



Research Article / Araştırma Makalesi

The Parameters of Collaborative Dialogue: Interaction Patterns, Use of L1 and Language-Related Episodes

İşbirlikçi Diyalog Parametreleri: Etkileşim Örüntüleri, Anadil Kullanımı Ve Dil Odaklı Tartışmalar

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ABSTRACT: This study investigated *collaborative dialogue* in terms of patterns of interaction, use of L1 and language-related episodes (LREs). These elements were analyzed as to different pairings and task complexity. To that end, two different levels of student pairs were sampled (high-high [H-H] & high-low [H-L]) from the preparatory class of a foundation university. In addition, three different task types were used (word formation task, error correction task and composition task) in the study. The results showed that in both pairings (H-H & H-L) collaborative pattern was observed. As to L1 use, it was more prevalent in high-low (H-L) pairing and the composition task required more use of L1. Moreover, L1 metatalk was used more than its metacognitive function. In terms of LREs, H-L pair experienced more episodes and the composition task required more LREs than other tasks. The study suggests that collaborative pattern, irrespective of language levels of pairs, secures effective interaction and transfer of knowledge between learners. Also, it is suggested that L1 use and LREs can be mediating tools for these interactions.

Keywords: collaborative dialogue, interaction patterns, use of L1, language-related episodes

ÖZ: Bu çalışmada *işbirlikçi diyalog*, etkileşim örüntüleri, anadil kullanımı ve dil odaklı tartışmalar açısından incelenmiştir. Bahsi geçen unsurlar, öğrenci gruplarının dil seviyeleri ve verilen görevlerin zorluğu gibi değişkenlere bağlı olarak analiz edilmiştir. Bu amaçla, bir vakıf üniversitesinin hazırlık programından farklı seviyede ikili öğrenci grupları (yüksek-yüksek [Y-Y] & yüksek-düşük [Y-D]) örnekleme alınmıştır. Ayrıca, bu çalışmada üç farklı görev tipi (sözcük türetme görevi, hata düzeltme görevi ve kompozisyon görevi) kullanılmıştır. Çalışma sonucunda her iki öğrenci grubunda da (Y-Y & Y-D) işbirlikçi etkileşim örüntüsünün oluştuğu gözlemlenmiştir. Anadil kullanımının ise Y-D ikili öğrenci grubunda daha yaygın olduğu ve kompozisyon görevinin daha çok anadil kullanımı gerektirdiği görülmüştür. Ayrıca, anadil kullanımında üstdil işlevinin üstbilissel işlevden daha çok kullanıldığı görülmüştür. Dil odaklı tartışmalar açısından ise Y-D ikili öğrenci grubunun öne çıktığı ve kompozisyon görevinin diğer görevlere göre daha fazla dil odaklı tartışma gerektirdiği tespit edilmiştir. Yapılan çalışma, ikili öğrenci gruplarındaki dil seviyelerine bakılmaksızın, işbirlikçi etkileşim örüntüsünün öğrenci etkileşimini ve öğrenciler arasındaki bilgi aktarımını etkin bir şekilde sağladığını ortaya koymaktadır. Çalışma, aynı zamanda, anadil kullanımı ve dil odaklı tartışmaların bu etkileşimler için yardımcı araçlar olabileceği fikrini öne sürmektedir.

Anahtar Kelimeler: işbirlikçi diyalog, etkileşim örüntüleri, anadil kullanımı, dil odaklı tartışmalar

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Introduction

The importance of social interaction in language learning is well recognized after the sociocultural turn of 1990s, based on the legacy of Lev Vygotsky. This turn actually underscored the ideas that learning happens as a social act and thought is embedded in the exchanges within our social practices (Vygotsky, 1978). More specifically, according to the sociocultural stance, human learning is a dynamic activity situated in a variety of social and physical situations (Johnson, 2006; Rogoff, 2003).

Fundamentally, the ideas such as mediation, regulation and Zone of Proximal Development (ZPD) are directive of what we understand from the workings of our social interactions (Lantolf & Thorne, 2007; Vygotsky, 1978). Language, in this respect, is the mediational tool for our thoughts and all human learning is derived out of this mediation of thought. That is to say, we mediate our thinking within our exchanges with others, via language. In these interactions, we learn by other-regulation; that is, by mediating each other's ideas which eventually leads to self-regulation with the help of internalization of thought (Lantolf & Thorne, 2007). ZPD, as another significant term, highlights the distance between actual development and potential development, within which we have the chance to learn from more knowledgeable others (Vygotsky, 1978). Based on this line of thought, socially constructed learning can be associated with the context it takes place in (McMahon, 1997); that is to say, what we learn is shaped by how we learn so qualified interaction will therefore secure quality learning.

As an addition to the classical Vygotskian idea that ZPD is constructed between a novice and an expert, neo-Vygotskian paradigm of language learning also values the dialogue happening between peers, which does not necessarily require teachers as more knowledgeable others (Cowie & van der Aalsvoort, 2000; Mitchell et al., 2013). In this context of peer-peer collaborations, a number of ideas emerged such as *linguaging* (Swain, 2006), *collaborative dialogue* (Swain, 2000), *collaborative talk* (Wells, 1989) and *language-related episodes (LREs)* (Swain & Lapkin, 1995). To define the terms, *linguaging* refers to producing language to solve linguistic problems and to make meaning (Swain, 2006). As an umbrella term, it both refers to *private speech*, which regulates thought and to *collaborative dialogue*, which is an attempt to solve problems related to language (Swain et al., 2011). More specifically, *collaborative dialogue* refers to language use and language construction happening at the same time. Swain (2000) defines it as “[...] a knowledge building dialogue [...], a dialogue that constructs linguistic knowledge [...], language use mediating language learning” (p. 97). During collaborative dialogue, learners reach deeper understanding of language, mediate their thinking, and construct meaning (Swain & Watanabe, 2013). Obviously, it is a conscious dialogue both to analyze and improve language in an interactive way. Wells (1989) refers to the same construct as *collaborative talk*. To be specific, this talk enables progress toward a learning goal and also creates an opportunity for incidental language learning.

