Learning English Autonomously and Cooperatively Online through Peer Interaction
– How Students Interacted in Pairwork in Private Channels on the Microsoft Teams –

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自律的および協同的な相互対話を促すオンライン英語授業
―Microsoft Teams のチャンネル機能を使ったペアワークにおける学生同士のかかわり―

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要旨

　コロナ感染症蔓延により多くの大学ではオンライン授業が行われるようになった。オンライン上では、学生は主に個人単位で自律的に学習を進めていくことが求められる。しかし、コミュニケーション力を培うことを学習目標の中心に位置づける外国語教科においては、オンラインにおいてもコミュニケーションを促す学習環境を整備することが喫緊の課題である。この論文では、Microsoft Teams のチャンネル機能を使ったペアワークを取り入れた英語授業で、学生がどのように関わり合い、どのような学びを促す対話が行われていたのかについて、振り返りシートとオンライン上の学生同士の対話内容をもとに考察する。毎授業でのペアワークにおいて、学生はおおむね自律的かつ協同的に学習内容に取り組み、対話を通して互いに新しい気づきを促し合う事例も確認できたが、同時にチャット形式でのコミュニケーションでは対話の質に問題点もあったことが分かった。

キーワード

　オンライン英語学習、ペアワーク、協同的対話、自律的学習、コミュニケーション力

Abstract

　Many universities have adopted online teaching amid the Covid pandemic. Due to this sudden shift in the learning environment, students may face various kinds of learning problems, moreover, there can be more difficulties in asking the teacher for assistance or consulting classmates about problems they are having when employing online platforms. In a language classroom where the main purpose of learning should be on enhancing students' communication skills, educators need to create an environment in which students are encouraged to relate to each other while learning online. With the proper instructional framework and teacher assistance, students can not only learn to become better communicators but also would feel less stress in their day-to-day remote learning experiences. In this paper, the author will discuss how students related in the on-demand pairwork using an online communication platform, Microsoft Teams. The data show that students often worked cooperatively and autonomously in their weekly pairwork. There were some instances in which students facilitated each other's learning through dialogue. However, the data also revealed that the chat texting format caused some difficulties in their online communication.

Key words

　online English learning, pairwork, collaborative dialogue, autonomous learning, communication skills

1．Introduction

　Amid the widespread COVID-19 pandemic, many universities in Japan had to switch to online teaching when a state of emergency was declared in April 2020. Responding to this emergency situation, students were forced to adjust to the new learning environment where digital devices such as tablets and personal computers became the main learning tools. Unlike in traditional classrooms, various kinds of learning problems could happen in the virtual learning environment. In addition, students may find it more difficult to ask teachers questions in the virtual classroom. Consulting classmates about their problems through online platforms can

also be difficult unless there is an established learning community among the students. While it depends on the type of online teaching method being used, students may feel isolated if there are no chances for them to interact with other students in their learning process. Thus, teachers need to create a learning environment that encourages students to autonomously engage in their learning while working in cooperation with peers. The need for peer interaction is more prominent in a language classroom where the main purpose of learning should be on enhancing students' communication skills. With the proper instructional framework and teacher assistance, students can learn to become better communicators and acquire meaningful knowledge through peer interaction during the online learning process.

This paper talks about the mixed-method online teaching practice in the English classrooms at a four-year women's university in the Kanto area. In the practice, students worked in pairs every week in the assigned channel (private chat room) of Microsoft Teams, an online communication platform, on weekly assignments. In this paper, I will focus on students' interactive pairwork experiences in the pairwork and discuss whether and how students related cooperatively and autonomously. I will also discuss whether and how they facilitated each other's learning through dialogue doing pairwork tasks.

２．Background and Theory
2.1. Online Teaching Methods

Teachers may choose different methods for online teaching depending on their educational objectives, but most teachers would choose one of the following methods; 1) on-demand, 2) on-time, and 3) mixed.

