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This article can be cited as:

This article is part of a collection of practitioner research on the theme of "Challenging the Conventions in Learner Development Research" for Issue 7 of the Learner Development Journal (LDJ7), edited by Ellen Head, Aya Hayasaki, and Ryo Moriya. Published once a year, each issue of the Learner Development Journal follows a Community of Practices approach over a period of approximately 18 months in which contributors work together, under the guidance of the editors, to share, respond to, and develop their research and writing.

Exploring the Impact of Mandatory Reflection Activities on Students' Perceptions of Group Work

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In this research, I investigate the efficacy of mandatory reflection activities in raising students' awareness regarding the significance of group work for effective communication. Although simply enhancing language skills is inadequate for communicating with others, incorporating group work in classrooms can facilitate both human relationships and communication skills. One approach to promote engagement in group work is to introduce reflection activities and offer opportunities for students to enhance their group work. However, as students may perceive reflection activities as imposed tasks rather than valuable tasks, to what extent might such mandatory reflection influence students' perceptions of group activities? In this study, I employed a Cooperative Work Awareness Scale questionnaire to compare students in classes with and without reflection activities. The findings indicate that the group with reflection activities had a lower awareness of the importance of group work. Thus, in certain circumstances, incorporating reflection activities may not effectively enhance group work.

この研究では、授業で義務付けられた振り返り活動が、コミュニケーションを図るためのグループ活動の重要性に対する学生の認識を高める効果があるかどうかを調査する。コミュニケーション能力を高めるためには、単に言語スキルを向上させるだけでは不十分であるが、グループワークを取り入れることで、人間関係とコミュニケーション能力の両方を高めることができる。そして、グループワークへの参与を高める方法として振り返り活動がある。しかしながら、義務付けられた振り返り活動は、グループワークの重要性に対する認識にどの程度の影響を与えるのだろうか。なぜなら、学生はリフレクション活動が価値のある活動ではなく、強制された活動ととらえる可能性があるからである。この研究では、協同活動の認識スケールの質問紙を使用して、振り返りの活動があるクラスとないクラスの学生を比較した。調査結果は、振り返りの活動があるグループの方が、グループワークの重要性に対する認識が低いことを示した。したがって、特定の状況では、振り返り活動はグループワークの認識を高める効果がない可能性がある。

Keywords

cooperative learning, group work, reflection activities, English communication skills, learners' enjoyment of learning and using English

協同学習、グループ活動、リフレクション活動、英語コミュニケーションスキル、学習者の英語学習および英語使用の楽しさ

The majority of my students are preparing to pursue careers as engineers. As they enter the workforce, they may encounter situations where they are transferred overseas as expatriates or trainees, or have opportunities to collaborate with non-Japanese colleagues using English. Therefore, it is essential for them to acquire effective English communication skills. To communicate proficiently in English, they need to enhance their language abilities and build strong interpersonal relationships. In this respect, Sekita et al. (2001) highlight the effectiveness of cooperative learning in cultivating positive relationships among students. However, many Japanese English learners, particularly adolescents who feel uneasy expressing their opinions in English within a group, tend to avoid pair or group work (Morioka et al., 2015). While lecture-style classes may alleviate psychological stress by minimizing the need for interpersonal communication, engaging students in pair or group work provides valuable opportunities for developing both English conversation skills and meaningful connections with others. So, what are some practical ways to do this?

   One approach to promoting a sense of collaboration is the integration of reflection activities in the classroom. Reflection activities can help learners to become more

self-directed in pair or group work (Boud et al., 1985). As a result, the significance of reflection activities has been increasing in the field of English education in Japan (Okazaki & Kano, 2018; Shimo, 2003; Takagi, 2003). By providing students with opportunities to reflect on their group activities, it is anticipated that their engagement with the tasks will increase because their awareness of the importance of cooperative work will also be enhanced. However, it is crucial to recognize that teachers should use reflection activities with a commitment to respecting student autonomy and exploring how they perceive the value of such activities. If reflection activities are included in the curriculum, students who harbor a dislike for English or struggle with group activities may perceive them as burdensome obligations, diminishing their intrinsic motivation. In fact, while Tsuchimochi (2015) advocates for the effectiveness of reflection sheets with junior college students, she also acknowledges that some students may find the task of writing reflection sheets for every class overly tedious. Therefore, it is necessary to explore in what ways reflection activities can enhance student group activities.

Research Questions

In this study, I wanted to examine the effectiveness of incorporating reflection activities in enhancing students' perception of cooperative learning. Consequently, I formulated the first research question as:

(1) To what extent do reflection activities contribute to improving learners' perceptions of group work?

