ARTICLE

Peer and NS-learner videoconferencing: Language-related episodes and perceived usefulness

Lauren Hetrovicz, The George Washington University

Abstract

This study examines online interaction through the lens of language-related episodes (LREs), sites where learning is likely to occur given that the speaker is pushed to consciously reflect on and negotiate their language knowledge and use (Swain & Lapkin, 1998). The aim of this research is to inform pedagogical practices by investigating the effect of interlocutor—a second language peer or a trained native speaker—on LRE outcomes, and the perceived usefulness of each interaction type. Using a counterbalance design, 24 intermediate learners of Spanish completed two 30-minute videoconferences, one with a peer on Zoom and one with a native speaker on a paid videoconferencing platform. In total, 36 conversations were transcribed. The LREs were tallied and described in terms of linguistic focus, resolution, and targetlikeness. Data was also drawn from two post-conversation questionnaires. The results revealed that both dyad types were indistinguishable in the number of LREs produced per minute and their linguistic focus (lexical, morphosyntactic, and orthographic). However, the NS-learner dyads resolved significantly more LREs, and their resolutions were also significantly more targetlike. Finally, the analyses showed no relationship between LRE outcomes and perceived usefulness. The implications of the findings are explained and pedagogical recommendations are provided.

Keywords: Language Related Episodes, Usefulness, Videoconferencing, Second Language Learners

Language(s) Learned in This Study: Spanish


Introduction

Research in the field of second language acquisition has consistently shown that interaction in the target language is fundamental for the facilitation of second language (L2) learning and linguistic development (e.g., Lyster & Saito, 2010; Mackey & Goo, 2007), bolstering the assertions made by the Interaction Hypothesis (Long, 1996). More specifically, a number of processes take place when a learner engages in target language interaction, the first of which is that they gain exposure to comprehensible input and are also pushed to produce output, which the learner may modify in terms of language features (e.g., syntax, morphology, semantics, orthography, phonology, etc.) in order to be understood (Long, 1996). Additionally, feedback from the interlocutor is readily available in interaction, which may prompt negotiation of meaning or instances when learners “seek clarification, confirmation, and repetition of L2 utterances they do not understand” (Pica, 1994, p. 56). Provided that explicit attention is given to linguistic form during these language-related episodes (LREs), defined by Swain and Lapkin (1998, p. 326) as “any part of a dialogue where the students talk about the language they are producing, question their language use, or correct themselves or others,” these may be sites in which learning is particularly likely to occur as the learner is urged to consciously reflect on their language knowledge and use.

To illustrate a negotiation sequence identified as an LRE in the dataset of this research, Example 1 shows how an L2 learner clarifies lexical items and inflectional morphology with the assistance of his native
speaker (NS) interlocutor.

Example 1

L2 learner: Ah, sí. Chicago está como… no millones, pero, como, no sé, no mil, pero pienso que ‘mil’ es más pequeño, como, ‘millón’, dos punto cinco ‘millón’

‘Ah, yes. Chicago is like… not millions, but, like, I don’t know, but I think that thousand is smaller, like, million, two point five million’

NS: Millones.

‘Millions’

L2 learner: Sí, millones. Millones.

‘Yes, millions. Millions.’

NS: Ah, vale, bien, bien. Sí, sí.

‘Ah, okay. Good, good. Yes, yes.’

The exchange presented in Example 1 shows that the learner noticed a “gap” in his L2 ability and sought clarification (Schmidt & Frota, 1986). Indeed, the learner provided the targetlike form _millones_ at the start of this sequence, but, he placed explicit attention on the selection of the lexical item and asked for confirmation from the NS. Furthermore, in this sequence, the learner may have also noticed a gap in his use of the inflectional morphology signaling the singularity of _millón_ and plurality of _millones_, but with the assistance of the NS, the plural form was confirmed as targetlike. Therefore, as illustrated in Example 1, the negotiations and explicit attention to features of the target language that occur in LREs may prompt the noticing and repair of gaps in the learner’s interlanguage.

Research on NS-Learner and Learner-Learner Interaction

Regarding NS-learner interactions, research findings substantiate Long’s (1996) premise that “negotiation work that triggers interactional adjustments by the NS or more competent interlocutor, facilitate[es] acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways” (pp. 451–452). For example, operationalizing these notions, Gass and Varonis (1994) observed that the modifications made by the NSs during NS-learner interaction afforded immediate gains in comprehension that were then present in long-term production. Moreover, Toyoda and Harrison (2002) found that NSs draw learners’ attention to and assist their comprehension of linguistic features. Nevertheless, due to the logistical constraints of classroom settings, opportunities for NS-learner interaction are, in many cases, not feasible, and, as a consequence, L2-L2 learner conversational interaction is much more likely to occur in formal instructional settings (Adams, 2007). Still, research findings (for past reviews, see e.g., Bowles & Adams, 2015) show that, in terms of second language acquisition processes and language learning, peer interaction may provide its particular array of benefits. Concretely, Foster and Ohta (2005) found that, during peer interaction, learners share “meanings while monitoring and modifying their own and each other’s utterances [and] minimizing overt communication breakdowns” (p. 425). In the same vein, Mackey et al. (2003) showed that peer interaction affords more opportunities for modified output in response to feedback than NS-learner interactions; the authors explain that the learners may not have had the linguistic resources to understand their peer interlocutors and, as a result, asked for reformulations of nontargetlike utterances. In addition, peer interactions have been shown to contain more instances of negotiation for meaning than in NS-learner interactions (e.g., Gass & Varonis, 1985; Porter, 1986; Varonis & Gass, 1985). Furthermore, in terms of the retention of the negotiated forms, the results of the tailor-made posttests implemented in Adams (2007) and LaPierre (1994) suggest that the information is, indeed, recalled.

