Effective Pairing/Grouping Formats for Different Proficiency Interlocutors in Language Learning Classrooms

Junko Negishi

Department of English and American Language and Literature,
School of Literature, Tsurumi University
negishi-j@tsurumi-u.ac.jp

Abstract
This study explored effective pairing or grouping formats for interaction among speakers with similar or different proficiency levels. Twenty-four university students participated in different interactive activities. Each speaker participated in four types of interactions: once with a speaker of similar proficiency and once with a different proficiency speaker in a paired oral interaction; once with similar proficiency speakers and once with different proficiency speakers in a group of three. The spoken data of the participants’ interactions were transcribed, and three types of analysis were conducted: 1) a quantitative analysis related to fluency, 2) interactional language functions (ILFs), and 3) interactional patterns. The result of the first analysis revealed that speakers with different proficiency levels produced more language and were more fluent, irrespective of the number of interlocutors. The second analysis also demonstrated a similar tendency in that speakers with different proficiency levels utilized a higher number of ILFs. The interaction patterns in the third analysis indicated different results from the first two analyses, as the identical speaker sometimes changed their interaction pattern following the interaction of the other interlocutor(s). The results of the study indicated that second language acquisition can be facilitated by using various interactive strategies with different proficiency interlocutors rather than conducting friendly interactions among similar proficiency speakers.

Keywords
Speaking, Interaction, Paired/Group orals, Proficiency level

1 Introduction
In the new Courses of Study in Japan to be implemented transitionally as of 2020, the “four skills,”—reading, listening, writing, and speaking—are being modified as “four skills/five areas.” The term “five areas” indicates that “speaking” has been divided into two areas:“(spoken) production” and “(spoken) interaction.” This has been done in accordance with the classification of Common European Framework of Reference (CEFR; Council of Europe, 2001). The Ministry of Education, Culture, Sports, Science and Technology (MEXT) in Japan has been emphasizing the four skills that aim to cultivate global human resources. However, more time has been allotted in classrooms for inculcation of receptive skills, such as listening and reading. Because of the implementation of the new Courses of Study, the teachers need to spend more time in cultivating productive skills, including interaction skills.

2 Background
From the perspective of learning a second language, the interactions provide many advantages as the learners get opportunities to use their linguistic ability actively using receptive and productive skills, which include exchanging feedback with each other (Taylor & Wigglesworth, 2009). When learners interact collaboratively in a classroom, it causes washback effects and develops their oral competence (Taylor, 2000; 2001). By interacting with interlocutors, the learners can exhibit various patterns of interactions and language functions in rich discourse, and authenticity accordingly increases (cf. Taylor, 2000; 2001; Skehan, 2001; He & Dai, 2006). Some researchers reported that students are in favor of interactions as they can control their conversation while using natural language (cf. Van Moere, 2006).
More interactive activities will be required in classrooms as described in the Introduction; however, it is often said that the interactions have disadvantages as they are affected by interlocutors. There are uncontrollable interlocutors’ variables such as gender, age, intimacy, social class, introversion and extraversion, willingness to speak, and language proficiency. Various studies have been conducted to investigate the factors that affect interactions; nevertheless, it is considerably difficult to reach a conclusion as there are several factors that impact results.

Does the proficiency level of an interlocutor affect one’s interaction? According to Berry (2004), when a speaker interacted with a higher proficiency interlocutor, the speaker’s English language production increased, but the score was not statistically significant. Davis (2009) divided the participants into two levels—higher and lower proficiency speakers—and had them interact once with a similar proficiency interlocutor and once with a different proficiency interlocutor. The results showed that lower proficiency speakers produced more language without showing statistically significant scores. In her study, Nakatsuhara (2013) reported that Japanese high-school students produced different amounts of English when they were grouped with higher or lower proficiency speakers in a group of three or four. In short, English production may be induced by the method of matching interlocutors.

