Exploring Corrective Feedback in Real-time Classrooms: Factors Mediating Teachers’ In-class Corrective Feedback Decisions

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Abstract: Corrective feedback (CF) is the teacher’s response to the language learner’s erroneous or non-target-like output (Ellis, 2006; Li, 2010). Empirical evidence has shown that CF can effectively facilitate language acquisition. When it comes to real-time classrooms, the teacher is the sole decision maker of CF from moment to moment; however, CF is often investigated after it has been provided. This literature review outlines four contextual factors of instructors’ in-class CF decision making: student’s proficiency, curriculum design, student emotions, and teacher cognition. The paper closes with further considerations for research on CF that include classroom-to-classroom differences, teacher education programs, and student perceptions of CF.

Keywords: Corrective Feedback, Student’s Proficiency, Curriculum Design, Foreign Language Anxiety, Teacher Cognition

Introduction

Corrective feedback (CF) can be explained as an educator’s answer to the incorrect or off track response from a language learner (Ellis, 2006; Li, 2010). Occurring as a reaction to the learners’ error, CF draws attention to the improper arrangement of speech, encouraging the learner to restructure their interlanguage (Loewen, 2015; Mackey, Gass, & McDonough, 2000). However, in real-time classroom settings, it is most often the teacher who is making decisions regarding CF. At the same time, CF is regularly considered only after it was provided to the learner. As Gurzynski-Weiss (2016) described, there is presently a shortage of literature that focuses on how instructors make feedback decisions within their classrooms. To this end, what is the relationship between the actualities of language learning classrooms and corrective feedback?

Corrective Feedback and Classroom Reality

Various meta-analyses have shown that CF can effectively facilitate language acquisition (Li, 2010; Lyster & Saito, 2010; Lyster, Saito, & Sato, 2013). For example, Lyster (2004) examined the effects of CF on students’ acquisition of French grammatical gender and found that form-focused instructions are more effective when combined with prompts instead of recasts. In Lee and Lyster’s (2016) study, 100 participants went through computer-assisted second language speech perception training targeting two minimal pairs of English vowels. The results pointed out that auditory CF, that is, when the computer played audio of the pronunciation of words, was more effective than visual CF, when the computer showed pictures of the target words (Lee & Lyster, 2016).

While empirical evidence shows that different CF types may result in different learning results, the factors in the studies are controlled; teachers were generally asked only to provide one specific type of feedback in order for researchers to monitor the result of that specific type of CF. In classroom reality, CF is not simply deciding on the type of correction; instead, it is a complex and contextualized practice (Fagan, 2015; Gurzynski-Weiss, 2016). Typical effectiveness of one type over another may not be the sole concern for the teacher when making CF decisions in real-time classroom settings. Teachers may not be able to apply theoretical knowledge to their practical instructions. Teachers often express confusion about their classroom reality that contradicts their theoretical backgrounds and beliefs (Gurzynski-Weiss, 2016). Basturkmen, Loewen, and Ellis (2004) investigated teachers’ classroom practice on focus on form language instructions. Focus on form is an approach that pays occasional and brief attention to language forms within meaningful interactions (Loewen, 2015). Basturkmen et al. (2004) found that there is a tenuous relationship between teachers’ practices and their beliefs regarding error correction. For instance, one of the teachers in the study stated a preference for student self-correction, yet he rarely used elicitation...
or prompts in class (Basturkmen et al., 2004). This incongruence is common among teachers since there is a gap between teacher beliefs and classroom realities.

Due to the dynamic and unpredictable nature of classroom discourse, teachers are faced with CF decisions from moment to moment: Should they correct the error or not? What type of CF would be more effective? What is the gap between theoretical knowledge and classroom practice? While making CF decisions, teachers may resort to their teaching philosophy, beliefs, and contextual factors. The current research aims to answer the following question: What are the factors that mediate teachers’ decisions about corrective feedback in real-time classroom interactions? Through a literature review, this paper examines the factors that influence the CF decisions teachers make in real-time classrooms, including student proficiency, curriculum design, students’ emotions, and teacher cognition.

Through this literature review, I would like to investigate the factors of CF from a teacher’s standpoint, which allows teachers to re-examine their feedback decisions not only according to effectiveness, but the complex contextual and learner factors in the classroom. Moreover, this literature review looks into the classroom reality of CF practices from a teacher’s point of view, which adds to the current experimental and observational studies.

