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Corrective feedback in a MIM application: Organization, timing and students' participation

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Abstract

Due to globalization and the exponential development of smartphone technology, MALL (Mobile-Assisted Language Learning) has received crucial attention in the context of foreign language teaching and the way in which corrective feedback is given in this context. The following study aims to analyze the role of corrective feedback in a WhatsApp chat group, focusing the attention on the interactions during a corrective feedback episode and the factors (timing and type of correction) that influence students' participation. The corpus includes 31 feedback episodes that are analyzed in detail to identify the different strategies used by the teacher and the different interactions. Also, a Mann-Whitney U Test is carried out in order to identify if timing is a factor that promotes students' participation during corrective feedback provision. Overall results show that interactions during a corrective feedback episode in a WhatsApp context follow an informal pattern, and the use of strategies that indicate location and different alternatives to repair the mistake increase students' participation. However, time is not a factor that influences students' participation. Corrective feedback provision seems to be appropriate in a MALL context if the strategies are adequate for the context.

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1. Introduction

In current society, where technological innovations are recurrent and different applications are used to perform different tasks, educators and people related to the field of second language teaching have become increasingly concerned about different teaching tools and effective methodologies during the online lessons. Concurrently, with globalization and the increased development of smartphone technology, MALL (Mobile-Assisted Language Learning) has also received crucial attention in the context of foreign language teaching, because of its varied advantages. According to Xu and Peng (2017) as MALL is largely free of time and location constraints it has become a convenient language learning tool for learners and teachers, who have started to incorporate it into their lessons. Along the same line, different researchers agree that MALL improves language development and helps learners to keep pace outside the classroom environment (Andujar and Salaberri, 2019). For that reason, different language learning applications are increasing in popularity between mobile phone users in order to learn different languages. Yet mobile instant messaging (MIM) applications are seen as the perfect space for learners to put into practice the communication skills in the target language (Murphy, 2021). Additionally, MIM applications are suggested as a virtual context where the teacher can track students' improvement as well as give constant feedback (Andujar, 2020).

One of the most popular applications for MIM is WhatsApp, which has been defined as a cross-platform instant messaging service for mobile devices that relies on the use of the internet for the transmission of messages. As of 2021, WhatsApp is the most popular global mobile messenger app worldwide (Statista, 2022). This application enables users to share

text, image, video, voice messages and also supports video calling, making it an innovative tool for learning, as well as an opportunity to promote corrective feedback while learning takes place. Nevertheless, little research has been conducted to investigate the role of feedback in online platforms.

The following study focuses on the description of Corrective Feedback (CF) provision, in the context of a WhatsApp group chat that was created in a EFL class in Spain. The data that will be used in this thesis was collected by Green (2021) in the context of her MA thesis named "Students' perception of mobile-mediated corrective feedback and oral messaging in a WhatsApp chat group" (Green, 2021).

2. Literature Review

In order to understand the present study, some essential concepts and previous research related to corrective feedback (CF) and Mobile-Assisted Language Learning (MALL) are necessary to understand. The following literature review will be divided into two sections: (1) Corrective feedback and (2) Mobile instant messaging and feedback provision.

2.1. Corrective feedback

CF has been one of the core topics in the theory, pedagogy and research of second language acquisition (SLA). According to Li (2018), CF refers to responses to errors learners make in producing and comprehending a second language (L2). In the same line, Ellis (2006) defined CF as responses to learner utterances containing an error. In formal instruction, previous research has suggested that educators have a tendency to provide both CF and positive feedback (PF). Lyster and Ranta (1997) have identified six different types

of CF: explicit correction, recasts, elicitation, metalinguistic clues, clarification requests and repetition.

Based on different classroom observation studies, results indicate that teachers have a tendency to use recasts (Lee, 2007; Lyster & Mori, 2016; Lyster and Ranta, 1997), while the least employed feedback type is explicit correction. One of the advantages of recasts is that they do not obstruct communication, even though learners often do not realize that they are being corrected. PF is also used in instruction and includes praise, affirmation, laughter, as well as nodding (Reigel, 2008). Moreover, even though research is limited regarding the topic of PF, there is a general assumption that authentic and meaningful PF may positively influence students' performance in their second language learning.

The following two subsections provide a review of two issues that are examined in this thesis, which are: the timing and organization of CF.

2.1.1. The Timing of feedback

Regardless of the amount of research on CF in second language learning and teaching, there is still one area waiting for more empirical investigation, which is the timing of CF, or the ideal time to provide oral or written feedback. In the field of SLA there are some accepted theoretical explanations in favor of 'immediate' feedback, defined as either the feedback that is provided within one minute after student error (Quinn and Nakata, 2017) or the feedback that is provided during communicative interaction. One of these explanations is the Interaction Hypothesis (Long, 2015), which states that the optimal time to deal with linguistic problems is during negotiated interaction. Another theory that advocates for immediate feedback is Skill Acquisition Theory (DeKeyser, 2007) because this type of feedback best promotes the proceduralization and automatization of L2 knowledge.

In contrast, according to Quinn and Nakata (2017), there are no generally accepted theoretical explanations to support 'delayed' CF, a concept that can be defined in terms of time (for example feedback provided 61 seconds after an error) or in pedagogical terms (feedback provided after a task is completed or as an end-of-lesson activity). Hence, a major methodological approach to second language teaching, task-based language learning, promotes a focus on form in the post-task stage of its framework (see Willis and Willis, 2007). In any case, this lack of theoretical support in favor of 'delayed' CF is the reason why there are only a few studies on the timing of oral CF. Some of these studies (Arroyo & Yilmaz, 2018; Quinn, 2014) use a temporal definition for immediate and delayed feedback, while others (Fu & Li, 2022; Li, S., Zhu, Y. & Ellis, R., 2016) use a pedagogically-motivated definition.

The distinction between immediate and delayed feedback has been researched in the context of oral feedback, yet time is also relevant regarding CF to students' written production. However, there are not many studies that have defined specifically what "timely" feedback means in the context of writing. For example, some authors suggest that the smaller the delay in the provision of writing CF, the better the outcome for learners (Lee, 2013).

More recently, research on the timing of written feedback has been conducted in computer-mediated environments. In this context, the terms of synchronous and asynchronous feedback are used to make reference to immediate and delayed feedback respectively. According to Shintani and Aubrey (2016), synchronous corrective feedback (SCF) is the type of correction that occurs in an online computer-mediated context in which the teacher provides CF while the students are in the process of producing their text. That is to say, both students and teachers are online at the same time, facilitating the teacher to pay attention to the students' composition process and provide instant correction (Shintani,

2016). Instead, asynchronous corrective feedback (ACF) is given after students have accomplished a piece of writing. In this line, the timing of ACF corresponds to traditional written CF involving a pencil-and-paper writing activity (Shintani, 2016).

Considering the theories previously mentioned, the following study aims to fill a gap in the lack of studies regarding the timing of corrective feedback, but in a different environment, which is not an oral or written context, yet an instant messaging environment. Unlike most of the studies on timing, which look at the effect of timing on L2 development (Quinn, 2014; Li et al, 2016; Arroyo and Yilmaz, 2018; Fu and Li, 2022), this study intents to find a relationship between timing and student participation in CF episodes via WhatsApp.

2.1.2. The organization of feedback

According to Markee (2000) conversational repair is viewed by SLA researchers as the sociopsychological device that helps learners to get comprehended input. Thereby, having a clear idea of how feedback is organized within the L2 classroom is crucial to this field, where certain types of activities or contexts lead to different types of feedback. Seedhouse (2004) states that there is a relationship between the pedagogical focus and the organization of feedback. As the pedagogical focus varies, so does the organization of the feedback. In this context, the same author distinguishes three contexts where repair can be given: (1) form-and-accuracy contexts, (2) meaning-and-fluency contexts, and (3) task-oriented contexts. In the first context, any contribution made by the learner that is not linguistically correct may be treated as a problem and it requires feedback or the repair of the error. At the same time, the teacher still may offer correction to utterances which are completely correct in linguistic terms, but are not the form that the teacher expects from the students to be practicing, with the main goal of upgrading the learners' interlanguage. In this

context, repair is often initiated by the teacher and students commonly ask for the teacher's confirmation (i.e., "is that correct?").

The meaning-and-fluency context is mainly focused on formulating mutual understanding and negotiating meaning (Seedhouse, 2004). In this context, mistakes are operationalized as anything that obstructs communication in meaning or content. Finally, feedback in Task-Oriented contexts is mainly focused on the accomplishment of the task and is conducted by learners working in pairs or groups (Seedhouse, 2004). In such context, the focus of the repair is the accomplishment of the task.

Taking into consideration the three types of contexts mentioned by Seedhouse (2004), the following study is mainly focused on feedback provided in the context of form-and-accuracy, in which feedback is most of the time initiated by the teacher when the students are producing utterances that are not exactly identical to the teachers' pedagogical focus. Like this study, Rolin-lanziti (2010) also focuses on the form-and-accuracy context, which is especially relevant because feedback is not provided immediately after the error (referred to in the article as "delayed second language correction"). In Rolin-Lanziti's the study, 161 delayed correction sequences were identified in the context of a French introductory course at an Australian tertiary institution. In this context four teachers gave feedback to their students after completing a role-play (a total of 35 delayed sessions). Correction sequences usually started with a transition word (i.e., 'alors', 'bon') and frequently ended with the teacher confirming the successful self-repair or congratulating the student (i.e., 'bien', 'bravo').