In the on-time method, the teacher and students can work together on the lesson contents at the same time. The teacher can quickly respond to students' needs and adjust instructions accordingly. Also, in this method, students feel less lonely because all participants share the same virtual space and time. However, there is an invisible physical distance among the participants as they are in a virtual classroom. Students may feel more reluctant to speak out than they would in a face-to-face classroom. Furthermore, unlike in the in-person classroom, the interaction in the virtual environment could cause miscommunication as it is harder to detect non-verbal cues that help participants understand each other's true intentions.

In the on-demand method, on the other hand, students work on study materials uploaded by the teacher on a learning platform such as Moodle. This gives both the teacher and students the flexibility of time. Even when a wi-fi connection is poor, students do not miss important instructions because they can access the materials later when the connection improves. In addition, students can work at their own pace if the teacher has prepared an instructional video for the lesson, which can be viewed as many times as they want. One disadvantage of this method, however, is that there is a time lag in communication among the participants, which may prevent students from resolving their learning problems promptly.

The mixed method combines the on-demand and the on-time methods, making the most of the positive aspects of the two. This method is used to provide spontaneous instructions and feedback to students while allowing them to work at their own pace. It is also used to promote learner autonomy as students need to take the initiative in their learning process.

This paper focuses on a mix-method teaching practice using Moodle and Microsoft Teams. Moodle was used to distribute and collect lesson materials and Microsoft Teams for on-time and on-demand communication among the teacher and students.

2.2. Promoting Learner Autonomy and Peer Interaction

Effective learning involves active engagement by the students themselves whether it be in the face-to-face classroom or in the virtual classroom. True learning will occur only when students understand the importance of their own active involvement because students are the agents who perceive, analyze, and make decisions about solutions offered (Swain, 2006). Self-determination theory (SDT; Deci & Ryan, 1985) posits that people have three inherent psychological needs, the need for 1) competence, 2) relatedness, and 3) autonomy. According to SDT, people are innately curious, interested creatures who desire to internalize the knowledge, customs, and values that surround them. These tendencies seem to be resources that could be cultivated and harnessed by educators as they guide learning and development (Niemiec & Ryan, 2009). If educators want to promote students' intrinsic motivation, they need to create a learning environment that promotes students' autonomous

will. In the learner-centered classroom, students are given initiative to learn and to explore their interests. They are also required to take responsibility for their learning by being actively involved in the learning process rather than simply passively receiving information from a lecture (Slunt & Giancarlo, 2004).

In addition to the need for autonomy in SDT, the satisfaction of the need for relatedness can be leveraged to facilitate learning. Various studies have indicated the positive effect of relationships with others on intrinsic motivation (Moreno, et al., 2008). This idea is especially important as social context often affects the nature of learning activities and outcomes (Resnick, 1991). "People tend to internalize and accept as their own the values and practices of those to whom they feel, or want to feel, connected, and from contexts in which they experience a sense of belonging" (Niemiec & Ryan, 2009, p136). Thus students must be given opportunities to negotiate to mean, diagnose misconceptions, and challenge formerly accepted beliefs (Ramsden, 1988) through social interaction, which ultimately leads to their attainment of deep and meaningful educational experiences.

2.3. Negotiation in Collaborative Dialogue

Dialogue especially plays an especially important role in language education as one of the main purposes of language learning is to foster communicative skills through language use. Research in second-language learning indicates that peer-to-peer dialogue can lead to language learning (Swain, Brooks, & Toealli-Bcller, 2002). Dialogue with peers can not only promote students to have physically enhanced deep awareness but also helps develop their reflective thinking since they try to relativize their opinion with that of others through dialogic encounters (Hiroishi, 2006). However, not all dialogue is inducive to language learning. In order for dialogue to facilitate learning, interlocutors need to engage in collaborative dialogue through the negotiation of meaning (Swain, 2000). When students are engaged in collaborative dialogue, a dialogue in which speakers undertake problem-solving and knowledge-building, Student potential for further exploration of the product is heightened (Swain, 2000). In the study by Holunga (1994) on advanced second-language learners of English, dialogue mediated their co-construction of strategic efforts and of linguistic knowledge (Swain, 2000). "When collaborative effort is being made by participants in an activity, their speaking (or writing)

mediates this effort. As each participant speaks, their 'saying' is a cognitive activity, and 'what is said' is an outcome of that activity. Through saying and reflecting on what was said, new knowledge is constructed" (Swain, 2000, p. 113). In other words, a collaborative effort by all participants is a crucial factor for the negotiation and for the co-construction of knowledge to occur.