Concerning the examination of LREs in particular, the results of numerous studies (e.g., Bowles et al., 2014; Canals, 2019; Dalton, 2011; García Mayo & Pica, 2000; Heidari-Shahreza et al., 2012; Williams,
1999; Yanguas & Bergin, 2018) show that the predominant focus of the LREs in peer interaction is lexical rather than morphosyntactic. Moreover, Fernandez Dobao (2012) found that lexical LREs were most frequent in NS-learner interactions and that the presence of a NS increased the likelihood of reaching successful resolutions compared to L2-L2 learner interactions. Other researchers (e.g., Bueno-Alastuey, 2013) found phonetic LREs to be the principal trigger for negotiation in both NS-learner and learner-learner interactions. Finally, in some other studies, as in Sato (2006), neither peer nor NS-learner interactions resulted in any occurrences of LREs as the feedback provided in both dyad types during the two-way information exchange task were reformulations or recasts, which did not prompt subsequent negotiation sequences.

However, in terms of perceptions, Sato (2006) found that learners felt less pressure from their peer interlocutor compared to the NS. Specifically, they expressed that they had more time to plan during the conversation given that their peer was also struggling to communicate and, therefore, was mutually patient. Relatedly, the L2 learners in Varonis and Gass (1985) reported feeling more comfortable interacting and negotiating meaning with peers than with NSs, which the authors contend may be due to the perceived commonality of “shared incompetence” (p. 84). Echoing these sentiments, Blake (2000) claims that the face-threatening nature of negotiations is lessened in L2-L2 learner interactions due to a shared lack of expertise, which, in turn, is thought to make negotiation more likely.

**Research on LREs in Synchronous Computer-Mediated Communication (SCMC)**

Specific to the analysis of LREs in SCMC, Dalton (2011) investigated the quantity and quality of LREs generated in the interaction between 13 English learners and five English-speaking volunteers while carrying out jigsaw tasks on the videoconference platform Skype. The participants ranged in L1 background, with two speakers of Arabic, two of Bahasa Indonesian, one of Korean, and eight of Mandarin Chinese. Regarding methodology, the participants were placed into a particular dyad type with eight learners forming four learner-learner dyads and five learners forming five NS-learner dyads. The five NS volunteers were recruited from organizations like Friendships International and they had no previous knowledge of this study’s tasks nor training on interactional communication strategies. The procedure for this study did not include a counterbalanced experimental methodology as each learner took part in only one interaction type over the course of three weeks at the rate of one session per week. The research aimed to explore the differences between peer and NS-learner dyads in terms of the LREs produced and the learners’ perceptions of the interlocutors. The results showed the LREs were more numerous in peer dyads and the author explains that this may be due to the number of conversational turns per dyad type which were more frequent in peer interaction at 3.16 per minute than that of NS-learner interaction at 2.63 per minute. In this way, peer interaction was asserted to be more beneficial for language learning than that with a NS. In terms of linguistic focus, only lexical negotiations were observed, justified by the author on the premises that “grammatical and morphosyntactic errors were simply not severe enough to provoke misunderstandings” (Dalton, 2011, p. 50). Regarding interlocutor perceptions, all participants reported positive feedback towards the NS interactions, whereas sentiments were mixed for peer dyads as some conveyed that their language practice was hindered when interacting with another non-NS. To build on Dalton (2011), the present study expands on the number of participants to understand the generalizability of the results and follows a counterbalanced experimental design that allows all participants to engage in both interaction types while accounting for individual differences and avoiding order bias.

Canals (2019) also compared the effect of interlocutor type in NS-learner and learner-learner dyads on LRE production in videoconferencing. The study included 36 NS-learner pairs, composed of one student of English from Spain and one Canadian student of Spanish, which were divided into two dyad groups. The first 18 dyads completed three open-ended oral communicative tasks in Spanish and the second 18 dyads did the same tasks using the same methods but in English. In this way, the data came from two different languages and the experimental design was not counterbalanced as no participants took part in both interaction types. The findings revealed that the NS-learner interactions resulted in more negotiation
of meaning, summing to 761 LREs compared to 32 LREs in the interactions between learners. In both groups, the LREs were largely lexical; however, morphosyntactic and phonetic LREs did emerge for both interaction types. The results of the study suggest that virtual exchanges between NSs and learners prompt more clarifications and feedback, which, in turn, promotes second language acquisition processes, as comprehensible input and modified output are more abundant. Nonetheless, future research needs to investigate these findings using a counterbalanced design in order to avoid order effects that may play a role in the outcome of negotiations in both interaction types.

To investigate the role of NSs accessible to language learners on the free social networking website Livemocha, Gonzales (2012) examined the text-based chat interactions that seven learners of Spanish carried out over the course of an academic year. It is worth noting that the NSs on Livemocha are not trained employees, but rather, ordinary people who are interested in conversing with others without involving monetary costs; many times, the interaction that takes place on this platform is a mutually-beneficial exchange for both party’s languages of interest. Since anyone can register for Livemocha, language curriculums may choose not to incorporate this platform as a course component given that the quality of potential interlocutors may vary substantially. Regarding the data of this research study, it comprised eleven bi-weekly 30- to 60-minute conversations and two 30-minute perception interviews (i.e., one interview per semester during the academic year). The data was predominantly pragmatic in nature as conversation-closing speech acts were the principal focus. The findings show idiosyncratic tendencies concerning the adoption or lack thereof of the speech act patterns of the NS interlocutors. In the same vein, the participants’ perceptions of the usefulness, enjoyment, and overall value of Livemocha as a tool for L2 practice varied among the seven participants, with five conveying favorable and two expressing negative opinions. In the conclusion of the study, the author emphasizes the growing emergence and popularity of online sites that connect NSs and language learners and the need to study these spaces as a “joint venture of communication” which may foster second language processes (Gonzales, 2012, p. 131).