Preliminary analysis of feedback on form and accuracy in Rolin-lanziti's (2010) study showed that the teachers followed two main approaches, regarding the organization of feedback: (1) teacher-initiated/completed correction and (2) teacher-initiated student

correction. In teacher-initiated/completed correction the teacher quotes the incorrect form and replaces it for the correct one with no or reduced student participation, whereas in the second approach the teacher uses initiators to prompt the student to self-correct in the next turn. Additionally, in teacher-initiated student correction, the student has an active participation during corrective feedback episode (CFE) with the teacher sometimes initiating the CFE by repeating the students' own words with continuing intonation (i.e., 'You should say je suis') and then expecting the student to complete the utterance using the correct form (i.e., 'Islandais'). At other times, the teacher initiates the CFE by prompting the student to repeat the erroneous utterance (i.e., 'What did you say again?') in the L1 or L2, thus designating the task of quoting the error to the student. In any case, every time a CFE starts, two complementary actions may be taken by the students in the next turn: self-correction or repetition of the mistake. Consequently, whether or not the students are able to correct their own mistakes may influence the way in which the teacher organizes the feedback provision (Rolin-lanziti, 2010).

Similarly, to how the data was analyzed in Seedhouse (2004) and Rolin-lanziti (2010), the following study intends to describe how feedback is provided in the context of meaningful interaction. However, in contrast to Rolin-lanziti (2010) this study does not deal with classroom interaction, but with online communication through instant messaging.

2.2. Mobile instant messaging (MIM) and feedback provision

Most educators struggle with feedback provision, due to time limitations in classroom settings (Xu and Peng, 2017). Because of time constraints in face-to-face instruction, it is almost impossible for teachers to provide every student with immediate detailed feedback. MALL is as a solution, as it encourages learners to be an active agent during learning process

and to engage in different activities, that due to the specific features of MIM, learners can review content learned in class and then provide comments to their peers or teacher in case they have a question, as well as empowering instructors to communicate flexibly via text, voice and video images with their students (Xu and Peng, 2017). As a consequence, the way in which feedback is provided has to be adapted to the context, which could be the classroom or online communication.

Additionally, the context of synchronous computer-mediated communication (SCMC) is defined by Arroyo and Yilmaz (2018) as real-time communication between people using text-based instant messaging software. This type of online communication has some interesting features for feedback provision. Even though communication in text-based SCMC occurs in a written context, some aspects of the discourse are similar to that of an oral conversation (González-Lloret, 2014). For example, informality of discourse, real-time communication, short turns and grammar errors. Arroyo and Yilmaz (2018) mention additional distinctive features such as processing time, visual salience and rereadability of messages, all of which can work as a cognitive amplifier (Warschauer, 1997) generating an appropriate condition for learners to notice forms in the target language (Schmidt, 2001).

In line with what had been said above; in a state-of-the-art article on MIM, Andujar (2022) states that MIM, as it exceeds the traditional constraints of time and place, becomes a good context for teacher's feedback provision, which can be given not only in a classroom context, but also outside it. When using asynchronous and synchronous communication there are certain types of advantages, but for the context of this investigation, it is important to highlight the benefits when using asynchronous communication.

The use of asynchronous messages, regardless if it is written or spoken, has a number of advantages specially for students. Learners can analyze and think about their own language

productions, since they can look up their messages as many times they want, or in the case of voice messages, they can listen their production unlimited times (Andujar, 2022), which is helpful to improve their pronunciation. Teachers also benefit from this type of communication, since they have more opportunities to provide metalinguistic explanations and feedback at different times (Andujar, 2022). Andujar (2022) also states that the feedback provision through asynchronous communication also benefits all the participants, since they can look into other students' mistakes in addition to their own.

2.2.1. Empirical studies on corrective feedback and dynamic assessment (DA)

Some research regarding DA has also investigated the influence of MIM in L2 learning. According to Andujar (2020), from a research point of view, DA pays special attention to the ongoing development of students in different contexts using different types of DA (Andujar, 2020). Similarly, according to Poehner (2008) DA is also considered a type of alternate approach compared to the traditional methods, because it considers that assessment and teaching are two parts of a whole and do not work separately. From a pedagogical point of view, in DA the role of the teacher is to intervene at the moment learners are facing problems in their production, and at the same time, help them to mitigate the different challenges while performing (Poehner, Davin, and Lintel, 2017).

Taking into account the previous definitions about DA and the previous research that had been conducted regarding this topic, there are three studies (Andujar, 2020; Ebadi and Bashir, 2021; Rad, 2021) that are important for the investigation of this thesis, because they consider the potential of DA to encourage L2 development through the use of MIM applications.

Andujar (2020) analyses a pedagogical DA approach to foster L2 development through the use of the MIM application; WhatsApp. During the investigation, DA was a constant source of L2 input and feedback helping the participants to extend their learning even beyond class time. In this study, results suggest that DA and dialogic meditation help learners analyze their language performance, gradually requiring less explicit feedback or metalinguistic comments because learners were able to perceive a particular language error faster than at the beginning of the investigation that lasted five months (October to February).

On the same line, Ebadi and Bashir (2021) carry out an explanatory mixed-method study in order to explore the impact of mobile-based dynamic assessment (MDA) on EFL learners' writing skills. Overall results suggest that MDA develops EFL learners' written proficiency as a consequence of the constant collaboration between the students and the instructor using text messages and voice-based mediation.

On the other hand, Rad (2021) investigates the potential of a pedagogical hybrid dynamic assessment (HDA) approach to foster second/foreign language (L2/EFL) descriptive writing, while using a mobile instant messaging application (Edmodo). As in Andujar (2020), the regular use of mobile-mediated DA also helps to maximize the benefits of DA and eventually students need less feedback in order to comprehend their writing errors. What is more, results show that HDA and mediation helped learners to save time which can be used for more practice and teacher-learner interaction instances (Rad, 2021).

Considering the overall results of the studies mentioned above, it could be stated that using MIM as a teaching tool provides, above all, an efficient use of DA and HDA. Also, the use of MIM for DA provides opportunities for efficient CFE, spreading the learning process beyond the classroom and helping learners to become aware of their linguistic mistakes. What is more, considering the context of MIM platforms, the vast majority of the

students showed a positive attitude regarding feedback provision and that can help learners improve their speaking and writing skills due to the particular characteristic of MIM.

2.2.2. Antecedents: Descriptive studies on corrective feedback and MIM

There are three MA theses conducted at the University of Barcelona (Virgils, 2019; Murphy, 2020 and Green, 2021) where a MIM platform (i.e., WhatsApp) was used outside class time as the basis of CF provision and the participants were all EFL university learners.

Virgils (2019) carried out a study with 16 Spanish/Catalan participants to observe the use of WhatsApp as a language learning and teaching tool. In this MA thesis, the provision of feedback was provided at a follow up feedback activity in class, taking into consideration the errors that had been produced when communicating via WhatsApp. Overall results showed that students considered WhatsApp tasks entertaining, as well as perceiving the app as a useful tool for language learning and especially convenient for revising class content. Additionally, Murphy (2020) examined the experience and perception of corrective feedback of eleven participants in a WhatsApp group. In this context, feedback provision was given always via WhatsApp in two conditions: while the students were performing a task (referred to as "immediate feedback") or as a follow-up non-interactive activity (referred to as "delayed feedback").

From a total of 4 tasks during the intervention, delayed corrective feedback (DCF) was given as a post-task non interactive type of feedback at the end of tasks 1 and 2. During tasks 3 and 4 immediate corrective feedback (ICF) was given during 24 hours since the student sent a message. For ICF, the researcher used a type of hybrid correction, which consisted first on a prompt and then a recast.

Findings suggest that learners have a positive attitude towards the use of WhatsApp as a learning tool and a special preference for ICF, instead of delayed non-interactive feedback. Furthermore, Green (2021) carried out a study including 17 participants to analyze their perceptions towards receiving CF in a WhatsApp chat group, plus a feedback session in the Zoom platform. Immediate feedback was provided daily through WhatsApp and delayed feedback was provided once a week via a zoom-based session, with all the students in the group.

Overall results showed that students have a positive attitude towards the two modalities of feedback. However, even though the vast majority of the students were positive about the immediate feedback provision, there was a 50.7% of all feedback episodes in which there was no student's participation or the student who made the error never replied (unattempted repairs). 49.30% include an overall of attempted repairs which includes: successful repairs, partially successful and unsuccessful.

The present study will consider the data of this thesis and will look into this fact more closely.

3. Introduction to the study and research questions

Based on the studies mentioned before, it can be stated that learners like to receive feedback related to their MIM production. At the same time, learners seem to learn from the feedback provision through MIM. However, none of these studies have examined the organization of feedback sequences via MIM in detail in a similar way to how Rolin-lanziti (2010) investigated delayed L2 correction in the context of the L2 classroom. Also, the timing in which CF is given since is a field that has not been yet studied and it is well worth

investigating. In light of the above, the following study aims to investigate the CF given through one of the most popular online platforms: WhatsApp. Through this platform CF was given in response to learners' errors in the context of WhatsApp-based interaction.

This study describes the interaction between the teacher and the students during the CFE and also it explores how timing and teacher's strategies may have influenced students' participation. Therefore, the research questions (RQ) for this study are:

1. How do the teacher and students interact during feedback episodes via WhatsApp?

2. Do the timing and the strategies used by the teacher to provide feedback in WhatsApp relate to students' participation in the feedback episodes?

In terms of the first RQ, three aspects will be analyzed:

- Teacher initiation of the CFE.
- Students' response to the feedback episodes.
- Teacher's reaction to students' self-repair.

The second RQ is based on Green's (2021) section about students' perception towards receiving CF in a WhatsApp chat group. Based on the results, it is important to carry out an investigation related to how the students respond considering the time of the feedback provision, as well as if the type of correction given influences in an increment of students' participation. From this perspective, the following study will analyze more in-depth different factors that promote students' participation in CFE. The factor that will be consider in this study will be:

- Timing
- Type of correction

4. The study: Methodology

The present study is based on data gathered by Green's (2021) as part of her MA thesis. Green's (2021) work consisted of a 6-week long pedagogical intervention, where students in an EFL class were prompted to send conversation starters to a WhatsApp chat group and encouraged to communicate with each other outside class time. During those six weeks, the teacher/researcher regularly provided students with CF both in the chat group as well as in weekly feedback sessions held over zoom. In our study the CFE that were generated in Green's (2021) chat group over weeks 3-5 will be examined in detail. In the following sections information is presented about the participants, the pedagogical intervention and data processing and analysis.

