

Examining the Effects of Gestures in Providing Oral Corrective Feedback

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Abstract

The observational study reported here examined the effects of gestures provided along with corrective feedback (CF) by two Japanese teachers of English as a foreign language (EFL). The data comprised video recordings of one junior and one senior high school lesson conducted mainly in English. The utterances of both the teachers and the students were transcribed and their accompanying gestures categorized into six types, as informed by previous studies in this field. The results revealed that the teachers' gestures facilitated students' noticing of CF, enabling them to repair previous erroneous utterances. However, differences in gesture type did not seem to affect the student's noticing and repair. The study went on to analyze the relationship between the teachers' CF and gestures, on the one hand, and their effect on student uptake, on the other. The results suggest a need for the effective use of gestures to accompany CF in English-medium lessons in EFL classrooms.

1 Introduction

In English-medium lessons in English as a foreign language (EFL) settings, teachers generally provide corrective feedback (CF) in response to learners' erroneous utterances during classroom interaction. The effectiveness of such CF for language learning has been shown by research (e.g. Ellis, 2003; Gass, 2003; Long, 1996). Long (1996) asserted that the provision of negative feedback and opportunities for learners to reformulate their erroneous utterances into more target-like utterances can help them acquire the target language. Similarly, Ellis (2003) stated that receiving feedback facilitates learners' acquisition, which is further promoted when they are pushed to reformulate their own utterances. When providing oral CF, teachers may use gestures to draw learners' attention to linguistic elements or to facilitate their comprehension of CF by ensuring noticing and repair of their erroneous utterances (e.g. Davies, 2006; Kamiya, 2012; Nakatsukasa, 2016). However, the effect of gestures on learners' successful uptake or repair is under-researched in language-learning context in general. This exploratory observational case study is a pilot study which examined whether gestures facilitated students' noticing of CF, and the extent to which this led them to repair their erroneous utterances.

2 Literature review

2.1 *Corrective feedback*

Generally speaking, in EFL lessons conducted in English, much of the interaction between teachers and learners occurs in English. Long (1996) suggested in the interaction hypothesis that conversational interaction can facilitate language acquisition through the negotiation of meaning and by providing learners with both positive and negative evidence in the form of CF. Gass (2003) has defined CF as any information provided by a teacher on a non-target-like form produced by a learner. Such CF is considered to foster target language development by providing learners with opportunities to notice the gap between their interlanguage forms and the correct forms of the target language. It is assumed that CF can lead to learners' modified output or repair of previous erroneous utterances (Long, 1996). In the seminal study of CF, Lyster and Ranta (1997) reported types of CF used by immersion teachers in Canada and their effects on students' responses to that feedback, or "learner uptake" (1997, p. 40). Since their study, a lot of studies on CF were conducted and found CF to be beneficial for learning (Loewen, 2015). Lyster and Saito (2010) examined the effects of three different types of CF, namely recasts, explicit correction, and prompts, in 15 studies of oral CF, finding that they were both effective and durable. Meta-analysis by Li (2010) found that 33 studies conducted in both classroom and laboratory contexts had shown a medium-sized effect that was maintained over time.

In implementing CF, Ellis and Shintani (2014) suggested that explicitness is important for the efficacy of CF, as learners need to recognize its corrective force. They also argued that correction should be provided after learners fail to self-correct their erroneous utterances.

To make CF more explicit, gestures can be effective when they are provided with CF. In the next section, we are going to look at gestures.

2.2 *Gestures in language learning*

Kendon (2004), a pioneer in research on gestures, has stated that research interest in gestures has grown due to their important role in the process of human interaction and communication (e.g. Goodwin, 2000; Kendon, 2004), and that examining gestures can provide better understanding of speech processes, as both gestures and speech can be regarded as products of a single cognitive process (e.g. McNeill, 1992, 2005).

Research on gestures used by language teachers have shown these to form a crucial part of their pedagogical repertoire (e.g. Allen, 2000; Lazaraton, 2004; Smotrova & Lantolf, 2013). It has been reported that second language (L2) teachers provide a considerable amount of input to learners in the form of gestures, which serve to modify verbal input and make it more comprehensible (Lazaraton, 2004; Sueyoshi & Hardison, 2005).

