Journal of Second Language Writing 54 (2021) 100855

Contents lists available at ScienceDirect

Journal of Second Language Writing

journal homepage: www.elsevier.com/locate/jslw

Transpacific telecollaboration and L2 writing: Influences of interpersonal dynamics on peer feedback and revision uptake

Eunjeong Choi [a,*], Diane L. Schallert [b], Min Jung Jee [c], Jungmin Ko [d]

[a] City University of Seattle, USA
[b] The University of Texas at Austin, USA
[c] The University of Queensland, Australia
[d] Sungshin Women's University, South Korea

ARTICLE INFO

Keywords:
Group dynamics
Peer feedback
Feedback uptake
Second language writing
Computer-mediated communication
Telecollaboration

ABSTRACT

Few existing studies have reported on how group dynamics relate to online peer feedback interactions and subsequent revisions in second/foreign language writing, with no such investigation in telecollaborative contexts in which partners alternate between roles of reader/writer, native/non-native speaker, and expert/learner. This study explored the ways that dyadic functioning was associated with the functions of reader/writer comments and feedback focus produced during synchronous interactions among dyads of a Korean-U.S. telecollaborative project and subsequent uptake of feedback in revisions. Grounded in qualitative and discourse analytic methods, findings indicated that depending on dyadic functioning levels, telecollaborative partners performed different reader and writer roles and addressed different aspects of L2 writing. How partners responded to and incorporated peer feedback into their revisions varied systematically by level of dyadic functioning. The findings highlight the jointly-constructed nature of the online interaction and revision uptake and suggest that interpersonal dynamics may be of greater significance than previously suggested. The findings may also help explain the variety of learner experiences documented in previous peer interaction research and may provide insights into how writing and feedback activities can be designed for better outcomes in this context.

1. Introduction

In an increasingly global and digital world, one pedagogical context that has received growing attention in the second/foreign language (L2) education field is online intercultural exchange, or what is called *telecollaboration*. In telecollaboration, L2 learners meeting remotely exchange ideas or collaborate on a task in either of the participants' languages. Such an activity takes place within multiple sociocultural and mediational contexts and thus opens up numerous possibilities, not always realized, for meaning-making and L2 learning. Some learners experience heightened motivation and engagement (Negueruela-Azarola, 2011), whereas others experience disengagement and tensions (Ware & Kramsch, 2005). These international partnerships can indeed become contact zones (Pratt, 1991) that exhibit complex dynamics and engender various outcomes through the partnership.

Despite much research on this learning context in the past two decades, the number of studies about how group dynamics affect telecollaborative partnerships is still limited. The existing work mostly focuses on different interactional patterns across groups (Belz,

* Corresponding author at: Research Institute, City University of Seattle, 521 Wall St., Suite 100, Seattle, WA, 98121, USA.
E-mail address: silver0828@gmail.com (E. Choi).

https://doi.org/10.1016/j.jslw.2021.100855
Received 21 October 2020; Received in revised form 16 October 2021; Accepted 21 October 2021
Available online 30 November 2021

2001; Darhower, 2007; O'Dowd, 2003), and empirical evidence about the impact of group dynamics on learning during telecollaboration is nonexistent. This is surprising, considering that L2 learning often involves active communication with fellow learners, thus making interpersonal processes more salient than in other subject areas (Borg, 2006). Despite the importance of cohesive group environments in learning, this area remains largely underresearched in L2 studies. The current study is a response to calls for more attention to the influence of group formation and dynamics on L2 learning (Dörnyei & Murphey, 2003; Fukada, Falout, Fukuda, & Murphey, 2019).

The native/non-native speaker interaction in telecollaboration also has received much attention for its L2 learning potentials. As this activity is conducive to a casual and informal atmosphere (Tudini, 2007), native-speaking peers' corrective feedback to L2 errors occurs relatively rarely unless partners are explicitly instructed to give such feedback (O'Rourke, 2005). These studies on peer feedback, however, examined language-related discourse and L2 errors as occurring naturally during interactions. Lacking are reports about peer feedback on L2 writing as a target task implemented in telecollaboration. This learning context warrants more investigation, especially considering that online interaction holds particular promise for productive language development such as writing, compared to face-to-face interactions that are conducive to receptive language development (Lin, 2015). Even within a large body of research on online peer feedback in non-telecollaborative L2 writing contexts (Yu & Lee, 2016), more empirical findings about group dynamics are warranted.

The present study extends the above-reviewed research on telecollaboration and peer feedback on L2 writing. In particular, our purpose was to investigate the manner in which dyadic functioning related to feedback interactions and subsequent revisions.

1.1. International telecollaboration

Telecollaborative exchanges, whereby partners alternate taking on the roles of experts and learners, have the potential to offer a more balanced power system and better learner engagement, compared to traditional classroom activities (Schwienhorst, 2004). Yet, such interactions are inherently complex, operating within multiple contexts, on multiple levels. Depending on how learners engage with their partners, a learning context's affordances become either "opportunities for or inhibition of action" (van Lier, 2004, p. 4). Seen from an ecological perspective, partnering students co-construct their learning context, and this relational nature of interactions may explain differing trajectories of relationships and learning (Kramsch, 2009; van Lier, 2004). Telecollaboration provides linguistic, cultural, and motivational opportunities to learners who experience successful communication with their partners (Negueruela-Azarola, 2011); alternatively, it can become a space for conflicts, tensions, and missed learning opportunities for those who experience miscommunication and misunderstanding (Ware & Kramsch, 2005).

Some research has documented intercultural factors that may explain such diverse experiences: for example, differing expectations of communication between two cultures (Basharina, 2009) and differently perceived language values and relatively higher proficiencies for English than for other foreign languages (Belz, 2001; O'Rourke, 2005). Also a few studies have explored group differences, in terms of language production amount and discussion topics (Belz, 2001), and degrees of success in intercultural communication (O'Dowd, 2003) and community building (Darhower, 2007). In these studies, evidence of group dynamics came from the interactions themselves.

1.2. Interactional peer feedback on L2 writing

As for L2 writing, the significance of interactional feedback has been widely recognized (Hyland & Hyland, 2006, 2019; Yu & Lee, 2016). Peer feedback, in particular, has received extensive attention because the activity promotes learner-centered processes and collaborative learning. However, receiving feedback does not necessarily lead to students engaging with the feedback or improving their writing. In investigations of behavioral responses to feedback, researchers have used the term *uptake* to refer to evidence of incorporating feedback into one's writing, whether it improves the writing or not (Hyland & Hyland, 2019). For example, in a writing center context, greater uptake was found only when learners actively participated in meaning negotiation with tutors (Williams, 2004). Depth of cognitive processing during interaction does not mean automatic uptake, because L2 writers, as active agents in their own learning, decide how to deal with the feedback, sometimes resisting comments even from teachers (Han & Hyland, 2015). Compared to teacher feedback, rejecting peer feedback can happen more often due to learner beliefs about the value of peer feedback and cross-cultural issues among peers (Hyland & Hyland, 2006).