4.1. Participants and context

The following study included a class of B2 EFL students (17 adult learners), the class teacher and a student researcher. Students who were part of a private language school associated with a public university in Barcelona. Initially students were enrolled in a 100h face-to-face B2 English course but due to Covid restrictions instruction was delivered through Zoom video platform. All the students participated in the WhatsApp group intervention, except for one student that dropped the course in week 3. The age of the participants ranged from 17-23, with the exception of a 41-year-old student. Eight students were female, nine were male and they were either Spanish or Catalan/Spanish native speakers, with the exception of a Venezuelan student.

The class teacher of English course (T1) was a Spanish/Catalan native speaker, with plenty of experience of EFL teaching, who participated sporadically in the WhatsApp chat group. The student researcher (T2) was a Scottish native English speaker and experienced EFL practitioner and the one in charge of administering and modeling conversational prompts, which are messages meant to start conversations between the students that are part of the WhatsApp group chat, as well as providing CF and PF.

4.2. Summary of the pedagogical intervention

The pedagogical intervention will be described in sections 4.2.1 and 4.2.2:

4.2.1. Preparatory step and weeks 1-6

During week 0, the T1 invited students to be part of a research project that would require their participation in a WhatsApp chat group outside the class timetable. Students were scheduled to start conversations and react to those prompts with oral or written messages (see the document students were sent with ideas to start conversations in Appendix A). A different student was scheduled to write a prompt every second day (preferably in the morning) and students were told that T2 would be commenting on some of their messages. In total, 17 student-initiated prompts were scheduled.

During week 1, T2 sent a conversational prompt every two days in order to model the task and show the students that these conversational starters could be related to any topic. At the same time, a preliminary zoom session in week 1 was mainly for the students and T2 to become acquainted with each other. While no CF was provided in the first zoom session, T2 started providing feedback on WhatsApp from week 1.

During weeks 2-6, T2 continued providing CF on WhatsApp when students started to send their own conversational prompts. By the end of the intervention a total of 14 students had sent prompts and T2 had initiated a total of 71 corrective feedback episodes (from weeks 1-6) in the WhatsApp group.

4.2.2. Feedback provision

Regarding the WhatsApp group, feedback was regularly given by T2, within 24 hours since the moment the students had sent a message. Error selection criteria consisted of non-target-like structures in student's utterances, errors that may cause certain breakdowns in understanding, repeated errors that are typical of L1 whether Spanish or Catalan and language inappropriate for a B2 level of English.

Before the beginning of the intervention, it was decided that an emoji would be used to indicate an error in an attempt to elicit self-repair on the part of the student. It was also agreed that if a student's attempt at self-repair was wrong, the teacher would provide the correct form following the same procedure as in Li et al.'s (2016), in which a prompt is issued, promoting self-repair to the learner, subsequent to a reformulation if the learner has an unsuccessful self-repair.

Regarding the weekly feedback sessions on Zoom, 30-40 minutes of class time were devoted to reviewing a selection of students' messages which had been posted on the group chat over the previous 7 days. In contrast to the feedback via WhatsApp, which was embedded in a meaning-based context, the feedback activity on zoom had a primary focus on form (see Table 1 below).

	Primary focus	Time
WhatsApp chat group	Meaning	Within 24 hours
Zoom video sessions	Form	Up to 7 days

Table 1: Two contexts of feedback provision in Green (2021)

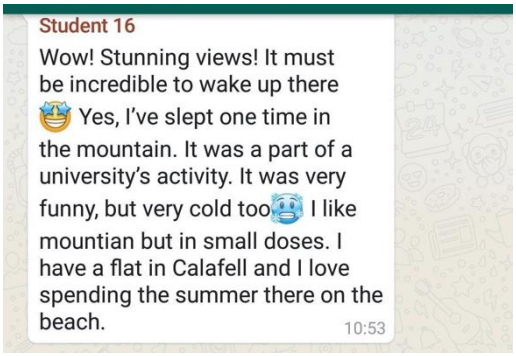
4.3. Data processing and analysis in the present study

At the start of the study, the supervisor and I agreed to narrow down the scope of the analysis of the feedback in this thesis by: (1) Focusing on the feedback episodes given through WhatsApp and excluding the zoom-based sessions and (2) including only the data from weeks 3-5 of the pedagogical intervention. Therefore, the following investigation includes the analysis of 31 CFE that were produced in the context of prompts 3-10 in the WhatsApp group during weeks 3-5. The nature of the correction of the 31 CFE was focused mainly on grammar, but also on vocabulary, register and spelling. The modality of the trigger was written most of the time with the exception of three CFE where the trigger was through voice message. The provision of feedback normally considered one error from the students' trigger, but on five occasions the teacher corrected two errors at the same time. Narrowing the scope of the study in this way was motivated by the detailed analysis that we intended to carry out of the CFEs.

Regarding the processing of WhatsApp data, CFE in the group chat were drawn out of Green's full transcription of the group conversation. Once identified, the corresponding messages were copied and pasted into a new word document and a table was created for each CFE (See an example in Table 2) where the lapse of time between messages was recorded. Messages that were part of the same CFE were sometimes sent shortly after one another (see

for example messages number 340 and 342) while sometimes there were not (see for example messages 325 and 339).

The CFE starts with teacher message 339, which first includes a comment from the teacher regarding the content, followed by the student's repair of the error (message 340). In this case, as student's repair was successful, the teacher provides PF (message 342) which includes a confirmation comment and emojis.

	TIME	MESSAGE	LAPSE	MESSAGE
S16 trigger	March 3rd 10:53	325		
T2 initiates feedback	22:19	339	12hrs34'	

S16 CF response	22:20	340	1’	
T2 - PF	22:22	342	2’	

Table 2. Illustration of a feedback episode Prompt 3 CFE.

The first research question which examines the organization of CFE, will consider three different aspects. The first aspect deals with how the teacher initiates a CFE and for that, an identification of the different strategies used by T2 where analyzed. The second aspect describes how students attempted to self-repair. Finally, the third aspect identifies the teacher’s reaction to students’ self-repair, which can include PF when the repair is successful or other strategies when the students fail to self-repair.

The second research question investigates the time lapse, as well as the distance between the trigger or student error and the start of CFE and its relationship with student participation. In a context where the content is given through face-to-face interaction the notion of timing makes reference to whether the feedback is provided a few seconds after the trigger (immediate feedback) or later (delayed feedback). However, in the context of students receiving feedback via MIM from an instructor outside class-time the concept of timing needs to be reconceptualized. In this study, special attention is given during the lapse of time

between the trigger and the teacher's initiation of correction (which in our data ranged from 78 min to 1389 min), as well as the number of messages since the student's trigger until the feedback provision in an attempt to see the effect of timing on students' participation during CFE. The relationship between how the teacher indicates the location of error and students' participation will also be examined and a Mann-Whitney test will occur to that effect.

5. Results

5.1. Teacher initiation of CFEs

All CFEs were started by the teacher in response to a student message (referred to as 'trigger'). 30 CFEs were started using the quote-reply feature, except for one corrective feedback provision in which that feature was not used (Week 3: Prompt 5, CFE 1). The use of the quote reply feature plays an important role in the initiation of a CFE because, as the teacher is pointing out a specific message, the student who wrote the message is the one that attempts to correct the mistake (See examples in Tables 2 and 3). For example, in table 2 (page 23) the teacher initiates the corrective episode in message 339 in response to message 325 by student 16. Message 339 includes the quote reply feature.

In some occasions, the message from the teacher included the prompt to self-repair with no comment on the content of the student's message (see message 418 in table 4). However, the initial message sent by the teacher, sometimes included a comment on the content of the message or the form. Most of the time this comment was placed before the teacher feedback (n=11) but there are also a few cases where the comment is placed after the teacher feedback (n==4). Occasionally, the comment and the teacher feedback were written in two different lines (see message 365 in Table 3) and sometimes they were just separated

by a period (see message 339 in Table 2). In any case, the reason why the teacher included a comment may be to mitigate a potential face-saving situation for learners.

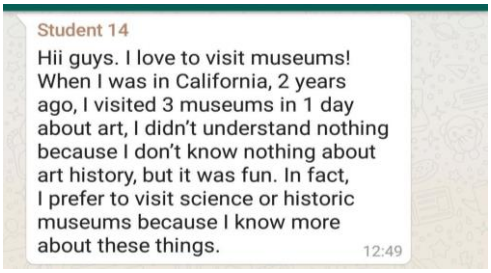
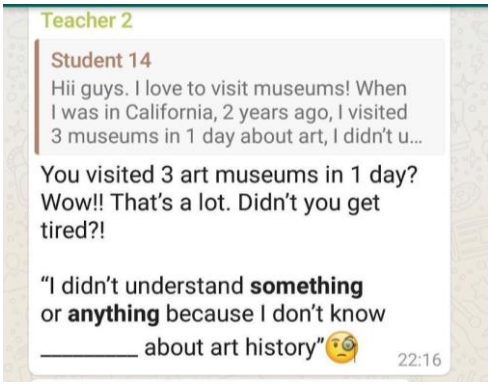
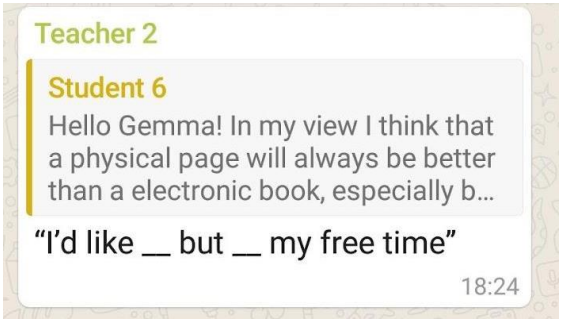
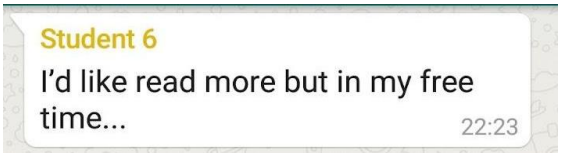
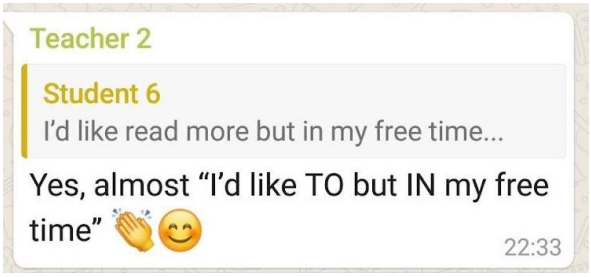
	TIME	MESSAGE	LAPSE	PICTURE
S14 trigger	March 4th 12:49	354		
T2 initiates feedback	March 4th 22:15	365	10hr34'	
S4 CF response	March 5th 14:23	377	16hr8'	
T2 - PF	March 5th 14:43	378	20'	

Table 3. Illustration of the initiation of a CFE. Quote-reply feature.

