...'. The use of the definite article in these situations is often explained as a set expression rather than a rule (Swan, 2005).

significant trend of moving towards self-regulation in their respective ZPDs, with self-regulation referring to a state in which the learner has internalised external mediation and thus no longer requires it to complete an activity (Lantolf & Appel, 1994). The most likely explanation for this is that no knowledge was either created or primed as a result of the direct WCF, or if knowledge was created or primed, its effect was not substantial enough to act as a resource that participants could draw upon to utilise less explicit mediation.

This explanation is supported by participants' apparent inability to articulate new linguistic knowledge that would be transferrable to new contexts. When asked to articulate what she learnt, Yumi responded:

> 'Ahh, for example NC3 [comment 3] "a reservation", I dropped "a"…this point helped me what should I care…' *(Yumi)*.

Despite several prompts, Yumi was only able to cite examples of errors which received direct WCF and was not able to display signs of explicit knowledge that she would be able to draw upon when utilising less explicit feedback or constructing new texts. Yumi claimed she would be more likely to use the targeted linguistic items correctly since receiving direct WCF, however, this perspective was not substantiated in her third essay or in her utilisation of indirect feedback. Yumi's comment points towards the feedback helping her know what she should be mindful of when writing. This was further expanded on later in the interview when she stated:

> '… if I study, if I focus study about plural or like something this my essay will become a bit better so this, this feedback… it tell me which point should I need writing essay'

Yumi's comments seem to be saying that rather than an increase of explicit linguistic knowledge, the direct WCF made her aware of linguistic items in her interlanguage that required attention. Terumi expressed a similar opinion. When asked about how she felt after receiving direct WCF, she responded:

> 'Actually it's helped me…Because it's like some of them I made similar error many times but like maybe sort of my habit…[I] made like similar mistakes'

When asked if she felt she understood the rules of the linguistic items addressed via direct WCF—specifically the use of the indefinite article with non-specified nouns—Terumi responded:

> '... that's a difficult thing. I think [I would] still struggle because, like, every sentence is different so [it's] a bit difficult to make a correct one [choice] with "a" or "the".'

Terumi's lack of confidence suggests that, from her perspective, little or no explicit knowledge was created or primed via direct WCF. Consequently, we argue that rather than creating or priming explicit knowledge, the provision of direct WCF raised an awareness of which linguistic items in each participant's interlanguage required attention.

As previously noted, consideration of affective factors and the learner's context is required to understand how, why and if WCF is helpful (Ferris et al., 2013). Therefore, there is a need to understand the social context in which the learner's processed the feedback. In order for this study to reflect the practices of much of the previous research (and perhaps many real-life classroom practices), participants received WCF and edited texts as they saw fit without discussing the feedback with the teacher or a peer. Such interaction is unidirectional and experienced on the intrapersonal plane. Nassaji (2012) found feedback that was negotiated in inter-individual interactions was more beneficial than when processed individually. Other studies have also found that the greater the discussion when processing feedback, the greater the chances of creating or priming linguistic knowledge (Storch & Wigglesworth, 2010; Tocalli-Beller & Swain, 2005). Therefore, it is plausible that the unidirectional intrapersonal nature of the interactions with the direct WCF contributed to it not being able to create or prime linguistic knowledge that could be drawn upon when utilising less explicit feedback.

The occasional successful utilisation of indirect WCF, overall 40 per cent for Terumi and 36 per cent for Yumi, does display some instances where the implicit feedback was adequate scaffolding to co-construct the ZPD and allow the participant to shift towards less explicit mediation. However, the inability to utilise the indirect WCF with any consistency highlights two important issues. First, it highlights the non-linear nature of language learning (Nunan, 2001), and as such a learner's ability to utilise assistance to identify and self-correct the same error within the same text will vary. Second, it also confirms the argument that a ZPD is not a static entity, but is constantly shifting and evolves through interaction (Wells, 1998). Consequently, even if the single provision of direct WCF is found to have created or primed

linguistic knowledge, any subsequent shift towards implicit feedback needs to be supported through the provision of feedback that is dynamic and multidirectional—thus meeting learner needs in real time. This is a need that cannot be met by providing WCF, regardless of its level of explicitness, if processed individually. Donato (1994) proposes a solution to this is for learners to process feedback collaboratively. By doing so, learners are able to pool their linguistic resources and collectively scaffold each other as the role of expert is shared among group members (Donato, 1994). It is worth noting that Donato's proposed solution may have enabled learners to display progression within their respective ZPDs. The direct WCF was not able to become a resource the participants could draw upon when processing the indirect WCF individually. However, this may have been different if participants had processed the indirect WCF collaboratively and drawn upon each other's linguistic resources to edit their texts.