As specific segments of collaborative dialogue, *language-related episodes (LREs)* are the lines of speech in which interlocutors particularly speak about a language problem, after encountering and identifying it, in order that it is resolved in interaction (Swain &

Lapkin, 1995). In their study on LREs with French immersion classes, Swain and Lapkin (2001) maintained that LREs can be seen in two categories: Lexis based (lexical items) and form based (spelling and morphosyntactic aspects of language). Another study by Swain and Lapkin (1998), which was done with pairs of immersion students carrying out a jigsaw task, emphasized that collaborative dialogue was really beneficial for language learning (specifically for written production in this study) since students were able to generate ideas, assess their success and correct each other through LREs. Apparently, collaborative dialogue – with the help of LREs – has its value for both communication and learning a language.

We can outline a variety of research conducted upon collaborative dialogue. The prominent research area has been the parameters affecting collaborative dialogues and especially LREs (Bao, 2018; Kim, 2009; Leiser, 2004; Philp et al., 2010; Storch, 2002; Watanabe & Swain, 2007). As an influential study in this respect, Storch (2002), based on a longitudinal classroom-based research, observed four types of interaction patterns emerging in collaborative dialogue between ESL learners as seen in Figure 1 below:

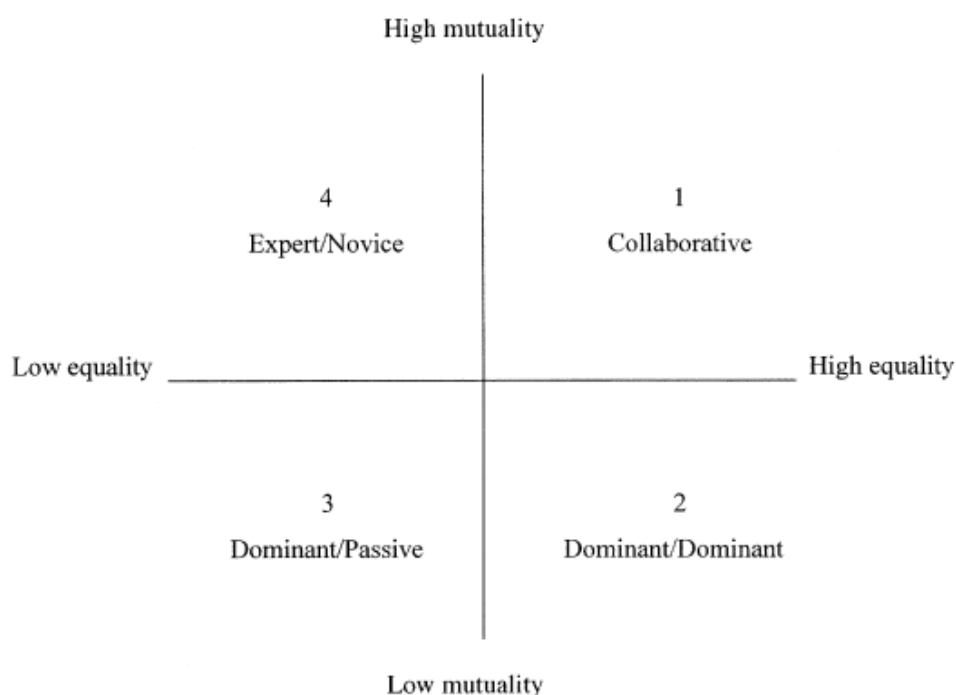


Figure 1. Interaction patterns observed in collaborative dialogue. Storch, N. (2002). Patterns of interaction in ELS pair work. *Language Learning*, 52(1), p. 128.

In this axis, *equality* refers to the similar rate of output produced by pairs while *mutuality* refers to the conscious exchanges occurring between pairs. The study proved that the pairs in the zone of mutuality (collaborative & expert/novice) produced more ‘transfer of knowledge’ than the pairs low in mutuality (dominant/dominant & dominant/passive). Therefore, mutuality surpassed equality in effect. To be more specific about the patterns,

collaborative dyads produced exchanges incorporating co-construction of knowledge with the similar levels of language output while *expert/novice* dyads produced co-constructions in which one pair took the lead as an expert and the role of a teacher while novice took the role of a listener for the most part. On the other hand, *dominant/dominant* pattern meant that pairs produced a lot of language but did not contribute to each other's understanding; and in *dominant/passive* pattern, one learner dominated the task while the passive learner did not attempt to contribute under the circumstances. This study in fact informs our study with its important conclusions related to the pairings of students in collaborative dialogue.

Another research on interaction patterns came from Watanabe and Swain (2007), who studied adult ESL learners by using three writing tasks. The results showed that high proficiency learners created more LREs than low proficiency ones; and in relation with Storch's (2002) study, she proved that collaborative and expert/novice pairs proved better in the amount of LREs and post-test scores. Beside the interaction and proficiency parameters, the study also proved that noticing task created more LREs than the collaborative writing task.

Similar to the study above (Watanabe & Swain, 2007), Leeser (2004) also studied proficiency variable in collaborative dialogue and specifically investigated high-high, high-low and low-low pairings. Similar to Watanabe and Swain's (2007) results, overall proficiency of the pairs acted in line with the number of LREs. Therefore high-high dyads embedded more LREs than high-low or low-low dyads. Moreover, the LREs of higher proficiency learners focused more on form while low proficiency LREs focused more on lexical items. As a slight contradiction, Bao (2018) found that also beginner level learners (of Chinese) benefited from ample amount of LREs and more interestingly, medium-medium pairings created more LREs than strong-weak ones. As another difference, beginner learners focused on form rather than lexis in their LREs, which Bao related to the form focused nature of Chinese language. As a last note, the study proved that use of L1 proved significant value for regulating learning in the LREs observed.

There are other studies on the variables influencing the amount of LREs. For one, Philp et al. (2010), in their study in classroom setting with undergraduate learners of French, noted a variety of parameters affecting LREs, namely task design (focus, inherent demands, planning time) and social dimensions (familiarity, willingness, empathy). Particularly, the tasks calling for focus on form and enabling longer planning time promoted more LREs. Also, familiar pairs either produced more LREs or empathized with their friends and avoided correcting their mistakes.