As importantly, feedback interaction processes also offer insights to explain uptake. For example, in a study of readers' stances, collaborative readers focused on meaning negotiation with writers and global issues in the writing, whereas authoritative and interpretive readers usually dominated the talk, often evaluating the writing based on their personal interpretations (Lockhart & Ng, 1995). By analyzing interactions in terms of contribution and mutuality, Zheng (2012) reported that collaborative patterns entailed positive learning opportunities, whereas less cooperative patterns showed dominant partners insisting on their own ideas and rejecting the partner's ideas. Studying mixed L1 and L2 peer response groups, Zhu (2001) found that native-speaking students provided relatively more direct suggestions and evaluative comments than ESL-speaking students. Although ESL-speaking students' participation when responding to their partner's essay seemed comparable to their native-speaking peers, they seemed more passive and constrained when receiving native-speaking peers' comments on their L2 essays. In a study investigating the peer relationships established during peer response sessions, Storch and Aldossary (2019) discovered that motives and stances assumed as feedback giver/receiver, relative proficiency between partners, and educational contexts were all interrelated to form a unique peer relationship in each pair interaction. This research, mostly conducted in face-to-face contexts, provides empirical evidence that learners make discursive choices influencing feedback interactions.

Recognizing the affordances of computer-mediated interactions for L2 learning (Lin, 2015), researchers have recently explored the use of online peer feedback to L2 writing (Hyland & Hyland, 2019). Previous research has focused primarily on the effects of peer response on revision and peer response in different communication modes, with inconclusive evidence about the areas of writing and modes of online communication that peer response can ameliorate (Liu & Sadler, 2003; Tuzi, 2004; Yu & Lee, 2016). In light of the argument that interpersonal processes play a significant role in L2 learning (Borg, 2006), more investigation of the connection between group dynamics and feedback processes in online contexts are needed. As an example of the kind of research that we are evoking, Liang (2010) analyzed synchronous online peer interactions in which EFL learners discussed what to write in a collaborative text. Findings were that one group, characterized as displaying collaborative interactions, was able to incorporate discussion content successfully into their writing despite a large proportion of social talk. By contrast, another group's discourse showed a lack of mutual understanding, and their writing could not be directly linked to their discussion.

One characteristic often found with L2 telecollaboration is bilingualism that offers a particular pedagogical potential in peer feedback activities. In such exchanges, partners switch between native and non-native speaker roles, thereby affording each partner learning opportunities to receive feedback from their native-speaking peer as well as opportunities to help their peer from their native language expert position. We could identify only one study about peer feedback on partners' writing products and revisions in the current literature: Belén Díez-Bedmar and Pérez-Paredes (2012) study of asynchronous telecollaboration between Spanish students learning EFL and British partners learning Spanish. Focusing on the Spanish-speaking learners' discourse and their partners' feedback in a collaborative writing task, the researchers reported that the Spanish-speaking learners incorporated most (about 77 %) of the peer feedback into revisions but rejected or partially incorporated it if they perceived it as incorrect. This finding highlighted the learners' selective uptake of native-speaker feedback, but it could not capture the more complex nature of uptake, as interpersonal dynamics unique to each partnership were not explored.

1.3. Our study

Our review revealed a dearth of research on group dynamics in online peer response contexts. When incorporated into a telecollaborative project, peer response becomes a more dynamic process in which partners engage with multiple semiotic contexts as they switch roles between expert and learner and between writer and reader. Furthermore, Hyland and Hyland (2006), in their review of research on L2 writing feedback, pointed to a lack of empirical evidence on the connection between peer feedback interactions and revision uptake, and this still remains a gap in the field.

We aimed with our study to fill these gaps by examining the feedback exchanges and revision processes, with a particular focus on dyadic functioning, in cross-Pacific interactions between Korean university students learning English and U.S. students learning Korean. In our use of the term *dyadic functioning*, we refer to a pair's overall work performance and output (Belz, 2001; Robbins & Judge, 2016; see our operationalization below), rather than the concept of *group dynamics,* which refers to the cognitive, affective, and behavioral processes taking place as group members interact, or what Forsyth (2019) defined as "interpersonal processes that occur in and between groups" (p. 18).

Two research questions guided us: (a) how did the learners' ways of exchanging synchronous chat feedback relate to levels of dyadic functioning?; (b) how did the learners' incorporation of peer feedback in their subsequent revisions relate to levels of dyadic functioning?

2. Method

This study was designed as a cross-case study (Yin, 2003), each pair's online communication and writing products being defined as one case. This design allowed for an iterative understanding of the target phenomena by closely analyzing each case and identifying general patterns across cases. Our interaction analysis centered on functions of student utterances and focus of feedback (Lockhart & Ng, 1995; Zhu, 2001). For uptake, we focused on how students responded to peer feedback (Ellis, 2009).

2.1. Settings and procedures

The U.S. class was a second-year Korean class at a large Southwestern university, with 25 men and women students learning Korean as a heritage language. Five students had immigrated to the United States when very young; all other students were U.S. born and raised. The course in South Korea was a 26-student EFL composition class designed for education majors at a women's university. In both classes, an eight-week telecollaborative project was implemented as a course component that counted toward 10 % of students' grades.

For the telecollaboration project, all required communication between partners was done through text-based (not video) synchronous chatting using *Drupal,* a free internet-based course-management system. In both the U.S. and Korean classrooms, the project began with one training chat session among classmates. This session focused on familiarizing students with the chat mode/tool and practicing typing and communicating in both their L1s and L2s. The chat transcripts were used to gauge students' L2 proficiencies so as to group them into high, middle, and low levels, groupings that the instructors subsequently corroborated. Student pairs came from corresponding levels of L2 proficiency, even though the English proficiency of the students in Korea was higher overall than the Korean proficiency of the U.S. students. This was done to reduce drastic L2 proficiency gaps as such gaps have been found to affect negatively motivation and engagement in previous telecollaboration research (O'Rourke, 2005).

Because of the locales' time difference, each pair scheduled their own chat time outside of class via e-mail. Students held three 60-

minute chat sessions and they completed reflection entries after each chat session. Instructions emphasized (1) using both languages to preserve the principle of bilingualism during the first (on free topics) and second (on education systems in the two cultures) chat sessions, and (2) focusing on meaning-focused communication rather than language accuracy.

Before the third chat, the current report's focus, students drafted an individual L2 essay about their understanding of the two educational systems based on in-class activities and communication with their partner, and sent it to their partner via e-mail. We chose this topic about educational systems as one grounded in recent personal experiences that students in both classes would find accessible and interesting. No specific instruction or training was provided regarding how to provide peer feedback because our larger research project, from which this report is drawn, focused on intercultural communication for which we did not want to impose culturally predetermined expectations through training. During the feedback chat, students were instructed to be flexible in language use because metalinguistic feedback can be more clearly communicated through L1. Students then revised their L2 essays. These tasks were all treated as part of regular class instruction. Students were informed of our interest in their writings and their chat communication only after all tasks were completed, and were then invited to give us permission and to complete a post-project questionnaire and individual interviews (42 agreed).