Allen (1995) conducted a study with a pre-post-test design to examine the effects of gestures used during explanations of French vocabulary on learners' recall of lexical items. She found that the treatment group, having received explanations with gestures, performed significantly better in retention in the post-test than did the control group. Allen (2000) further examined the perceptions of learners of Spanish as a foreign language of their teachers' gestures, finding that they considered the teachers' NVBs to be of considerable assistance in their comprehension of the foreign language input. Lazaraton (2004) examined the enhancing effect of gestures as input in a teacher's unplanned explanation of vocabulary, suggesting that NVBs played a significant role in promoting retention in lexical learning, although the study was not specifically concerned with learner uptake. Sueyoshi and Hardison (2005) revealed in their study that their participants showed better comprehension when more visual information was available to them, concluding that when these participants were required to answer comprehension questions, the use of gestures as visual cues facilitated memory encoding and information recall. Davies (2006), in turn, examined the effects of gestures (or "body language") during CF on learners' uptake, finding the uptake to be better with than without the use

of gestures. Nakatsukasa (2010) observed and recorded a class of Japanese as a foreign language in the US conducted by a native speaker of Japanese. In 198 minutes, 78 CFs were provided in total, and a little over half of them were accompanied by gestures (53%). In one of the few studies conducted in the Japanese EFL setting, Kamiya (2012) examined the occurrence of gestures in the interactions of a native speaker in a senior high school in Japan. The study revealed that verbal CF was accompanied by gestures, which varied in type depending on the particular non-target-like utterance in terms of whether it concerned grammar, the lexicon, or pronunciation. However, Kamiya’s (2012) study was not concerned with learners’ uptake or learning.

EFL learners generally have difficulty in understanding L2 input from their teachers. Thus, it is crucial to examine the use of teacher gestures in assisting such students’ comprehension, or the relation between CF, gestures and learners’ uptake. This study, therefore, aimed to answer the following research questions:

- 1. Is CF with gestures more likely to lead to students’ successful uptake or repair than CF without gestures?
- 2. What kinds of gestures lead to students’ repair?

This observational study also aimed to determine in qualitative terms the relationship between Japanese EFL teachers’ CF and gestures and their effect on students. In addition, it should be noted that this observational case study was designed as a pilot study to extract basic data that will help to generate hypotheses for further full-fledged studies.

3 Methodology

3.1 Participants

English lessons at public junior and senior high schools were chosen as the context for this study. Two Japanese EFL teachers and their students participated in the study (see Table 1; pseudonyms are used for the teachers). For the purposes of this study, I recruited teachers who 1) used English as a medium of instruction, 2) were comfortable being video recorded, and 3) were willing to participate in this study (Allen, 2000). Both participating teachers were graduates of the same class of the national university of education in Japan at which I teach, facilitating their identification as potential participants according to the above criteria. Neither had experience of studying abroad in an English-speaking country, but as an experienced Japanese teacher of English and SLA researcher, I evaluated them through careful observation of their lessons to be fluent in English, without any communication problems. Kouki had already passed the pre-first grade of the STEP Test¹, and both were preparing to take the first grade of the STEP Test at the time of participating in the study. Thus, they were considered to have roughly the same English proficiency level. Kouki’s students were senior high school students who had studied English for four years and eight months at school, and their English proficiency was regarded as lower intermediate. Students in Yuki’s class were first year junior high school students who had studied English for eight months at school, and were regarded as beginner-level learners.

Data were collected in February 2015, in two classes, each lasting 50 minutes, during which students were engaged in reading, writing, listening, and speaking activities.

I have to clarify that only one class for each teacher was observed.

Table 1. Demographic information of the participating teachers and students

Teacher	Age	Quali- fication	English proficiency level (STEP test)	School	Teaching experience	Number of students	Students’ age range
Kouki	23	BA	Pre-first grade	Senior high	10 months	39	16–17 years
Yuki	23	BA	Not taken	Junior high	10 months	19	12–13 years

3.2 Procedures

After exchanging emails with the participating teachers, I gave them a broad description of the study, without revealing its specific purposes. The two lessons were video-recorded with an audio track to capture fully the teachers' utterances, gestures, and interactions with their students. The video camera was positioned at the back of the classroom and a microphone was placed in the teachers' jacket pockets for audio recording. All the teachers' utterances, as well as all interactions between the teachers and students, were orthographically transcribed for analysis.