As an addition to proficiency and pairing parameters, Kim's (2009) study focused on the structure of tasks and yielded results for the relation of learner proficiency and task complexity. The study conducted with 34 ESL students proved that more proficient learners produced more LREs in complex narration tasks whereas less proficient learners created more LREs in simple narration tasks. Therefore, task complexity was proven to act in line with the level of language, which can be another consideration in the planning of the tasks for collaborative dialogue.

Other lines of research have been exclusively dedicated to the use of L1 in collaborative dialogue (Colina & Mayo, 2009; Rayati et al., 2012; Storch & Wigglesworth, 2003; Zulfikar, 2018). As one of the influential studies in this domain, Storch &

Wigglesworth (2003) identified the major areas where learners used L1 in writing tasks: (1) Metatalk, (2) clarification of task requirements, (3) inner speech (as reported by learners). In metatalk, learners clarified vocabulary items, discussed grammar and clarified meanings. For clarification of task requirements, learners tried to get resolved with the tasks and to understand them correctly. For inner speech, some learners stated that they used L1 in their minds prior to producing L2 utterances. Zulfikar's (2018) review also investigated areas of L1 use and considered collaborative dialogue as an act in which L1 is paramount. In his work, it was suggested that by the use of L1;

- Learners can create more clear and effective expressions,
- Learners can initiate collaborative dialogues,
- Teachers can save classroom time by instructing in L1,
- Teacher can easily and clearly explain concepts,
- High-proficiency learners can have a chance to do translation and see the differences between L1 and L2 (pp. 44-49).

There are also other studies narrowing down the role of L1 in terms of task types and amount of LREs. To exemplify, Colina and Mayo (2009), in their study with low proficiency learners of Spanish, focused on the relationship between L1 use and task types. The learners in this research used the most L1 in text reconstruction task (written stimulus), on medium level in dictogloss task (aural stimulus) and the least L1 in jigsaw task (visual stimulus). Therefore, the results suggested that the more demanding and in written form a task is, the more L1 is used to deal with it. Lastly, Rayati et al. (2012) investigated the relationship between L1 use and the amount of LREs created. They used text editing tasks and worked with Pre-intermediate level EFL learners. They separated the learners into two; one group allowed to speak L1 and another banned from L1. The results showed that more LREs were observed in L1 allowed group than the banned group. Moreover, the time spent in LREs was much greater in L1 group than the other. The study underscored the contribution of L1 use in the mediation of thought during LREs.

Upon the abovementioned insights derived from literature, and to add another insight into the field, our study will investigate collaborative dialogue in terms of patterns of interaction, L1 use and LREs produced in the process.

Methodology

Aim and Research Questions

The aim of this study is to investigate the types of interaction patterns, the amount and functions of L1 use and the amount of LREs in the collaborative dialogues of two different pairs. The study was conducted at the school of foreign languages of a foundation university. The research questions are as below:

1. What patterns of interaction were observed in the collaborative dialogue of two different pairings (high-high & high-low)?
2. Did the amount and functions of L1 differ in terms of different pairings and tasks?
3. Did the amount of LREs differ in terms of different pairings and tasks?

Participants

The sampled participants were four students studying in the tertiary level English preparatory program. In the modular system, these learners were studying Pre-Intermediate level English and their pairings were decided in accordance with their scores of a midterm exam and two quizzes (Table 1). For ethical purposes, necessary permissions were obtained from the ethical committee of the university and the students signed consent forms to agree with the research requirements. In addition, pseudonyms were used for student names for the sake of confidentiality.

Table 1. Scores of the students sampled in the study (out of 100)

Student Name/Scores	Listening Quiz	Speaking Quiz	Midterm Exam
Özgecan	80	100	85
Berrak	80	80	90
Zerrin	90	100	83
Banu	75	60	68

For the purpose investigating the differences (L1, LREs, patterns) between two different pairings, Özgecan and Berrak were paired as high-high (H-H) and Zerrin and Banu were paired as high-low (H-L).

Procedure and Data Analysis

For the data collection, each pair group was taken to a different study room to work. Before this process, all the students were instructed about the purpose of the study and asked to complete three tasks in a designated order by ensuring they interacted and reached a shared understanding in the process. They were asked to use L2 in the process but were also advised that they could utilize L1 when they felt the necessity. Data were collected through videotaping and the researcher left the pairs alone while they were doing the tasks.

The tasks were written tasks and involved revisions of the language items the students had been recently taught. The content of the tasks is as below:

- **Task 1:** 6-item word formation task (controlled practice – minimal complexity).
- **Task 2:** 8-item error correction task (noticing – medium complexity).
- **Task 3:** E-mail composition task (free practice – high complexity).

As to the rationale of the selection of these tasks, it was aimed to make the learners likely to produce LREs and L1 by means of written production and form focused tasks – in line with the results of Philp et al. (2010) – and the complexity was purposefully designed in a way that the tasks advanced from easy to more challenging – to see if task complexity had a say in LREs and L1 production, as in Kim's (2009) study.

In Task 1 (word formation task), the pairs were supposed to write the right version of the root words to create verbs, adjectives, adverbs and nouns. The items were selected from the word formation list the students had already discussed in their previous classes. In Task 2 (error correction task), they were asked to correct, add or delete language items to

fix the errors in the sentences, and the language points were chosen from the recently taught grammar topics (such as passive voice, gerunds and infinitives, present perfect tense, relative clause etc.). As the most complex task, Task 3 (e-mail composition task) was chosen to challenge the students further not only with the cognitive load free practice would bring but also with its demanding instructions. The pairs were supposed to compose an e-mail to be sent to their teacher by using a set of language items in their work.

After the data collection, the dialogues were transcribed to address the research questions. Different procedures of data analysis were used for each research question. To address the first question (interaction patterns), Storch's (2002) identifications were used to decide if the dyads demonstrated collaborative, expert/novice, dominant/dominant or dominant/passive patterns. The entirety of the interactions was observed to decide on the prevalent pattern in each pairing.

To address the second question (amount and function of L1), any single utterance in L1 was called an instance. The instances were coded and counted in terms of pairings and tasks. Also, the functions of L1 were codified in the exchanges as metatalk (discussion on linguistic items; grammar or lexis) and metacognitive talk (organization of tasks, understanding instructions) (Brooks et al. 1997; Colina & Mayo, 2009; Storch & Wigglesworth, 2003).