As I needed to develop further my understanding of Research Question 1, I added two further questions:

(2) What insights can be derived from learners' feedback regarding English learning and group work?

(3) What insights can be derived from learners' feedback regarding reflection activities?

Method

Participants

This study involved first-year students aged 15 to 16 who were enrolled in a technical college in Japan commonly known as *Kosen* (National Institute of Technology, n.d.). Kosen is a national educational institution, with 51 Kosen campuses located throughout Japan. These students aim to be engineers in the future and display a particular interest in mathematics and science as well as their specialized subjects. Typically, students at Kosen select their specialized areas of study during high school, focusing on experimental work and research in science-related fields, which is similar to university-level engineering studies. However, as they specialize, many Kosen students tend to neglect their English studies.

At the Kosen where this research was conducted, English classes were held twice a week for 90 minutes. I taught once a week, and another English teacher taught once a week, from the first year to the third year. In the fourth year, students could take English as an elective subject.

To assess the student's English proficiency at the beginning of the study, I used an online tool called English Grade Easy Measurement (Eigo navi, n.d.). This test, based on the Common European Framework of Reference for Languages (CEFR), evaluates students' lexical and grammatical competence. The results indicated that 37% of the students were at A1 level or below, 41% of the students were A2 level, 18% B level, and 4%

B2 level. According to a recent Ministry of Education survey (MEXT, 2022), approximately 70% of Japanese junior high school third-year students have not reached the A1 level. This suggests that Kosen students generally possess a relatively higher level of English proficiency.

Class Formats (How do they learn English in the class?)

The English class I taught took place once a week for 90 minutes. The textbook used for instruction was MY WAY English Communication I (Morizumi et al., 2017), one of the approved textbooks designated by the Ministry of Education. During the class, the students had the objective of not only comprehending the content of each unit but also expressing their opinions based on the vocabulary and phrases introduced in the textbook.

Drawing on the suggestions of Higuchi et al. (2019), I incorporated in my lesson plans various communicative activities for students to apply what they learned from the textbook. In the general structure of the lesson described below, the students focused on Lesson 2-2 (Appendix A).

Mins.	Activities
10	**Review of the previous unit:** Students engage in paired reading aloud of the textbook, using the Japanese translation as a reference. For example, Student A reads a Japanese sentence, followed by Student B reading the corresponding English sentence, until they complete all the sentences. Afterward, they switch roles, reading both the Japanese and English sentences. (Appendices B: 1.音読しましょう! (前回の復習))
5	**Activate schema:** The teacher shares a personal story using the same vocabulary and phrases related to the lesson's topic to help the students understand the textbook more easily. For instance, the teacher tells them about his real-life hero, using the new vocabulary. "My real **hero** is my brother. When we were children, my parents worked late, so my brother cooked meals for me. **Even when** he was busy with his homework, he **devoted** himself **to** taking care of me. We never **fought against** each other because he is kind."
5	**Grasp the big picture of the content:** Students listen to the textbook content and answer true or false questions. For example, the teacher states, "Heroes destroy towns and forests when they fight against monsters." Students raise their right hand if they believe it is true or their left hand if they believe it is false.
10	**Learn new vocabulary:** Students practice pronouncing new words with the teacher's guidance. Then, they work in pairs, assisting each other in memorizing the vocabulary. Afterward, students use the new vocabulary to create their sentences by replacing familiar events. For instance, they might construct sentences using the phrase "devote oneself to." Next, several students are asked to share their written sentences in order to check their use of new vocabulary (Appendix B: 2. Vocabulary).
15	**Comprehend the text:** Students listen to the topic and solve related problems or questions (Appendix A: Q&A and Read Again).
15	**Understand the grammar necessary to comprehend the text:** The teacher explains the grammar concepts in Japanese and guides students in solving grammatical problems. Following that, the teacher provides opportunities for students to use the grammar to express themselves. (Appendix A: TRY)

15   **Read aloud:** Students listen to the text once more, practicing reading aloud by repeating after the teacher. They then work in pairs, using the handout (Appendix B: 3. 音読) to further practice their reading-aloud skills. (Practicing reading aloud is essential for becoming proficient in pronunciation, comprehending the meaning in the order of English sentences, and expressing one's opinions about the learned content.)

10   **Exchange opinions:** Students first write their answers to the questions and share them with their partners or groups. Then, they ask questions to encourage deeper thinking and engage in conversation. This activity aims to stimulate discussion and allow students to share their opinions with others (Appendix B: 4. 考えてみよう!).