A final point worthy of discussion when considering the lack of language development derived from direct WCF in this study is the potential influence of the data collection methods. Many of the studies finding direct WCF to be beneficial utilised a testing instrument designed to elicit the referential usage of articles, such as the use of a picture description (see Bitchener, 2008; Bitchener & Knoch, 2009a, 2009b, 2010). A potential flaw with such an instrument is that learners consider the task a grammatical exercise (Williams, 2012). We argue that another potential flaw is that the post-test was a similar task to the writing task which received feedback. Consequently, the task itself can assist learners to recall the feedback received on the original task — thus potentially skewing results. The freer nature of the explanatory essays used in this study did not entice participants to focus on one specific linguistic item, and self-correction was made in contexts that would not have assisted participants to access explicit knowledge. Accordingly, the freer nature of the writing tasks used in this study may have contributed to it not replicating the positive results of some earlier studies.

Individual errors: Understanding an anomaly
When errors are analysed individually, Terumi did show a shift within her ZPD towards self-regulation when considering errors with subject and verb agreement. For the second writing task, Terumi received direct WCF for subject and verb agreement errors on two occasions. In the third writing task she received

indirect WCF for the same errors three times and was able to identify and self-correct all the errors successfully. This was the only error in which this phenomenon occurred. Furthermore, due to the consistency with which this error type was identified and self-corrected, it can be concluded that for subject and verb agreement errors, the indirect WCF acted as scaffolding which co-constructed her ZPD despite the feedback being unidirectional and interaction occurring on the intrapersonal plane. While this was atypical within the confines of this case study, it is evidence that under certain conditions it is possible that unidirectional feedback experienced within the intrapersonal plane can create or prime linguistic knowledge that can be drawn upon when utilising less explicit feedback. This seems to have been possible due to the direct WCF priming Terumi's existing linguistic knowledge, which was then drawn upon when utilising the indirect WCF. This finding requires care in its interpretation. Yumi was not able to experience the same phenomenon despite being of a very similar level to Terumi and having an analogous educational background. Therefore, this anomaly highlights two very important considerations when utilising WCF in language classrooms. The first is that the same error can occupy very different spaces in a learner's ZPD despite appearing identical in output, an argument also presented by Aljaafreh and Lantolf (1994). The second is that it is extremely difficult to identify the factors that led to unidirectional feedback being able to co-construct a ZPD, and as such near impossible for a teacher to know when the provision of direct followed by indirect WCF can be used in this manner. Thus, WCF, in its traditional unidirectional form, is a mediational tool that is unlikely to be effective in creating shifts towards self-regulation. Accordingly, our argument stands that there is a need for WCF to be multi-directional and processed collaboratively. Interestingly, Terumi was unaware that there were occasions of her ZPD being co-constructed. This was evident in her rationale for preferring direct WCF:

> '... like sort of now [I'm] still learning a lot stage so it [direct WCF] helped ... but this one [indirect WCF] is more like advantage [advanced] level ... I still don't know the correct answer so when I get the correct answer maybe it [indirect WCF] [will] become useful.'

Reactions to WCF
The second research question of this study aimed to investigate

participants' reactions to three types of feedback: content; direct WCF; and indirect WCF. Both participants reacted positively to the content feedback provided on the first writing task. The feedback was described as beneficial and enabled participants to not only express themselves more clearly, but also to further develop support for their ideas. Participant comments included:

> 'this comment [feedback] make me ... clear mind ... so it helped me how to write. After [I] get your feedback then I read it again, so I then knew what, what should I write. *(Yumi)*.

> '... change the way I explain. Just like, I could say more about shinkansen [bullet trains]. I didn't explain well but I thought second draft I think I did explain better than the first one [draft].' *(Terumi)*.

When discussing direct WCF, both participants reacted positively. For Terumi, it was her preferred mode of feedback. As previously stated, she was unaware of the fact that she had instances of her ZPD being co-constructed through the provision of indirect WCF. Terumi's preference appears to be largely due to the metalinguistic explanations that accompanied the feedback. She felt these were clear and enabled her to understand why the feedback had been provided. While Yumi reacted positively to the direct WCF, she was more positive towards indirect feedback. Yumi stated this was due to feeling she was able to focus on content and then concern herself with grammar. She said:

> 'I like to find out my mistake by myself because if I ... when I concentrate on writing essay, I cannot care [about] everything, like grammar and essay [content]'

Terumi's reaction to the indirect feedback was less positive. From her perspective, the indirect feedback was difficult to utilise. When describing her reactions to indirect WCF she said:

> '...sort of hard to find the errors...I'm still not sure what is wrong and where is that [the errors]'

It is important not to interpret this as a negative reaction towards the indirect WCF per se. Terumi clearly rejected notions of the indirect feedback evoking negative feelings during the interview. However, she did not find it beneficial. This highlights the difficulty a teacher faces when deciding on the type of feedback and level of its explicitness when it is unidirectional. On face value, Terumi was more successful than Yumi with indirect

feedback, yet it was Yumi who perceived the indirect feedback as beneficial and not Terumi.