To address the last question (amount of LREs), the episodes in which the students discussed forms or meanings to resolve a linguistic problem (Swain & Lapkin, 1995; 2001) were coded and each flow of discussion from the beginning until the resolution was codified as one LRE instance. The LREs were counted in terms of pairings and tasks to reach a detailed understanding of the amounts.

Results

Before the analysis of the patterns, L1 use and LREs, it is significant to see how much each pair achieved in three tasks. From the results, it was noted that both pairs completed the tasks in similar timing (H-H: 22 minutes; H-L: 25 minutes) and with similar levels of success. Particularly, in Task 1, both H-H and H-L pairs produced correct answers except for item 6. Neither of the pairs could write the correct form for the root word in that item. In Task 2, both pairs fixed the errors in the sentences correctly but failed in item 1, which was about correcting the sentence: "The best chocolate makes in Germany". H-H pair made a tense mistake ('was made') and H-L pair made a mistake in the passive form ('made'). In Task 3, both pairs achieved the goal of the task and was able to write a communicative e-mail to their teacher with correct forms, organization, content and the target grammar items. Therefore, after these outcomes, we could clearly observe the patterns, LREs and L1 based on the successful results by both pairs, and thus without any variable of task performance.

Patterns of Interaction

To answer research question 1 (*What patterns of interaction were observed in the collaborative dialogue of two different pairings (high-high & high-low)?*), all the exchanges were analyzed in two pairings, and Storch's (2002) rationale for patterns was

used to reach a conclusion. Out of this analysis, it was noted that both pairs (H-H & H-L) demonstrated the *collaborative pattern* as outlined by Storch (2002): “During these negotiations, alternative views are offered and discussed, leading to resolutions that seem acceptable to both parties” (p. 128). Also, these dyads were rich in mutuality and equality, which means the pairs were attentive to each other’s contributions (mutuality) and also achieved similar levels of control and language production (equality).

To exemplify the pattern observed, in H-H condition (Özgecan & Berrak), some specific dialogues were clearly indicative of the collaborative pattern. Excerpt 1 below is a good example of the collaborative dyad in which Özgecan and Berrak discussed an item in the error correction task (Task 2):

Excerpt 1

Task 2 - Item 1: “The best chocolate makes in Germany”.

- 1 **Berrak:** Umm... The best chocolate made...
- 2 **Özgecan:** In Germany. But it’s...
- 3 **Berrak:** The best chocolate was made...
- 4 **Özgecan:** Was made in Germany.
- 5 **Berrak:** By Germany.
- 6 **Özgecan:** No. No by Germany, in Germany, but was made.
- 7 **Berrak:** Yes.
- 8 **Özgecan:** Was made... Best chocolate. Yes.
- 9 **Berrak:** I am not sure. Was made?
- 10 **Özgecan:** But we don’t know who did this, so the best chocolate is.
- 11 **Berrak:** This is not passive.
- 12 **Özgecan:** Passive... is passive. Passive...
- 13 **Berrak:** Passive.
- 14 **Özgecan:** Passive.
- 15 **Berrak:** Was made...
- 16 **Özgecan:** Made in... made... made made. OK made.
- 17 **Berrak:** Verb three made.

In this discussion, it is visible that both students showed similar control and attention for the task and for their partners. They contributed to each other’s understanding (lines 6, 9, 10, 11, 12, 17) and contributed to the answer (lines 3, 5) in a co-learning experience. In Excerpt 2, as another clear example of the collaborative pattern, they formulated a sentence jointly in the composition task (Task 3):

Excerpt 2

Task 3 - Writing an e-mail. Completing a sentence jointly.

- 1 **Özgecan:** Maybe I have forget my money...
- 2 **Berrak:** So I can’t buy...
- 3 **Özgecan:** Yes.

4 **Berrak:** Yes, it's OK.

In H-L condition (Zerrin & Banu), the collaborative pattern was observed as the prevalent pattern as well, but in a few cases the stronger pair (Zerrin) took the role of an expert while the weaker pair (Banu) acted as a novice. To start with the collaborative pattern, Excerpt 3 below can be noted as another good example. In this dialogue, the students discussed an item in error correction task with the same level of mutuality and equality (Task 2).

*Excerpt 3***Task 2 - Item 6: "Our new car is enough fast to take part in races".**

- 1 **Banu:** I guess it's wrong somewhere you know this sentence but I don't know.
- 2 **Zerrin:** Fast enough.
- 3 **Banu:** Fast... Our new car is fast enough to take part in race, I guess.
- 4 **Zerrin:** Maybe... I think umm... We can use enough umm... We use enough after adjective, so our new car is fast enough to take part in race.
- 5 **Banu:** OK, I say that. The same. OK.
- 6 **Zerrin:** OK.
- 7 **Banu:** I do.

In this example, Banu and Zerrin collaborated for the correction and reached the same resolution with the similar levels of language production and receptivity to each other's utterances. As the weaker pair, Banu did not only receive information, but also put forward her own resolution as in line 3. Zerrin, as the stronger pair, agreed and made a claim with a rationale based on metatalk (line 4). As noted above, Zerrin sometimes took the role of an expert and taught Banu, who stayed a novice in some exchanges. Although it was still a collaborative pattern since Banu was active and productive, it was observable that Zerrin attempted to deliver explanations to make sure her pair was clear about a point, as in Excerpt 4 – in the error correction task – below:

*Excerpt 4***Task 2 - Item 4: "I love to eat fast food but I don't enjoy to eat hamburger".**

- 1 **Zerrin:** Love to... It's correct because both of them...
- 2 **Banu:** Uhuh, yes.
- 3 **Zerrin:** We use. Enjoy...
- 4 **Banu:** With to.
- 5 **Zerrin:** With 'ing'.
- 6 **Banu:** Yes.
- 7 **Zerrin:** We can use enjoy with 'ing', so to is...
- 8 **Banu:** Is gone.
- 9 **Zerrin:** Enjoy eating.
- 10 **Banu:** Eating hamburger.