The study by Gomez (2021), talks about students' perceptions of their learning outcomes through peer-to-peer communication using Microsoft Teams' channels in mixed-method online English classrooms. In the study, students thought various kinds of learning occurred through peer-to-peer interaction in learning English online. However, the study only focused on how students perceived the outcome of the pedagogy and did not focus specifically on the process of how students communicated. It is thus useful to find out exactly how students related to one another and find out how their communication with peers affected their learning.

3．Research Questions

In this study, I will explore how students related in pairwork using the channel function of Microsoft Teams. This paper will focus on the following two questions:
1) Did students act collaboratively and autonomously to engage in pairwork online?, and 2) Did collaborative dialogue occur in pairwork online?

4．Methods
4.1. Target Population and Teaching Practice

In this section, I will describe how mixed-method online English classes using the channel function of Microsoft Teams were conducted. The method was used to teach six general English classes to first- and second-year students at a women's university in the spring semester of 2021. Students met once a week for 90 minutes for 15 weeks. The main learning goal for the first-year students is to cultivate communication skills using basic grammar knowledge while for the second-year students, the goal is to improve academic reading skills. Moodle was used for distributing study materials and collecting assignments, and Microsoft Teams was used for interactive teacher-student and student-student communication. No face-to-face class sessions were conducted during the semester. All eight classes followed the same learning process, which is shown in Table 1. The main purpose of the first lesson was to clearly explain to students

the class format, evaluation standards, and expected behaviors and outcomes for pairwork. Students must understand at this very early stage that their responsible and active involvement in the entire learning process is the key to success. Students also conducted their own needs analysis for the purpose of motivating them in improving their English skills.

Table 1.　Online Instructional Framework

Week		Lesson Contents
W1	Guidance	・Understand class format, evaluation standards, and rules for pairwork ・Set goals and analyze current English level
W2–W15	1) Preparation (Individually)	Access learning materials on Moodle (including an instructional video) and work on the individual tasks in the worksheet
	2) Pairwork (In assigned channels in Microsoft Teams)	・Contact partner during class hour in the assigned channel in Microsoft Teams and set up day and time for pairwork ・Work together on the following tasks: 1) language-related activity on a focused topic 2) discussion on problems faced during individual tasks 3) solving problems by asking questions to the teacher
	4) Submission (Individually)	Submit the worksheet through Moodle before deadline

From Week 2 to Week 15, students worked on a weekly lesson in four steps: 1) preparation, 2) pairwork, 3) reflection, and 4) submission. Firstly, students downloaded weekly study materials from Moodle, which included an instructional video and a worksheet prepared by the teacher. The worksheet contained tasks to be completed individually and in pairs. Individual tasks involved comprehension exercises as well as meaning-focused tasks for higher-order thinking so that students would be encouraged not only to understand the concepts to be learned but also to analyze them（Krathwohl, 2002）for further discussion with peers. Each worksheet contained a task that required collaborative work with peers such as information gaps or discussion questions related to the focused subject to elicit collaborative dialogue. Students completed the individual tasks on their own. For the second step, after completing the individual tasks, students worked with their partners. Partners alternated every 3 weeks to complete the paired task in the assigned channel on the Microsoft Teams（using texts, live chat, or both）. During every pairwork, students were

instructed to 1) work collaboratively on a paired task, 2) discuss and resolve their learning problems, and 3) contact the teacher for assistance with any unresolved problems. Students were given the freedom to schedule the pairwork at their convenient time. However, they were instructed to contact their partner within the class hour to set up the time for pairwork. They were told that they can use the Teams' channel for pairwork while using private communication applications such as LINE for getting in touch with each other. The teacher sometimes reached out to students individually as well as to the whole class depending on the nature of the problems detected. After the pairwork, students reflected on the content of the pairwork on their own and completed the worksheet for submission. During the entire process, the teacher responded to students' inquiries promptly. Submitted worksheets were then evaluated and feedback was given to students individually.