“Language functions” are believed to play an important role in interactions. Taylor (2000) compared the interaction data in interviews and paired orals using the Speaking test of C2 Proficiency, formerly known as Cambridge English: Proficiency (CPE). The results indicated that a paired interaction made the participants produce more language and turns than an interview format. Further, Brooks (2009) reported that interactions between language learners demonstrated more complicated and collaborative interactions, which required the learners to have a higher linguistic load; that is, more interactions, negotiation of meaning, and complicated language production were observed. In other words, such interactions facilitate the language acquisition process of language learners. For example, when a speaker does not understand what the interlocutor says, the speaker would give feedback to the interlocutor, such as asking for a clarification. Subsequently, the interlocutor would either try a different expression or correct an error. Using language functions, the learners can check or correct their interlanguage. Consequently, language acquisition would be facilitated. (cf. Kramsch, 1986; Chapelle, 1998; Young, 2000). Accordingly, Nakatsuhara (2013) and Van Moere (2007) insist that interactive activities can elicit the learners’ rich language functions and be used for evaluating communicative competence.

Nakatsuhara (2013) carried out a qualitative analysis in which higher proficiency speakers helped lower proficiency interlocutors so that the latter could continue speaking and produce collaborative interactions. Such patterns of interaction were introduced by Storch (2002) and Galaczi (2004, 2008). They applied the methods of conversation analysis (CA) to explore L2 learners’ discourse in a paired test. The two researchers’ interactional patterns were based on the concepts of equality and mutuality, first termed by Damon and Phelps (1989). According to the models, mutuality refers to “the level of engagement with each other’s contribution,” and equality refers to “the degree of control or authority over the task” (Storch, 2002, p. 127). Storch has constructed a model of dyadic interaction for investigating the speakers’ patterns of interaction in an adult ESL classroom. Storch’s model introduced four role relationship patterns: collaborative (high equality/high mutuality), dominant/dominant (high equality/low mutuality), dominant/passive (low equality/low mutuality), and expert/novice (low equality/high mutuality). Galaczi adapted Storch’s dyadic model to analyze the discourse produced by the takers of the Cambridge B2 First, formerly known as Cambridge English: First (FCE) paired test. She advocated the following four interactional patterns: collaborative, parallel, asymmetrical, and blended. In a collaborative interaction, two interlocutors take turns as a listener and a speaker displaying high mutuality and equality. In a parallel interaction, two speakers initiate and develop the topics equally (high equality); however, they exhibit little engagement with their interlocutor (low mutuality). In an asymmetrical interaction, interlocutors elaborate asymmetrically; one is quantitatively dominant, and the other is passive, which means that one speaker leads the conversation. A blended interaction exhibits the discourse characteristics of two interactional patterns. According to Galaczi, the collaborative interaction resulted in the highest Interactive Communication (IC) score on FCE.

3. The Study

3.1 Purpose of the study
This study aimed to explore effective pairing/grouping formats for second language acquisition when
learners’ proficiency levels were different in interactive activities. In this study, various proficiency level learners interacted as a pair or a group of three. When they were matched with similar or different proficiency level learners, the following three types of analysis were conducted:

Analysis 1: Quantitative characteristics related to fluency
Analysis 2: Qualitative characteristic A: Interactional language functions (ILFs)
Analysis 3: Qualitative characteristic B: Interactional patterns

3.2 Procedure

3.2.1 Participants

Twenty-four students, twelve each from two universities, participated in interaction activities. The English proficiency level of the students (13 females and 11 males) varied from elementary to advanced, having scored approximately 300 to 960 in TOEIC®. When they joined the activities, they were paired or grouped with those with whom they knew. The researcher explained the research procedure, and those who consented were the participants in the study. The study was approved by the Ethical Review Board of the author’s university.

3.2.2 Speaking prompts and pairing/grouping formats

Prior to the start of the paired/grouped oral interactions, each participant was provided with a picture description task of Eiken1 Pre-1st test (with Eiken’s permission) to measure their speaking ability. The researcher asked the students not to tell other participants about the task so that the later participants could not prepare for the tasks in advance.

Based on TOEIC scores and the results of the picture description task, the participants were divided into three proficiency levels: higher, middle, and lower. According to the classification, each student was asked to participate in two paired and two grouped interactions, once with a similar level and another with different level interlocutor(s). The participants were required to interact on the speaking prompts that included family, school, dream, and English. A different proficiency level in a group means that at least one of the three group members possessed a different proficiency level. The time for each interaction was 200 seconds for a pair and 300 seconds for a group. There were 96 interactions, with 24 students participating in both paired and group interactions twice (2 pairs x 2 groups x 24 students = 96 interactions).