	TIME	MESSAGE	LAPSE	PICTURE
S6 trigger	March 9th 13:26	416		
T2 initiates feedback	March 9th 18:24	418	05hrs02'	
S6 CF response	March 10th 22:23	435	16hrs01'	
T2 - PF	March 10th 22:33	441	10'	

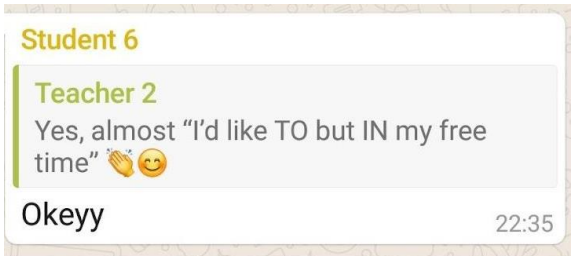
S6 PF response	March 10th 22:35	446	02’	

Table 4. Illustration of the initiation of a CFE: Only correction was provided.

One of the strategies used by the teacher included a recast, where the answer was provided and the students did not need to self-repair (see table 5). Message 490 represents the trigger made by the student, but then message 496 include the recast where the correct answer is provided. This strategy was used 4 times.

The rest of the CFs included a prompt,[1] where the location of the error was included (n=23) and the rest (n= 7) did not include information on location. In order to indicate the location of the error in the teacher prompt, the teacher used different strategies. The strategies used by the teacher to indicate location are: alternative questions, alternative questions plus bolding, blank spaces, capitalization and asterisks.

1. Note: Two feedback episodes included two errors and two prompts (messages 535a and 535b; messages 365a and b). One feedback episode included one recast (message 438) and a prompt (message 439).

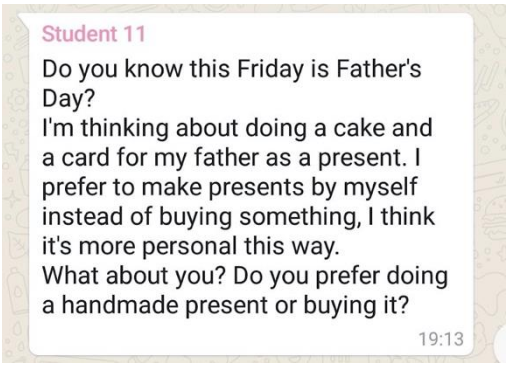
	TIME	MESSAGE	LAPSE	PICTURE
S11 trigger	March 16th 19:13	490		
T2 initiates feedback	March 17th 14:15	496	19hrs02'	

Table 5. Illustration of a strategy for CF: Recast.

Alternative questions (see table 6), consisted of giving different options to the students. This strategy was used 9 times from the 31 feedback episodes. In some cases, this type of correction was sometimes used in combination with bolding as in message 341 (See table 7).

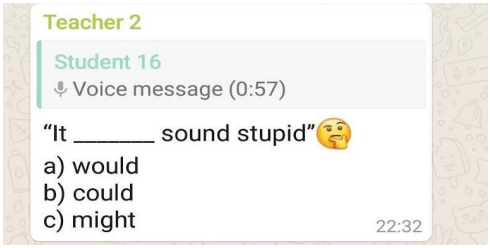
	TIME	MESSAGE	LAPSE	PICTURE
S16 trigger	March 10th 12:00	425		"Eh, to be honest, I don't like insect and because I, I'm really afraid of them and I know that they, they, in general, they are very small and well, I'm big, but that's the reason because I'm afraid of them because em, it could sound stupid but I can't stop thinking that, I dunno, they could enter in my body by my mouth or my ears or, I dunno, my nose and stay in my body. I, I know that it's stupid, but I can't stop thinking that and I, I'm afraid of, of this. Well, it's, it isn't only about fraid, it's a combination about fraid and repugnance." *(Voice Message 425 – Transcription)*
T2 initiates feedback	March 10th 22:32	439	10hr32'	

Table 6. Illustration of a strategy for CF: Alternative questions.

	TIME	MESSAGE	LAPSE	PICTURE
S8 trigger	March 3rd 11:31	326		
T2 initiates feedback	22:22	341	11hr9'	

Table 7. Illustration of a strategy for CF: Mixed use of multiple choice and bolding.

The teacher used bolding alone (see table 8), which means highlighting the mistake so that the students can identify the error easily. From the 31 feedback episodes, bolding was used alone 4 times.

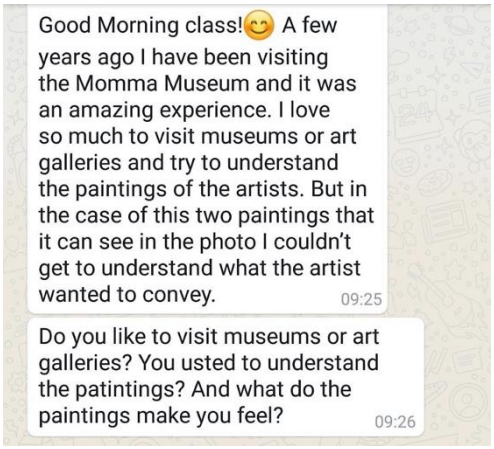
	TIME	MESSAGE	LAPSE	PICTURE
S5 trigger	March 4th 09:25	350		
T2 initiates feedback	22:06	359	13hr19'	

Table 8. Illustration of a strategy for CF: Bolding.

Blank spaces (see table 9) were also used 3 times by the teacher. Sometimes blank spaces were used in combination with alternative questions. Finally, the strategies that were used less frequently were the use of asterisks (n=1) and capital letters (n=1) (see table 12).

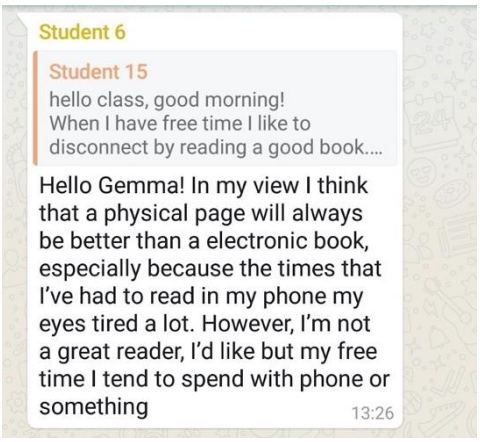
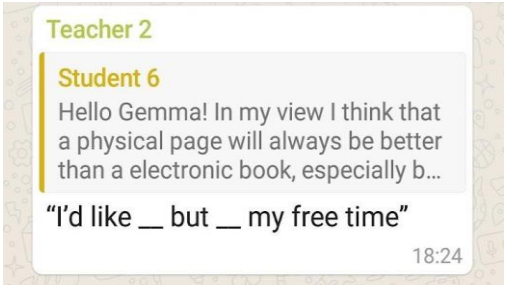
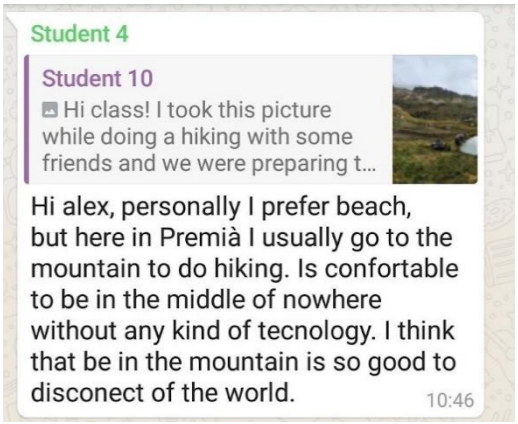
	TIME	MESSAGE	LAPSE	PICTURE
S6 trigger	March 9th 13:26	416		
T2 initiates feedback	March 9th 18:24	418	05hrs02'	

Table 9. Illustration of a strategy for CF: Blank spaces.

	TIME	MESSAGE	LAPSE	PICTURE
S4 trigger	March 3rd 10:26	321		

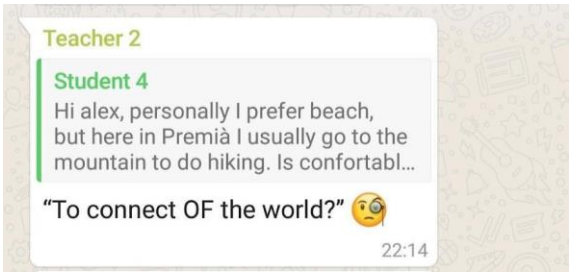
T2 initiates feedback	22:14	336	11hr 12’	

Table 10. Illustration of a strategy for CF: Capitalization.

