

Elements of Cooperative Learning during EFL Lessons for Technical College Students

Rie YOSHIMURA *

Dividing students into pairs or groups and merely assigning tasks or exercises does not necessarily stimulate communication or social interaction. The aim of this study is to investigate whether the characteristics of pairs, as detailed by Storch (2002), can be seen among students in technical colleges. This study also explores whether the five principles (basic components) of group/pair learning identified by Johnson, Johnson, and Holubec (2002) produce any effect on students when implemented during their English lessons at a technical college, and whether any changes were identified in the characteristics of pairs.

KEYWORDS : EFL, Communication, Cooperative learning, pair work

1. Introduction

In recent years, technical colleges have begun to offer international education programs. These English lessons aim to foster active learning and communication capabilities. In order to achieve this, teachers proactively use activities such as pair work or group exercises that encourage interaction among students in the classroom. Interactions help students in receiving comprehensible input, producing comprehensible output, and providing feedback necessary for second-language acquisition. Furthermore, social interaction during pair and group work (using Japanese language) is considered beneficial for vocabulary and grammar acquisition, which support communication. Many researchers interested in sociocultural theory have examined the positive effects of collaborative tasks and suggested that these tasks push learners to reflect on their language use and allow learners to co-construct new language knowledge and produce higher levels of performance through interacting with peers (Dobao, 2012). Learner behavior in an interaction varies considerably. Some studies have found that the way learners interact with their peers affects the process and the results of solving language problems and the quality of the output (Shiraha 2016). Therefore, this study was conducted to investigate the nature of peer interaction in a Japanese English-as-foreign-language (EFL) classroom in a Technical college and the relationship between the interaction pattern among learners and their language learning process.

*一般科 (Dept. of General Education, E-mail:yoshimura@oyama-ct.ac.jp)

2. Literature Review

According to Vygotsky (1978), human activity is distinguished by the extensive use of tools. Language is the most important “tool” for social interaction and knowledge construction. He argued that language is the first external tool that children use to communicate. Vygotsky argued that all higher mental functions are internalized social relations: “Schools are another cultural tool with the function of providing theoretical or scientific knowledge as opposed to the empirical and unstructured knowledge that people acquire naturally. Children or learners receive appropriate assistance from adults or more capable learners when solving problems”.

Merely dividing students into pairs or groups and assigning tasks or exercises does not necessarily stimulate communication or social interaction. Many teachers have realized that pair or group exercises do not really stimulate any student interaction. Pair and group work do not produce the desired results if students do not proactively engage in the task or exercise, or if students unilaterally monopolize interaction.

Swain (2000) applied the sociocultural theory to L2 learning and described the importance of collaborative dialogue. It is “dialogue in which speakers are engaged in problem-solving and knowledge-building” activities (Swain 2000, p.102). Collaborative dialogue occurs when participants deliberate on what to write and how to express themselves. Through such dialogues, learners pool their knowledge resources and consolidate their existing knowledge. By interacting with others, learners can socially construct new understandings about a target language. (Shiraha 2016).

Previous research has shown that interaction has great potential in language development. Storch (2002) suggested that cooperative pair and group work is essential for stimulating communication or social interaction. She also suggested making pair or group exercises more effective and creating a cooperative situation, rather than an individual one, where students push each other’s learning acquisition to the maximum level. Storch’s (2002) classroom-based studies investigated the relationship formed during a composition task and two grammar-based tasks. The study identified four types of peer interaction. In a collaborative pattern of interaction both learners worked together throughout the tasks and engaged with their partner’s suggestions until they reached satisfactory solution. In a dominant/dominant pattern, both participants contributed to the task but did not engage with each other’s contributions. In a dominant/passive pattern, the dominant participant had an authoritarian stance and took decisions without any negotiation or agreement; the passive participant rarely contributed to generating ideas or challenging dominant partner. Finally, the expert/novice pattern was similar to a tutor/tutee relationship. The participant who was an expert contributed largely to completing the task but also encouraged the interlocutor to contribute as well.

In her study collaborative and expert/novice pairs transferred language items derived from their interaction to a subsequent task more than pairs with dominant/dominant and dominant/passive patterns did. Furthermore, a large number of instances showed no transfer of knowledge and missed opportunities in dominant/dominant and dominant/passive pairs. These results suggested that language learning occurred only when pairs interacted collaboratively or had an expert/novice relationship (Shiraha 2016).