2.2. Selection of focal participants

We first determined the dyadic functioning levels of the 18 pairs in which both partners had agreed to participate. Informed by the previous literature (Belz, 2001; Kramsch, 2009; Robbins & Judge, 2016), the criteria included: completion of required tasks; whether scheduling and communication problems were experienced during the project; and whether students' experiences were positive as reflected in journal entries, post-questionnaire, and interview responses. These reflection data included quantitative and qualitative responses about enjoyment and involvement, perceived utility and learning, and the intercultural experience of the telecollaboration (the two instructors approved the wording of questions and prompts). Detailed information about data sources and analysis of pair functioning levels as well as instructions given to the students is provided in online appendices (see Appendix C). Each of the 18 pairs was identified as higher-functioning, mid-level-functioning, or lower-functioning. We then selected four focal pairs (Table 1) from the two ends of the functioning spectrum: two higher-functioning pairs and two lower-functioning pairs. We aimed to balance the two groups in terms of gender and L2 proficiency as well as variation we saw within each functioning group. In assigning pseudonyms, we purposefully used traditional Korean names for Korean students and common English names for U.S. students.

2.3. Data sources and analysis

Only the third chat transcripts served as data for interaction analysis (Research Question 1). Feedback-related comments in the transcripts and feedback-related revisions in essay drafts were examined for evidence of uptake (Research Question 2). In our analysis, we employed the constant-comparative method (Corbin & Strauss, 2015) and discourse analysis techniques (Gee, 2011). First, we adopted a "coding and counting" approach to discourse analysis in order to capture how specific discourse features are used at the microinteractional level as well as quantitatively present their prevalence in the larger discourse data (Gee, 2011). Then, through iterative comparisons between data sources and qualitative and quantitative findings, patterns were identified within and across cases.

We began by coding the functions of reader/writer comments and focus of feedback, and then counted these codings. For both codings, the unit of analysis was each posted comment, each receiving only one code. Comments were first sorted into main task comments (feedback giving and responding) and comments not directly related to the feedback task (e.g., small talk). We further coded the main task comments for utterance functions by comparing our emerging categories to previous such categories (Lockhart & Ng, 1995; Zhu, 2001), eventually settling on six reader codes, six writer codes, and two reader/writer codes (see Appendix A for definitions and examples). As for feedback focus, our emerging categories were compared to Lockhart and Ng's (1995) categories (see Appendix B for definitions and examples). Inter-rater reliability of coding was checked by the first author and an independent researcher specialized in L2 interaction. Having discussed the codes and applied them to one sample transcript and then separately coded, we

Table 1
Four Focal Pairs.

	Name	Class	Sex	Major	L2
Higher-Functioning Pair 1: reported no serious tension or communication problems; their subjective experiences were positive; both students completed all required assignments.	Seungah	Korean	W	education	mid
	Ethan	U.S.	M	music, pre-medical studies	mid
Higher-Functioning Pair 2: completed all required assignments; reported no problems; saw experience as positive.	Kyungae	Korean	W	education, English	high
	Isabella	U.S.	W	economics	high
Lower-Functioning Pair 1: experienced serious interpersonal tension from scheduling problems, leading them to miss meetings; neither students completed all journal entry assignments; both submitted essay drafts late.	Heejoo	Korean	W	education, English	high
	Tyler	U.S.	M	electrical engineering	high
Lower-Functioning Pair 2: did not report outward tension; completed all their assignments; however, ratings of their partner and project experiences showed the greatest within-pair differences; qualitative reflections referred to clashes in intercultural communication.	Karam	Korean	W	education, English	low
	Madison	U.S.	W	information systems management	low

agreed on over 90 %, resolving any disagreements through discussion. A final iteration involved noting how readers organized their summative comments, a phenomenon that emerged through the constant comparison across cases.

As for response to feedback, we applied an existing taxonomy about revision (Ellis, 2009). We were interested primarily in whether the writer had incorporated the feedback or not (Exactly Incorporated, Partially Incorporated, and No Change) or made a change to the area mentioned by the reader without exact uptake of the feedback (Substitution). We did not analyze the correctness of the feedback/revision, nor did we analyze other revisions not mentioned by the reader, because these phenomena seemed related more to individual rather than interpersonal realms. Each feedback unit in the chat transcripts was counted as one occurrence.

3. Findings

We present findings in three parts: (1) functions of comments and (2) feedback focus, addressing the first research question about interactions; and (3) incorporation of feedback into revisions, addressing the second research question.

3.1. Functions of feedback utterances

Using main task comments as the denominator, we calculated the percentage of each utterance function expressed (Table 2). We discuss differences in how pairs expressed themselves in their comments in three points.

3.1.1. Students took on different roles as readers and responders

Readers undertook different roles while giving feedback and commenting on their partner's writing. The lower-functioning pairs used the function of direct feedback through corrective phrases or sentences (Give Suggestion: Direct) twice as frequently (33.3 %) as the higher-functioning pairs (16.6 %). These direct suggestions were often preceded by comments coded as Pointing, in which a partner referred to a specific essay part. Pointing was much more frequent in the lower-functioning pairs (14.7 %) than the higher-functioning pairs (1.8 %). The following three comments, delivered consecutively, demonstrate how the reader from the first lower-functioning pair used these two functions. (Brackets include an italicized English translation of Korean discourse.)

> Tyler: The sentence that said "He expressed the college education as such big freedom that if they try hard to manage it wisely, then they might end up failing out."
>
> Tyler: 한국말로 변역하면 학생이 시간을 잘쓰면 학교에서 떨어진다고 써져있어요 [*If I translate this into Korean, 학생이 시간을 잘쓰면 학교에서 떨어진다*]
>
> Tyler: the correct way to express this sentence is: "He expressed that the college education offers much freedom, therefore if the student did not manage it wisely, then the student may fail out."

After identifying a reference point in his partner's essay, Tyler provided his own interpretation of the English-as-an-L2 sentence into Korean, which for him was an L2. Such a clarification made by the reader, depriving the writer of an opportunity to reflect on her intended meaning, was found only in this lower-functioning pair. Then, Tyler provided a revised sentence, introducing it as "the correct way." Similar patterns were repeated in this chat when Tyler's Korean partner commented on his essay.

Direct feedback was also prominent in the other lower-functioning pair. The readers often provided a list of corrected expressions as they appeared in the essay. The following example shows the reader's corrections for many lexical or syntactic errors within one long comment:

Table 2
Functions of Feedback Comments (in Proportions).

Comment Functions		HF1	HF2	HF Mean	LF1	LF2	LF Mean
Reader Comments	Give Suggestion: Direct	10.5	22.6	16.6	28.1	38.5	33.3
	Give Suggestion: Indirect	5.3	7.1	6.2	0	7.7	3.8
	Give Suggestion: Elaboration	26.3	17.9	22.1	15.6	15.4	15.5
	Give Opinion	10.5	10.7	10.6	21.9	1.5	11.7
	Pointing	0	3.6	1.8	12.5	16.9	14.7
	Elicit Questions from Writer	1.8	1.2	1.5	0	0	0
Writer Comments	Solicit Suggestion: General	3.5	13.1	8.3	3.1	9.2	6.2
	Solicit Suggestion: Elaboration	14.0	6.0	10.0	0	0	0
	Solicit Opinion	3.5	2.4	2.9	12.5	0	6.3
	Self-evaluation	5.3	1.2	3.2	6.3	0	3.1
	Accept	8.8	13.1	10.9	0	4.6	2.3
	Disagree	0	0	0	0	6.2	3.1
Both	Exchange Information	0	1.2	0.6	0	0	0
	Discuss Revising	10.5	0	5.3	0	0	0
Total number of main task comments		57	84	70.5	32	65	48.5

Note. HF1/HF2: first/second higher-functioning pairs; LF1/LF2: first/second lower-functioning pairs.