4.2.　Instruments

The purpose and the method of this study were screened and approved by the university's ethical screening committee. The data used for this study were gathered from the reflection sheets that students wrote at the end of the semester and the text communication from Week 2 to Week 15 in Microsoft Teams' channels. Out of 164 students enrolled in the eight classes subjected to this study, 93 students agreed to use the data from the reflection sheet and 92 students agreed to use text communication after being given explanations of their rights and the purpose of this study in writing online.

To investigate the first research question, I will focus on students' responses to the eight questions from the reflection sheet and provide a qualitative analysis of the given data. The questions include: 1) Did you ever fail to contact your partner within the designated time? If "yes", how many times?, 2) Why did you fail to contact your partner（if you answered "yes" to Q1）? ", " 3) What did you do when your partner did not contact you（if your partner has ever failed to contact you）?, 4) Did you clearly set a time for pairwork? If "yes", how often?, 5) What words and deeds by your partner hindered the pairwork?, 6) What words and deeds by your partner facilitated the pairwork?, 7) How often did you use live chat?, and 8) How did live chat help you（if you answered "yes" to Q7）? Questions 1,2,3, and 4 were selected to investigate students' autonomous nature,

and questions 5 and 6 were to investigate their collaborative nature. Questions 7 and 8 were chosen to examine the communication type used. The data for questions 1, 4, and 7 were quantitatively tabulated for analysis. For questions 2, 3, 5, 6, and 8, participants' narrative responses were closely examined and coded in terms of the conceptual units participants described（Swain et al., 2009）. After analyzing 93 sets of responses, the conceptual units of their narratives were first grouped into conceptual categories according to their similarity in meaning. Then, those with overlapping concepts were classified together to make the key concepts before they were quantitatively tabulated for analysis.

　　To investigate the second research question, text messages of interactional communication by 92 participants in the channels between Week 2 and Week 15 were closely examined and sequences with adjacent pairs（Schegloff & Sacks, 1973）were extracted. Those segments were then classified into six conceptual categories of interactional types. The classified data were then quantitatively tabulated for analysis.

5．Results

5.1．RQ 1: Did Students Act Collaboratively and Autonomously?

　　In this chapter, I will focus on students' responses in the reflection sheet and examine their responses to see if they acted both collaboratively and autonomously to engage in pairwork. Firstly, responses to question, 1）"Did you ever fail to contact your partner within the designated time? If "yes", how many times?", show that 76 % of the respondents reported they never failed to contact their partner within the
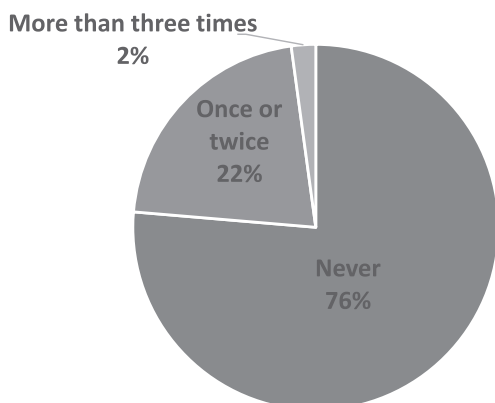

Figure 1　How Many Times Did You Fail to Contact Your Partner Within Designated Time ?
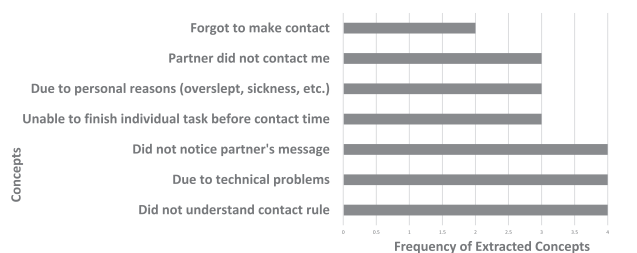

Figure 2　Reasons for Not Contacting within Designated Time.

designated time（during class）, while 22 % reported once or twice. Only 2 % said they failed to contact more than 3 times（shown in Figure 1）. Those who answered "yes" to question 1 were asked why they failed to contact their partner. Seven categories with 23 conceptual units were obtained as a result of the analysis. Answers varied from personal faults such as forgetting to make contact and not noticing their partner's messages to procedural difficulties such as technical problems and not understanding the contact rule（shown in Figure 2）.