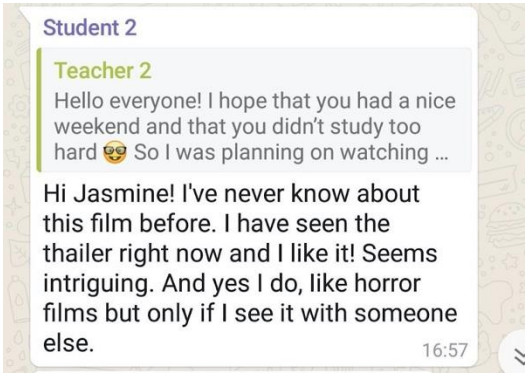
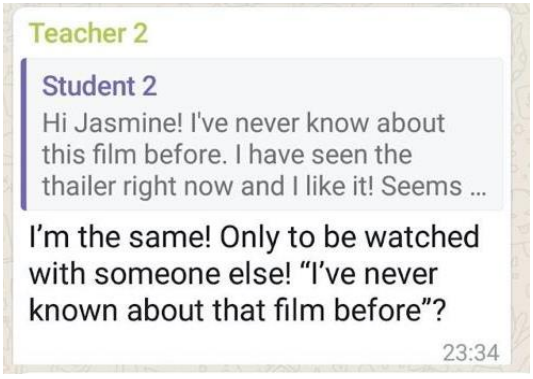
5.2. Students’ response to teacher’s corrections

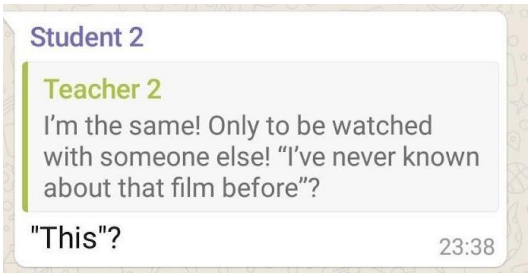
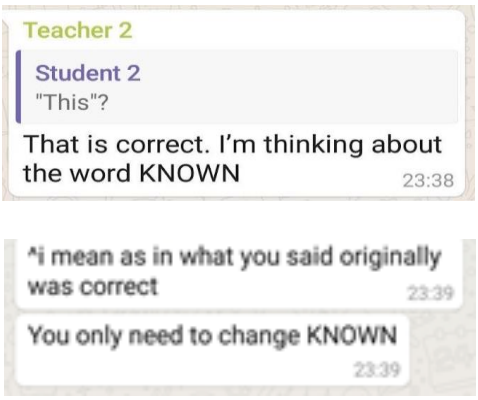
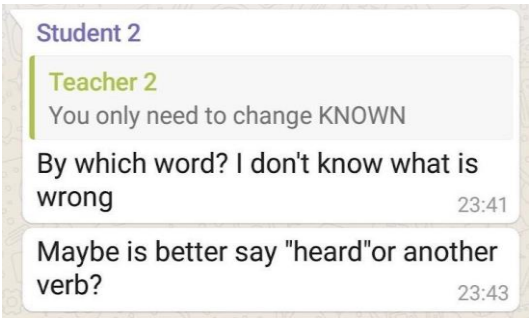
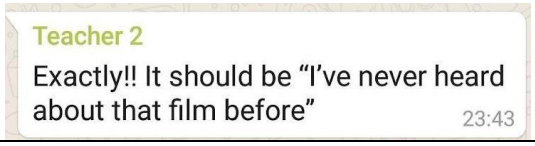
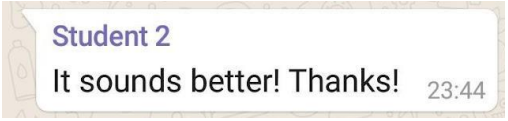
Every time that T2 provided feedback there was only the participation of the student that made the trigger. Results suggest that as WhatsApp has the “quote-reply” feature, in which the teacher was replying to one specific message, students felt that the person to whom the message was addressed should reply to the CF. Among the 31 CFE, this situation happened 30 times, with only one exception in message 459 (see table 15 on page 34), which may be related to the fact that as it is a multiple-choice prompt which is easier to reply to.

In the WhatsApp chat group, every time (N=16) the students present their attempts at self-repair with different emojis, typographic symbols, or in some cases they will include a mix of both strategies (See table 11) to express lack of certainty and as a face-saving device in case their answer was incorrect. There are also two instances out of the 31 CFs in which students explicitly state this lack of certainty verbally (see one example on table 12). In message 316 student 2 expresses lack of certainty explicitly by saying *“But which word? I don’t know what is wrong”*.

Type of strategy	Number of messages	Message number
Typographic symbol	9	312, 370, 411, 413, 435, 440, 458, 500, 537.
Emoji	4	340, 377, 380, 506.
Both	3	345, 362, 514

Table 11: Strategies used by students in response to teacher's correction

	TIME	MESSAGE	LAPSE	PICTURE
S2 trigger	March 2nd 16:57	299		
T2 initiates feedback	March 2nd 23:34	310	7hr24'	

S2 CF response	March 2nd 23:38	312	4’	
T2 CF (2)	March 2nd 23:38	313 314 315	Immediately	
S2 CF response (2)	March 2nd 23:41 23:43	316 317	3’ 2’	
T2 - PF	March 2nd 23:43	318	Immediately	
S2 CF response (3)	March 2nd 23:44	319	1’	

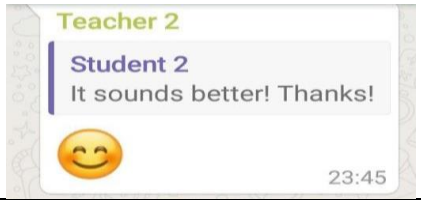
T2 – PF (2)	March 2nd 23:45	320	1’	

Table 12: Student verbally expressing lack of certainty.

As it was stated before, the use of emojis represents a strategy of face-saving device, that means that in order to show their feeling (i.e., insecurity) in relation to the feedback, they will use an emoji while giving the answer.

Type of emoji	Category	Frequency	Message number
□	Uncertainty	2	340, 362.
□	Insecurity	2	377, 506.
□	Embarrassment	1	345.
□	Insecurity	1	380.
□	Sadness	1	507.
□	Uncertainty	1	514.

Table 13: Emojis used by students after CF provision

Image 1 is an example of how students use emojis as a face-saving device. In this case, this emoji represents that the student is not sure about the answer and types a “thinking emoji” to illustrate it.

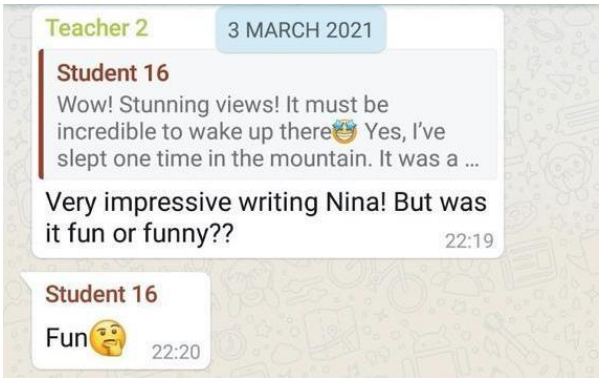


Image 1: Example of student’s face-saving device.

Moreover, students also used typographic symbols (i.e.: (?), (“”), (...), (*?)) The use of different strategies from the students is also a technique to show their perception about the CF provided before. Table 14 explains the use of typographic symbols and the category their represent.

Image 2 is a representation in which a student only included typographic symbols in an attempt to self-repair. Image 3 includes the use of a question mark and a thinking emoji to represent insecurity regarding the student’s self-repair. In this case, the student is waiting for confirmation in relation to his or her answer. Image 4 shows the use of a mixture of typographic symbols which are used to represent insecurity regarding the student’s self-repair. Similarly, as before, in this situation the student is also waiting for confirmation.

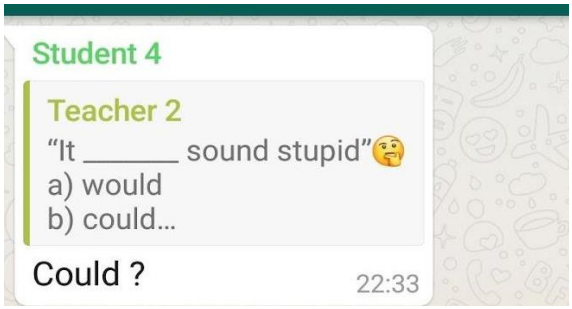


Image 2: Example of a student message using only a typographic symbol

Image 3: Example of a combination of a typographic symbol and an emoji

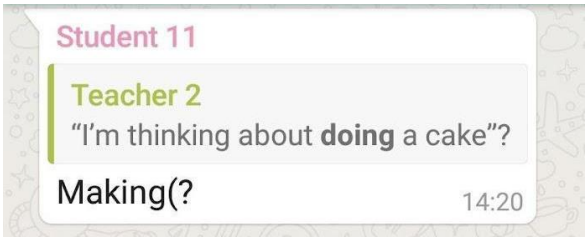


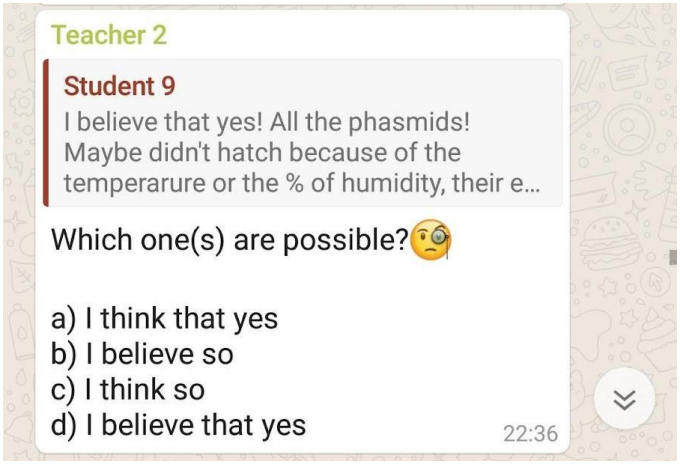
Image 4: Example of a student message with typographical symbols.