Karam: 중요하는대→중요하지만 동이라는→동일한 미국에 학교여섯살 때부터 학교 다닙니다→미국은~ 미국 고등학교와 한국 고등학교 하고 정말 다르다.→미국 고등학교와 한국 고등학교는 한국에도 여섯 살 맞여서→한국에도 여섯 살이 되면 한국에있는 파트너가 이 말 들였어요→한국에 있는 파트너에게 이 말 들었어요 한국에는 학생들이 학교 가고 학원도 있습니다→학교도 가고 학원도 갑니다 한국에있는 파트너가 이 말 들였어요.→한국에 있는 파트너에게 이 말 들었어요. 시험에 내려요→시험장에 내려요 어려워고, 무척 경쟁력 입니다.→어려웠고 무척 경쟁적입니다. 고등학교가 정말 어려워고→어렵고 중요하는데→중요하지만 텔레비전 에게 방송에→텔레비전 방송에서

This single comment contained 13 corrections, each signaled with an arrow, with no explanation. For example, the first one (중요하는대→중요하지만) is a morphosyntactic correction of a clause connector (는대 misspelled from 는데) into another clause connector (지만 만). Both connectors, attached to the base morpheme 중요하 (meaning *important*), are used to connect two clauses with opposing ideas like the English conjunction *but*. However, the first connector (는데) has an additional usage of providing background information and is more frequently used in colloquial Korean. Karam suggested the other one (지만), which is more common in written texts. The other corrections were similar morphosyntactic or vocabulary corrections, all presented with no clear separations between corrections, possibly difficult for Karam's partner to understand.

Another way readers in the lower-functioning pairs presented their direct feedback was to move from one sentence to the next:

Madison: so in your first sentence

Madison: the grammar is a bit off

Madison: "As many people know, there are many differences between Korea and the United States in their various system" -> "As many people know, there are many differences between the American and Korean education systems.

Madison: That way, you don't need the second sentence

Madison: Then, you could rephrase your third sentence to: "In this essay, I will examine some of the differences between the two countries' systems.

Madison: then after "have" in the first sentence of the first paragraph, have an 'a'

Karam: okay!

Madison: In your second sentence, you could rephrase to: "Under the Korean school system, elementary school is 6 years long, middle school is 3 years long, and high school is 3 years long.

Here, the reader (Madison) alternated between indicating a part in the essay and providing corrections over several consecutive comments, providing little elaboration as to why her suggestions were better than Karam's original sentences.

Overall, these readers tended to tell the writer what to do in directive ways. As readers, partners did not seem to be working collaboratively to reflect on and negotiate the writer's intentions, making the interaction seem relatively one-sided. Through their actions, the readers manifested implicit views that feedback performance was a transmission of native-speaker knowledge about the language and writing. The readers also had a tendency to move from one feedback point to the next in a linear fashion, directing the talk as if they were following a predetermined script in a task-oriented manner.

In contrast, the readers in the higher-functioning pairs displayed the other two types of revision suggestions in much higher proportions: Indirect (helping the writer generate revisions; 6.2 % versus 3.8 % for lower-functioning pairs) and Elaboration (providing metalinguistic explanation of the feedback; 22.1 % versus 15.5 %). Interestingly, indirect feedback was totally absent from the first lower-functioning pair's interactions. The following excerpt shows how the reader (Kyungae) from the second higher-functioning pair used a mixture of indirect and elaboration feedback in dialogue with the writer.

Kyungae: 그리고 첫번째 문단에서 마지막 문장에는 한국과 미국의 다른점에 대한 걸로 주제가 바뀌니까 대조 접속사를 넣으면 더 자연스러울 것 같아 [*In the first paragraph's last sentence, the topic changes to differences between Korea and the U.S., so I think it will transition more smoothly if you add a contrast conjunction*]

Isabella: 훨씬 글이 자연스러워 지는 거 같아 [*I feel my essay now flows more smoothly*]

Kyungae: 응^^* [*right*]

Isabella: 대조 접속사? 어떤거? [*A contrast conjunction? Like what?*]

Kyungae: 하지만, 그러나 같은 거~ [*Like, however or but*]

In the first comment, the reader gave an indirect suggestion to use a contrast conjunction, explaining the need for such a conjunction. She provided specific examples of conjunctions only after the writer requested more information, probably because the metalinguistic term was unfamiliar to the writer. Throughout, the reader played the role of facilitating the writer's own revision of her writing. In contrast to the readers in the lower-functioning pairs, the readers in the higher-functioning pairs were more responsive to their partners' needs, leaving room for the writers to ask questions and lead the talk, and used utterance functions that worked to encourage interactive and two-way feedback exchanges.

3.1.2. Students took on different roles as writers

The different roles that writers performed while responding to peer feedback distinguished higher-functioning from lower-functioning pairs. The writers in the higher-functioning pairs played an active role in eliciting and understanding feedback rather

than passively receiving it. In particular, they frequently made requests for explanation of the feedback (Solicit Suggestion: Elaboration) (10 %), whereas this function never appeared in the lower-functioning pairs. For example, the first higher-functioning pair's interaction was organized by the writers' questions relating to the feedback: "then i can not use First, Second?" (from Seungah); "what is the general rule for spacing" (from Ethan). The writers' frequent requests for elaborations also explain the finding that this pair had the highest percentage of the reader function Give Suggestion: Elaboration (26.3 % vs. a mean of 15.5 % in the lower-functioning pairs). At times, the readers' elaborations elicited a request from the writers for further information. Thus, the higher-functioning pairs' interactions unfolded by building on each other's utterances.

The function of Discuss Revising, whereby the writer and reader both discuss plans for revising, was a unique feature found only in the first higher-functioning pair:

Seungah: if you write intro about test systme, intro part will be too long.

Seungah: system

Ethan: yeah i was gonna write an intro and make the rest of the 1 st paragraph into a new paragraph

Ethan: so i will have 4 total paragraphs

Seungah: good idea!

Ethan: or wait, i guess 5 paragraphs including new conclusion

Seungah: wow..

Ethan: yeah.. thats a long essay haha

The first comment, the reader's indirect suggestion about an introductory paragraph, led to the writer sharing his plan for adding new introduction and conclusion paragraphs, a plan the reader showed signs of supporting. This Discuss Revising function was evidence showing the writer's ownership of his own learning and the reader's facilitative role.

In addition, the function Elicit Questions from Writer was used by the readers in the higher-functioning pairs only. For example, Ethan used this function after e-mailing a digital file with his feedback to the writer: "ask me if there's anything you don't understand." Kyungae also asked a similar question: "혹시 너 에세이에서 궁금한거 없어??" [*do you have any questions about your essay*]. Here, the readers were checking on the writers' understanding of the feedback. These examples demonstrate that writers' fuller participation seemed encouraged by readers' collaborative and open attitude, facilitating meaning negotiation. By contrast, the two lower-functioning pairs had no instance of the functions Discuss Revising and Elicit Questions from Writer.