In this talk, Zerrin clearly made a distinction between ‘love to’ and ‘enjoy to’ by explaining that *love* can be used with ‘to infinitive’ or ‘gerund -ing’ forms (line 1) but *enjoy* can only be used with the gerund form of the verbs (line 5). Also, she checked her partner whether she grasped the form in line 7 by prompting. Eventually, she stated the accurate form ‘enjoy eating’ in line 9.

In short, in both conditions (H-H & H-L) collaborative pattern was observed in line with Storch’s (2002) research. However, in H-L condition, the stronger student occasionally took the role of an expert or a teacher in order to make sure her partner was not behind. Interestingly, although the proficiency levels were not the same in H-L condition, the students managed to maintain mutuality and equality for the entirety of their interactions. In H-H dyad, the students were apparently mutual and equal as already expected.

Use of L1

To be able to address research question 2 (*Did the amount and functions of L1 differ in terms of different pairings and tasks?*), Table 2 below will be analyzed in depth.

Table 2. Amount and functions of L1 with respect to pairings and tasks

	Task 1	Task 2	Task 3	Total
Pair 1 (High – High)	-	-	12 (2 metacognitive – 10 metatalk)	12
Pair 2 (High - Low)	3 (all metatalk)	2 (all metatalk)	11 (4 metacognitive – 7 metatalk)	16

Initially, the table will be explored to clarify whether the amount of L1 differed in terms of pairings and tasks. Upon the observation of pairings in the table, seemingly, both pairs produced similar amounts of L1 instances with 12 total turns in H-H and 16 total turns in H-L. Still, it is clear that H-L pair produced more utterances in L1 than H-H. The reason behind this might be the uneven levels of proficiency. Task-wise examination, on the other side, shows that H-H pair did not utilize any L1 in Task 1 and Task 2 while H-L pair used 3 utterances in Task 1 and 2 utterances in Task 2. At this point, again, the pairing with dissimilar proficiency levels could be the reason for the L1 aid appearing in a range of tasks. However, the thing in common between the pairs is that both of them tended to utilize a lot of L1, if not all of it, in Task 3. In line with Colina and Mayo’s (2009) study, perhaps it is due to the higher complexity and demands involved in this task with complex requirements and freer nature of production.

Another point worth considering is the functions of L1 observed in the dyads. To analyze this, metatalk (talk about language use) and metacognitive talk (talk about procedures and planning of tasks) were coded in the dialogues and included in the table. In

terms of pairings, H-H pair only displayed 2 instances of metacognitive talk compared to 10 instances of metatalk. This shows that metatalk was the dominant figure by being nearly 83% of their whole L1 use. In H-L pair, the students were involved in 4 instances of metacognitive talk and 12 instances of metatalk, which consisted 75% of their L1 utterances related to language use. Again, L1 was apparently utilized more to talk about language than to talk about tasks. This could be due to the heavier cognitive and interactive load the task items linguistically required rather than the complexity of the instructions. When the functions of L1 are analyzed in line with tasks, it is easily recognizable that both pairs used metacognitive talk only in Task 3. H-H pair used L1 in 2 metacognitive instances while H-L used in 4 as noted above. Here are the examples of metacognitive talk in L1 from H-H pair in Excerpt 5 and Excerpt 6 below:

Excerpt 5

Task 3 - Writing stage.

- 1 **Özgecan:** Maybe I have forget my money.
- 2 **Berrak:** So I can't buy.
- 3 **Özgecan:** Yes.
- 4 **Berrak:** Yes. It's OK.
- 5 **Özgecan:** *Sonra nasıl bağlayacağız? (How will we connect it to other ideas?)*
- 6 **Berrak:** Umm... Good question.

Excerpt 6

Task 3 - Writing stage.

- 1 **Özgecan:** I don't decide what should I do.
- 2 **Berrak:** Yes.
- 3 **Özgecan:** And we... *Açarız. (We can write more ideas).*

In Excerpt 5, Özgecan apparently tried to find out how to connect ideas and in Excerpt 6, the same student used L1 to tell about supporting ideas. Both metacognitive attempts came from the same student, but in both dialogues, Berrak resorted to the target language and still responded in L2.

In H-L pair, there are more instances of metacognitive talk in L1, again in Task 3. Excerpts 7, 8, 9 and 10 demonstrate how they used this talk while writing the composition:

Excerpt 7

Task 3 - Writing stage.

- 1 **Banu:** The problem is change...
- 2 **Zerrin:** *Çok alışmıştık diyelim. (We shall say we are used to our classmates).*

Excerpt 8**Task 3 - Writing stage.**

- 1 **Banu:** If you or if they change our classes, we will sad.
- 2 **Zerrin:** Yes. Yes, yes. *Bir de konsantrasyonumuz dağılır da diyebiliriz. (We can also say we will lose our concentration).*

Excerpt 9**Task 3 - Writing stage.**

- 1 **Zerrin:** If our classes are...
- 2 **Banu:** If they... if they change our classes, we will sad upset or...
- 3 **Zerrin:** *Konsantrasyonumuz dağılır da diyebiliriz. (We can also say we will lose our concentration).*
- 4 **Banu:** It is hard but.
- 5 **Zerrin:** No, concentrate on.
- 6 **Banu:** OK.

Excerpt 10**Task 3 - Writing stage.**

- 1 **Banu:** We can say... They don't change our classes we will expect this. No, I don't like it, I don't like the sentence.
- 2 **Zerrin:** *Kampanya başlatalım. Kampanya başlatalım. (Let us start a campaign. Let us start a campaign).*

Interestingly, in all instances the metacognitive L1 was produced by the stronger pair, Zerrin. Specifically, in Excerpt 7, Zerrin offered a new idea and in Excerpt 8 and 9, she proposed the same ideas to be added in the e-mail composition. In Excerpt 10, she insisted on another idea and repeated it. In H-L condition, apparently, the metacognitive L1 was used to produce ideas with the control of the stronger pair.