Process

The current study focuses on seeking patterns of contextual factors regarding CF decisions among published work. Gurzynski-Weiss (2016) investigated how 32 instructors make their moment-to-moment feedback decisions in natural Spanish classrooms. Several themes emerged in the results, including learner factors, contextual factors, and instructor factors. Such qualitative study depicted the factors that mediate feedback in real-time classroom. Using this study as a starting point, I took note of the most cited factors for teachers to make their feedback decisions, including “instructors’ perception that the particular student was capable of learning or benefitting from CF,” “linguistic targets,” and “instructors’ expectations and plans of how students would complete tasks” (Gurzynski-Weiss, 2016, pp. 263-264). From these most-cited reasons, keywords such as “age,” “grade level,” “interlanguage proficiency,” “syllabus,” “teacher’s experience,” and “anxiety” started to emerge. I used these keywords to search previous observational and non-experimental studies in order to explore if these factors prevailed across different contexts. I coded contextual factors that were discussed in previous studies. The codes “learner level,” “interlanguage level,” “age,” and “grade level” were categorized as “student’s proficiency.” Codes such as “syllabus,” “immersion,” and “teaching objectives” were classified as “curriculum design.” When the teacher tended to the student’s emotions, including anxiety or giving positive support, the keywords were labelled as “student’s emotions.” Lastly, when the teachers refer to their own experience, values, teaching philosophy, attitudes, and rationale, the keywords were sorted under “teacher cognition.” These categories will be further explained in the next section.

Results

After the coding process, contextual factors of the CF practices that prevailed among diverse settings emerged, which shows that the learner, the instructor, and the context all contributed to the practice of CF.

Factor One: Student’s Proficiency

While CF can promote students’ learning and language development, students’ proficiency levels must also be taken into account in order to optimize the effects of CF. Not all students’ interlanguage, which can be explained as the learner’s own non-target-like language system (Cook, 2016), is equally ready for CF. Ammar and Spada (2006) investigated the effects of two different CF types, recasts and prompts, on different proficiency levels. Recasts are reformulation of the learner’s previous erroneous utterance without changing the meaning. For instance, the student may say “I go to school yesterday,” and the teacher responds “Oh, you went to school.” On the other hand, prompts
are CF techniques that foster learner’s self-correction of their mistakes without providing the correct answer. For example, in response to “I go to school yesterday,” the teacher can say “what is the past tense of ‘go’?” From there, the student will hopefully remember the word they need and elicit the correct response. The researchers pointed out that “the potential benefit of any CF technique on L2 [second language] learning is dependent on the learners’ proficiency” (Ammar & Spada, 2006, p. 562). Providing the suitable type of CF according to the learners’ proficiency can draw learners’ attention to the ill-formed linguistic target and promote uptake and repair.

Since low-level learners possess neither prior knowledge nor highly developed interlanguage, it is difficult for them to draw on their linguistic resources when receiving prompts. Therefore, teachers tend to provide recasts to lower-level students. Kennedy (2010) examined how ESL (English as a Second Language) teachers provide CF to learners of different levels. Kennedy pointed out that more recasts and explicit corrections were used when providing CF to low-level students (63%) than to high-level students (35%). Also, the uptake rate was significantly lower in low-level student groups, with only 50% of the feedback being noticed by these students, compared to 73% in the high-level student group.

Due to the low uptake and repair rate, some teachers simply ignore the mistakes, since they believe that providing CF would not help the students develop their language yet. Gurzynski-Weiss (2016) examined the moment-to-moment CF decisions of 32 Spanish foreign language instructors in the US through stimulus recall. Around 60% of the instructors in this study mentioned that low-language proficiency and preparedness discouraged them from providing CF. “Correcting would not have made a difference,” said one of the teachers during a stimulus recall session (Gurzynski-Weiss, 2016, p. 263). Gurzynski-Weiss (2016) also mentioned that in general, low-level students are often not perceived to be linguistically ready for various kinds of CF, and therefore, teachers resort to recasts or simply omit the mistake.