The writers also displayed noticeable differences in responding to the feedback during the chat. The higher-functioning pairs showed acceptance of the feedback or appreciation for new learning at a much higher proportion (Accept: 10.9 % vs. 2.3 %). In contrast, the Disagree function was used only by Karam from the second lower-functioning pair among all eight writers. The following excerpt is one of two instances in which she did not accept the reader's feedback but tried to communicate her original meaning. Her reader, Madison, was correcting this original sentence from Karam's first draft: "These many differences in education system between Korea and the United States are causing different result and affecting other systems."

Madison: "These differences cause American and Korean students to have very disparate results when it comes to international tests of student intelligence

Madison: disparate = different :)

Karam: But I want to say many different results unspecifically..?

Karam: Because there are other differences too

Karam: except international tests of student intelligence

Madison: These and other differences*

Madison: :)

Madison: oh and what kind of differences were you referring to?

Karam: I will think about it more and make sentece later

These comments imply that Karam wanted to write that several differences in the two education systems were also influencing other societal systems. However, the reader seemed to have interpreted the phrase *different results* only in terms of educational outcomes. As the writer realized that the suggested sentence did not convey her intention, the pair attempted to negotiate each other's misaligned meanings. This negotiation, unfortunately, ended unresolved when the writer dropped this breakdown to move to a different issue. This feedback was, in fact, partially incorporated into the revision because Karam wrote the first half of the suggested sentence, ignoring the latter half, exactly the part for which both partners had failed to reach a shared understanding.

In sum, in contrast to the lower-functioning pairs, the higher-functioning pairs used three functions (Solicit Suggestion Elaboration, Discuss Revising, Elicit Questions from Writer) that evidenced the writers' active participation in the collaborative process of meaning-making. Also, the discursive use of acceptance and disagreement suggested the writers' differing levels of engagement with the feedback and perhaps trust between partners.

3.1.3. Summative feedback comments influenced the pairs' interactions

The third feature that distinguished higher-functioning from lower-functioning pairs was related to the ways that the reader gave overall summative evaluation of the entire essay (Give Opinion). All four students in the higher-functioning pairs began their feedback turns with an overall, mostly constructive, evaluations of the essay:

> Kyungae: 우선 너의 에세이를 봤을 때 전체적으로 보였던 것은 접속사가 거의 없다는 것이었어~ [*Overall, seen from a global level, your essay rarely had conjunctions*]
>
> Kyungae: 그리고 역시나 문장을 묶는 그룹핑이 조금 아쉬웠엉 [*Like mine, your essay also needed improvement in sentence grouping*]
>
> Kyungae: 예를 들면 [*for example*]
>
> Kyungae: 한국과 미국에는 유치원, 초등학교, 중학교, 고등학교가 있으며 일년에 두학기가 있다.
>
> Kyungae: 이런 식으로 한문장으로 쓸 수 있는 문장들이 있었어 [*like I revised above, there were sentences you could combine into one sentence]*

The reader first gave her general feedback by pointing to conjunction usage and sentence grouping as the two major issues needing revision. She produced these summative comments as a prelude to specific elaborations with examples. She then advised the writer to revise the remaining essay focusing on between-sentence coherence: "내가 예시 보여준 맥 락대로 뒤에도 고치면 될 것 같아~" [*I think you could revise the remaining just like I showed with my examples*]. The reader provided examples as a resource to which the writer could refer when revising her entire essay, thereby placing the responsibility for revision on the writer. As such, the readers in the higher-functioning pairs tended to summarize overall feedback first and organize their subsequent comments around major feedback points.

Interestingly, however, only one reader (Tyler) from the lower-functioning pairs followed this pattern. The other three students provided their overall evaluation at the end of their reader turns. For example, Heejoo first corrected misspellings of three vocabulary words in the partner's essay, and then her feedback concluded with the following evaluative comment: "그 외에는 정말 짜임새 있게 잘 쓰신 것 같아요.^^" [*Other than those, I think you wrote well using good structure*]. Karam, in the other lower-functioning pair, similarly provided an overall evaluation at the end of her feedback turn: "이렇게만 고치면 될 것 같아~" [*I think these revisions will be good enough*]. These readers tended first to list specific feedback points, and used summative comments to end their feedback turns. In sum, the function of summative comments was associated with different discursive patterns in organizing comments.

3.2. Feedback focus

In Table 3 appear proportions of total number of main task comments coded by what focus was reflected in the comment.

Overall, much of the talk in all four pairs focused on linguistic aspects, mostly vocabulary and local grammar. Exchange management comments also represented a large proportion of interactions, with the first higher-functioning pair showing the lowest, mainly because this pair produced no Pointing or Disagree comments. Proportions of feedback on formality/register and on ideas did not show noticeable differences between pairs.

However, the two functioning groups exhibited interesting differences in five feedback foci. The highest occurrence for the higher-functioning pairs was Local Grammar (20.9 %). This is explained by many instances in which writers requested further elaboration on specific grammar rules from their partner-readers. For the lower-functioning pairs, the highest occurrences were Phrasing (18.6 %) through which the readers provided formulaic expressions or corrections by rephrasing an entire sentence for a desired meaning. For example:

> Madison: "In contrast, it is hard to find private educational institute for school study or SAT in the United States. Instead of private educational institute, students of the United States go to prep classes after school. ->"
>
> Madison: "In contrast, it's not very common for an American student to go to private tutoring on top of their public education. If anything, high school students attend prep classes for the standardized college entrance exam, the SAT"

Madison's rephrased sentences provided a native-speaker version drastically different from Karam's original sentence structure. Overall, this reader rarely sought confirmation of her partner's intentions during their interactions. The readers in the lower-functioning pairs seemed less concerned with preserving their partners' original sentences, but instead imposed their own ideas

Table 3
Feedback Focus (in Proportions).

Focus	HF1	HF2	HF Mean	LF1	LF2	LF Mean
Vocabulary	10.5	11.9	11.2	15.6	21.5	18.6
Local Grammar	22.8	19.0	20.9	15.6	20	17.8
Phrasing	0	3.6	1.8	12.5	24.6	18.6
Formality/Register	1.8	1.2	1.5	0	1.5	0.8
Intra-paragraph Coherence	12.3	16.7	14.5	0	4.6	2.3
Inter-paragraph Coherence	22.8	3.6	13.2	3.1	3.1	3.1
Idea	0	4.8	2.4	0	0	0
Summative Comments	17.5	16.7	17.1	25	3.1	14.0
Exchange Management (Pointing, Accepting, Disagreeing, Requesting General Feedback)	12.3	22.6	17.4	28.1	21.5	24.8

about what well-written sentences should look like. In contrast, the higher-functioning pairs rarely provided feedback on Phrasing (1.8 %). In addition, the lower-functioning pairs had a higher percentage of feedback, mostly given directly, about incorrect vocabulary usage and spelling errors (Vocabulary, 18.6 %), as when Heejoo wrote: "재일은 제일로.." [*change jae-il to jei-il*]. Feedback on vocabulary was less frequent in the higher-functioning pairs (11.2 %) because these readers distributed their focus on all areas, including global areas of the writing.