3.2.3 Analysis

All the speaking data were transcribed following the transcription convention based on Riggenbach (1989), which was modified for the study. Using the transcription, the following three analyses were carried out:

Analysis 1: Quantitative characteristics related to fluency

Fluency has been recognized as a major factor in judging non-native speakers’ proficiency (Riggenbach, 1991; Schmidt, 2000). In this study, the following aspects of fluency were analyzed:

1) number of words
2) number of syllables
3) speaking time
4) number of words per second
5) number of syllables per second
6) number of turns
7) number of words per turn

Analysis 2: Qualitative characteristic A: Interactional language functions (ILFs)

Interactional language functions (ILFs) were analyzed. In this study, a coding scheme (He & Dai, 2006) was employed, which was modified to make it useful for the speakers of the elementary level. ILFs consist of the following five parts:

1) Asking for information or opinions (ask for information or opinion, prompt elaboration by another

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1 Eiken is The Eiken Test in Practical English Proficiency, an English language test conducted by a Japanese public-interest incorporated foundation, the Eiken Foundation of Japan, backed by MEXT.
speaker)
2) Agreeing or supporting (agree with what another speaker has said, support opinions or assertions made by another speaker)
3) Disagreeing, challenging, or persuading (disagree with what another speaker has said, challenge opinions or assertions made by another speaker, attempt to persuade another speaker to accept one’s view)
4) Modifying or developing (modify the arguments or opinions in response to another speaker, express ideas building on what another speaker has said, referring to or incorporating another speaker’s ideas or words)
5) Negotiation of meaning (asking for clarification or confirmation, giving clarification, checking for comprehension, asking for or responding to help, correcting or suggesting words, uptaking correction or suggestion)

Analysis 3: Qualitative characteristic B: Interactional patterns

The participants’ interactions were classified following Storch’s (2002) four interactional patterns described in the Background. The four role relationship patterns were as follows:
1) Collaborative interactional pattern showing high equality and high mutuality
2) Dominant/dominant interactional pattern showing high equality and low mutuality
3) Dominant/passive interactional pattern showing low equality and low mutuality
4) Expert/novice interactional pattern showing low equality and high mutuality

As qualitative analysis tends to be subjective, one-thirds of the data were first analyzed by two researchers. Post discussion and agreement with the classification, the remainder was analyzed by the author of the study.

4. Results and Discussion

In this study, the results will be reported based on the following four pairing/grouping formats:
a) Similar proficiency speakers participated in a paired oral interaction (Similar/Pair)
b) Different proficiency speakers participated in a paired oral interaction (Different/Pair)
c) Similar proficiency speakers participated in a group oral interaction (Similar/Group)
d) Different proficiency speakers participated in a group oral interaction (Different/Group)

4.1. Analysis 1: Quantitative characteristics related to fluency

Table 1 demonstrates the average quantitative data per person of 96 paired/group oral interactions. As described above, the average length of time for each speaker was approximately 100 seconds in both paired and group oral interactions.

<table>
<thead>
<tr>
<th>Pairing/Grouping formats</th>
<th>Number of words</th>
<th>Number of syllables</th>
<th>Speaking time</th>
<th>Words/sec</th>
<th>Syllables/sec</th>
<th>Number of turns</th>
<th>Words/turn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar proficiency</td>
<td>Pair</td>
<td>152.50</td>
<td>203.96</td>
<td>87.00</td>
<td>1.74</td>
<td>2.32</td>
<td>14.71</td>
</tr>
<tr>
<td></td>
<td>Group</td>
<td>151.08</td>
<td>199.00</td>
<td>88.17</td>
<td>1.66</td>
<td>2.19</td>
<td>13.75</td>
</tr>
<tr>
<td>Different proficiency</td>
<td>Pair</td>
<td>169.08</td>
<td>225.63</td>
<td>90.67</td>
<td>1.85</td>
<td>2.48</td>
<td>15.29</td>
</tr>
<tr>
<td></td>
<td>Group</td>
<td>174.72</td>
<td>235.06</td>
<td>93.69</td>
<td>1.80</td>
<td>2.42</td>
<td>14.17</td>
</tr>
</tbody>
</table>

In terms of the average number of words each speaker used, speakers with similar proficiency levels uttered a little over 150 words irrespective of the number of interlocutors or the format of the interaction—whether a paired or a group; on the other hand, different proficiency speakers uttered more—approximately 170 words. As for the number of syllables, the result corresponds with the number of words. Specifically, the speakers of a Different/Group produced much more than that of a Similar/Group, that is, 235 vs. 199 syllables. Regarding the speaking time, there was a small difference among the four matching styles; however, the participants with different proficiency levels spoke longer. The average number of words/syllables per second demonstrates that participants with different proficiency levels spoke more fluently than those with similar proficiency levels, as the former uttered more than 1.8 words/sec and
2.4 syllables/sec. Conversely, the average number of the turns showed a rare difference with the matching styles. Likewise, the average number of the words per turn displayed no difference except for the data that Similar/Pair indicates fewer numbers. The results show that grouping/pairing speakers of different proficiency levels makes them speak more fluently and produce more language irrespective of the number of interlocutors or the format of the interaction—whether a paired or a group.