When metatalk is the case, it was noted that as H-H pair produced relatively less metacognitive talk compared to H-L, they also produced less metatalk (10 instances) than H-L pair (12 instances). In H-H pairing, the students used all the L1 metatalk in order to inquire about meanings of lexical items. Here is an example below in which Özgecan and Berrak discuss 2 lexical items (to lose & money) with 5 utterances of L1, in Task 3:

Excerpt 11**Task 3 - Writing stage.**

- 1 **Özgecan:** Umm... maybe umm... we should ask for umm... come back to our house.
- 2 **Berrak:** Yes, umm... we use them decide...

- 3 **Özgecan:** Yes.
- 4 **Berrak:** The sentence.
- 5 **Özgecan:** I didn't, I don't decide this.
- 6 **Berrak:** I go home or I went class.
- 7 **Özgecan:** Yes. I will buy a new formation... I have... I have...
- 8 **Berrak:** Umm *kaybetmek?* (to lose?)
- 9 **Özgecan:** Umm...
- 10 **Berrak:** Forgot.
- 11 **Özgecan:** Forgot *unutmaktı, kaybetmek...* (it means not remembering, we need losing).
- 12 **Berrak:** Lost.
- 13 **Özgecan:** Lost.
- 14 **Berrak:** I have...
- 15 **Özgecan:** *Şey cüzdan neydi?* (What is wallet in English?).
- 16 **Berrak:** Umm...
- 17 **Özgecan:** Money *diyelim.* (Let us say money).

The students in Excerpt 11 clearly tried to figure out the correct word and both parties took turns in the effort. Özgecan and Berrak apparently strived to continue their collaborative dialogue with the help of L1 metatalk for the clarification of lexical items to be able to resolve the language related issues.

As opposed to H-H pair, in H-L pair, L1 metatalk could be found in all tasks (Task 1, 2, 3) and with a variety of functions – not limited to lexical items. As an example, in Task 1 (word formation task), Zerrin and Banu used L1 for the clarification of a grammatical form as can be seen in Excerpt 12 below:

Excerpt 12

Task 1 - Item 2: “We need some students for the ____ of the party. (ARRANGE)”

- 1 **Banu:** We need some students for the... I guess it is arrangement, but I don't know.
- 2 **Zerrin:** What do we use? Noun...
- 3 **Banu:** I don't know.
- 4 **Zerrin:** Or verb?
- 5 **Banu:** I don't know.
- 6 **Zerrin:** We need no verb...
- 7 **Banu:** For the...
- 8 **Zerrin:** I think no verb...
- 9 **Banu:** Yes...
- 10 **Zerrin:** Because need...
- 11 **Banu:** Need some...
- 12 **Zerrin:** Need is verb. Umm, for the....

- 13 **Banu:** Adjective? Arrangement *bana çok mantıklı geliyor. (Sounds logical to me).*
- 14 **Zerrin:** (Whispering) *Düzenlemelerine ihtiyacım var. (I need their arrangement).*
We need some students for the...
- 15 **Banu:** For the arrangement...
- 16 **Zerrin:** Arrangement of the school, I think. Arrangement...
- 17 **Banu:** Uhuh...
- 18 **Zerrin:** *Öyle yazalım. (Let us write it so)*
- 19 **Banu:** Ben... I think that's arrangements, but I don't know. Yes, arrangement.

After discussing verbs and adjectives, Banu used L1 to make sure of the grammatical form based on how much it made sense (line 13). Also, Zerrin utilized L1 by whispering to regulate thought as a talk to herself by articulating the Turkish version of the expected form (line 14). This type of L1 use may be due to the fact that they actually utilized private speech to regulate their thoughts as an inner metatalk (Storch & Wigglesworth, 2003). Lastly, in line 18, Zerrin used L1 again to conclude the discussion. Clearly, this excerpt is a really crucial demonstration of how L1 might help collaborative dialogue and self-regulation to happen in learner dyads.

In Task 2, this time Zerrin used L1 for the clarification of another grammar form (conditionals) by emphasizing meaning/use property of the item (Excerpt 13):

Excerpt 13

Task 2 - Item 5: "If Kevin is a millionaire, he would buy this villa."

- 1 **Zerrin:** Fifth sentence second conditional so if clause we use past simple, so is gone. We can use was. If Kevin was a millionaire...
- 2 **Banu:** Yes.
- 3 **Zerrin:** He would buy this villa. It is unreal.
- 4 **Banu:** Yes. Maybe, if Kevin is a millionaire, he will buy this villa.
- 5 **Zerrin:** I think I don't know. I think I don't know. *Şey, değil çünkü imkansız. (No, because it means impossible).* It is impossible thing.
- 6 **Banu:** OK.

Clearly, Zerrin wanted to explain that it had to be second conditional due to the meaning of impossibility in the sentence. Also, she was momentarily assisted by L1 metatalk until she stated the same utterance in L2 at the end of line 5 ("it is impossible thing"). This metatalk was used for the conclusion of a collaborative learning dialogue.

H-L pair, lastly, used L1 metatalk for other functions in Task 3. They used it to clarify the meaning of lexical items in Excerpt 14 as well as for private speech to regulate self in Excerpt 15:

Excerpt 14**Task 3 - Writing stage.**

- 1 **Banu:** Expect means...
- 2 **Zerrin:** *Ummak. (To hope)*
- 3 **Banu:** OK.

Excerpt 15**Task 3 - Writing stage.**

- 1 **Zerrin:** Can... can... can you help us... help us... please can... please... *Yok olmadı. (No, not like that).*
- 2 **Banu:** Please can you help us?
- 3 **Zerrin:** Umm... We need... we need to your help.
- 4 **Banu:** Yes, it is correct, we need to your...

Our analysis on L1 use gives us some clear outcomes. For one, H-H pair used less L1 compared to H-L pair. Also, H-H pair used no L1 in Task 1 and 2 while H-L pair utilized it for those tasks. Both pairs used metacognitive talk less than metatalk and only in Task 3. This can be due to the complex language involved in the instruction of the composition task (Task 3) as opposed to the students' familiarity with the word formation task (Task 1) and error correction task (Task 2). As to the specific functions of using L1 as metatalk, H-H pair used it only for the clarification of lexical items while H-L pair used it for a wider range from grammar explanations to lexical items and private speech. It is clear that L1 use acted in line with the proficiency levels of the pairs, namely by assisting H-L pair more frequently and functionally than it did H-H. One thing is certain that L1 use helped both pairs initiate and continue their collaborative dialogue (as stated by Zulfikar, 2018), and in different amounts and for different functions, it promoted collective inquiry. This fact is obvious from the exchanges above in which both pairs made use of L1 to regulate their thoughts, clarify the puzzles and create learning experiences in general.