Dyadic functioning also seemed related to the extent to which students attended to issues of coherence. Feedback relating to coherence and transition between sentences (Intra-paragraph Coherence) took up 14.5 % of comments in the higher-functioning pairs (vs. 2.3 % in the lower-functioning pairs). For example, Isabella, from the second higher-functioning pair, commented on sentence grouping as a possible revision area:

Isabella: but i would like to suggest that u should group sentence together

Isabella: for the first paragraph

Kyungae: yeah

Isabella: United States is a highly influential country because it leads the world's economy, culture, politics, and education.

Having given overall feedback about the entire essay, Isabella as reader provided an example of combining two sentences into one by adding "because" to link them, seemingly intent on preserving Kyungae's original sentences. When they switched roles, Kyungae, performing the reader role now, referred to between-sentence coherence in a similar manner:

Kyungae: 한국 학생들은 수업시간에 암기를 많이 하고 암기로 인해 시험을 잘 본다. [*Korean students focus on memorization, so they do well on tests*]

Kyungae: 이렇게 쓰면 세 문장을 연결해서 자연스럽게 쓸 수 있을 것 같아 [*This way, I think you can combine three sentences into one and make it flow smoothly*]

These examples contrasted with the lower-functioning pairs' feedback showing a tendency to impose native-speaker wording that deviated more drastically from the writer's original sentences.

The percentage of comments on inter-paragraph coherence was also much higher in the higher-functioning pairs (13.2 % vs. 3.1 %), as exemplified by the first higher-functioning pair:

Seungah: 논리적인 구조에서 [*in terms of logical structure*]

Seungah: intro와 conclusion이 약한거같아 [*I think your intro and conclusion are weak*]

Ethan: hmm.. okk

Ethan: how can i make it better?

Ethan: conclusion 없는거는 아라 ㅋㅋ [*I know there is no conclusion*]

Seungah: 왜냐면 너가 3문단을 썼는데 첫번째 문단과 두번째 문단에서는 초등학교 교육에 대해 이야기하는데 [*because you wrote three paragraphs talking about elementary education in the first and second paragraphs, but*]

Seungah: 응 ㅋㅋㅋㅋㅋㅋㅋ [*right*]

Seungah: 마지막에 SAT 얘기하고 끝이나버려서.. [*in the last, you talked about SAT, and ended there*]

Ethan: yeah haha

Seungah: also

Ethan: 그럼 짧은 intro and conclusion 쓸게 [*then, I will write a brief intro and a conclusion*]

This feedback referred to idea organization in the entire essay, a focus on global issues in the writing. In sum, these findings indicated

Table 4
Feedback Incorporation Results.

			Exactly Incorporated	Partially Incorporated	No Change	Substitution	Total
Higher-functioning pairs	HF1	Seungah	2	0	0	0	2
		Ethan	11	0	2	0	13
	HF2	Kyungae	6	0	0	0	6
		Isabella	10	2	1	0	13
		Total	29	2	3	0	34
		%	85.3	5.9	8.8	0	100
Lower-functioning pairs	LF1	Heejoo	0	0	5	1	6
		Tyler	0	0	3	0	3
	LF2	Karam	5	5	1	1	12
		Madison	0	0	22	0	22
		Total	5	5	31	2	43
		%	11.6	11.6	72.1	4.7	100

that, compared to the lower-functioning pairs, the higher-functioning pairs made more explicit feedback concerning discourse-level issues and also attended to more diverse areas of the writing encompassing vocabulary, grammar, and coherence.

As we end this section, we acknowledged that for a few feedback foci (e.g., summative comments) and feedback function (e.g., Give Opinion) categories, there was as much difference within-group as between-groups. Although such within-group variation is noteworthy (and needs exploration in future research), we conclude by pointing to our more frequent findings that showed within-group similarities and between-group differences.

3.3. Feedback incorporation

When producing their final essay drafts, different students responded differently to their partners' feedback. One pair (HF1) agreed to use track changes on Word documents and exchanged these as the chat session began. The other pairs used the chat as the primary medium for exchanging feedback. In our feedback incorporation analysis (Table 4), we focused only on the feedback points made during the chat, excluding the track changes suggested by HF1. These raw numbers are presented for each student and each pair groupings as well as proportions.

In terms of the total numbers of feedback occurrences, the higher-functioning pairs had fewer feedback occurrences (34 in total) than the lower-functioning pairs (43), perhaps because HF1 had already provided much feedback in their Word document exchange. As for whether feedback was incorporated into final drafts, students from the higher-functioning pairs were much more likely to use suggestions exactly as made (Exactly Incorporated; 85.3 %) than the lower-functioning pairs (11.6 %). In contrast, the No Change code, characterized as rejecting or ignoring the feedback, was found much more frequently for the lower-functioning pairs (72.1 %) than for the higher-functioning pairs (8.8 %).

One explanation of this finding may have occurred because the two U.S. writers in the lower-functioning pairs made few revisions before submitting their final drafts, as their course grade did not depend on their essay's quality, and thus, they could ignore peer feedback with impunity. However, this alone does not fully explain their behavior, as the two U.S. students in the higher-functioning pairs revised their essays by uptaking their peers' feedback. A textual analysis of the chat transcripts revealed that the first lower-functioning pair did not produce a single comment that showed acceptance or appreciation for feedback (Accept utterance function). The other lower-functioning pair's chat contained three Accept comments, all produced by the U.S. student, Madison: "응, 몰랐다! 고칠게!" [*okay, I didn't know that! I will fix it*]; "고맙다!!!! 정말 도와졌어 :)" [*Thanks! It was really helpful*]. Although Madison made explicit signs of accepting the feedback during the chat, she never did incorporate any of the feedback into her revision.

Ignoring or rejecting feedback also occurred in the two Korean students' revisions in the lower-functioning pairs. Heejoo ignored most of Tyler's feedback except for one area discussed below:

> Tyler: 이쪽에는 [*here*] "when he was freshman which I had the same." 보다 [*rather than that]* "when he was a freshman which I also went through"
>
> Tyler: he가 한분 이니깐 freshman 보다 a freshman이 맞습니다 ["*he" is one person, so "a freshman" is correct rather than "freshman"*]

In the final draft, Heejoo ignored Tyler's suggestion on article use (i.e., "a freshman") and did not reflect the suggestion about the relative clause (i.e., "a freshman which I also went through"), but instead replaced it with her own revision (revision code Substitution): "like what I had on that period."

A similar pattern characterized the other lower-functioning pair. As we analyzed earlier when discussing the reader's role, Madison had suggested combining the first two sentences and rephrasing the third sentence. Here is Karam's final version: "As many people know, there are many differences between Korea and America in their various system. One of them is education system. In this essay, I will examine some of the differences in education system between two countries." The writer partially incorporated the feedback on the first sentence, uptaking the suggestion of using "America" instead of the "United States," but keeping the original order of "Korea and America" (Partially Incorporated). She rejected the suggestion to delete the second sentence (No Change). As for the third sentence, Karam substituted her own revision, "between two countries" (Substitution). Interestingly, this type of feedback incorporation, Substitution, was made only by the two Korean writers in the lower-functioning pairs among all eight writers.