Studies have also shown that it is more effective to engage in pair and group exercises based on the five

essential elements of the group learning process as identified by Johnson, Johnson, and Holubec (2002) to facilitate interaction and cooperation. In order to construct a lesson in a cooperative learning model, the following five principles and elements should be included:

1. Positive interdependence: Each student in a same group has a unique contribution to make to the joint effort. Team members depend and rely on one another to achieve the goal. Each group member's effort is required and indispensable for group success.
2. Individual accountability: All students in a group must be accountable for contributing their share of work and mastering all the material for the group's success.
3. Face-to-face promotive interaction: Although group work may be partially parceled out and done individually, some of it must be done interactively, with group members providing one another with feedback, challenging reasoning, and arriving at conclusions, and perhaps most importantly, teaching, helping, supporting, applauding, and encouraging one another in order to reach the group's goals.
4. Appropriate use of social, interpersonal, collaborative, and small-group skills: Students are encouraged and helped to develop and practice trust-building, leadership, decision-making, communication, and conflict management skills.
5. Group processing: Team members set group goals, describe member actions that are helpful or not, periodically assess what they are doing well as a team, and identify changes that will make them function more effectively in the future (Johnson & Johnson, 1994, Kagan, 1994).

The researcher focused on these five principles and elements when she conducted her English lessons.

3. Research Aims

The aim of this study is to investigate whether the characteristics of pairs detailed by Storch (2002) were seen in students of a technical college who were in their second year. This study also explores whether implementing the five principles (basic components) identified by Johnson, Johnson, and Holubec (2002) produces any effect on these students and whether there were any changes in the characteristics of pairs.

4. Method

The participants were 82 students in their second year of technical college. The results of a separate survey showed that few students enjoyed learning English and most felt they had poor English acquisition skills. However, there was an overall desire among the students to be able to speak English and use it overseas. In addition, the results showed that few students were assigned output activities such as speaking or writing during their English lessons. Instructors used the dictogloss (DG) method during language activities. Dictogloss is a dictation application method in which students listen to a short passage in English and, reconstruct the passage based on notes they take while listening. The passages are taken from the prescribed textbook's listening exercises.

Dictogloss is incorporates the four language skills. Learners listen to a text, write what they hear then share what they have heard and written with their partners by speaking and listening. Students are able to ask questions in the group about spelling and unknown vocabulary. In addition, they are encouraged to think grammatically and fill in missing information resulting from listening gaps. The steps are as follows:

1. Preparation: The learners engage in a discussion about the topic in the upcoming text and do some preparatory vocabulary work. Instructors used Japanese in this research.
2. Dictation: Students listen to a short text, six sentences, read at a normal speed played from an audio recording. Learners heard the text twice; the first time with pens down listening for meaning, and the second time taking notes of mostly key, or content, words. Students try not to write everything down.
3. Reconstruction: Students work in pairs to reconstruct the text in complete sentences from their shared resources. Students discuss and negotiate to cohesively reproduce the text. It should be as semantically and grammatically accurate as possible to the original text, but it need not be identical.
4. Analysis and correction: students read out their final product to compare and evaluate their answers. They finally sort out any errors, especially focusing on form, or the targeted grammatical structure and meaning, and make corrections comparing it to the original text.

In this study, the students of three classes completed the DG exercise individually (IVL), while two other classes conducted it as a cooperative learning activity (CL1,CL2). Later, we conducted a survey on the students. We had only four days to conduct the survey. Moreover, we recorded the group conversations using an IC recorder and analyzed the conversations using Storch (2009)'s Language-Related Episodes (LREs) method for language acquisition to survey whether effective interaction was facilitated between students during DG activities.

5. Results and Discussion

When comparing the cooperative-learning and individual-learning groups, the percentage of correct answers was slightly higher for students in the cooperative learning group (see Table 1).

*Table 1 The score on the mini test

class	number	score	average	lowest	highest
IVL	24	20	12.4	5	20
CL1	24	20	16.5	8	20
CL2	24	20	15.6	6	20

The most striking point from the results of the survey on the students in the cooperative learning group after four lessons was the increase in the number of students who answered that “I can't do only what I want when

working with others.” The survey also indicated a strong impression that actual cooperative learning tasks could not be implemented properly within the predetermined course hours due to time constrictions. This result implies that most students disliked cooperative learning (see Table 2).