4.2 Analysis 2: Qualitative characteristic A: ILFs

Figure 1 displays the average number of ILFs used per person sorted by the four pairing/grouping formats, a) to d).

The most frequently used ILF (1)—asking for information or opinions—was used by Similar/Pair 5.88 times and Similar/Group 4.88 times. Meanwhile, Different/Pair employed it 6.71 times and Different/Group 6.92 times. This revealed that different proficiency matching styles employed ILF (1) more.

The second most frequently used ILF (5)—negotiation of meaning—was utilized by speakers with different proficiency speakers (Different/Pair 5.13 times; Different/Group 2.86 times) more than the similar proficiency speakers (Similar/Group 2.20 times; Similar/Pair 2.08 times). In particular, Different/Pair utilized this ILF more than double compared to other similar pairing/grouping formats. This may stem from their speaking conditions, where similar proficiency speakers understand each other, but different proficiency speakers need to negotiate meanings to comprehend one another. As there are only two speakers, no other person could help the hearer, and they might not be able to keep talking without comprehension.

Although Figure 1 does not display the details of ILF (5), the most frequently employed functions were “asking for clarification or confirmation (ask for explanations that may not have been understood, express incomprehension, paraphrase what another speaker has said)” and “giving clarification.” This suggests that speakers needed to clarify what the interlocutor had said. Different/Group did not employ ILF (5) as expected. This might occur because one of the group members was hesitant to show incomprehension to the interlocutors, or another interlocutor continued to speak and gave up asking for clarification. As the average number of utilizations of ILFs (2), (3), and (4) were mostly less than one, they will not be discussed here.

<table>
<thead>
<tr>
<th>Number of Interactional Language Functions (ILFs)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar/Pair</td>
<td>5.88</td>
<td>0.21</td>
<td>0.04</td>
<td>0.96</td>
<td>2.08</td>
</tr>
<tr>
<td>Similar/Group</td>
<td>4.88</td>
<td>0.63</td>
<td>0.33</td>
<td>1.25</td>
<td>2.20</td>
</tr>
<tr>
<td>Different/Pair</td>
<td>6.71</td>
<td>0.46</td>
<td>0.00</td>
<td>0.88</td>
<td>5.13</td>
</tr>
<tr>
<td>Different/Group</td>
<td>6.92</td>
<td>0.52</td>
<td>0.11</td>
<td>0.91</td>
<td>2.86</td>
</tr>
</tbody>
</table>

**Note:** 1 = Asking for information or opinions, 2 = Agreeing or supporting, 3 = Disagreeing, challenging, or persuading, 4 = Modifying or developing, 5 = Negotiation of meaning

Figure 1 Average Number of Interactional Language Functions (ILFs) Used per Person (N=96)

Excerpt 1 is an example of ILF (5). The excerpt-related transcript notations should be noted here. A full stop (.) and a question mark (?) do not always denote the end of the sentence. The former indicates a falling intonation, and the latter demonstrates a rising intonation. Capital letters denote emphasis. Two brackets ([]) for as many interlocutors indicate overlapping utterances.
Excerpt 1: Different/Group
3 A: what was your dream. when you were little [very small.
4 B: [uh when you were little. ah:
5 C: yeah. sorry. what?
6 A: what was your dream. when you were like five years old? [four years old.
7 B: yeah. [when you were in elementary school.
8 C: dream? five years old? yeah. I’m not sure yeah I also wanna wanna work in English.

A is trying to ask C what his dream was when C was young. B realizes that C is probably not able to comprehend A’s question as A speaks very fast. Hence, B repeats what A said in Turn 4. At the same time, A says similar words “very small.” As expected, C does not understand the question well and asks again <asking for clarification> in Turn 5. Then, A repeats the question more slowly with concrete information by saying “five years old” or “four years old” in Turn 6, while B also adds concrete example “when you were in elementary school” in Turn 7 <Giving clarification>. Then, C finally understands the question and answers it in Turn 8. This type of interaction is said to facilitate second language learning.