When facing higher level students, teachers can incorporate various error correction techniques to push the learners’ linguistic limitations. With a more developed language repertoire, learners are able to retrieve and consolidate previous knowledge, which is beneficial for the development of their interlanguage. Ahangari and Amirzadeh (2011) investigated the different CF used by Iranian EFL (English as a Foreign Language) teachers at different levels of proficiency. The results showed that while recast was the most frequently used type of corrective feedback among elementary, intermediate, and advanced levels, as the students’ language level improved, recasts reduced and other types of corrective feedback, such as metalinguistic clues and elicitation, were incorporated in the classroom (Ahangari & Amirzadeh, 2011). The results echo the findings of Lyster and Ranta (1997), which examined the learners’ uptake after CF in a French immersion context. When teaching higher level students, the teacher was able to draw on different types of CF other than recast to push the students’ linguistic limitations and encourage output.

**Factor Two: Curriculum Design**

Previous classroom observation research has shown that the practice of CF may vary according to context. Lyster et al. (2013) summarized 12 descriptive studies, showing the differences in CF regarding type and frequency across diverse contexts, from high school EFL to immersion settings in China, Canada, America, Hong Kong, Korea, New Zealand, Senegal, and Belgium. As Lyster and colleagues (2013) suggested, the practice of CF varies considerably among different instructional settings. While these differences between diverse contexts cannot be narrowed down to a single factor, it is likely that different curriculum design across contexts plays a role: focusing on content or target language may yield different feedback results.

In immersion classrooms, balancing between subject matter and linguistic development is a major challenge for teachers. Teachers’ CF decisions often stem teachers’ CF decisions are often influenced by time constraints that demand a focus on content or language. Mori (2002) investigated error treatment in six Japanese immersion
classrooms, one class in each grade from Kindergarten to Grade 5. In the study, teachers provided more feedback in lower grade levels than upper grade levels. Also, prompts were used more often in lower grade levels, while in upper grade levels, recasts were more frequently used (Mori, 2002). As mentioned earlier, recasts are usually used more often in lower-level rather than higher-level students. In order to explain the results, the subject matter of the Japanese immersion program has to be taken into account. In lower grade levels, the content was still light, so teachers were able to use prompts to encourage students’ self-repair. Conversely, in higher grade levels, content became demanding, and teachers had to focus on the subject matter and use recast to keep the conversation flowing (Mori, 2002). Only when the students fully grasped the content would the teacher shift the focus to linguistic targets. In an immersion context, the teacher often has to juggle content knowledge and language targets. More CF on linguistic forms happens at the cost of explaining the content matter, and vice versa.

For foreign language classrooms, when the curriculum is language focused, the syllabus and teaching objectives are major factors that teachers take into account when providing CF. Since the syllabus often outlines targeted forms for each lesson, teachers are more likely to provide intensive CF, a preplanned CF that focuses on one form, even if the student makes mistakes on a range of forms (Loewen, 2015). When focusing on one linguistic form, ignoring other mistakes that do not intervene in the conversation allows the students to concentrate on the learning objective. Gurzynski-Weiss (2016) examined a university-level foreign language Spanish course, and pointed out that the most frequently reported factor that encouraged CF was the linguistic target: these were the forms that were listed as linguistic targets on the syllabus. Teachers feel the need to correct the mistakes that correspond to the learning objectives. Moreover, by correcting those targeted forms, the teacher can draw the students’ attention to certain targets and consolidate their newly acquired knowledge (Gurzynski-Weiss, 2016). Teachers believe that the “target structures are fresh in the students’ mind and should be worked on while hot” (Basturkmen et al., 2004, p. 259). Therefore, teachers may strategically omit other mistakes in order to meet teaching objectives and also ensure the focus and acquisition of the new form.

While classroom learning objectives vary in different instructional settings, teachers’ CF decisions depend on curriculum design: whether or not the curricula are content- or language-focused. The objectives of the curriculum design often draw the teachers’ attention to certain targets and consolidate their newly acquired knowledge (Gurzynski-Weiss, 2016). Teachers may consider it their responsibility to teach certain forms or content and thus provide (or not provide) CF in order to facilitate a specific learning objective.

**Factor Three: Student Emotions**

Students’ emotions are another factor that teachers take into account when making CF decisions. Foreign language anxiety (FLA), according to MacIntyre and Gardner (1994), is “the feeling of tension and apprehension specifically associated with second language (L2) contexts, including speaking, listening, and learning” (p. 284). For students who are nervous already, providing CF may add to an anxiety-provoking environment. Thus, before providing error corrections, teachers made sure that the CF would not “bother” the students (Gurzynski-Weiss, 2016). It is common that teachers avoid correcting errors when they think it might potentially hurt the students’ feelings or provoke FLA (Vásquez & Harvey, 2010).