The excerpts show that, as well as the teacher, students also use different strategies to show their perception about their self-repairs. The table above includes the amount of different typographic symbols used by the students.

Typographic symbols	**Category**	**Frequency**	**Message number**
?	Uncertainty	4	411, 413, 440, 458
"xx"?	Highlight self-repair + Insecurity	2	312, 537

***?**	Highlight self-repair + Insecurity	1	370
“”	Highlight correction	1	317
…	Insecurity	1	435
(?	Uncertainty	1	500

Table 14: Different typographic symbols used by the students.

	TIME	**MESSAGE**	**LAPSE**	**PICTURE**
S9 trigger	March 10th 20:55	454		“Hi Guillem, I, I think that eh, it’s, it’s a very interesting topic this because I never eh, stopped to think about have an insect as a pet and I dunno so much about this, this kind of eh, living things and em, it would be curious to, to have one and know about his behavior in the nature and all this things and I think that your TFG it’s so, it’s so curious and I would, I would like to know more about it to, to can em give, more, more information about it but I don’t know, I don’t know much. Uhm, it would be interesting to, to know more about, about insects and all the environment that we don’t, em stop to, to look for, uhm, all these stuff.” *(Voice Message 454 – Transcription)*
T2 initiates feedback	March 10th 22:36	456	02hrs19’	

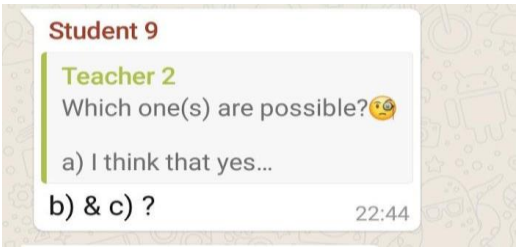
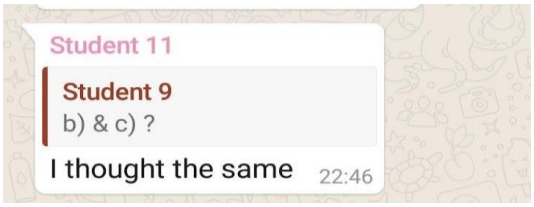
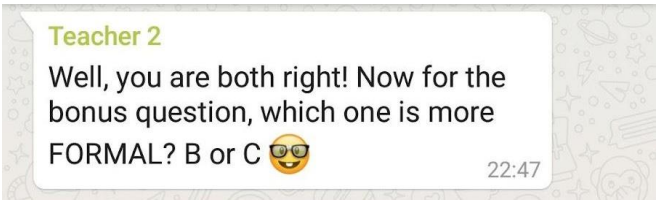
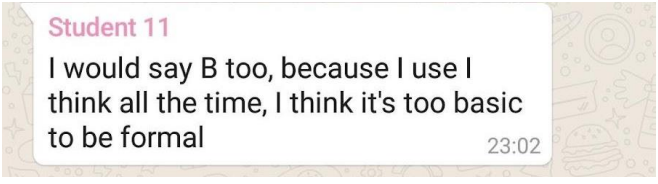
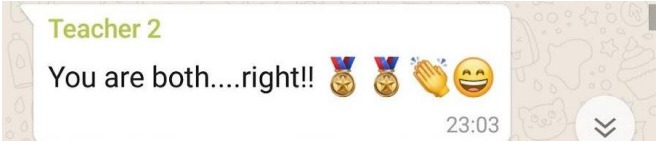
S9 CF response. (*) Additional comment of S11	March 10th 22:44 22:46	458 459	08’ 02’	 
T2 – PF and additional comment	March 10th 22:47	460	1’	
S9 CF response	March 10th 22:57	461-464	10’	
S11 CF response	March 10th 23:02	465	04’	
T2 – PF	March 10th 23:03	466 467	01’ 01’	

Table 15: Two students participated simultaneously in a CFE.

5.3. Teacher's reaction to successful and unsuccessful self-repairs

From a total of 31 feedback episodes, 16 messages were students that were successful in their first attempt to self-repair, while 4 messages were sent by the students after a request for an extra prompt by the teacher, whether to identify the mistake or ask for explicit teacher's correction in order to proceed in the self-repair. Additionally, 2 messages were sent in which students unsuccessfully self-repaired in the first attempt after a clarification request or the teacher's second prompt.

Every time that the students make a successful repair, the teacher provides PF, but when students overlook or are not able to identify the mistake, the teacher will use one of the different strategies (i.e., bolding, recast), so that the students can come up with a second attempt at self-repair.

Among the techniques to provide PF, there were three types of strategies that were commonly used: (1) positive expression + one or two emojis, (2) one or more emojis and (3) positive expression (without any emojis). The following table shows the strategies that were used frequently, followed by examples (Images 5, 6 and 7) that represent each strategy used in instances where students' first self-repairs were successful.

Type of PF	Frequency	Message number
Positive expression + one or two emojis	7	342, 347, 381, 378, 412, 414, 466
One or more emojis	3	364, 512, 538
Only positive expression	2	460, 467

Table 16: PF provision during episodes that were repaired successfully after the first student attempt.

Image 5: Positive expression and emoji.

Image 6: One or more emojis

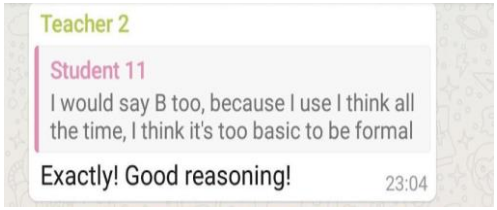


Image 7: Only positive expression

Regarding the use of emojis for PF provision, two main categories were found: (1) symbol emojis and (2) Facial emojis. Both categories were used in order to transmit reassurance to the student, some of the emojis were even used twice in order to reinforce the PF. The use of the emojis include the representation of different awards, celebration and excitement which are represented in tables 17 and 18.

PF symbols emoji	Category	Frequency	Message number
□	Celebration	5	378, 412, 414, 441, 515
★	Reward	3	342, 438, 447
□	Congratulations	2	441, 466
□	Reward	2	466, 515
□	Confirmation	1	538

Table 17: PF provision: Symbols emoji category

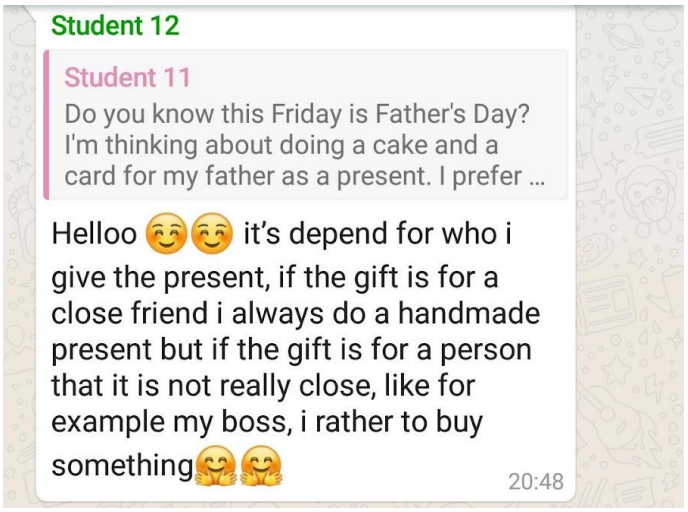
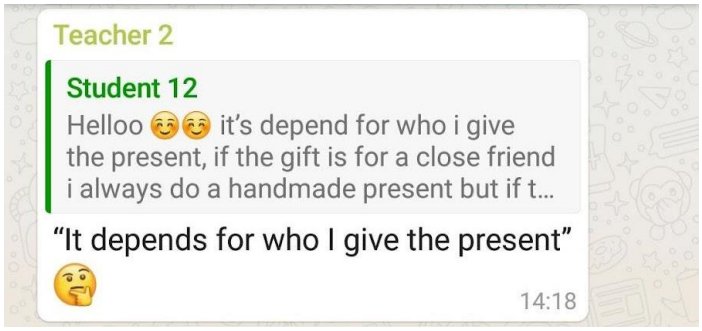
PF facial emoji	Category	Frequency	Message number
□	Celebration	3	417, 438, 466
□	Confirmation	2	347, 414
□	Celebration	2	364, 512
□	Celebration	1	381
□	Confirmation	1	342

Table 18: PF provision: Facial emoji category

In general, there is a tendency for the teacher to provide PF alone without repeating the correct form from the student message. There is only one case where the correct linguistic form is repeated by the teacher (message 414). Every time there is a successful-repair from the students, overt PF is provided. The positive evaluation is often reinforced by the use of the same emoji more than once, as well as exclamation marks and positive expressions.

As it was mentioned at the beginning of this section, there were two feedback episodes (messages 299-319; 592-517) where the student was not able to spot the mistake

because when the teacher provided CF did not indicate the location of the mistake. In this case, the teacher will use a phrase to attenuate the CF or use capitalization so that the students can identify the mistake easily. One of the episodes described above is contained in table 19, which represents a CFE where the student explicitly asked for help (message 507). Message 510 represents the initiation of the teacher's second prompt that starts with a phrase that might had been not only in response to the student previous message that included two sad face emojis, but also to attenuate the CF, followed by the strategy of multiple choice.