Present Study Objectives

Since the turn of this century, a growing number of students have engaged in videoconferencing in their target language, coinciding with increased offerings of online and hybrid language courses and the proliferation of platforms designed to facilitate exchanges between NSs and language learners such as TalkAbroad, HelloTalk, Conversifi, Livemocha, and so on (for past reviews, see e.g., Ceo-Francesco, 2015). For example, institutions of higher education such as Duke University, University of Illinois, and Michigan State University increasingly use online conversation platforms such as TalkAbroad to connect language learners with trained NS interlocutors from across the world in 30-minute conversations that allow them to practice the language and gain cultural knowledge. Recent research on TalkAbroad shows that it can facilitate learner autonomy (e.g., Sama & Wu, 2019), communication skills (e.g., Cuervo-Carruthers, 2017; Massery & Merrill, 2017), intercultural competency (e.g., Conboy, 2019; Warner-Ault, 2020), and confidence (e.g., Hetrovicz, 2021, 2022; Lang-Rigal & Galarreta-Aima, 2019). In order to refrain from endorsing any one language exchange company, the present study will refer to the paid videoconferencing platform (PVP) investigated in this research using the abbreviated form ‘PVP’.

Although studies on L2 interaction have been conducted to understand how SCMC results in negotiation and noticing, an identifiable gap in the research is the role of interlocutor type in online videoconferencing, whether with a trained NS or with a peer L2 learner, and its effect on the production of LREs and perceptions of usefulness. Thus, the aim of the present study differs from previous research which has principally included NS interlocutors that were either students (e.g., Akiyama, 2017; Akiyama & Saito, 2016; Bearden, 2003; Canals, 2019; Fernandez Dobao, 2012; Lee, 2004; Rouhshad et al., 2015; van der Zwaard & Bannink, 2014, 2016; Ware & O’Dowd, 2008) or teachers (e.g., Abing, 2018; Baker, 2006; Pineda Hoyos, 2018; Zhao & Bitchener, 2007). To further clarify this NS type, the interlocutors on the PVP are coached to engage the students in the target language, encourage their participation in the dialogue, and allow them to speak freely. In this way, these NSs convey a willingness to help the student...
learn the target language and feel at ease while communicating, which is a primary feature of other NS types who have longitudinal investments in the learners’ progression, such as a teacher, study abroad host, or tutor. This approach contrasts with that of the untrained NS interlocutors on open-access platforms such as Livemocha in that, as mentioned earlier, the interaction is often contingent on a language exchange and the quality of the interlocutor varies. Therefore, it remains to be seen whether interactions between L2 learners and trained NSs result in distinct outcomes in terms of the number and type of language-related episodes and perceptions of usefulness. Hence, the present study aims to answer the following research questions:

1. Do the interaction types (L2-L2 learners on Zoom vs. NS-learner on the PVP) differ in the linguistic focus and resolution of LREs?
2. Do the interaction types differ in perceived usefulness?
3. Is the perceived usefulness of each interaction type related to the resolution or targetlikeness of the LREs?

**Method**

**Participants**

The participants \( (n = 24, 8 \text{ males, } 16 \text{ females}) \) were students at a large public U.S. university who were enrolled in three sections of a fifth-semester Spanish conversation course taught by two different instructors. The students matriculated in this course by means of curricular progression or due to the results of a departmental written proficiency test.

All of the participants were monolingually-raised English speakers that were born in the U.S. They reported that English was the language of instruction for their primary and secondary schooling, that they used Spanish minimally outside of the classroom, and that they had spent no longer than six weeks in a Spanish-speaking country. The ages of the participants ranged from 18 to 28 \( (M = 20) \). Twenty-one students reported no prior experience with videoconferencing with Spanish NSs, whereas three participants reported minimal previous engagement. Regarding their Spanish proficiency, the participants self-rated their abilities in speaking \( (M = 2.83) \), writing \( (M = 3.33) \), reading \( (M = 3.38) \), and listening \( (M = 3.00) \) with 1 referring to beginner and 5 to like a native speaker. The fact that speaking was the lowest self-rated skill suggests that the students perceive this area to be the one that they need to practice most.

In the case of the NSs, their countries of origin are given in Appendix A, representing ten different nationalities. In terms of training, the NSs on the PVP are given strategies to engage language students in conversation with the use of open-ended and follow-up questions and are informed to not correct the students unless explicit information on language form and use is requested.

**Procedure**

First, the participants were informed about the study and asked to complete the language background questionnaire. The dyads were then formed, based entirely on the students’ schedules. The researcher emailed each dyad to inform them of the name and email address of their partner, in addition to the instructions and time and date of their scheduled Zoom conversation.

This study followed a counterbalanced design in that half of the participants \( (n = 12) \) first carried out the conversation with a peer on Zoom and then engaged in the conversation with a NS on the PVP, whereas the other half \( (n = 12) \) completed these conversations in reverse order. The two conversations, one with a peer on Zoom and one with a NS on the PVP, were guided by the same instruction sheet which required that the duration of each interaction be between 25 to 30 minutes and that the topics of conversation be centered only on the following three themes: (a) multiculturalism, (b) Hispanics throughout the world, and (c) study abroad. Directly after concluding each conversation, the participants completed a post-conversation questionnaire and uploaded their Zoom recording to an online submission site. The NS-
learner conversation recordings were automatically saved within the online platform itself. With the exception of the language background questionnaire, all tasks associated with this study, including the two conversations and the three questionnaires (initial and post-conversation) were standard to the course, providing ecological validity to this research.