3.3 Analysis

3.3.1 Categorization of gestures

Wang and Loewen (2015) categorized NVBs as: iconics, metaphorics, deictics, beats, affect displays, emblems, multiples, head movements and kinetographs. In the current study, however, the three teachers often seemed to move multiple body parts just slightly in displaying NVBs. For example, Yuki demonstrated the movement of swinging a bat to mean playing baseball. In this case, she moved her hands, and at the same time, her head seemed to tilt slightly. However, it was the gesture of swinging a bat that had a message to convey, not the tilting of the head. It was very difficult to make a clear distinction between head movements and other gestures. In addition, previous studies (e.g. Lazaraton, 2004; McCafferty, 2004) also claimed that there was no clear distinction between kinetographs and others, such as iconic gestures. Thus, for the current study, excluding multiples, head movements and kinetographs, six general NVBs – iconics, metaphorics, deictics, beats, affect displays and emblems – were categorized as follows:

1. **Emblems:** Speakers show nonverbal acts that are understood by all members of the same cultural group (e.g. McNeill, 1992, 2005). For example, putting the palm next the ear means "I cannot hear you" in Japan, and circling the thumb and index finger means "OK" in Western cultures. However, many emblems, especially Western ones, are intercultural, and Japanese people often use the "OK" emblem as well.
2. **Deictics:** speakers point to something or someone with the finger or the palm of the hand, indexing both concrete and abstract entities.
3. **Iconics:** speakers use the hand and/or arms to show images of the actual form of objects and/or actions, which are closely related to semantic content.
4. **Metaphorics:** speakers use the hand and/or arms to show the images of abstract concepts and/or ideas rather than the actual form of objects and/or actions shown by iconics.
5. **Beats:** speakers move the hand with a rhythmical pulse. Typically, a beat gesture is a simple flick of the hand or movement of fingers up and down, or back and forth, following the stress peaks of speech.
6. **Displays of affect:** speakers reveal emotions, such as happiness, fear, sadness, anger, distraction, and interest, especially through facial expressions.

3.3.2 Categorization of CF

In this study, four different types of CF were recorded, namely elicitation, explicit correction, repetition, and recast. Table 2 presents the definitions of CF by Lyster and Ranta (1997), with examples from previous studies.

Student uptake in the present study was simply coded in terms of success. Successful uptake, termed "repair," was reflected by a student correcting his/her error or mistake² immediately after the CF; unsuccessful uptake, termed "needs repair," was reflected by a student not correcting his/her the erroneous previous utterance and not responding to the teachers' feedback (see Lyster & Ranta, 1997).

Table 2. Definitions and examples of CF

<i>Type</i>	<i>Definition</i>	<i>Examples</i>
Explicit correction	Explicit provision of the correct form	You should say just discuss. Not discussed about. Discussed your future. (Sato, 2011)
Elicitation	Techniques the teachers use to elicit the correct form from learners	Try that again. What did you say? Last night you ... (Sato, 2011)
Repetition	Repetition of the learner's utterance to inform him/her of the error occurrence, adjusting intonation to highlight the error	Student: Le ... le girafe? Teacher: Le girafe? (Lyster & Ranta, 1997)
Recast	Reformulation of all or part of the learner's utterances	Student: I like childs very much. Teacher: Oh, you like children very much. (Sato, 2016)

The categorization of gestures and CF was conducted by the author, and all data were re-categorized one week after the first coding. This method followed Alderson, Clapham, and Wall (1995), who asserted that multiple rating sessions increase rating reliability. In cases of discrepancies between the two rating occasions, a second rater, a male graduate student majoring in English education, was invited to provide an independent rating. All disagreements were resolved by means of discussion between the two raters.

4 Results

The first research question focused on whether CF with gestures was more likely to lead to student repair than that without. Tables 3 and 4 show the number of instances of CF with and without gestures of each teacher, respectively, and the response categories “repair” and “needs repair” in each case.