	TIME	MESSAGE	LAPSE	PICTURE
S12 trigger	March 16th 20:48	492		
T2 initiates feedback	March 17th 14:18	497	18hrs30'	

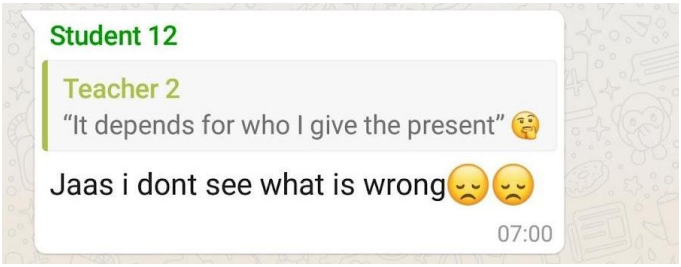
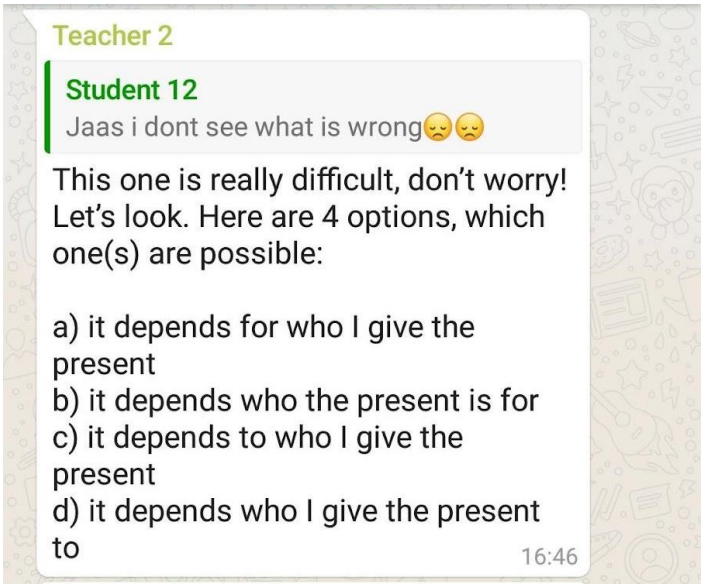
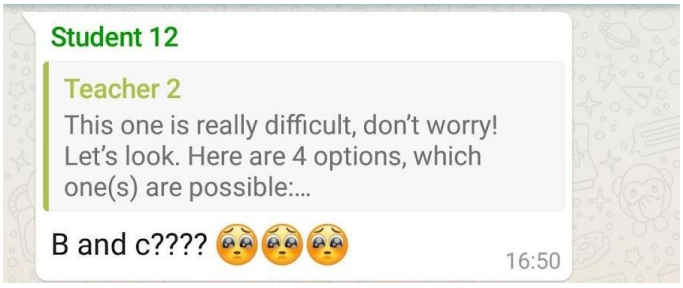
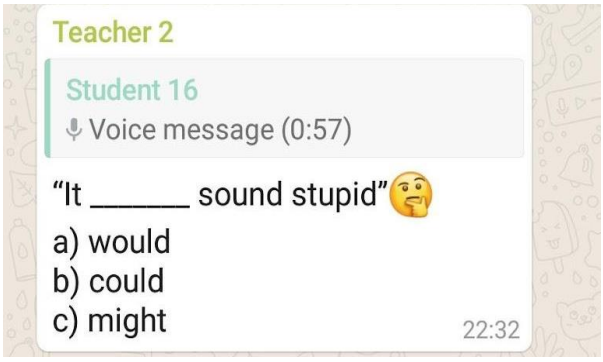
S12 CF response	March 18th 07:00	507	17hrs18’	
T2 continues feedback	March 18th 15:46	510	08hrs46’	
S12 CF response	March 18th 16:50	514	1hr04’	
T2- PF	March 18th 16:51	515	01’	

Table 19: Corrective and positive feedback episode.

Four cases were identified where the students were no able to self-repair successfully in which other types of strategies were used. (Messages 357-376; 416-446; 425-442 and 490-502). Table 20 shows the CFE from messages 425 to 442, where the teacher initiates CF including a blank space to indicate the location of the mistake and three alternatives (message 439). In message 440 the student was not able to repair the mistake successfully and in this case the teacher does not create a second prompt, but provides an explicit correction (message 442).

	TIME	MESSAGE	LAPSE	PICTURE
S16 trigger	March 10th 12:00	425		"Eh, to be honest, I don't like insect and because I, I'm really afraid of them and I know that they, they, in general, they are very small and well, I'm big, but that's the reason because I'm afraid of them because em, it could sound stupid but I can't stop thinking that, I dunno, they could enter in my body by my mouth or my ears or, I dunno, my nose and stay in my body. I, I know that it's stupid, but I can't stop thinking that and I, I'm afraid of, of this. Well, it's, it isn't only about fraid, it's a combination about fraid and repugnance." *(Voice Message 425 - Transcription)*
T2 initiates feedback	March 10th 22:32	439	10hr32'	
S4 CF response *(*) Another student reply to the CF*	March 10th 22:33	440	1'	

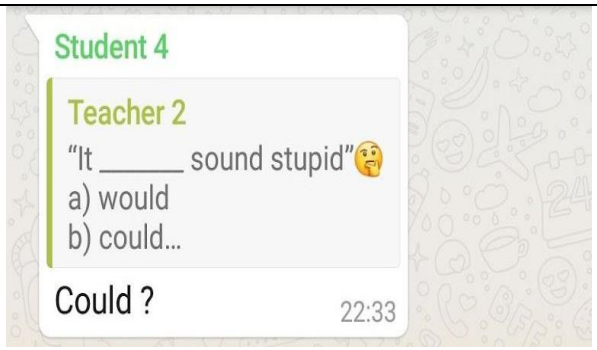
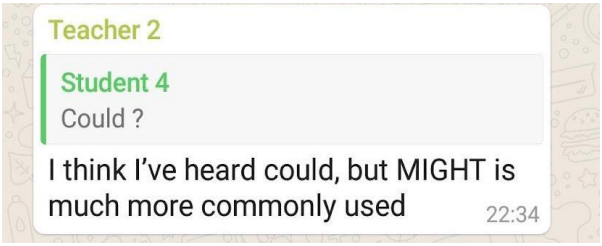
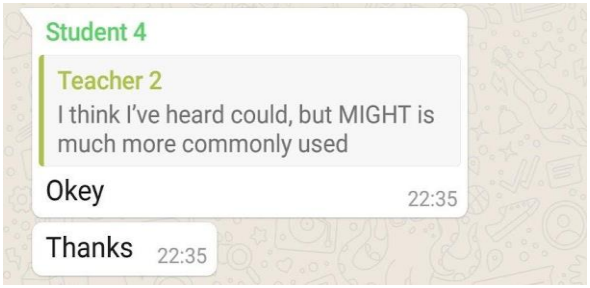
				
T2 Metalinguistic comment	March 10th 22:34	442	1'	
S4 MC response	March 10th 22:35	444-445	1'	

Table 20: CFE where student was not able to self-repair successfully.

Generally, when the teacher reacts to a student unsuccessful attempt at self-repair, the teacher avoids saying the student's response is completely incorrect (overt negative correction) and instead uses attenuating phrases (i.e., "I would say…", "I've heard, … but…") often followed by a smiling facial emoji that lowers the intensity of the CF (Image 8). Apparently, these strategies are meant to save the students' face and mitigate the negative evaluation, as well as helping the student not to feel stressed regarding the feedback.

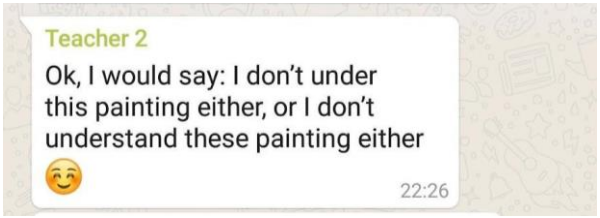
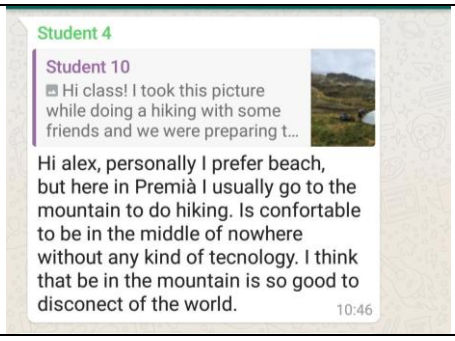


Image 8: Use of attenuate phrase for unsuccessful-repair

5.4. Students' participation in CFEs: timing and type of correction

In Green's (2021) thesis 50.7% of the CFE were unattempted repairs, that is to say, the teacher's prompt was never replied by any. In the following study, from the three weeks that were considered from Green's thesis, only 16 of 31 feedback episodes were replied by the students and the remaining 15 were left unanswered. Table 21 is an illustration of an unanswered feedback episode. The purpose of this section aims at analyzing if time and the type of correction influenced students' participation in the CFEs.

	TIME	MESSAGE	LAPSE	PICTURE
S4 trigger	March 3rd 10:26	321		

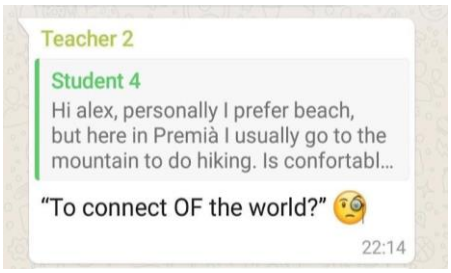
T2 initiates feedback	22:14	336	11hr 12’	

Table 21: Example of an unanswered corrective prompt

In the data analyzed, the time lapse varied from the initiation of the student’s trigger to the teacher initiation of the CF. The fastest time lapse in which the teacher provided feedback was in 78 minutes, whereas the longest time for the initiation of the feedback episode was 23 hours and 15 minutes. A Mann-Whitney U Test was conducted to find if there was a relationship between the number of minutes between the trigger and the teacher correction and whether the correction was or was not responded to by a student and differences were not significant ($Z = 96.500$, $p = .353$).