*Table 2 Individual oriented-ness

	Before	After
1 I can't do only what I want when working with others	1.45	1.99
18 It takes time when we discuss with others	3.21	2.88
21 I don't want to work by being ordered to do so by others	2.87	2.35
25 It is better to do the task by myself because if we are wrong the responsibility is on all of us	2.13	2.11
Average	2.45	2.34

Among 24 groups of participants, eight followed the collaborative pattern, four the expert/novice pattern, nine the dominant/dominant pattern, and three the dominant/passive pattern of interaction. The data of the two other groups did not fit any of these categories (see Table 3). The characteristics of pairs detailed by Storch (2002) were identified in the second year students of the of technical college.

*Table 3 Collaborative Pattern

Collaborative Pattern	Number of pairs in Cooperative Class 1	Number of pairs in Cooperative Class 2
① Collaborative	5	3
② Dominant/Dominant	4	5
③ Dominant/Passive	1	2
④ Expert/Novice	2	2

Data analysis was conducted in two stages: first, the learners' talk during the completion of the tasks was examined for the number of LREs, and second, the manner in which learners made their decisions on grammatical features was considered in detail (see Table 4).

*Table 4 Analysis of LREs

	Number	Percentage %
LREs they produced,	25	53.0
Lexis-based LREs	11	23.2
Form-based LREs.	12	23.8
Total	48	100

Excerpt 1 illustrates a dominant/dominant pattern of interaction from the pair conversation. The distinctive trait of this pair was an unwillingness to consider each other's contributions. Each of them tried to take ownership of the task and complete it on their own (Lines 185-194).

*Excerpt 1

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- 185 M1: これは “take”? (Is this “take”?)
- 186 M2: 主語 “she” だから “takes,” ん? “took”の過去形?
(The subject is “she,” so “takes”? ah, is it the past tense, “took”?)
- 187 M1: いや、これは主語 “we”だし、二人以上いるような
(No, the subject of this sentence is “we,” and I think there are more than two people.)
- 188 M2: これ過去形?いつのこと
(Is past tense used? When did this happen)
- 189 M1:わからない (I’m not sure)
- 190 M2: 現在でも過去でも意味が一緒なんじゃない
(Whether we use present tense or past tense, it would have the same meaning.)
- 191 M1: 主語は we だったから take だよ
(The subject of previous sentence was “we,” so, we need to use “take.”)
- 192 M2: も一わからない (I am so sure!)
- 193 M1: 現在形でいい? (Do you use the present tense?)
- 194 M2: 主語は結局 “she” でしょ (After all, the subject of this sentence is “ she.”)
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These students had difficulties in negotiating a resolution and in agreeing with each other.
Excerpt 2 shows a one-way flow of information, from the expert to the passive.

*Excerpt 2 (Lines 75-84)

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- 75 M1:神社は “shrine”だから、ここは、which is your favorite shrine だよな?
(*jinzya* is “shrine” in English. So here, we can say, “which is your favorite shrine” right?)
- 76 M2: たぶん(May be)
- 77 M1: in Japan もつけるんだよな(We need to add “ in Japan” here)
- 78 M2: うん(Yes)
- 79 M1:float ってなんだっけ(what is the meaning of “float”?)
- 80 M2:わからない(I don’t know)
- 81 M1: あっ、浮かぶだから、floating で、どこに浮いてるんだ?
(AH! Float is to stay or move on the surface of a liquid, so where is it floating?)

82 M2: 浮かんでるんだから..(it is floating.....)

83 M1:浮かんでるように見えるだから、 seem to float になるかなあ？

(Ukanderuyounimieru means “appears to float?”)

84 M2: いいんじゃない (That sounds good)

6. Conclusions and Implications

Dictogloss is a tool that embodies a variety of principles of language learning in both the affective and cognitive domains. Positive group interaction and interdependence can have an impact on student attitudes towards working together to reach a common goal. The only way a task can be completed is by using the target language. Students in the cooperative learning group earnestly cooperate with each other during the tasks in every lesson. Especially in a collaborative and expert/ novice pattern, the principles and elements of cooperative learning seem to work effectively. However, this survey found that a higher number of students preferred individual oriented-ness. The results of the grammar test showed that the score of students who worked in the dominant/ dominant pattern and the score of students who studied individually was almost the same. The numerical rate showing the students' difficulties in cooperative learning is high. We cannot confirm that students learn cooperatively during each lesson because we used pair work. However, conducting the survey after four lessons due to the schedule of the teachers is too short a period to derive conclusions. A longer survey period is thus necessary. The importance of both the quality and volume of analysis over time is self-evident. In addition, teachers themselves understand the value of cooperative learning and desire to improve their skills. Furthermore, future studies must consider the unique attributes of the site at which research is being implemented and adjust the methods accordingly.

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