**Instruments and Data Coding**

The data for this study comes from the audio transcriptions of the 36 conversations, 24 of which were conducted on the PVP and 12 of which took place on Zoom. The NS-learner videoconferencing encompassed about 12 hours of conversation time, and the L2-L2 learner videoconferencing constituted about six hours; in other words, all participants interacted for about one total hour of videoconferencing time, 30 minutes with a NS and 30 minutes with a peer. Data for this study is also derived from the two post-conversation questionnaires that included 13 5-point Likert-scale questions and seven free-response questions. The post-conversation questionnaires, shown in Appendix B, followed the guidelines given in Dörnyei (2003), and the items were adapted from the questionnaires implemented in Lee (2004) and Dalton (2011).

The researcher transcribed the 36 conversations and independently coded each transcript for LREs, defined in this study as any part of the dialogue where learners talk about the linguistic features or use of the target language with their interlocutor. For the purpose of the present study, self-corrections were not included as the LREs were required to be negotiated between interlocutors. Each LRE was categorized into one of three distinct linguistic focuses: (a) lexical, (b) morphosyntactic, or (c) orthographic. In terms of classifications, lexical LREs were related to word choice and word meaning, morphosyntactic LREs regarded inflectional and derivational morphology, and orthographic LREs were related to the spelling of words. In previous research, orthographic LREs have been found to arise during collaboration on written components; however, the data of this study revealed a few instances in which the speakers, who were instructed to carry out a conversation without producing a written record, spelled words as a strategy to be better understood. An illustration of a resolved orthographic LRE between two L2 learners is shown in Example 2.

**Example 2**

**SL**₁

Deportistas... sí, sí. Sí.

‘Athletes… yes, yes, yes.’

**SL**₂

Pero no sé mucho... en clase un poquito, nosotros mencionar Messi.

‘But I don’t know a lot… in class a little, we mention Messi.’

**SL**₁

Ah, sí, bueno, Messi, sí. Es interesante a mí porque dije, pienso que dije a Charlie en nuestra clase que Messi me parece Italiano... no me... no me parece latino. ¿Sí?

‘Ah, yes, well, Messi, yes. It is interesting to me because I said, I think that I said to Charlie in our class that Messi looks Italian to me… he doesn’t seem Latino to me. Right?’

**SL**₂

¿Sí?

‘Yes?’

**SL**₁

Messi. El... M-E-S-S-I. Y es porque... y Charlie... no sé es la verdad pero pienso es la verdad. Charlie me dijo que eso es porque en Argentina eran muchas inmigrantes italianos

“Messi. The… M-E-S-S-I. And it is because… and Charlie… I don’t know it’s true but I think it is true. Charlie told me that this is because in Argentina there
were many Italian immigrants.’

SL₂  Oh, sí.
     ‘Oh, yes.’

SL₁  Sí, sí, sí.
     ‘Yes, yes, yes.’

In Example 2, the L2 learner spelled the athlete Messi’s last name to the other L2 learner, letter by letter, to convey that the last name may be Italian in origin, not Hispanic, as she learned that many Italians immigrated to Argentina.

Also, each LRE was classified as resolved or not, and whether or not the resolution was targetlike. The coding method of targetlike and not-targetlike outcomes followed the approach of previous research on learner interaction (e.g., Bowles, 2011; Swain and Lapkin, 1998), where, if the resolution of the LRE resulted in a more accurate form, it was categorized as targetlike, but if the reverse was true it was categorized as not-targetlike. As for LREs that were coded as unresolved, this signified that the interlocutors did not reach an outcome for the inquiry, and, as such, it was left unanswered. Example 3 illustrates an unresolved LRE in a segment of dialogue between two L2 learners.

Example 3

SL₁  Oh, okay. ¿En el norte o el…?
     ‘Oh, okay. In the north or the…?’

SL₂  Ah, yo no sé la palabra, pero... el opuesto de el norte.
     ‘Ah, I don’t know the word, but... the opposite of the north.’

SL₁  Oh, okay, yo entiendo... ¿qué es su especialidad en universidad?
     ‘Oh, okay, I understand... what is your university major?’

In Example 3, the L2 learners attempted to find the word for ‘south’ but their exchange left this inquiry unanswered and they moved on to a different topic of discussion.

To confirm the coding measures implemented by the researcher, a NS of Spanish, who was informed of the LRE identification and categorization procedure for this study and who had previously published academic articles on LREs, was asked to analyze four conversations, constituting 11.1% of the total transcriptions, for the purpose of inter-rater reliability. These four transcriptions were chosen at random, representing four NS-learner interactions in which nine lexical LREs were identified. The results showed high inter-rater reliability, and any discrepancies between the two coders were discussed until 100% agreement was reached for all categories. A subsequent and final review of the transcripts confirmed that all LREs were identified and coded according to the insights gained in the inter-rater discussion.

Results

RQ1. Do the Interaction Types Differ in the Linguistic Focus and Resolution of LREs?

Provided that the interactions differed in overall duration (the total minutes of interaction for the NS-learner dyads was 733.2 minutes, whereas it was 365.4 for the peer dyads), to compare the data, the results are presented per minute. Regarding the LREs that were produced in each interaction type, for the peer dyads there was an average of 0.186 LREs per minute, with a range of 0.03 to 0.373, and 0.166 LREs per minute for the NS-learner dyads, with a range of 0 to 0.339. The descriptive results for these findings are presented in Table 1.
Table 1