The retrospective interviews reveal that the learner's reactions to the WCF provided were positive overall, and thus affective factors were unlikely to have inhibited the potential benefits of the feedback. This further supports the argument that the lack of a shift towards less explicit mediation was due to the feedback being processed individually rather than during an interpersonal interaction.

An incidental theme that emerged from the interviews was the need for mediational resources during the construction stage of the writing tasks. While both participants were clear in stating that they were focused on the communicative value of their texts and not their grammatical accuracy, they both felt that they simplified their writing because they felt they did not have the linguistic resources to fully express themselves. When asked if they felt their writing was simplified due to a lack of resources, responses included:

> 'Yeah, sometimes. But I usually try to find a like easy way to explain, or like my way to explain like sometimes something is too difficult so try to explain a different way.' *(Terumi).*

> 'There were times when I wanted to express myself in greater detail, however I did not know how to do so. I wish I had noted those areas and asked for help. Unfortunately, I can no longer remember where this occurred ...' [translated from Japanese by Nicholas Carr] *(Yumi).*

The above quotes highlight moments in which the participant's individual linguistic resources were not enough to clearly express themselves in writing. Based on Donato's (1994) collective scaffolding argument, these moments represent opportunities for learners to pool their linguistic resources to collective scaffold each other to perform at a higher level, and in the process of doing so potentially create new linguistic knowledge.

Conclusions and Pedagogical Implications

While this small-scale case study does not allow for any significant generalisability of its findings, it indicates that, overall, the single provision of direct WCF was not able to generate any consistent pattern of shifts towards less explicit external mediation. This appears to be because direct WCF was unable to create or prime linguistic knowledge that was significant enough for it to be a

resource participants could draw upon when utilising less explicit feedback. We argue that this was due to the unidirectional nature of the feedback provided in this study and participants processing it individually, and thus interacting with the feedback on the intrapersonal plane only. In order to maximise the learning potential of WCF, we argue there is a need for the feedback to be multidirectional and interaction with the feedback to occur on both the intrapersonal and interpersonal planes. Furthermore, when analysing language development according to error type, one of the participants in this study was able to shift towards less explicit other-mediation after the provision of direct WCF. Therefore, we acknowledge that there is potential for a ZPD to be co-constructed through the provision of direct followed by indirect WCF. However, this was an anomaly and the circumstances that enabled this phenomenon are unknown. Accordingly, we continue to argue that flexible pedagogical practice would facilitate WCF that is multidirectional, thus possibly supporting an effective co-construction of the ZPD.

Retrospective interviews found that participants did not react negatively to the WCF provided during this study. Similar to previous studies on learner experiences with WCF (Hyland, 1998), the interviews highlighted the complexities of learner preferences with feedback, with participants having very different preferences despite sharing similar cultural and educational backgrounds. The interviews found that the need for collaboration was not limited to the processing of feedback, but also extends to the construction stage of the writing process, even when learners are producing individual written texts.

The pedagogical implications of this are that teachers need to provide WCF that is multidirectional, dynamic and experienced on both the interpersonal and intrapersonal planes. These implications are in line with the Victorian Department of Education recommendations that EAL teachers utilise feedback that is reciprocal and not a one-way channel of communication (Victorian Department of Education and Training, n.d.-b). This is not possible when WCF is utilised in its traditional form, with WCF being provided by an expert and then learners processing the feedback individually. We argue that WCF needs to be discussed and processed collaboratively. In acknowledging that a teacher cannot dedicate the time to collaborate with each student in every classroom, we suggest that learners process feedback, which maintains some level of implicitness, in pairs or groups.

Previous research has highlighted that learners can pool their resources and share the position of expert (Donato, 1994), and often find a solution as a group, even when the correct answer is unknown within the linguistic resources of each individual member of that group (Dobao, 2012). We acknowledge that coaching may be required to ensure learners have the skills to provide appropriate levels of assistance rather than providing support that is too explicit and thus outside a learner's ZPD. Finally, in order to maximise learning opportunities, this study emphasises that there is a need for collaboration during the construction stage of producing written texts. This can be achieved by encouraging learners to note problematic areas in their initial drafts, which can then be discussed in pairs or groups.