　　Responses to the question, 3）"What did you do when your partner did not contact you（If your partner has ever failed to contact you）"? brought six categories with 40 conceptual units. The results indicated that the majority of respondents took some kind of measure to reach out to their partner, as presented in Figure 3. Many students contacted the teacher to intervene while others used private communication platforms to communicate with their partners. Only a few students did nothing to reach out to their partners and just waited.
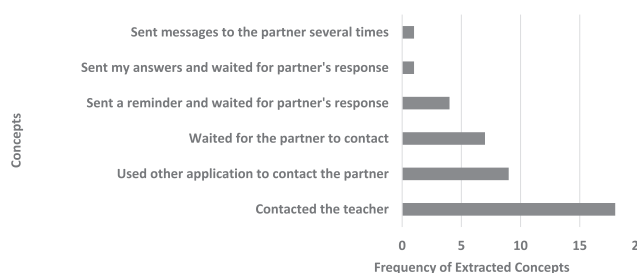

Figure 3　What Did You Do When Partner Did Not Contact You?

　　Figure 4 shows the results of respondents' answers to questions, 4）"Did you clearly set a time for pairwork? If "yes", how often?" The data show that most students clearly set time for pairwork or did pairwork during class. About a quarter of the respondents say they did not set a time.

　　To question 5）"What words and deeds by your partner hindered the pairwork?", six categories with 51 conceptual units were found. Most students cited "late" or "no
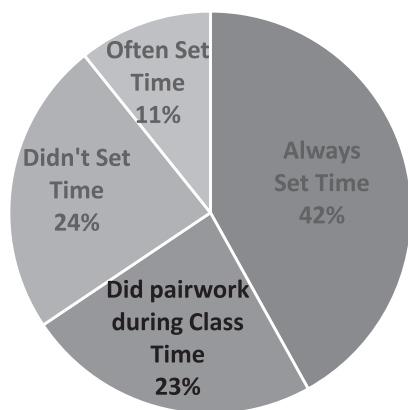
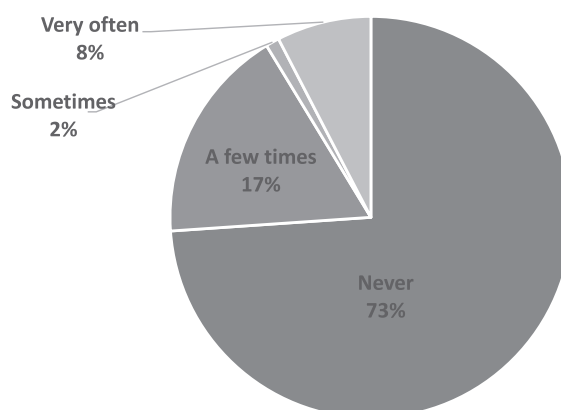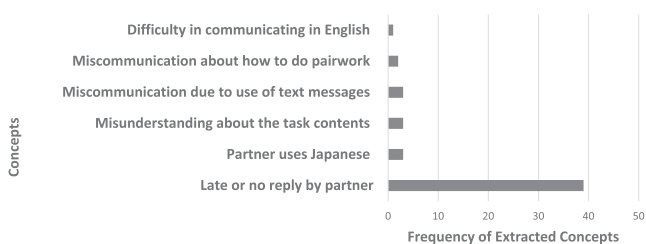Figure 4　How Often Did You Clearly Set Time for Pairwork ?