Another factor related to timing has to do with the number of messages in between the trigger and the teacher correction with the assumption that distance could be related to whether a student would reply to the teacher prompt or not. In the data, it is not uncommon to have adjacent messages corresponding to different CFE from different students. Distance varies among CFEs from 0 to 93 in between the trigger and the start of a feedback episode. In order to determine the students’ responses a Mann-Whitney U Test was conducted between the number of messages and whether students replied or not. The results show a non-significant difference ($Z = 85.500$, $p = .169$).

The strategies used by the teacher also constitute another factor that may have influenced student’s participation during a CFE. Out of the total of 9 strategies that were

identified in section 7.1, three of them included the correct form in the prompts (alternative questions, alternative questions + bolding, multiple choice) while the rest did not.

There seems to be a tendency for students to be more likely to reply to the teacher's correction when the strategy used by T2 during the CFE includes the correct form. When the teacher's correction was more challenging (i.e., bolding,) and did not include the correct from in the prompt, the percentage of students not replying to the teacher prompt to self-repair is higher. Table 22 below represents each percentage of the two main categories used by the teacher.

	No student reply	**Student reply**
Teacher correction includes the correct form	5(38.5%)	8(61.5%)
Teacher correction does not include the correct form	10(62.5%)	6(37.5%)

Table 22: Teacher correction and students' response

In the sample analyzed, there were 13 instances in which the teacher included the correct form and 16 instances in which the correct form was not included, which is also the same number of the CFE that did not include a student reply.

6. Discussion

The following study has as a core objective to investigate the role of CF given through MIM, specifically the feedback given in response to students' mistakes in the context of WhatsApp chat. The first aspect that is analyzed in this research is the organization of

feedback episodes (teacher initiation, student's answer and teacher's reaction). The second aspect considers if timing and type of correction may have contributed to students responding or not responding to teacher CF.

6.1. Discussion of research question 1 on interactions and organization during FE.

In terms of RQ1, where the interactions during the CFE was analyzed, three main factors were considered.

The organization of feedback provision through WhatsApp in our corpus not only follows the pattern of the IRE sequence (initiation by the teacher (I), the response (R) by a student (or students), and the teacher's evaluation (E) of the response) explained by Richards and Farrell (2011), but also some features of informal interaction. González-Lloret (2014) mentioned that even though communication in text-based SCMC takes place in a written context, some aspects of oral communication are shared (i.e., informality of discourse). The use of emojis, stickers and different typographic symbols in our data show that the interaction in a WhatsApp context are illustrative of this informal style.

Results confirm that students have a positive attitude regarding the provision of CF based on the interactions between the teacher and the students during the CFE. Students expect to be corrected when they make a mistake and the attitude is mainly positive, which is mainly shown in the emojis that they used at the moment of self-repair of their mistakes. The use of emojis as a face-saving device increments a positive relation between the students and the teacher because it lowers the formality of the CFE, but without losing an opportunity for feedback and learning.

Generally, during the CFE it is only the students that make the trigger the one that reply to the CF given by the teacher. As WhatsApp has the quote reply feature, it makes the

feedback more personalized as well as providing flexibility in terms of when the feedback provision can be given, this help to improve the learning and avoid fossilization of mistakes in the target language (See Xu and Peng, 2017).

In relation to the teacher's response to the students' self-repair, two main scenarios were identified. On the one hand, when students successfully repair their mistake it includes PF from the teacher, that normally includes confirmation on the correct answer or a celebration emoji. Results are in line to what was stated by Seedhouse (2004) in which the terms most used for PF are "good" "yes" "that's right". On the other hand, when students are not able to identify or aren't able to repair the mistake successfully, the teacher before using the strategies needed for CF will also use a phrase to attenuate the CFE, which is a helpful strategy to maintain students' motivation for learning. These results confirm what Seedhouse (2004) said that teachers do some interactional work in order to avoid overt negative evaluation.

6.2. Discussion of research question 2 on factors that influence students' response

With regards to RQ2, there is a tendency from the students to reply to the CFE when the strategy that the teacher uses to correct the mistakes includes the correct answer: alternative questions, multiple choice or a clarification request that may include a recast. These findings confirms was stated in Green's (2021) observation that students reported a preference on receiving explicit feedback.

Results of this study about the relationship between timing and distance were not significant, therefore contradicting Green's (2021) study where students mentioned they felt embarrassed of replying when many hours had passed after the correction. Thus, there might be other factors that also influence students' participation in a CFE. Murphy (2021)

established that certain features of MIM applications are not favorable for everyone, that is to say, some students may feel overwhelmed and frustrated by comparing the messages that their peers share in the group chat.

Moreover, during the intervention in the WhatsApp chat group, the fact that the teacher provided different strategies while providing CF increases students' participation and there is a higher engagement from the students when errors are highlighted, indicating location as well as providing different alternatives to self-repair. This is in line with Seedhouse (2004) where the author states that as the pedagogical focus changes, the organization of the feedback also changes. Similarly, Rolin-lanziti (2010) stated in her study that the way in which feedback provision is organized it will have an impact on whether the students are able to correct the mistakes or not. An appropriate strategy for feedback provision during a WhatsApp task-based may be the use of strategies that provide alternatives and locations of the mistake.

Finally, some classroom implications can be drawn from our findings to RQ1 and RQ2. In our data during a CFE the teacher was acting as a guide, providing different strategies so that the students can have more opportunities to repair the trigger independently, instead of receiving simple comments from the teacher about how the target language works (Brown, 2007). The use of strategies that highlight location and give alternatives to repair the mistake are the ones that promote students' participation the most in a CFE in a MIM context. At the same time, the use of emojis and stickers gives informality to the organization of feedback, which help the students not to feel overwhelmed by the feedback provision and mitigates the provision of negative correction. This is in line with what was established in Seedhouse (2004) where comments on content and form before corrective feedback provision are useful to mitigate negative correction.

The evidence presented in this study is however, not without limitation. This study analyzed the effect of timing during CFEs. Further research should be conducted considering a bigger sample size for more accurate statistical measurements, considering that the larger the sample is, the more precise the results will be.

Initially, this study should have evaluated the influence of corrective feedback comparing two popular online platforms which are: WhatsApp and Zoom video platform. However, due to time constraints the analysis was only carried out through WhatsApp. An interesting idea for further research, should consider a comparison between online platforms.

7. Conclusion

The following study aimed to evaluate the effectiveness of CF during a WhatsApp-task based instruction. Three aspects (how the teacher initiated a CFE, students' responses to the CFE and the teacher's reaction to students' self-repair) were mainly analyzed to identify the interactions during a CFE. In addition, this study also intends to fill in the gap between the lack of studies carried out not only regarding the effect of timing of a CFE, but also it analyzes the different types of corrections given by the teacher to identify the organization of feedback on a MIM context.

Overall findings indicate that there is not a timing effect on students' response to the CF, rather the effect of CF is shown more in the different strategies used by the teacher. CF is more effective, when the strategy used by the tutor includes the answer, e.g., alternative questions and location of the error. Additionally, the CF during instant messaging turns out more personalized, which helps learners to repair their mistakes more independently.

The different interactions between the teacher and the students during the CFE show that emojis play an important role both in the teacher and the student messages. In the student messages emojis are used as a face-saving device, whereas in the teacher messages emojis are used to mitigate negative correction or as part f PF e.g., celebration emojis. In any case, the use of emojis is crucial when using MIM.

In conclusion, providing feedback through a WhatsApp chat, no matter when the feedback is provided seems to be a viable option to complement the feedback that students usually receive in the language classroom.

Word count: 9.877

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Appendix A

Ideas for students to start a conversation prompt

Starting discussions in WhatsApp
Here are some ideas for beginning conversations in WhatsApp

Related to the book:
Unit 7 Nature

A. Direct question

1. What type of weather do you like the most/least? Why?
2. Comment or ask questions on three different posts by your classmates

1. What is the weather like today?
2. What do you think it will be like tomorrow?

B. Preferences

1. What's your favorite season. Why?
2. Comment, agree/disagree or ask a question on three posts by different classmates

C. Experiences

1. Have you ever experienced really bad weather? What happened?
2. Choose three different posts and write a comment or question

D. Continue the sentence

1. The last time I saw snow, I .....
2. Comment on and/or ask questions about your partners' contributions

E. Complete the phrase

1. The best way to protect the environment is to .....
2. Choose three of your classmates' contributions and make a comment or ask a question. If there are already three comments, choose another one.

F. Agree or Disagree?

1. I think Greta Thunberg deserves the Nobel Peace Prize. Do you agree?

To create your conversation starters, you can use these 'frames':

1. What type of ..... do you like most/least? Why?
2. What's your favourite .....? Why?
3. Have you ever .....? What happened?
4. The last time I ....., I .....
5. The best way to ..... is to .....
6. I think ..... Do you agree?

Related to current events or what's happening in 'the real world':

A. Current events*

1. When do you think we will get a COVID vaccination?
2. Do you think the Olympics will go ahead in the summer?
   **Avoid controversial topics, like politics*

B. Memes

1. Have you seen the Bernie Sanders meme?

2. Which is your favourite? Why?
3. Why do you think this has become so popular?
4. What do you know about Bernie Sanders?

C. Viral videos

1. This video has recently gone viral in the UK:
https://www.youtube.com/watch?v=Rdzw5cyiMec
2. Do you think men talk more than women in meetings?
3. Have you heard of mansplaining? What is it?
4. Has this ever happened to you?

D. Your lives

1. What was the last film you saw? Did you enjoy it?
2. I want to watch something this weekend. Would you recommend a good TV series?
3. What is the first thing you'll do when the COVID restrictions are lifted?

Here are some ideas for creating conversation starters:

1. What do you think of .....?

2. What's your opinion about .....?
3. Have you seen .....? What did you think?
4. What do you know about .....?
5. What was the last ..... you .....?