Number of LREs, Averages per Minute and Linguistic Focus

<table>
<thead>
<tr>
<th></th>
<th>L2-L2 Learners</th>
<th>NS-Learner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total LREs</td>
<td>68</td>
<td>122</td>
</tr>
<tr>
<td>Total Lexical LREs</td>
<td>64 (94.1%)</td>
<td>117 (95.9%)</td>
</tr>
<tr>
<td>Average Lexical LREs per Minute</td>
<td>0.175</td>
<td>0.16</td>
</tr>
<tr>
<td>Total Morphosyntactic LREs</td>
<td>3 (4.4%)</td>
<td>4 (3.3%)</td>
</tr>
<tr>
<td>Average Morphosyntactic LREs per Minute</td>
<td>0.008</td>
<td>0.005</td>
</tr>
<tr>
<td>Total Orthographic LREs</td>
<td>1 (1.5%)</td>
<td>1 (0.8%)</td>
</tr>
<tr>
<td>Average Orthographic LREs per Minute</td>
<td>0.003</td>
<td>0.001</td>
</tr>
<tr>
<td>Total Minutes</td>
<td>365.4</td>
<td>733.2</td>
</tr>
<tr>
<td>Average LRE per Minute</td>
<td>0.186</td>
<td>0.166</td>
</tr>
</tbody>
</table>

The findings related to the linguistic focus of the LREs show that the peer interactions contained 64 lexical LREs at the rate of .175 per minute, 3 morphosyntactic LREs at the rate of .008 per minute, and 1 orthographic LRE at the rate of .003 per minute. The NS-learner interactions, overall, included 117 lexical LREs at the rate of .16 per minute, 4 morphosyntactic LREs at the rate of .005 per minute, and 1 orthographic LRE at the rate of .001 per minute. A chi-square test was conducted and showed no significant differences between dyad type and number of LREs in each linguistic focus category proportional to the duration of the conversations and LREs generated ($\chi^2 = .243, p = .885$).

With respect to the resolutions of LREs, as presented in Table 2, the peer interactions contained 53 resolved lexical LREs out of 64 total, 3 resolved morphosyntactic LREs out of 3 total, and 1 resolved LRE out of 1 total.

Table 2

Resolution of LREs and Linguistic Focus

<table>
<thead>
<tr>
<th></th>
<th>L2-L2 Learners</th>
<th>NS-Learner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexical – Resolved</td>
<td>53/64 (82.8%)</td>
<td>109/117 (93.1%)</td>
</tr>
<tr>
<td>Lexical – Unresolved</td>
<td>11/64 (17.2%)</td>
<td>8/117 (6.8%)</td>
</tr>
<tr>
<td>Morphosyntactic – Resolved</td>
<td>3/3 (100%)</td>
<td>4/4 (100%)</td>
</tr>
<tr>
<td>Morphosyntactic – Unresolved</td>
<td>0/3 (0%)</td>
<td>0/4 (0%)</td>
</tr>
<tr>
<td>Orthographic – Resolved</td>
<td>1/1 (100%)</td>
<td>1/1 (100%)</td>
</tr>
<tr>
<td>Orthographic – Unresolved</td>
<td>0/1 (0%)</td>
<td>0/1 (0%)</td>
</tr>
<tr>
<td>Total resolved LREs</td>
<td>57/68 (83.8%)</td>
<td>114/122 (93.4%)</td>
</tr>
<tr>
<td>Total unresolved LREs</td>
<td>11/68 (16.2%)</td>
<td>8/122 (6.6%)</td>
</tr>
</tbody>
</table>

The NS-learner interactions included 109 resolved lexical LREs out of 117 total, 4 resolved morphosyntactic LREs out of 4 total, and 1 resolved LRE out of 1 total. The total percentage of LREs that were resolved in the peer dyads was 83.8%, whereas for the NS-learner dyads, this was 93.4%. Regarding unresolved LREs, 16.2% were left unaccounted for in the learner-learner dyads, and in the NS-learner dyads, this was 6.6%. To determine whether the total amount of resolved and unresolved LREs differed...
statistically between the two dyad types, a Yates chi-square test was performed with the data proportional to the time duration, revealing a statistically significant difference ($\chi^2 = 4.89, p = .027, V = .149$). These findings suggest that, when placed with a NS instead of a peer in videoconference conversations, the learners are more likely to resolve their linguistic inquiries.

The resolved LREs were further categorized as targetlike, signifying an accurate resolution, or not targetlike. As shown in Table 3, out of the 57 total resolved LREs in the peer interactions, 44 out of 53 lexical LREs were targetlike, 2 out of 3 morphosyntactic LREs were targetlike, and 1 out of 1 orthographic LREs were targetlike. For the NS-learner interactions, out of the total of 114 resolved LREs, 105 out of 109 lexical LREs were targetlike, 3 out of 4 morphosyntactic LREs were targetlike, and 2 out of 2 orthographic LREs were targetlike. The results of a Yates chi-square test comparing the amount of targetlike and not-targetlike resolutions between dyad type proportional to the duration of the interactions showed statistically significant results ($\chi^2 = 8.81, p = .003, V = .211$), which may indicate that when conversing through videoconference with a NS, the learners may reach more targetlike resolutions than when conversing with a peer.

<table>
<thead>
<tr>
<th></th>
<th>L2-L2 Learners</th>
<th>NS-Learner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexical – Targetlike</td>
<td>44/53 (83.0%)</td>
<td>105/109 (96.3%)</td>
</tr>
<tr>
<td>Lexical – Not-targetlike</td>
<td>9/53 (17.0%)</td>
<td>4/109 (3.7%)</td>
</tr>
<tr>
<td>Morphosyntactic - Targetlike</td>
<td>2/3 (66.6%)</td>
<td>3/4 (75.0%)</td>
</tr>
<tr>
<td>Morphosyntactic - Not-targetlike</td>
<td>1/3 (33.3%)</td>
<td>1/4 (25.0%)</td>
</tr>
<tr>
<td>Orthographic - Targetlike</td>
<td>1/1 (100%)</td>
<td>1/1 (100%)</td>
</tr>
<tr>
<td>Orthographic - Not-targetlike</td>
<td>0/1 (0%)</td>
<td>0/1 (0%)</td>
</tr>
<tr>
<td>Total Targetlike</td>
<td>47/57 (82.5%)</td>
<td>109/114 (95.6%)</td>
</tr>
<tr>
<td>Total Not-targetlike</td>
<td>10/57 (17.5%)</td>
<td>5/114 (4.4%)</td>
</tr>
</tbody>
</table>

RQ2. Do the Interaction Types Differ in Perceived Usefulness?