References

Aljaafreh, A., & Lantolf, J. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal, 78*(4), 465-483. doi: 10.2307/328585

Amrhein, H., & Nassaji, H. (2010). Written corrective feedback: What do students and teachers think is right and why? *Canadian Journal of Applied Linguistics, 13*(2), 95-127.

Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing, 17*(2), 102-118. doi: https://doi.org/10.1016/j.jslw.2007.11.004

Bitchener, J. (2012). A reflection on 'the learning potential' of WCF. *Journal of Second Language Writing, 21*(4), 348-363.

Bitchener, J., & Knoch, U. (2009a). The relative effectiveness of different types of direct written corrective feedback. *System, 37*(2), 322-329. doi: http://dx.doi.org/10.1016/j.system.2008.12.006

Bitchener, J., & Knoch, U. (2009b). The value of a focused approach to written corrective feedback. *ELT Journal, 63*(3), 204-211. doi: 10.1093/elt/ccn043

Bitchener, J., & Knoch, U. (2010). The contribution of written corrective feedback to language development: A ten month investigation. *Applied Linguistics, 31*(2), 193-214. doi: 10.1093/applin/amp016

Bitchener, J., & Storch, N. (2016). Written corrective feedback for L2 development. Bristol: Multilingual Matters.

Black, P., & Wiliam, D. (1998). Inside the black box: raising standards through classroom assessment. *Phi Delta Kappa*(2), 139-148.

Carr, N., & Weinmann, M. (2016). Japanese EFL learners' experiences with written corrective feedback. In *IAFOR The Asian Conference on Education 2016* (199–213), Kobe, Japan.

Diab, R. (2005). Teachers' and students' beliefs about responding to ESL writing: A case study. *TESL Canada Journal, 23*(1), 28-43.

Dobao, A. F. (2012). Collaborative writing tasks in the L2 classroom: Comparing group, pair, and individual work. *Journal of Second Language Writing, 21*(1), 40-58. doi: https://doi.org/10.1016/j.jslw.2011.12.002

Donato, R. (1994). Collective scaffolding in second language learning. In J. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research* (pp. 33-56). New Jersey: Ablex Publishing Company.

Education Testing Services. (n.d.). Correlation table. Retrieved from https://www.muvs.cvut.cz/wp-content/uploads/2015/04/Correlation_table.pdf

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*(3), 353-371. doi: http://dx.doi.org/10.1016/j.system.2008.02.001

Erlam, R., Ellis, R., & Batstone, R. (2013). Oral corrective feedback on L2 writing: Two approaches compared. *System, 41*(2), 257-268. doi: http://dx.doi.org/10.1016/j.system.2013.03.004

Ferris, D. R., Liu, H., Sinha, A., & Senna, M. (2013). Written corrective feedback for individual L2 writers. J*ournal of Second Language Writing, 22*(3), 307-329. doi: http://dx.doi.org/10.1016/j.jslw.2012.09.009

Hyland, F. (1998). The impact of teacher written feedback on individual writers. *Journal of Second Language Writing, 7*(3), 255-286. doi: http://dx.doi.org/10.1016/S1060-3743(98)90017-0

IELTS. (n.d.-a). *IELTS scoring in detail*. Retrieved from http://www.ielts.org/researchers/score_processing_and_reporting.aspx#Writing

IELTS. (n.d.-b). Writing task 2: Band descriptors. Retrieved from http://ielts.com.au/wp-content/uploads/2016/08/Writing-Band-descriptors-Task-2.pdf

Kepner, C. G. (1991). An Experiment in the Relationship of Types of Written Feedback to the Development of Second-Language Writing Skills. *The Modern Language Journal, 75*(3), 305-313. doi: 10.2307/328724

Lantolf, J., & Appel, G. (1994). Theoreical framework: An introduction to Vygotskian perspectives on second language research. In J. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research*. New Jersey: Ablex Publishing Corporation.

Lantolf, J., Thorne, S., & Poehner, M. (2014). Sociocultural theory and second language development. In B. VanPatten & J. Williams (Eds.), Theories in second language acquisition: An introduction (pp. 207-226): Taylor and Francis. Retrieved from http://ebookcentral.proquest.com.ezproxy-b.deakin.edu.au/lib/deakin/detail.action?docID=1829286.