Figure 5　What Hindered Smooth Pairwork?

reply" by their partners as the main hindrance to smooth pairwork (shown in Figure 5). In contrast, the results of students' answers to question 6) "What words and deeds by your partner facilitated the pairwork?" show eight categories with 91 conceptual units (Figure 6). The results show that the partner's quick response and well-mannered communication helped them greatly while the partner's collaborative efforts to complete difficult tasks also benefited them.
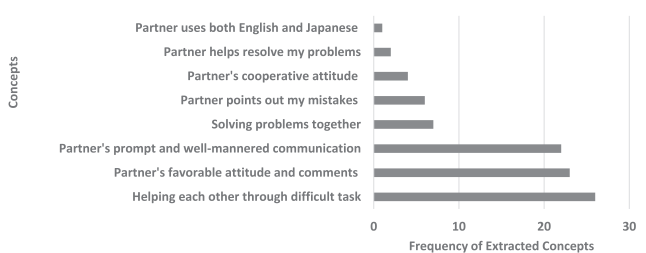

Figure 6　What Facilitated Learning in Pairwork?

　　Students were also asked 7) "How often did you use live chat?" as they were given the freedom to decide on the communication tool from texts, live chat, or both. The results show (Figure 7) that three-quarters of the students used only text messages to communicate in pairwork and less than 10% used it regularly.

　　Figure 8 shows the effects of live chat given by the respondents. Seven categories with 33 conceptual units are

Figure 7　How Often Did You Use Live Chat?

obtained. The results indicate that many students noted that live chat enabled them to resolve problems quickly as discussion and communicating ideas were easier on live chat. Some students thought communicating on live chat helped them narrow the distance between them.
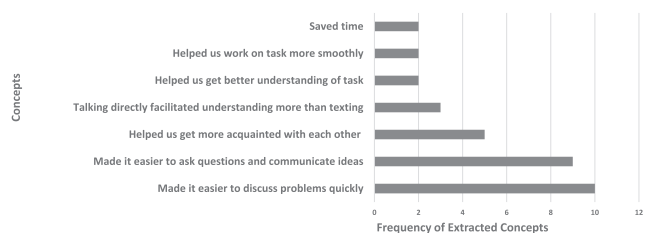

Figure 8　How Did Live Chat Help You?

5.2. RQ 2: Did Collaborative Dialogue Occur in Pairwork?

　　In this section, I will focus on students' text communication in Teams' channels to see if collaborative dialogue occurred in pairwork. The data were coded into meaningful interactional segments, then they were classified in terms of six conceptual categories of interactional types (shown in Table 2): 1) Exchange of answers only, 2) Exchange of answers and comments about the answers, 3) Simple task-related collaborative dialogue, 4) Simple non-task-related collaborative dialogue, 5) Complex task-related collaborative dialogue, and 6) Complex non-task-related collaborative dialogue. Simple collaborative dialogue (3 & 4) involves a sequence with one assessment response (Pomeranz, 1984) whereas complex collaborative dialogue (5 & 6) involves a sequence with 2 or more assessment responses. The data show that students exchanged answers quite frequently but did not discuss their answers in detail. However, there were also quite a few occasions when students engaged in

collaborative dialogue with peers about tasks as well as about other problems they were facing.

Table 2　Interaction Type Observed in Texts Messages in Teams Channels

	Interaction Type	Frequency
1	Exchange of answers only	529 segments
2	Exchange of answers and comments about answers	107 segments
3	Task-related collaborative dialogue (Simple)	116 segments
4	Non-task-related collaborative dialogue (Simple)	31 segments
5	Task-relatedcollaborative dialogue (Complex)	60 segments
6	Non-task-related collaborative dialogue (Complex)	29 segments

6．Discussion

Data analysis from the reflection sheet indicates that students overall acted autonomously to engage in pairwork with their partners. The majority of students acted responsibly and contacted their partners without delay (Figure 1). Even when their partners failed to contact them, many students sought ways to get in touch with their partners (Figure 3). The data also indicate that many students tried to systematically proceed by completing the pairwork during the class hour or by negotiating with their partner a convenient time for pairwork (Figure 4). There are also indications of students' cooperative behaviors toward each other. Many students found their collaborative efforts to work on difficult tasks beneficial and their partner's cooperative and favorable attitude facilitated learning (Figure 6).