To answer the second research question, three 5-point Likert-scale items from the post-conversation questionnaires were selected to assess the perceived usefulness of each conversation type: (a) the telecollaborative conversation was useful for me, (b) conversing online is a good way to practice speaking Spanish, and (c) chatting online enhanced my speaking skills. The participants’ responses to these three questions were grouped and a repeated measures t-test was conducted with the results revealing a significant difference between the average perceived usefulness of the learner-learner interactions ($M = 4.04, SD = 0.93$) and the average perceived usefulness of the NS-learner interaction ($M = 4.40, SD = 0.73$), $t(71) = -3.20, p = .005, d = -0.34$. These findings suggest that learners perceived the NS-learner videoconference conversations to be more useful for enhancing and practicing Spanish speaking skills.

Nonetheless, to further investigate the participants’ perceptions of these two conversation types and their potential for linguistic inquiry and resolution, the responses to the open-ended questions from the post-conversation questionnaires were analyzed. The findings from this qualitative data revealed that, out of 24 participants, 11 explicitly expressed confidence in the NSs as linguistic resources, as in Example 4.
Example 4

Comment on the NS-Learner Videoconference

I think this online conversation has helped me to improve my Spanish in that I had a partner who was able to assist me, patiently listen, encourage me, and provide insight into how I can use words differently and improve my skills.

In contrast, the peer interlocutors were not held in such esteem; only one participant referenced the higher linguistic competence of her partner compared to her own proficiency level in Spanish as a benefit of the conversation. Nonetheless, 21 out of 24 participants expressed that the peer conversations allowed them to practice their Spanish, as in Example 5.

Example 5

Comment on the L2-L2 Learner Videoconference

Yes, it was a good way outside of class to practice Spanish. Everyone is at different levels with their Spanish so it's nice to see how we all compare.

In summary, the NS-learner interactions were perceived to be more useful because the NS was deemed a competent resource for the access to new linguistic information whereas the peer was considered to be an interlocutor apt for practicing the target language.

RQ3. Is the Perceived Usefulness of Each Interaction Type Related to the Resolution or Targetlikeness of the LREs?

To examine whether the resolution of LREs is a predictor of ratings of perceived usefulness, two univariate linear regressions were conducted to assess this relationship. The results show that the usefulness ratings for the NS-learner conversations were not significantly predicted from the percentage of resolved LREs, $F(1, 22) = 1.08, p = .309$, which was also the result for the relationship measured for the Zoom conversation, $F(1, 22) = 0.15, p = .701$. These findings suggest that the resolution of the LREs, whether resolved or left unaddressed, did not play a role in the perceived usefulness of each conversation type.

A second set of univariate linear regressions was carried out to evaluate whether the targetlike or not targetlike outcome of the resolved LREs was a predictor of perceived usefulness. The results show that targetlike outcomes did not significantly predict usefulness ratings of the NS-learner interactions, $F(1, 22) = 0.07, p = .797$, which was also the case for the peer conversation, $F(1, 22) = 1.65, p = .213$. Therefore, the targetlikeness of the resolved LREs did not appear to affect the ratings of usefulness in either conversation type.

Discussion

The present research work investigated the effect of the interlocutors’ linguistic background, whether a peer or a trained NS, on the emergence of LREs and the perceived usefulness of each interaction. With respect to the results of the LREs, both dyad types produced a similar number of negotiations at .186 LREs per minute for the peer dyads and .166 LREs per minute for the NS-learner dyads, signifying that interlocutor type did not appear to affect the amount of explicit attention to language form and meaning. In contrast, Dalton (2011) found that learners negotiated more with peers than with NSs in online interaction, differing from Canals (2019) who observed that NS-learner dyads produce significantly more LREs in virtual exchanges than peer dyads. The results of Dalton (2011) echo a number of face-to-face studies (e.g., Gass & Varonis, 1985; Porter, 1986; Varonis & Gass, 1985) showing that learners negotiate more with peers than with NSs. Regarding the present study, a possible explanation for the lack of differences in LRE production between dyad types may be the fact that the task was open-ended and did
not require explicit attention to form, in contrast to Dalton (2011) who implemented collaborative jigsaw activities and Canals (2019) who required communicative tasks.

Regarding the linguistic focus of the LREs, the vast majority were lexical for both interaction types, amounting to 94.1% of the total negotiations in the peer dyads and 95.9% for the NS-learner dyads. These patterns reflect those revealed in both the face-to-face and SCMC contexts for learner-learner negotiation (e.g., Bowles et al., 2014; Canals, 2019; Dalton, 2011; García Mayo & Pica, 2000; Heidari-Shahreza et al., 2012; Williams, 1999; Yanguas & Bergin, 2018) and NS-learner interaction (Canals, 2019; Dalton, 2011; Fernandez Dobao, 2012). Still, the participants in this study attended to, albeit minimally, morphosyntactic and orthographic issues as well, but no phonetic LREs were documented in either dyad type, contradicting the results of previous studies (e.g., Bueno-Alastuey, 2013). A possible explanation for this is that, diverging from the present study where only two first languages (L1s) were in question (Spanish and English), in Bueno-Alastuey (2013) the learner dyads were formed with participants from three different L1s (Spanish, Turkish, and English). The author posited that “different L1 partners found deviations unintelligible and, through negotiation and negative feedback, forced their partners to reach more targetlike phonetic forms” (Bueno-Alastuey, 2013, p. 554). Furthermore, in this same study, the task instructions encouraged the participants to take notes while communicating for the benefit of the post-conversation written reflection, which may be a reason for the participants’ attention to pronunciation given that they needed to subsequently realize the spoken words in orthographic form. In terms of the statistical comparison of linguistic focus between dyad types, no significant differences were found, which suggests that the type of interlocutor did not affect the category of language form that was attended to in the interaction. A possible justification for the considerable attention given to word choice (and not morphosyntax or orthography) in this study may stem from the fact that the participants carried out an unfocused oral task; given that lexical items are essential to conveying meaning, whereas morphological information may not convey as much communicative weight, word choice was attended to and negotiated more frequently.