Reflection Activities

The same teaching method was employed for both Group 1 and Group 2, with the exception that only Group 1 students participated in regular reflection activities (Appendix C) towards the end of each class session. Here Group 1 students were asked to self-assess themselves. The first part of the self-assessment consists of five statements that students were asked to agree with on a 4-point Likert scale (strongly disagree/disagree/agree/ strongly agree):

1.   I prepared to contribute to the group.
2.   I worked on the tasks set.
3.   I listened carefully to what my peers said.
4.   I participated in discussions.
5.   Overall, I was able to participate well in the group activities.

These statements, adapted from Barkley et al. (2005) and translated into Japanese by Yasunaga (2009), aimed at encouraging students to reflect on the quality of their group activities. The second section of the weekly self-assessment form ("What should you do next time to contribute more to the group?") prompted students to consider how they could contribute better to future group activities. In this section, instead of the teacher providing feedback, students also had the opportunity to write comments to each other so that they could foster stronger bonds within their pair or group.

The reflection activity was typically conducted at the end of each class session. However, in cases where time constraints prevented completion, students were instructed to complete the activity as homework.

To avoid bias toward agreement in the students' responses, the teacher explicitly emphasized to the students that their responses to the reflection sheet (Appendix C) had no bearing on their grades. This was in accordance with suggested practice aimed at avoiding bias towards agreement in the students' responses.

The data obtained from the reflection activity during the study was not utilized for analysis. As I was aiming to compare the differences in cooperative learning perceptions between the class that engaged in the reflection activity and the class that did not, I decided that using the reflection activity sheets from only one class would not be suitable for the comparative analysis I was interested in achieving in this study.

Instruments

A questionnaire was administered to the students to judge their awareness of cooperative learning (Appendix D). This instrument, the Cooperative Work Awareness Scale, was developed by Nagahama et al. (2009) to measure changes in student perceptions

of cooperative learning in terms of three factors: cooperative effect, preference for individuality, and mutual benefit concern. The term "cooperative effect" focuses on the effectiveness of working alongside peers. On the other hand, "preference for individuality" seeks to probe students' tendency to avoid cooperation and a preference for working alone, while "mutual benefit concern" addresses various benefits that individuals can derive from cooperative work.

Nagahama et al. (2009) conducted reliability and validity tests on this scale and performed factor analysis using 2 to 18 questions on a sample of 1020 students. The results revealed three factors: cooperative effect (α=.83), preference for individuality (α=.72), and mutual benefit (α=.64). Although the mutual benefit factor showed slightly lower than acceptable reliability, all three factors were relevant for what I was interested in understanding about my students. Hence I decided to use the Cooperative Work Awareness Scale.

This scale is well-suited for identifying differences in perceptions of cooperative learning between two groups: one group was introduced to reflection activities and the other group was not. Additionally, to complement the Likert-scale items in the Cooperative Work Awareness Scale, I included a new section to assess students' English learning preferences. Three open-ended questions were incorporated: "What do you think about learning English?", "How do you feel about working in pairs or groups in English class?", and "How do you feel about the activity of reflecting on pair or group work?" The questions were used to understand the differences in free-text responses between students who like and dislike English.

Procedures

The participants in this study were 84 first-year Kosen students, divided into two groups: Group 1 (42 students: 33 males, and 9 females) who participated in regular reflection activities, and Group 2 (42 students: 33 males, and 9 females) who did not do any such activities regularly. The students were requested to complete the questionnaires (Appendix D) twice during the semester: first from the latter half of April to the first half of May, and then again in January, after completing a semester of classes. By the time the second survey was conducted, both students had multiple experiences of group work, but only students from Group 1 were asked to respond to the question, "How do you feel about the activity of reflecting on pair or group work?"

Differences between the two groups of students

To compare the differences between the two classes, an unpaired two-sample t-test (independent t-test) was employed. The independent t-test is suitable here for comparing the means of two unrelated groups on the dependent variable of use or absence of the reflection activities.

According to Takeuchi and Mizumoto (2014), three conditions must be met to apply the t-test: first, ensuring normality; second, using a non-nominal scale; and third, avoiding sample size bias between the compared groups. They also suggest that the number of samples should not be fewer than 20 to satisfy the normality condition. These three conditions were satisfied.

I also decided to conduct a supplementary factor analysis, and since the results aligned with the same three factors as Nagahama et al. (2009), I used all three factors as they were.

Results and Analysis of Perceptions of Collaborative Learning Awareness

In this section, I will present four tables. I will provide explanations for each table in sequence and conduct the analysis.