Table 3. Instances of CF with/out gestures and student responses for one lesson, 50 minutes (Kouki)

	Total	Repair	Needs repair	Success rate
CF with gesture	4	2	2	50%
CF without gesture	5	0	5	0%

Table 4. Instances of CF with/out gestures and student responses for one lesson, 50 minutes (Yuki)

	Total	Repair	Needs repair	Success rate
CF with gesture	10	6	4	60%
CF without gesture	6	1	5	17%

Repair by students was regarded as reflecting successful CF. In Kouki's class, the success rate was 50% when CF was accompanied by gestures and 0% without. In Yuki's class, these rates were 60 % and 17%, respectively. As Table 5 shows, the overall success rate was 57% for CF with gestures and 9% without.

Table 5. Instances of CF with/out gestures and student responses (Kouki and Yuki)

	Total	Repair	Needs repair	Success rate
CF with gesture	14	8	6	57%
CF without gesture	11	1	7	9%

As the data in Table 5 show, repair was observed only once when CF was not accompanied by a gesture; in contrast, when gesture was provided, repair occurred in more than half of the instances. A chi-square analysis with Yate's correction revealed that there was a significant association between successful repair and gestures with a large effect size (Cohen, 1988), $\chi^2(1)=4.26$, $p<.05$, $\phi=.50$. Thus, the present results indicate that CF used with gestures is more likely to result in students' repair than without.

The second research question focused on the kinds of gestures that led to student repair. Table 6 shows the CF success rate in terms of gesture type for each teacher, and Table 7 shows the data for the two teachers combined.

Table 6. CF success rate in terms of gesture type for each teacher

Gesture	Kouki			Yuki		
	Total	Repair	Success rate	Total	Repair	Success rate
Emblem	1	1	100%	2	1	50%
Deictic	2	1	50%			
Metaphoric	1	0	0%	2	2	100%
Iconic				2	1	50%
Beat				2	1	50%
Display of affect				2	1	50%
	4	2	50%	10	6	60%

Table 7. CF success rate in terms of gesture type for the two teachers combined

Gesture	Kouki and Yuki (combined)		
	Total	Repair	Success rate
Emblem	3	2	67%
Deictic	2	1	50%
Metaphoric	3	2	67%
Iconic	2	1	50%
Beat	2	1	50%
Display of affect	2	1	50%
	14	8	57%

The data show that the use of gestures resulted in relatively high CF success rates (50% or 67%). As the number of instances of each gesture is relatively small, the results cannot be generalized, but the gestures of all types accompanying CF appear to have been effective in leading to repair by the students.

5 Qualitative Analysis

In this section, the relationship between the types of CF and gestures, and their effect on student uptake, is qualitatively analyzed on the basis of careful observation of the recorded data. I acknowledge that this analysis is interpretative due to the lack of retrospective data. Nevertheless, this qualitative framework was adopted in an attempt to gain a better grasp of the effects of gestures provided with CF. Of Kouki's four instances of CF with gestures, two resulted in student repair. Yuki's CF with gestures led students to repair their errors six times out of ten. Analysis is conducted by the types of gestures not by the participants because it can focus on identifying the functions of gestures in providing CF (see Appendix 1 for verbal and nonverbal transcription symbols).

5.1 Emblem

The following excerpts are cases when CF with emblem led to the student's uptake.

Excerpt 1: Elicitation with emblem (Kouki)

S1: He play baseball.

K: Happiest when? ((Kouki puts the palm next the ear.)) [emblem]

S1: Ah, ((nods)), when he plays baseball.

Although the rule for the 3rd person singular -s is relatively straightforward, L2 learners of all levels often misapply the rule without noticing (e.g. Ellis, 1997; Varnosfadrani & Basturkmen, 2009). In Excerpt 1, the student is talking about the time at which a third party (i.e. "he") felt happiest. He omits the 3rd person singular -s, upon which Kouki provides CF (elicitation) with his palm next to his ear (emblem). The student's exclamation of "Ah" while nodding signals that he has realized his mistake, after which he successfully repairs it. In this case, the emblem gesture seems to have played a crucial role as a trigger for his repair, that is to say, the gesture clarified the corrective intention of CF. In Excerpt 2, the student says "No," when expected to answer in a full sentence, "No, I didn't." Yuki gives her a recast with an emblematic gesture.