Although the dyad types produced similar LREs per minute and were statistically indistinguishable in the linguistic focus of the LREs, the NS-learner interactions resolved significantly more LREs at a rate of 93.4% compared to the learner-learner interactions at 83.8%. Also, when accounting for the accuracy of the resolutions (i.e., targetlike or not targetlike), the presence of a NS led to significantly more targetlike outcomes at a rate of 95.6% versus 82.5% for the peer interaction. These results are analogous to Fernandez Dobao (2012) who found that NSs increase the likelihood of attaining resolutions, and Leeser (2004) who showed that, as the overall proficiency of the dyad increases, the number of resolved LREs also coincides.

The second research question inquired about learners’ perceptions of the usefulness of each conversation type for practicing oral abilities in the target language. The quantitative results revealed a statistically significant difference between the average perceived usefulness of the NS-learner interactions and the peer interactions, signifying that the participants felt that the exchange with the NS was more effective for the improvement of their Spanish speaking skills. Similarly, the participants in Dalton (2011) and Gonzales (2012) also expressed a preference for NS-learner telecollaboration, and Dalton (2011) noted apprehension towards the limited linguistic repertoire of peer learners in some of the free-response comments.

To obtain a more comprehensive understanding of the learners’ sentiments, this investigation integrated a mixed-methods approach linking the quantitative and qualitative results; specifically, it explored the responses to the open-ended questions from the post-conversation questionnaires in relation to the numerical data. The findings showed the NS was, in many instances, perceived as a valuable resource for linguistic and cultural knowledge, in contrast to the L2 peer who was regarded as helpful for the rehearsal of already known language forms. Although the NS serves as a valuable linguistic resource, their high level of proficiency may cause feelings of apprehension and nervousness in the learners, which are not present in peer interaction. These sentiments may be a consequence of the frequency of the participants’
Language Learning & Technology

engagement in each type of interaction, provided that peer interactions are the most common type of language exchanges that the students have in formal educational settings (Adams, 2007). These notions coincide with the observations from face-to-face studies that learners may feel less pressure conversing with a peer, and, thus, are more likely to negotiate meaning with them due to a shared lack of knowledge of the target language (e.g., Blake, 2000; Sato, 2006; Varonis & Gass, 1985).

As for the third research question, which aimed to investigate the relationship between the outcome of LREs—specifically, their resolution and targetlikeness—and the perceived usefulness of each interaction type, no correlation was found in the analyses. Given that the NS-learner conversation was rated significantly more useful than the peer interaction, a possible justification for these results is that the learners focused on the richness of the content of the conversation more than the negotiations of linguistic forms when evaluating the usefulness of the interaction, as in Example 6.

**Example 6**

*Comment on the NS-Learner Videoconference Conversation*

I did not learn many new words because if I didn’t know the word, she couldn’t exactly explain in a way that I could understand. However, I heard a few words that I haven’t heard in a while like Corpus Cristi and Ceviche. She did talk about costumbristas which I had to revisit online after, and she mentioned some foods I was unfamiliar with like brochetas and I think “carapulcra?” Also, she did talk about the dates of some festivals which I didn’t know about, and I definitely learned a lot about Peru. For example, there are essentially 3 different parts of Peru, la costa, la Sierra, y la selva. She said there are usually small differences in culture and dialects within her own country based on location.

Although the participant in Example 6 acknowledges the words that were discussed with the NS, they also convey that the most salient aspects of the conversation were the cultural concepts learned (e.g., Hetrovicz, 2022). As such, it is possible that a part of the perceived usefulness of each interaction type can be attributed to other aspects of the conversation not captured by the resolutions or targetlikeness of the LREs. Furthermore, from the perspective of second language acquisition and Long’s (1996) Interaction Hypothesis, the LREs that were coded in the present study only reflect one aspect of interaction—explicit negotiations of linguistic information and language use—without including self-corrections in the data of this research. Moreover, integral to the realization of this study’s open-ended oral tasks, the participants also received input in the target language and produced meaningful output.

**Implications and Conclusion**

The present study sheds light on the distinctive outcomes of peer and NS-learner dyad interaction types concerning negotiation of meaning and perceived usefulness of each interaction in the SCMC context. Particular to this research work was the inclusion of a trained NS interlocutor accessible on a growing online PVP which connects language learners with professionals from around the world. The results showed that the two interaction types elicited comparable amounts of negotiation in both quantity and linguistic focus. However, the presence of a NS increased the likelihood that the negotiations would be resolved and that the resolutions would be targetlike. Furthermore, qualitative and quantitative data revealed that the learners perceived the NS as a resource for new linguistic and cultural knowledge while the peer interaction was viewed as an opportunity for language practice.