Language-Related Episodes

To be able to provide answers for research question 3 (*Did the amount of LREs differ in terms of different pairings and tasks?*), Table 3 below will be analyzed in depth.

Table 3. Amount of LREs with respect to pairings and tasks.

	Task 1	Task 2	Task 3	Total
Pair 1 (High – High)	1	7	8	16
Pair 2 (High - Low)	7	9	11	27

The language-related episodes emerging in the dyads were picked from the instances in which students discussed meanings or forms to reach resolutions about a

language problem (Swain & Lapkin, 1995; 2001). Until the resolution, any LRE was counted as one single instance. The numbers in Table 3 were concluded with this strategy.

Starting with the pairings and their influence on the LREs, it is obvious that H-L pair created more instances (27 in total) than H-H pair (16 in total). Clearly, Özgecan and Berrak (H-H) encountered fewer language problems to be discussed when compared to Zerrin and Banu (H-L). Apart from the total amounts, H-L pair also created more LREs than H-H in each task with six LREs more than H-H in Task 1, two more in Task 2 and three more in Task 3. These results contradict with Leeser's (2004) and Watanabe and Swain's (2007) studies in which high proficiency pairs (high-high) produced more LREs than low proficiency pairs (high-low & low-low). The reason behind our results might be the frequency of language puzzles emerging more in H-L than H-H pairing as noted before.

As noted above, a detailed task-wise examination demonstrated that H-L pair dominated H-H in LREs in every task. Especially in Task 1 (word formation task), there is a big difference with only one instance created by H-H pair and seven instances by H-L. The only LRE created by Özgecan and Berrak (H-H) in Task 1 can be seen below in Excerpt 16, when the pairs discussed whether gerund or infinitive followed 'will':

Excerpt 16

Task 1 - Item 4: "Hopefully, we will _____ the trip to Los Angeles. (ENJOY)"

- 1 **Özgecan:** Hopefully, we will enjoy... Sorry.
- 2 **Berrak:** Enjoy or enjoying?
- 3 **Özgecan:** Enjoy.
- 4 **Berrak:** Enjoy.
- 5 **Özgecan:** But it is verb and no OK.
- 6 **Berrak:** Will.
- 7 **Özgecan:** Will.

Zerrin and Banu (H-L), on the other hand, discussed many other language items in Task 1. Remembering the abovementioned Excerpt 12, they were discussing the noun version of 'arrange' and used L1 in the endeavor as well. This makes it clear that LREs may be supported by L1 use (in line with Rayati et al.'s (2012) study). Other than that, the overall conclusion about the less complex word formation task (Task 1) supports Kim's (2009) conclusion that less proficient learners create more LREs in less complex tasks.

In Task 2, both pairs created similar amounts of LREs, but more than Task 1 in total. However, H-L pair still produced more instances in terms of language-related discussions. This is the case for Task 3 as well. Another point is that uneven pairing (H-L) created more LREs in the most complex composition task with 11 episodes when compared to 8 episodes from H-H. This contradicts with Kim's (2009) result that higher proficiency learners create more LREs in more complex tasks. It is obvious that harder tasks promoted more LREs but higher proficiency levels did not.

Another interesting fact is that both pairs created the most amount of LREs in Task 3 (composition task). Actually, the number of LREs increased as the tasks got more complex (8 total LREs in Task 1, 16 in Task 2 and 19 in Task 3). This result is in line with Philp et al.'s (2010) conclusion that tasks with higher demands and longer planning time help produce more LREs. Therefore, the particular reason for gradually increasing number of LREs may be the higher cognitive and metacognitive demands of each subsequent task. Specifically, in Task 3, which was the most challenging task, the students did not only plan what to write down but also tried to use certain grammatical forms with good spelling as well as adhering to coherence and cohesion. That might be another reason for H-L pair in particular to need more LREs in this task to achieve co-production. Here is a good example below (Excerpt 17) from Task 3, in which Zerrin and Banu (H-L) switched the writing role in an LRE, upon a puzzle Banu experienced in writing one lexical item:

Excerpt 17

Task 3 - Writing stage.

- 1 **Zerrin:** Classmates.
- 2 **Banu:** Classmates. Class... (She is writing).
- 3 **Zerrin:** Between...
- 4 **Banu:** OK.
- 5 **Zerrin:** You can.
- 6 **Banu:** Do you want to write to?
- 7 **Zerrin:** Yes.
- 8 **Banu:** Classmates I don't know what meant.
- 9 **Zerrin:** Classmate. (She takes the writing role).
- 10 **Banu:** OK.

In line 8, Banu was clearly puzzled and gave Zerrin the writing role, after which they could create the correct word (line 9). Here the pairs did not only exchange meaning but also form (spelling) to be able to create one sentence. Here is another example in which H-H pair also experienced an LRE to clarify the appropriate quantifier (grammar) after creating an idea to write down, in Task 3:

Excerpt 18

Task 3 - Writing stage.

- 1 **Özgecan:** Am I go back home...
- 2 **Berrak:** Go back... home to
- 3 **Özgecan:** Home to... Umm... take some money
- 4 **Berrak:** Take.
- 5 **Özgecan:** Take some money.
- 6 **Berrak:** Take some or little a bit?
- 7 **Özgecan:** A little? Home to take... some money is OK, I think.
- 8 **Berrak:** Some.

- 9 **Özgecan:** Some is both of them...
- 10 **Berrak:** OK.
- 11 **Özgecan:** Both of... for both of them correct.
- 12 **Berrak:** Use.

Here, the students tried to create the sentence “I will go back home and take some money” but they clearly got puzzled after Berrak’s question in line 6, “take some or little bit?” In lines 11-12, they were resolved with the grammar dimension of the sentence after being engaged in a language-related episode.