The factor of FLA not only discourages teachers from providing CF, but also undermines the learners’ perceptions of CF. Ehsan (2015) found that learners with higher anxiety were less likely to notice the gap between their error and the target form, and this lack of awareness affected the efficacy of CF. In light of the complex relation between CF and FLA, when mediating between CF and students’ emotions, the question is not about providing CF or not. Rather, the inquiry should be about creating a more supportive environment where learners can reduce their anxiety while also utilizing CF to produce the best possible results.
Studies on the social context of learning pointed out that there is no perfect teaching strategy or classroom management since the dynamic of the classroom and teaching situation is ever-changing. (Tiberius & Billson, 1991). While CF can be a teaching practice to facilitate language acquisition, it may not be perceived positively by the students. The literature of classroom management and teaching methodology pointed out that classroom atmosphere and teacher-student relationship is crucial for both children and adult learners. Jones and Jones (2013) stated that children are sensitive to adult’s praise and criticism, making it important for the teacher to maintain a high ratio of positive and negative statements to create a welcoming environment. On the other hand, Sumin (2002) pointed out that instructors need to consider affective factors when interacting with students, especially when it comes to adult learners, since adults are concerned about how they are judged by others. In sum, the classroom atmosphere should be supportive, encouraging, and less demanding for learners in order to facilitate learning; it should relieve FLA; and it should make CF more effective.

Fagan (2015) observed an adult ESL classroom and found that the teacher acknowledges the achievement or provided personal appreciation before addressing corrections. Pointing out what the student has done correctly or appreciating the learners’ effort (such as “very creative answer,” or “that’s a good idea”) creates an atmosphere that promotes learning (Fagan, 2015). Another technique the teacher used was to redirect attention by switching her gaze from an individual student to the class (Fagan, 2015). When providing positive reinforcement or encouragement, the teacher looked at the student to make sure they were aware of their achievement. Before providing corrections, however, the teacher switched her glance to other learners to remove the student from the spotlight and prompt other learners to make corrections (Fagan, 2015). In this study, the teacher believed that CF was not solely about error correction, but also about the needs of the individual students and the other learners in the classroom as well (Fagan, 2015). In a classroom that promotes learning opportunities instead of error correction, students feel more comfortable, and this environment will reinforce a positive learning process and the effectiveness of teachers’ CF.

While teachers are vigilant about not provoking anxiety and hurting students’ self-concept, students, regardless of anxiety level, had similar beliefs and preference towards CF: they are generally in favor of CF and prefer receiving CF frequently (Zhang & Rahimi, 2014). Thus, instead of feeling cautious about providing CF, teachers might shift their focus toward how to make feedback easier for students to address and less stressful for anxious students.

**Factor Four: Teacher Cognition**

Teacher’s cognition refers to the amalgam of teachers’ knowledge, belief, thoughts, attitudes, values, and rationale (Mori, 2011). Teachers’ cognition is formed through their education, language learning experience, and teaching experience. Besides teachers’ practice, research on teacher’s cognition has tapped into the mental world of teachers and aims to reveal the rationale behind complex teaching practices. Exploring teachers’ cognition is crucial to understanding their CF decisions.

With regard to CF, teacher cognition mediates moment to moment decisions. The decision-making process and teaching practice of CF often reflect the core values of the teacher. Mori (2011) examined teachers’ cognition in Japan and how their beliefs affected their practices in CF. Jason, a teacher in an English immersion program in Japan, stated that his central belief is that “language is a means of communication” (Mori, 2011, p. 457). The institution that Jason taught in promoted communicative language teaching, yet the social context of Japan promotes an extremely test-oriented environment for English learning, and is therefore not encouraging of communicative pedagogy (Mori, 2011). Jason assumed his role in the school as the advocate of the communicative approach. In light of his cognition, Jason tended not to provide excessive CF, or provided recasts most of the time (92.9%), as Mori reported. Another goal of Jason’s CF practice, as he stated, was to build students’ confidence, since the Japanese school system and culture often apply too much pressure on students, making them self-conscious and afraid of being independent or make mistakes (Mori, 2011). Jason’s cognition built on his belief in the
communicative approach and his understanding of Japanese culture. His cognition led him to provide less CF or mostly use recasts (Mori, 2011).