Excerpt 2: Recast with emblem (Yuki)

S2: No.

Y: No, I ... ((Yuki puts the palm next to her ear when she starts to say "I")) [emblem]

S2: No, I didn't.

This typical emblematic gesture by Yuki indicates that she wished to hear more from the student; she is encouraging the student to speak further, and the student consequently adds the missing expression to successfully complete the sentence. As an emblematic gesture, as in this case, is easily understood by all members of the same cultural group, it can be effectively utilized to emphasize the corrective intention of CF.

In Yuki's class, CF with gestures failed to lead to repair in four cases out of ten. However, in three of these, the students were not given an opportunity for repair.

Excerpt 3: Repetition with emblem → no opportunity for repair (Yuki)

Y: How do you say *hachigatsu* in English?

S3: Friday.

Y: Friday. It's *kinyoubi* (Friday in Japanese). ((Yuki moves her hand rapidly and repeatedly, putting her index finger up while saying "kinyoubi.")) [emblem]

Y: August.

5.2 Metaphoric

Excerpt 4: Explicit correction with metaphoric (Yuki)

S4: Jyu ("ten" in Japanese)

Y: **Ten** (Yuki opens two palms to show the number ten.) [metaphoric]

S4: Ah ((smiles)), **ten**.

In Excerpt 4, the student uses her first language (L1) when expected to use English, and Yuki offers explicit correction with a metaphoric gesture. Yuki's L2 translation alone may well have conveyed her corrective intention, but it may also be assumed that the combination of CF and a gesture made her corrective intention clearer, leading the student to correct her L1 utterance to the L2. A further example of successful repair is presented in Excerpt 5.

Excerpt 5: Elicitation with metaphoric (Yuki)

S5: Yokohama

Y: Yokohama is **so far** ((Yuki stretches out her right arm with the palm opened.)) [metaphoric]

S5: Nagahama

In Excerpt 5, following Yuki's small talk about the preceding weekend, the student is asked for the name of the city Yuki visited. She answers with the name of a different city that is farther away, and Yuki elicits her correction by saying "so far" which may be an expression unknown to the student. However, Yuki's gesture is a sufficiently effective cue for the student to understand the meaning, and she successfully corrects her semantic error. It can be difficult to focus students' attention on syntactic errors by metaphoric gestures, as will be shown in Excerpt 6, but this case indicates that gesture can be effective in dealing with semantic errors.

Excerpt 6: Explicit correction with metaphoric (Kouki)

S6: Tie is changes the world.

K: Ah, Tie **changes** the world ((Kouki moves around the right palm, symbolizing "change.")) [metaphoric]

S6: ((just nods))

In Excerpt 6, Kouki's gesture means or symbolizes "changing," and does not indicate the student's syntactic error. However, as the student simply nods, it can be assumed that he has perceived Kouki's feedback as confirmation of his previous utterance. As metaphoric gestures reflect the images of abstract concepts focusing mainly on content, they may not serve well to draw students' attention to linguistic errors.

5.3 Deictic

Excerpt 7: Recast with deictic (Kouki)

S7: Eat food.

T: Eats? ((Kouki points to "the 3rd person singular -s" written on the blackboard.)) [Deictic]

S7: ((looks at the board)) Eats food.

Excerpt 7 reflects an error of 3rd person singular -s omission. In this case, the student is describing somebody's action and omits the 3rd person singular -s after the verb. In response to his non-target-like utterance, a recast is provided by the teacher along with a deictic gesture. The student looked at the board following the gesture and successfully repairs the error. Recasts are often regarded as relatively ineffective in conveying corrective intention because of their implicit nature (e.g. Chaudron, 1988; Lyster, 2007). However, Excerpt 7 shows that a recast accompanied by a deictic gesture clarifies the corrective intention, leading the student to notice his mistake and to repair it.