In sum, writers in the higher-functioning pairs demonstrated noticeably more uptake of peer feedback, whereas writers in the lower-functioning pairs showed more rejection of peer feedback in their revisions.

4. Discussion and conclusion

The findings highlighted the association of dyadic functioning with the success of peer interaction and feedback uptake, with partners tending to mirror each other in producing interaction and uptake patterns, demonstrating the co-constructed nature of each partnership. We discuss these findings in terms of three points before considering limitations and implications.

4.1. Nature of feedback interactions as partners assumed reader and writer roles

Depending on how well dyads functioned, the telecollaborating partners used different comment functions and addressed different feedback foci, thereby reflecting different choices for their reader and writer roles.

Whenever acting as native-speaking readers, students in the higher-functioning pairs used an open and reflective style of communication and assumed a collaborative role so that their partner-writers could reflect on their original intentions and take

ownership of the revision process. This was accomplished by providing multi-level scaffolding as they elicited questions from their writer-partners, providing indirect feedback, and elaborating on their feedback, while trying to preserve the L2 original sentences written by their partners. Thus, their interactions exhibited more cohesive and responsive discourse that was contingent on their partners' utterances (van Lier, 2004). In contrast, students in the lower-functioning pairs were likely to impose their preconceived native-speaker knowledge upon their partner's writing by giving direct feedback. They also tended to organize their comments by listing feedback in a linear fashion through the draft, using a distant and formal style. In addition, these readers used summative feedback comments as a way to end their feedback turns, whereas higher-functioning students provided such overall comments as a prelude to suggesting more specific feedback or inviting the writer to direct the talk with questions. The mostly constructive comments made by the readers in the higher-functioning pairs were forward-oriented and open in nature, compared to the backward and closed nature of the summative evaluation provided by the readers in the lower-functioning pairs.

Dyadic functioning was also closely associated with what roles students assumed when in the writer's turn and how they engaged with peer feedback. The writers in higher-functioning pairs displayed more acceptance of and appreciation for feedback, suggesting that they had a positive relationship with and trust in their partners. They also actively sought feedback, participated in organizing interactions, and discussed how to revise their essays with their reader-partner. Interestingly, the writers in the lower-functioning pairs performed none of these discourse functions, seeming to take a less active learner role. These writers responded either in passive and uninterested ways or pushed back against their reader-partners' personal interpretation of their writing. Across all pairs, the differing degrees of writer participation did not seem attributable solely to individual motivation for the task but rather a manifestation of the collaboration created between partners. As such, students as L2 writers undertook varied roles depending on how they co-constructed the interaction with their native-speaking readers. Thus, writers' participation was more complicated than could be understood from a dichotomous perspective based on native-speaker status (Zhu, 2001).

As for feedback focus, the higher-functioning pairs discussed a wider range of feedback, going beyond word- or sentence-level suggestions to include discourse-level issues. In contrast, the readers in the lower-functioning pairs focused heavily on sentence-level rephrasing and vocabulary corrections, often imposing their knowledge of formulaic structures and effective expressions. Previous studies have reported mixed findings about feedback focus across different modes; for example, more feedback on global issues was produced during online than in face-to-face peer feedback in some studies (Tuzi, 2004) but the reverse in other studies (Liu & Sadler, 2003). Our findings highlight the significance of group dynamics in relation to feedback focus, demonstrating that students may respond differently to a peer collaboration task depending on team/group makeup and functioning.

In sum, higher functioning partnerships exhibited fuller participation from both reader and writer (van Lier, 2004), characterized as "collective scaffolding" (Donato, 2000), showing a symmetrical relationship between nonnative-speaking writer and native-speaking reader (Merkel, 2018). In contrast, the interactions in lower functioning partnerships seemed characterized by limited participation and asymmetrical relationships, with direct instruction provided by a more knowledgeable peer. These findings corroborate previous research on L2 peer feedback in non-telecollaborative contexts that has found that partners in effective collaborations work together, engage with each other's ideas, and reach shared understanding and resolutions (Li & Zhu, 2017; Lockhart & Ng, 1995; Zheng, 2012). Our study also adds new insights about the repertoire of interaction patterns and language use that telecollaborating partners can practice depending on group dynamics (Belz, 2001; Darhower, 2007; O'Dowd, 2003). Finally, our methodological approach may introduce an innovative research design to group dynamics research. Most studies of group dynamics in telecollaboration (e.g., Darhower, 2007) and L2 writing tasks (e.g., Li & Zhu, 2017; Liang, 2010) have relied on interactional features as direct evidence determining group dynamics, thereby conflating the discourse data with group functioning. By contrast, we identified differing levels of dyadic functioning using external criteria (in this case, students' task completion and subjective experiences) and then linked the functioning levels to interaction and uptake data, keeping our evaluation of dyadic functioning separate from the discourse phenomena themselves.

4.2. *Learner uptake*

Our findings showing the connection between dyadic functioning and revision uptake included noticeable differences in learner engagement with peer feedback. The writers in higher-functioning pairs incorporated about 85 % of the peer feedback exactly as suggested into their revisions, seeming to trust their partners' contributions. In contrast, the writers in lower-functioning pairs rejected about 77 % of the peer feedback, either completely ignoring or intentionally substituting their own revisions for what their partner had suggested. Considering that a learner needs to use language suggestions soon after receiving feedback for learning to occur (Polio, 2012), students' decision to engage less with native-speaker feedback in the lower-functioning dyads seemed to lead to missed learning opportunities, whereas the higher-functioning dyads experienced many chances for L2 learning.

These differences in engaging with native-speaker feedback, more stark than we had expected, led us to previous research about the role of L2 learners as active agents who make sense of their learning context and decide what to act on and how to act on it (Donato, 2000; van Lier, 2004). They participate in purposive interactions with peers and selectively respond to peer feedback. As shown in the interaction and revision processes in this study, learner agency did not appear to be an individual trait, but engagement with learning seemed always co-constructed through interaction with others. This finding about the collaborative nature of learner agency contributes to existing studies on telecollaboration and peer response that have treated the concept of learner agency as closely tied to individual motivation and engagement (Basharina, 2009; Zhu & Mitchell, 2012).

4.3. The significance of dyadic functioning for both interaction quality and revision uptake

Interactions in higher dyadic functioning pairs embodied a dialogic process characterized by collaboration and reciprocity, two major indices of successful L2 interactions identified by previous research (Storch, 2002; Zheng, 2012). For these qualities of interaction to take place, partners' shared understanding is critical (Liang, 2010). In this way, partners collaboratively configure and co-construct the interaction, which in turn translates into learner uptake. Different pair dynamics may catalyze different benefits from the same learning activity.