Besides the teacher’s core values, teachers’ teaching experience and background in second language acquisition (SLA) can also greatly affect their cognition, and therefore their CF practices. Rahimi and Zhang (2015) found that there is a significant difference between novice and experienced teachers’ cognition about the necessity, timing, and types of CF. Experienced teachers favored error correction more than novice teachers (Rahimi & Zhang, 2015). At the same time, experienced teachers had more flexible cognition about CF, stating that explicit and implicit CF are both effective depending on different individual and contextual differences, while novice teachers had a more rigid cognition, claiming that implicit CF was more effective (Rahimi & Zhang, 2015). Furthermore, experienced teachers taught according to their previous teaching experience, while novice teachers resorted to their own language learning experience (Rahimi & Zhang, 2015). The study did not further examine the actual classroom practices of these teachers; yet, the stark differences between the cognitions of the two groups of teachers indicated the high likelihood of different teaching approaches in classrooms. On the other hand, teachers who have a degree in related fields or have done SLA coursework in university paid attention to error type, CF type, interlanguage developmental readiness, foreign language anxiety, and willingness to communicate (Gurzynski-Weiss, 2016). SLA coursework raises teachers’ awareness, shapes their cognition, and therefore affects their CF decisions. Teachers stated that they are “more aware of what they are doing” (Gurzynski-Weiss, 2016, p. 267), which indicates that there is a cognition working behind the scenes of CF practices.

The core values, teaching experience, second language acquisition coursework, and students’ proficiency all contribute to teachers’ cognition and further influence their CF choices, making teaching practice a complex cognitive behavior. CF decisions are not only about the effectiveness of error correction, but also the dynamic interactions and dialogue between the teachers’ and the students’ beliefs and individual differences.

Implications and Conclusion

Past research on CF has emphasized the effectiveness of different types of CF in diverse instructional settings. However, many factors have been excluded from the research designs of these studies, such as the cultural background of the classroom setting, personal factors of the students, and the beliefs of the teachers. Due to the exclusion of these factors, there is a possible gap between the theoretical knowledge of CF and the classroom reality. Past research focused heavily on the type of CF and whether it leads to uptake and subsequent acquisition of knowledge (Li, 2010), yet CF is not merely about separated error correction episodes, but a process to a pedagogical goal. As Mori explained, “It’s an on-going process, continually assessing whether the students are coming out of their shell (to communicate) or not” (2011, p. 458). CF practices also create a classroom atmosphere that affects not only the individual who is receiving the correction but the whole class. Teachers make decisions considering complex factors such as students’ proficiency, curriculum design, students’ emotion and teachers’ cognition. While previous research may focus on the effectiveness of certain types of CF, the classroom reality of CF is a hybrid of different feedback types decided by the teacher. This research indicates that the scope of CF research might be enhanced by incorporating more variables, such as students’ individual differences or even teachers’ characteristics (Gurzynski-Weiss, 2016), in order to depict the complex and dynamic process of CF decisions and classroom reality.

Another point worth mentioning is the importance of teacher education and its role in CF practices. Novice teachers with less experience stick to rigid CF principles, focusing on the type of CF they find effective. On the other hand, experienced teachers’ CF decisions are very flexible, incorporating different types of feedback, observing contextual factors, and are sometimes even automatized (Gurzynski-Weiss, 2016; Rahimi & Zhang, 2015). Teacher education allows novice teachers to develop their own teacher cognition through combining their rather limited experience with theoretical knowledge. Experienced teachers can reflect on SLA theories and
empirical evidence to validate their past beliefs or modify their pedagogy in the future. Teacher education is about learning from the collective knowledge and cognition of researchers and teachers, which allows teachers to situate their own beliefs among the diverse theoretical frameworks of SLA and further develop their teaching philosophy. Teacher education therefore has the potential to shape the teacher’s in-class CF practice in a positive way.

The current study focuses on the factors that mediate teachers’ decisions on CF. Future research should examine the students’ point of view. While past studies have examined the learners’ perspectives and preferences on CF (Yang, 2016; Yoshida, 2008), the relationship between teachers’ intention and students’ interpretation has not yet been discussed. When the teacher makes a CF decision based on certain factors, how do students perceive the intention of the decision? Would there be discrepancies between the teachers’ rationale and the students’ interpretation? These are pressing questions to answer in order to further understand CF in real-time classrooms.
REFERENCES


Yang, J. (2016). Learners' oral corrective feedback preferences in relation to their cultural background, proficiency level and types of error. *System, 61*(1), 75-86.


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