4.3 Analysis 3: Qualitative characteristic B: Interactional patterns

The second qualitative analysis is about interactional patterns which indicate how participants interact with each other. Figure 2 represents four interactional patterns classified by Storch (2002) in percentages when analyzing 96 cases based on the four pairing/grouping formats: Similar/Pair, Similar/Group, Different/Pair, Different/Group.

Figure 2 Percentages of Four Interactional Patterns Sorted by Four Pairing/Grouping Formats

Oral interactions between Similar/Pair demonstrate that 83% interaction is collaborative, and the remainder (17%) is dominant/passive. In contrast, Similar/Group shows a different ratio, wherein only half of the interaction is collaborative, and the other half is dominant/passive. There are no other interactional patterns in similar proficiency interactions. In Different/Pair, half of the interaction is classified as expert/novice. When including dominant/passive’s 17%, two-thirds in Different/Pair are asymmetry interactions. An English proficiency discrepancy may cause asymmetry interactions. Excerpt 2 demonstrates an expert/novice pair interaction of Different/Pair.

Excerpt 2: Different/Pair, Expert/Novice
13 D: (laugh) do you belong something any any club?
14 E: club?


In Excerpt 2, D asks E whether E belongs to any club, but E merely utters “club”? without answering D’s question. Then D tries to elicit E’s answer in Turn 15 by listing up concrete examples, such as music or sport, and finally gets E’s answer, “I like music,” in Turn 16. However, as E has not answered D’s first question yet, D again asks E whether E belongs to a music club and finally gets the answer from E in Turn 18. At the same time, D attempts to ask another question, whether E plays guitar and gets the answer easily. D is not a dominant speaker; instead, D attempts to elicit the novice interlocutor’s utterance as an expert.

As shown in Figure 2, the Different/Group unexpectedly demonstrated collaborative interactions (two-thirds of all the cases) with dominant/dominant and dominant/passive interactions 8%, respectively, and expert/novice 17%. One of the three speakers might try to be collaborative and not dominant as there is another speaker, which is a different situation from a paired oral. It is difficult to explain this phenomenon. Some participants became passive when they were paired with a dominant speaker, and the identical participants became expert or dominant when they were paired with a lower proficiency interlocutor. Individual differences need to be explored in future research. Even so, collaborative interaction may occur when a pair is made with similar proficiency speakers and when a group is made of speakers with different proficiency. When speakers of different proficiency are paired, one tends to become an expert and the other novice.

5. Conclusion
This study explored effective pairing/grouping formats for facilitating second language acquisition when learners of different proficiency levels participate in paired/group interactive activities. Twenty-four university students participated in the study. They were matched once with similar proficiency speakers and once with the speakers of different proficiency in a pair and a group of three. The spoken data of the interactivities were transcribed, and the quantitative data related to fluency were obtained (Analysis 1). Following this, two types of qualitative data—interactional language functions (Analysis 2) and interactional patterns (Analysis 3)—were analyzed.

The result of Analysis 1—quantitative analysis related to fluency—revealed that speakers with different proficiency level produced more language and became more fluent, irrespective of the number of interlocutors or the format of the interaction—whether a paired or a group.

The Analysis 2—interactional language functions (ILFs)—also demonstrated a similar tendency as Analysis 1 in that different proficiency speakers utilized more ILFs, especially in “asking for information or opinions” and in “negotiation of meaning.” In addition, the “negotiation of meaning” was conspicuous in the Different/Pair. Based on the view that interactional ability is co-constructed collaboratively among interlocutors and second language is acquired through interactions with more experienced others, I would suggest that teachers match different proficiency students rather than similar proficiency speakers.

The interaction patterns in Analysis 3 indicated different results from the first two analyses since the participants did not always follow the same speaking styles. They changed their interactional patterns according to other interlocutors. Such individual differences need to be explored in future research.

Based on the results of this study, in terms of fluency and language functions, it turns out that speakers of different proficiency work well in interactions. Rather than interacting in a friendly manner with similar proficiency speakers, negotiating meaning and using various strategies with different proficiency interlocutors seems to be a better way to acquire a second language.

References
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