However, the data from the reflective sheet also show some difficulties students were facing. Some students forgot to contact their partner or did not respond to their partner in time because they did not notice their partner's messages (Figure 2). Late or no reply from their partner was a major obstacle for some students (Figure 5). Procedural difficulties such as technical problems or miscommunication by using text messages were other problems students had to deal with (Figure 5).

Six types of dialogic communication are manifested in the text data in Teams' channels. More than 500 cases of interactive exchanges were simple exchanges of answers to the task. What this indicates is that students often only exchanged information on many occasions rather than

negotiated for problem-solving or knowledge-building. Nevertheless, there were 107 occasions in which students added some comments on answers. This type of dialogic exchange does not necessarily lead to problem-solving or knowledge-building by itself, yet it can serve to facilitate agreeable dialogic encounters, which is a useful skill for effective communication.

There was also evidence of task-related and non-task-related collaborative dialogue in students' interactions. Among them, 60 cases of task-related collaborative dialogue and 29 of non-task-related collaborative dialogue were complex in nature, in which students exchanged several assessment responses in an attempt to resolve a problem or gain an understanding of a particular concept. The dialogue below is an example of such complex collaborative dialogue taking place. They are discussing the following gap-filling exercise from Interchange 1 (Richards, 2017, p. 10) in English. The exercise was used to help students understand the concepts of the simple present with wh-questions and statements.

A：How _____ he like it?

B：Not much, but he _____ some extra money to spend!

Excerpt:

N：What word did you put in "How _____ he like it?"

K：does!

N：OK! ✋ Then B should respond using "does"?

K：I wasn't sure… I put "has" though.

N：Not sure… I put does…. but can't be "does"… there should be a do-verb there, so "has" seems more appropriate.

K：Yeah! I think so, too.

N：OK. I'll put "has".

As shown in the excerpt, students exchanged multiple assessment responses (Pomeranz, 1984), which indicates complex collaborative dialogue rather than simply comparing their answers. On that account, they were engaged in collaborative dialogue to co-construct knowledge in an effort to resolve a problem together through dialogue.

Nonetheless, a large number of students' dialogic interactions were simple exchanges of answers. This may have something to do with the fact that students communicated in texts. It takes more time to communicate in texts compared to using live chat as students need to think of the appropriate words and sentences to communicate their ideas properly before typing words. Also, miscommunication

may arise as they have to assess the partner's intention only through words they see. On the contrary, those who used live chat thought it helped them resolve problems quickly through discussion, and communicating ideas was easier on live chat (Figure 8). Furthermore, live chat can also help narrow students' distance from each other (Figure 8). Those who only exchanged answers often communicated using honorific sentence forms. Concerning that point, some students thought that partners' well-mannered communication helped them proceed with pairwork smoothly (Figure 6). While the use of honorific sentence forms can help students maintain good relationships with each other, it could also create psychological distance between them, which may lead them to feel reluctant to ask questions or give frank opinions. In addition, when using texting, students do not necessarily need to focus on their communication unlike in live chat. This can create time lags in their online communication, leading to late responses to partners' messages. In this study, the data on students' interaction in live chat was not available, so it is hard to discuss the correlation between the use of live chat and the occurrence of more active collaborative dialogue unless we examine the actual interaction, but it is worthwhile investigating the relationship.

7．Conclusion

In conclusion, students worked cooperatively and autonomously overall in their weekly pairwork. Also, there were some occasions in which students facilitated each other's learning by negotiating meaning through collaborative dialogue. However, the data also revealed that the use of texting caused some difficulties in their online communication, which may have prevented them from asking questions or giving frank opinions to each other.

This study has brought up several research themes to be further explored. Firstly, it is significant to study how the use of on-time communication tools such as live chat can affect the quality of students' interactions. Will it affect more frequent peer-to-peer negotiations? Furthermore, some students mentioned in this study that the use of live chat helped them get more acquainted with each other. It is worthwhile to find out how different communication formats such as texting and live chat can affect the frequency and quality of students' dialogical interactions and what psychological, social, or cultural factors cause those differences.

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