Although these results may suggest that NS-learner videoconferencing be incontrovertibly recommended as an asset for language curriculums, it is worth noting the benefits of peer online interaction. Firstly, both dyad types produced similar LREs per minute and the comparison of the linguistic focus of these negotiations was statistically similar. Also, peer interaction led to a rather high amount of resolutions (83.8%) and targetlike outcomes for these resolutions (82.5%), indicating that peer videoconferencing
also provides benefits for language learning. Fundamentally, the choice between videoconferencing with trained NSs on a PVP or with L2 peers on Zoom may hinge on real-world logistical factors. As Dalton (2011) affirms, “from a practical standpoint, launching interactions among NNS-NNS dyads is much more feasible for the second language instructor than launching interactions among NS-NNS dyads, given that interlocutors beyond the bounds of the class need not be sought” (p. 49).

The NS type included in the present study, a paid and trained interlocutor, is distinct from teacher and researcher interlocutors in a number of ways. Most notably, this NS type may or may not engage in a subsequent session with the same student, possibly making the interaction between the two interlocutors a one-time event. Also, given that the providers on the PVP appear to be primarily dedicated to the creation and maintenance of a positive learning environment in which ideas are conveyed in the second language, the clarification of grammar or metalinguistic information may be of secondary or even tertiary importance. This differs from previous research in which the NS in question, whether as a researcher or teacher, carried out a series of chat sessions with the same student in order to guide them over time in the acquisition process (e.g., Abing, 2018; Pineda Hoyos, 2018). Taking into account the ephemeral versus the longitudinal role of these NS types, future research comparing their feedback types and behaviors is recommended to ultimately understand their effectiveness in promoting second language processes. Also, with respect to additional recommendations for future research, a subsequent study should use tailor-made post-tests to measure the outcomes—and therefore, the linguistic benefits—of each interaction.

In a time when remote learning has seen exponential growth at institutions of all levels, more research is needed to investigate the linguistic benefits and student perceptions of videoconferencing between L2 peers and between learners and trained NSs. In this way, a comprehensive understanding of the role of videoconferencing in the facilitation of second language development can be fostered to inform language curriculums.

References


### Appendix A. Origin of Native Speaker per Conversation

<table>
<thead>
<tr>
<th>Conversation</th>
<th>Origin of native speaker (name)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Quito, Ecuador (Alejandro)</td>
</tr>
<tr>
<td>2</td>
<td>Mexico City, Mexico (Daniela)</td>
</tr>
<tr>
<td>3</td>
<td>Mexico City, Mexico (Claudia)</td>
</tr>
<tr>
<td>4</td>
<td>Cuzco, Peru (Ana)</td>
</tr>
<tr>
<td>5</td>
<td>Quito, Ecuador (María)</td>
</tr>
<tr>
<td>6</td>
<td>Quito, Ecuador (Zenaída)</td>
</tr>
<tr>
<td>7</td>
<td>Managua, Nicaragua (Danilo)</td>
</tr>
<tr>
<td>8</td>
<td>Cancún, México (Alejandra)</td>
</tr>
<tr>
<td>9</td>
<td>Managua, Nicaragua (Karen)</td>
</tr>
<tr>
<td>10</td>
<td>Mérida, Mexico (Stephanie)</td>
</tr>
<tr>
<td>11</td>
<td>Buenos Aires, Argentina (Lucas)</td>
</tr>
<tr>
<td>12</td>
<td>Bogotá, Colombia (María Alejandra)</td>
</tr>
<tr>
<td>13</td>
<td>Bogotá, Colombia (María Alejandra)</td>
</tr>
<tr>
<td>14</td>
<td>Bogotá, Colombia (María Alejandra)</td>
</tr>
<tr>
<td>15</td>
<td>Caracas, Venezuela (Patricia)</td>
</tr>
<tr>
<td>16</td>
<td>León, Spain (Alba)</td>
</tr>
<tr>
<td>17</td>
<td>Buenos Aires, Argentina (Jessica)</td>
</tr>
<tr>
<td>18</td>
<td>Cancún, México (Amali)</td>
</tr>
<tr>
<td>19</td>
<td>La Paz, Bolivia (Cecilia)</td>
</tr>
<tr>
<td>20</td>
<td>Bogotá, Colombia (Mario)</td>
</tr>
<tr>
<td>21</td>
<td>Bogotá, Colombia (Lola)</td>
</tr>
<tr>
<td>22</td>
<td>Buenos Aires, Argentina (Lucas)</td>
</tr>
<tr>
<td>23</td>
<td>Bogotá, Colombia (Camilo)</td>
</tr>
<tr>
<td>24</td>
<td>Bogotá, Colombia (Carolina)</td>
</tr>
</tbody>
</table>
Appendix B. Post-Conversation Questionnaire

1. The telecollaborative conversation was useful for me.
   Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

2. The telecollaborative conversation was useful for my partner.
   Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

3. I believed that my partner enjoyed the conversation.
   Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

4. I had the feeling that I was leading the discussion most of the time.
   Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

5. I had the feeling that my partner was leading the discussion most of the time.
   Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

6. The topics of the conversation were interesting to me.
   Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

7. It was difficult to find a common time to chat.
   Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

8. Chatting online was intimidating for me.
   Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

9. Conversing online is a good way to practice speaking Spanish.
   Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

10. There were times when I did not understand what my partner was saying.
    Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

11. If I could not understand my partner, I let them know.
    Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

12. Chatting online enhanced my speaking skills.
    Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

13. Overall, it was a positive experience for me.
    Strongly disagree   (1)   (2)   (3)   (4)   (5)  Strongly Agree

Short Answer Questions

1. What was the most valuable or interesting part of the online conversation? Why?
2. Do you think the conversation was useful or not very useful? Why?
3. Describe the most difficult part of online conversation and why.
4. Describe the least important part of online conversation and why.
5. Did you enjoy the experience? Explain why or why not.
6. Do you think online conversation helped you improve your Spanish? How?
7. Did you learn anything in particular from the conversation (e.g., new words, phrases, grammar
   aspect, cultural information, etc.)? Please specify and explain.