In sum, the totality of LREs showed it clearly that the pair with the similar levels of language (H-H) created fewer LREs than the pair with different levels (H-L). Besides, the distribution of LREs to the tasks demonstrated that the more complex the tasks were, the more LREs were required to resolve dilemmas and puzzles. These results made it clear that the design of tasks and pairings of students might make a clear difference in the interaction processes with the varying levels of engagement in language-related exchanges. Based on the successful completion of tasks by both pairs, it might be noticeable that LREs can be regarded as important tools for students to exchange ideas to be able to come up with resolutions for language-related issues, which creates significant learning experiences for them.

Discussion and Conclusion

The results related to the interaction patterns, L1 use and the amount of LREs in the collaborative dialogues in two pairs (H-H & H-L) yielded important insights into the sociocultural research being conducted on learner interaction. Levels of pairs and the complexity of tasks as the variables also revealed notable highlights for the design of collaborative dialogue in classrooms.

To start with, in both dyadic interactions (H-H & H-L), collaborative pattern was observed as the dominant character of the discussions. Both pairs demonstrated high mutuality and equality in their collaborative dialogues, which means they were both attentive to each other’s contribution and were productive in terms of language. Clearly, it was highly interesting to see H-L pair displaying the collaborative pattern. Although the students apparently had different language levels, they maintained mutual and equal contribution to their collective construction and therefore could produce ‘transfer of knowledge’ in Storch’s (2002) terms. The key takeaway from this result is that although the proficiency levels do not match, students can still benefit from collaborative dialogues as long as mutuality and equality are preserved. In H-L condition, seeing that the stronger student occasionally took the expert role in the discussions and that the collaborative pattern was still observed, it supports Storch (2002) to a great extent that mutuality matters more than equality. In other words, as long as the weaker pair is receptive to the input from the stronger pair, it is still a dialogue with value. Therefore, our results underscore the fact that it is important to seek for the transfer of knowledge in a pair-work by basically securing mutuality in the endeavor.

The examination of L1 yielded important results regarding pairings, tasks and the nature of collaborative dialogues. As noted before, H-L pair utilized more L1 compared to H-H pair. Also, H-L pair used L1 in all tasks, but H-H pair resorted to it only in the most challenging composition task. This may show that partners with dissimilar language levels may need to use more L1 to get the tasks done. It may be a necessity to be able to regulate their thoughts and to reach a shared understanding. Thus, L1 use might not be a debilitating practice (especially for H-L pairings) since it can apparently be used as a helpful tool in the way of task achievement. Also, based on the result that more challenging tasks required more L1 from both pairs, it may be true that L1 might have a pivotal role in the fulfillment of challenging tasks. Therefore, teachers may consider welcoming L1 especially in challenging tasks as long as it is a functional tool for task achievement.

In this study, L1 served for metatalk more than metacognitive talk. The students in both pair groups utilized L1 to discuss lexical items or clarify grammar more than to plan for tasks. Also, all the metacognitive L1 was used in the composition task – Task 3. This may be due to the fact that it was actually the only task requiring long planning and dedication to understand the instructions. In addition, in H-L pair, all the metacognitive L1 was used by the stronger pair. This makes it clear that L1 may not be only indicative of low proficiency, rather it could still be useful for strong students. In sum, students may need L1 to plan for the tasks and understand the instructions. As to metatalk, it was used in all the tasks and this may be because both word formation and error correction tasks involved many items which enabled students to discuss lexis and grammar. H-H pair used L1 for only lexis while H-L pair used it more functionally for lexis, grammar and private speech. Obviously, L1 served as a mediating tool in the collaborative dialogues of the sampled student groups. It was clear in the exchanges in which students made use of L1 functionally and as a secondary resort for regulating their learning.

Lastly, the amount of LREs showed different results as to pairings and tasks. Regarding the pairings, H-L pair was engaged in more LREs and it was against the tide and contrary to some other studies (Leeser, 2004; Watanabe & Swain, 2007). The reason might be that the pairs with different language levels come across more puzzling language issues than the ones with similar levels. In our case, this outcome was possibly observed due to the lower pair who required assistance in the way of analyzing and synthesizing target language. It is also true that H-L pair showed collaborative pattern and it could be another reason for high levels of engagement with linguistic discussions. Still, it is important to note that language level is not the major determinant of LRE engagement, but interactive pattern is. Another big takeaway is that LREs observed in both dyads seemingly yielded learning as a mediating tool of cognitive development. They had a chance to resolve linguistic problems, made sure of their answers and provided clarifications for each other during these interactions.

Task-wise results, as in L1 use, demonstrated that the more challenging the tasks were, the more LREs were utilized. The tasks with longer planning time and higher demands clearly required more assistance of LREs. At this point, teachers might consider modelling and observing LREs in classrooms, especially with challenging tasks. Overall, it is clear that students could achieve the tasks with the help of peer discussions. The idea to

underpin here is that students – regardless of the pairings – are engaged in language-related episodes to create learning for self and their partners. These are highly functional sequences of exchanges during which students become teachers, negotiators or learners.

Our study surfaced important results in terms of interaction patterns, task design, role of L1 in learning and the value of language-related episodes in collaborative dialogues. There are multiple parameters to take into consideration in designing student-student interactions such as pairings and tasks and our study aimed to add to the field in this respect. This is not to say this study is without its limitations. For one, it was a study conducted in a lab setting (by videotaping pairs in study rooms) and it might have biased the emerging results. The students might have felt under pressure of displaying their best performance, unlike the possibilities of ups and downs to be noted in a classroom setting. Other limitation is about the weak student in H-L pairing since her scores might well be taken as medium rather than low. The discrepancy between high and low students can be bigger in other studies so that the results in this respect might bring other insights for student interaction.

In the light of these results, there may be some implications for researchers in this field. For one, more studies in classroom setting can be conducted to see if H-H and H-L dyads yield similar results regarding interaction patterns, L1 use and LREs. Another implication might be using L-L pairs to see how they collaborate with regard to these parameters. Also, H-L pairs can be sampled in a way that the students' language proficiency levels are very discrepant unlike the ones in our study. Moreover, students can be sampled from beginner and/or advanced level classes to see if the overall class proficiency has an effect in collaborative dialogue. These suggestions above are likely to surface significant results if they are conducted as a longitudinal research, which was not the case for our study.

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