In Kouki's two instances of CF with gestures, the students failed to repair their errors. In Excerpt 8, the student is talking about the time at which his friend sitting next to him feels happiest and omits the 3rd person singular -s.

Excerpt 8: Elicitation with deictic (Kouki)

S8: Watch movies.

K: Again when? ((Kouki points to a student about whom S8 was talking.)) [Deictic]

S8: *Hai*, watch movies.

Unlike Excerpts 7, the student in Excerpt 8 does not notice his mistake and repeats it. This is presumably because Kouki's deictic gesture was not sufficiently clear to allow him to notice his

error. In Excerpts 1 and 7, Kouki's gesture clearly indicated the students' linguistic errors. In contrast, his remark "Hai" (meaning "Yes"), pointing to the third person, in this case may not have been perceived as CF. This suggests that the same type of gesture can have differing effects on students' comprehension, depending on how it is presented, or where pointing is directed.

5.4 Display of affect

Excerpt 9 shows the effect of a display of affect with CF.

Excerpt 9: Repetition with display of affect (Yuki)

S9: *Biwako* (Lake Biwa in Japanese)

Y: *Biwako* ((Yuki frowns while saying "ko" ("lake" in Japanese) showing dissatisfaction.)) [display of affect]

S9: Ah((smiles)), Biwa lake, Lake Biwa.

Y: Lake Biwa.

In Excerpt 9, the student uses her L1 to name the place Yuki visited. The use of the L1 may not be regarded as an error, but in this case, Yuki's display of affect (dissatisfaction) and gaze clearly suggest that the student's L1 utterance is insufficient. The student may be assumed to feel that she is required to amend her answer to a correct one in her L2. In the following excerpt, the students could not show her uptake because the opportunity to do so was not provided.

Excerpt 10: Explicit correction with display of affect (smile) → no opportunity for repair (Yuki)

S10: *Yon* (four in Japanese)

Y: Four ((Yuki smiles while correcting the student's L1 to L2.)) [display of affect]

Y: More.

5.5 Beat

In Excerpt 11, the student uses a number when he should use an ordinal.

Excerpt 11: Repetition with a beat (Yuki)

S11: *Seventeen*

Y: *Seventeen* ((Yuki flicks her index finger quickly while saying "teen.")) [beat]

S11: ... Seventeenth

It is generally accepted that beats facilitate speakers' English output or mediate the linguistic structure of English (McCafferty, 1998, 2004). However, in this excerpt, Yuki's rhythmical pulse of her index finger highlights the syllable "teen," which may convey her corrective intention. Following Yuki's CF accompanied by the gesture, the student takes his time to then give the correct expression. This excerpt implies that beats can also have an enhancing effect on students' noticing of errors.

Excerpt 12: Explicit correction and beat → no opportunity for repair (Yuki)

Y: Where did you go?

S12: *Enryakuzi*

Y: I went to *Shiga*. (Yuki flicks her index finger quickly while saying "*Shiga*.")) [beat]

Y: OK. Where did you visit?

In the excerpt above, Yuki continues to speak after providing CF and gestures, leaving no opportunity for the students to repair. In previous studies, both in laboratory and classroom settings, such phenomena were reported (e.g. Loewen & Philp, 2006; Oliver, 1995; Zhao & Bitchener, 2007). Zhao and Bitchener (2007) claimed that a lack of repair does not necessarily mean that students did not understand the CF, and Oliver (1995) further argued that if students in such cases had been given the opportunity to respond, some may have done so successfully.

5.6 Iconic

In Excerpt 13, the student is required to describe what Yuki's body movement means.

Excerpt 13: Elicitation with iconic (Yuki)

Y: ((Yuki makes a gesture of throwing a ball.))

S13: You are play baseball.

T: You are play... ((Yuki makes a motion of swinging a bat after saying "play.") [iconic]

S13: You are playing baseball.

The student makes a syntactic error in Excerpt 13. By pausing and gesturing after saying "play," Yuki tries to elicit a repair. Pausing alone may provide the student with the CF intention, as well as time to think about a grammatically correct utterance. However, the inclusion of the gesture appears to give the student additional time to think and make the interaction between them more natural, avoiding an awkward silence or communication breakdown. The student then successfully repairs her utterance. In the one remaining case of repair failure in Yuki's class, the student simply acknowledges Yuki's CF and gesture, as in Excerpt 14.