To this point, this study offered empirical evidence about the connection between group dynamics and L2 learning, a connection that has lacked attention by the general L2 research field (Dörnyei & Murphey, 2003). This study supports similar claims made by the few studies about group dynamics in L2 writing contexts: that is, peer interaction is conducive to L2 learning or quality L2 products only when students form collaborative partnerships (Li & Zhu, 2017; Liang, 2010; Storch, 2002). The data from these four focal pairs further suggest that peer partnerships may play at least as important a role as issues such as L2 proficiency, gender, and institutional factors. Most importantly, these findings confirm Storch and Aldosari (2012) argument that dyadic relationships may influence the success of a collaborative writing task to a greater extent than L2 proficiency.

Our findings suggest that interpersonal dynamics may be of greater importance than previously implied, and may explain varied learner experiences documented in previous research. We thus suggest that more attention be paid to this factor to achieve a fuller understanding of peer interaction and L2 learning. For example, by highlighting the effects of diverse ways that partners form relationships and function together, our findings contribute new insights to previous telecollaboration research having attributed any contrast in interactional dynamics solely to the two cultures treated as monolithic groups (Chun, 2011). Similarly, the significance of group dynamics implies a need for caution in understanding empirical findings across studies about interaction. Previous studies of online peer response have identified inconsistent findings about its effectiveness and interaction patterns in different modes of communication (Liu & Sadler, 2003; Tuzi, 2004), and we offer that peer interpersonal dynamics may at least partly explain such inconsistencies.

4.4. Limitations and implications

Our analysis involved inductive processes of interpreting the intercultural communication data produced in two languages. Therefore, our findings should be interpreted with an understanding of the coding definitions and relevant qualitative analysis within the study. Also, our study was based on a small number of participants, and the four focal pairs were purposefully selected as extreme cases from the functioning spectrum; thus, our findings in no way capture a broader array of diverse L2 learning experiences in telecollaboration. The factors of broader intercultural and digital contexts that account for differing pair/group functioning and dynamics deserve further investigation. Also, whether the impact of dyadic functioning found in our study is of global significance in other online peer response contexts remains to be observed, for example, in terms of interactions between learners of different languages, use of different communication tools such as afforded by video chats, and different writing contexts such as collaborative writing and multiliteracy tasks.

When implementing a telecollaborative or peer response task, it may be as important to train students on using collaborative strategies (e.g., active meaning negotiation) and effective reader/writer roles (e.g., provide/elicit elaboration) as to explain to them how to comment on the linguistic aspects of writing (e.g., provide both local and global feedback). Teachers should encourage an environment in which students respect their partner's intentions and understand the importance of collaborative meaning negotiation and discovery with peers. Finally, telecollaboration creates a global online communicative context, quite different from a typical peer response context within the L2 classroom when students know one another as classmates and when they are not hampered by the possibilities of miscommunication that an electronically-mediated channel often enjoins. Although outside of the study's scope, various intercultural, institutional, and mediational contexts contributed to interpersonal dynamics and text-based communication among our participants. Students would benefit from explicit training for critical reflection on the affordances of intercultural and digital exchanges in relation to partnership building and learning.

Declaration of Competing Interest

None.

Appendix A. Coding Scheme for Feedback Comment Functions

Reader Comments	Give Suggestion	Direct: direct suggestion for revising or direct correction	"아주 따릅니다. 에서 '다르다'로 써야 different의 의미가 있고" [providing a correct verb meaning "differ"]
		Indirect: prompt to think about a correction/revision	"if you write intro about test systme, intro part will be too long"

(continued on next page)

(*continued*)

		Elaboration: explanation of grammar or the reason behind feedback	"adjectives tend to go first, not nouns"
	Give Opinion	Overall evaluation of the essay	"just grammar. but your content was perfect"
	Pointing	Points to which part of the essay is being considered	"for the first paragraph"
	Elicit Questions from Writer	Elicits questions	"ask me if there's anything you don't understand"
Writer Comments	Solicit Suggestion	General: asks for general/direct suggestion for revision	"which grammars were wrong?"
		Elaboration: asks for elaboration of reader's feedback	"what is the general rule for spacing"
	Solicit Opinion	Asks for overall comments/ evaluation.	"do you have anything to say about mine?"
	Self-evaluation	Gives opinion of one's own essay	"i have many many many errors.."
	Accept	Accepts the feedback; acknowledges the original is wrong; shows learning of new L2 rules/writing conventions	"i didn't know which one to use"
	Disagree	Disagrees with or gives somewhat negative responses to feedback; justifies the original version	"But I want to say many different results unspecifically..?"
Performed by either	Exchange Information	Ask for or gives information/ examples/opinion related to the essay content	"근데 한국에서는 대학교 이전에는 피피티 사용해서 앞에 나가서 발표하고 이런 것의 개념이 없어서" [*but, in Korea, we don't practice ppt presentations before college*]
	Discuss Revising	Discuss or share plans for revising	"so i will have 4 total paragraphs"

Appendix B. Coding Scheme for Feedback Focus

Focus	Definition	Example
Vocabulary	Appropriate vocabulary or spelling at the single-word level	"-합니다, 냅니다, 입니다, 습니다 를 쓸 때는 'ㅂ'을 써야해" [*you have to use 'ㅂ' for the final consonant*]
Local Grammar	Local grammatical issues such as articles, pronouns, spacing (involving more than a single word)	"adjectives tend to go first, not nouns"
Phrasing	Rephrasing at the sentence level; providing formulaic expressions	"-> Many Korean students, regardless of their grade, go to private tutoring sessions after school"
Formality/ Register	Formality/register/tone of language even when parts are grammatically correct	"아 그리고 저널에 존댓말과 반말이 섞여있는데, 다 존댓말로 쓰는게 더 좋아" [*you used both the deferential and informal endings, but you'd better use the deferential ending throughout*]
Intra-paragraph Coherence	Coherence and transition between sentences	"I think most struggle part was….group sentence"
Inter-paragraph Coherence	Coherence between paragraphs; introduction and conclusion	"if you write intro about test systme, intro part will be too long"
Ideas	Topic of the overall essay or relevant knowledge/ experience	"근데 한국에서는 대학교 이전에는 피피티 사용해서 앞에 나가서 발표하고 이런 것의 개념이 없어서" [*but in Korea, we don't practice ppt presentations before college*]
Summative Comments	Overall evaluation of the essay	"just grammar. but your content was perfect"
Exchange Management	Comments not indicating specific language areas	"and anything else?"

Appendix C Supplementary material

Supplementary material related to this article can be found, in the online version, at doi:https://doi.org/10.1016/j.jslw.2021.100855.

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Eunjeong Choi is Dissertation Faculty in the Research Institute at City University of Seattle. Her research interests include computer-mediated communication, interaction and discourse processes, and semiotic and experiential resources for learning.

Diane L. Schallert is a professor of Educational Psychology at the University of Texas at Austin. Her interests include the study of human learning broadly conceived, of language and discourse processes, and of motivational and emotional factors involved in learning, comprehension, and language use.

Min Jung Jee is a senior lecturer (tenured) at The University of Queensland, Australia. Her research interests include foreign/second language learner affect, Korean heritage language learners/speakers, and technology assisted language learning and teaching.

Jungmin Ko is a professor of English Language & Literature at Sungshin Women's University, South Korea. Her interests include non-native speakers' storytelling, positioning, interaction, and eye movement of L2 learner.