Lee, I. (2004). Error correction in L2 secondary writing classrooms: The case of Hong Kong. *Journal of Second Language Writing, 13*(4), 285-312. doi: https://doi.org/10.1016/j.jslw.2004.08.001

Lee, I. (2008). Student reactions to teacher feedback in two Hong Kong secondary classrooms. *Journal of Second Language Writing, 17*(3), 144-164. doi: https://doi.org/10.1016/j.jslw.2007.12.001

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. doi: https://doi.org/10.1016/j.jslw.2015.08.011

Nassaji, H. (2012). Correcting students' written grammatical errors: The effects of negotiated versus nonnegotiated feedback. *Studies in Second Language Learning and Teaching, 1*(3), 315-334.

Nassaji, H., & Swain, M. (2000). A Vygotskian perspective on corrective feedback in L2: The effect of random versus negotiated help on the learning of English articles. *Language Awareness, 9*(1), 34-51. doi: 10.1080/09658410008667135

Nunan, D. (2001). Teaching grammar in context. In C. C. N. Mercer (Ed.), *English language teaching in its social context* (pp. 191-199). Abingdon, Oxon: Routledge.

Ohta, A. (2005). Interlanguage pragmatics in the zone of proximal development. *System, 33*(3), 503-517. doi: https://doi.org/10.1016/j.system.2005.06.001

Semke, H. (1984). Effects of the red pen. *Foreign Language Annals, 17*(3), 194-205.

Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners' acquisition of articles. *TESOL Quarterly, 41*(2), 255-283. doi: 10.2307/40264353

Sheen, Y., Wright, D., & Moldawa, A. (2009). Differential effects of focused and unfocused written correction on the accurate use of grammatical forms by adult ESL learners. *System, 37*(4), 556-569.

Shintani, N., Ellis, R., & Suzuki, W. (2014). Effects of written feedback and revision on learners' accuracy in using two English grammatical structures. *Language Learning, 64*(1), 103-131. doi: 10.1111/lang.12029

Storch, N. (2010). Critical feedback on written corrective feedback research *International Journal of English Studies, 10*(2), 29-46.

Storch, N., & Wigglesworth, G. (2010). Learners' processing, uptake, and retention of corrective feedback on writing. *Studies in Second Language Acquisition, 32*(2), 303-334. doi: https://doi.org/10.1017/S0272263109990532

Swan, M. (2005). *Practical English usage* (3rd ed.). Oxford: Oxford University Press.

Tocalli-Beller, A., & Swain, M. (2005). Reformulation: the cognitive conflict and L2 learning it generates. *International Journal of Applied Linguistics, 15*(1), 5-28. doi: 10.1111/j.1473-4192.2005.00078.x

Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning, 46*(2), 327-369.

Truscott, J., & Hsu, A. (2008). Error correction, revision, and learning. *Journal of Second Language Writing, 17*(4), 292-305. doi: http://dx.doi.org/10.1016/j.jslw.2008.05.003

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. doi: 10.1111/j.1467-9922.2011.00674.x

Victorian Department of Education and Training. (n.d.-a). Tools for enhancing assessment literacy for teachers of English as an additional language. Retrieved from http://teal.global2. vic.edu.au

Victorian Department of Education and Training. (n.d.-b). Enhancing feedback. Retrieved from http://teal.global2.vic. edu.au/professional-learning/enhancing-teachers-feedback/

Vygotsky, L. (1978). *Mind in society: The development of higher pyschological processes.* Cambridge: Harvard University Press.

Wells, C. G. (1998). Using L1 to master L2: a response to Antón and DiCamilla's 'Socio-cognitive functions of L1 collaborative interaction in the L2 classroom'. *Canadian Modern Language Review, 54*(3), 343-353. doi: 10.3138/cmlr.54.3.343

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

Xu, C. (2009). Overgeneralization from a narrow focus: A response to Ellis et al. (2008) and Bitchener (2008). *Journal of Second Language Writing, 18*(4), 270-275. doi: https://doi. org/10.1016/j.jslw.2009.05.005

Nicholas Carr is a PhD candidate at Deakin University at the School of Education. He received a Bachelor of Business from Swinburne University and a Master of TESOL from Deakin University. He has much experience as a lecturer in the EFL context of Japan. Research interests include WCF, sociocultural theory, writing processes and multilingualism.

cnich@deakin.edu.au

Michiko Weinmann is a Senior Lecturer in Education at Deakin University, Australia. Michiko lectures in Languages and TESOL/ EAL pedagogy, multilingualism and multilingual education. Her research explores the nexus of language, culture, body and identity. The theoretical resources of her work are drawn from post-colonial theories, feminism and sociology of the body.

michiko.weinmann@deakin.edu.au