Excerpt 14: Recast and iconic → acknowledgement (Yuki)

S14: *Kansen, eigo de nante yuuno dakke?* (How can you say "kansen" in English?)

T: Oh, you watched the game? ((Yuki makes a gesture as if she was watching something by putting the right palm vertically on her forehead.)) [iconic]

S14: *Hai* (Yes, in English)

T: Right, OK.

In this instance, the student simply responds to the CF (recast) and the gesture by saying "Yes," which was categorized as a repair failure in the present study. However, acknowledging the teacher's correct version can be taken to have indicated the student's understanding that the teacher's version was the target form. Furthermore, acknowledging CF by simply saying "Yes" can be conversationally more appropriate (Oliver, 1995; Pica, 1988). When such acknowledgment occurs, it is possible that learning has taken place from the point of view of comprehension. In calculating the repair success rate in this study, if cases of "no opportunity to repair" are excluded from the denominator, and if acknowledgment is regarded as successful repair and added to the numerator, Yuki's success rate rises to 100% and the combined success rate of the two teachers to 82%. In this regard, the determination of whether a student's response to CF is a success or a failure can be very difficult. This issue certainly deserves attention in future research.

6 Discussion and conclusion

This observational study revealed that CF with gestures was more likely to lead to successful student repair than that without. The findings suggest that gestures play a crucial role in enabling learners to notice the corrective intention of CF. As interaction between teachers and learners automatically increases in EFL lessons conducted in English, there is an expectation for teachers to provide CF on learners' non-target-like utterances. Considering the facilitating effect of learners' repair after CF on target language learning (e.g. Ellis, 2003; Long, 2006), teachers can effectively use gestures to draw their learners' attention to particular linguistic elements or to facilitate their comprehension of CF, enabling them to notice their erroneous utterances and repair these (Davies, 2006; Kamiya, 2012; Nakatsukasa, 2016). EFL learners may occasionally have difficulty noticing the corrective intention of CF. In providing CF in English, therefore, teachers might do well to utilize the facilitating effect of gestures to aid such noticing. Based on the findings of the present study, it can be proposed that the use of pedagogical gestures while giving CF should be included in both pre-service and in-service teacher training programs (Nakatsukasa, 2016).

This study has provided useful insights into EFL classrooms. Students are more likely to notice the corrective intention of CF when it is provided with a gesture and all types of gestures would more likely lead learners to notice CF. However, the findings cannot be generalized because of the

following limitations: only one lesson of each of two teachers was observed; students' noticing of CF was not examined on the basis of retrospective data; and students' noticing of CF may vary according to the type of error for which it is given (e.g. grammar, vocabulary, pronunciation, inappropriate L1 use, semantic meaning). It would be beneficial to conduct longitudinal studies with multiple teacher participants, as well as retrospective data on learners' thought processes when CF and gestures are provided. Through a deeper understanding of the functions of gestures in relation to CF, EFL teachers may come to utilize gestures more effectively in their English classrooms.

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Notes

¹ The STEP Test is an English proficiency test conducted by a Japanese non-profit organization, the Society for Testing English Proficiency, Inc. (STEP), and backed by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT). The test consists of listening and writing sections followed by a speaking test, and has been generally regarded as one of the most reliable and valid English proficiency tests in Japan. MEXT requires Japanese teachers of English to possess at least pre-first grade scores on the STEP test.

² Ellis (1997) explained that errors occur, because the learner does not know what is correct and that mistakes occur when the learner is unable to perform what he or she knows. In this study, however, a distinction cannot be made between the two because the students' detailed developmental levels in English are not fully examined due to practical constraints.

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Appendix 1

Transcription symbols

K	Kouki
Y	Yuki
S	Student
(())	Explanation of NVB
(())	Nonverbal reaction
...	Silence
Bold face	Stressed sound
?	Rising intonation
<u>Underline</u>	Location of error or problem
[]	Type of NVB
Italics	Japanese language