Table 1 presents the results of the initial descriptive statistics. In Table 1, n represents the number, M signifies the mean, and SD stands for standard deviation, which is used to measure the extent to which numerical values are dispersed. Smaller standard deviations indicate greater homogeneity within the population, meaning that the groups exhibit similar tendencies. Since all standard deviations are very close to zero, it can be concluded that there is minimal variability and a considerable degree of consistency.

Table 1. *1st Time Results Descriptive Statistics*

	Group	*n*	*M*	*SD*
Cooperative Effect	1	42	3.26	0.516
	2	42	3.36	0.408
Preference for Individuality	1	42	2.5	0.601
	2	42	2.65	0.428
Mutual Benefit Concern	1	42	3.26	0.648
	2	42	3.25	0.637

Table 2 presents the initial results of the initial independent t-test. The result obtained from Levene's test guides the subsequent course of action: if the calculated p-value equals or exceeds 5% (0.05), we may conclude that the variances are equal and proceed to review the "Equal variances assumed" row. Conversely, if the p-value falls below 5% (0.05), the variances differ, prompting a look at the "Equal variances not assumed" row.

Table 2. *1st Time Independent Samples Test*

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	*t*	df	Sig (2-tailed)	95% Confidence Interval of the Difference	
							Lower	Upper
cooperative effect	Equal variances assumed	3.085	.083	-1.016	82	.312	-.305	.099
	Equal variances not assumed			-1.016	77.818	.313	-.305	.099
preference for individuality	Equal variances assumed	2.447	.122	-1.325	82	.189	-.377	.076
	Equal variances not assumed			-1.325	74.086	.189	-.378	.076
mutual benefit concern	Equal variances assumed	.011	.917	0.057	82	.955	-.271	.287
	Equal variances not assumed			0.057	81.974	.955	-.271	.287

The p-values resulting from Levene's test in Table 2 are as follows: 0.083 for the Cooperative Effect (abbreviated as CE), 0.122 for Preference for Individuality (abbreviated as PI), and 0.917 for Mutual Benefit Concern (abbreviated as MBC). The three p-values are all higher than the 0.05 level of significance, so it is necessary to conduct a two-tailed test to determine if the mean is significantly greater or less than 0.05. The values for CE (0.312), PI (0.189), and MBC (0.955) all exceed 0.05, indicating that there is no significant difference.

Table 3 displays the findings from the second set of Descriptive Statistics. The number of students in Group 2 is two less than in Group 1. However, as there was no significant difference in the number of students between these two groups, a t-test was conducted. Regarding the mean of CE, you can see that the mean value between groups is larger than that of PI and MC.

Table 3. *2nd Time Results Descriptive Statistics*

	Group	*n*	*M*	*SD*
Cooperative Effect	1	42	2.97	0.67
	2	40	3.31	0.5
Preference for Individuality	1	42	2.44	0.511
	2	40	2.46	0.508
Mutual Benefit Concern	1	42	3.16	0.711
	2	40	3.29	0.641

Table 4 shows the results of the second independent t-test. Significant difference becomes evident for CE, with a p-value of 0.011. The mean value (M) associated with CE in Table 3 is higher for Group 2 (3.31) compared to Group 1 (2.97), indicating a stronger perception of the cooperative effect within Group 2. On the other hand, no substantial differences are identifiable for PI, given a p-value of 0.873, as well as for MBC, with a p-value of 0.377 (as they are both higher than a 0.05 level of significance).

Table 4. *2nd Time Independent Samples Test*

		Levene's Test for Equality of Variances		t-test for Equality of Means			95% Confidence Interval of the Difference	
		F	Sig.	*t*	df	Sig (2-tailed)	Lower	Upper
cooperative effect	Equal variances assumed	1.352	0.248	-2.594	80	0.011	-0.601	-0.079
	Equal variances not assumed			-2.613	75.708	0.011	-0.599	-0.081
preference for individuality	Equal variances assumed	.029	0.864	-0.16	80	0.873	-0.242	0.206
	Equal variances not assumed			-0.16	79.842	0.873	-0.242	0.206
mutual benefit concern	Equal variances assumed	.53	0.469	-0.888	80	0.377	-0.431	0.165

	Equal variances not assumed	-0.89	79.773	0.376	-0.43	0.164

We have looked at the quantitative differences between the students in the two classes, and next, I will focus on their written comments about the cooperative work they did.

Student comments about liking/disliking English: Analysis

Below is a summary of the results of the descriptive responses (Appendix D). First, the students were divided into two types by the first question item, "I like English." The first type is "EL," which means the students who like English (3: Agree 4: Strongly agree), and the second type is "EN," which means the students who do not like English (1: Strongly disagree 2: Disagree). Afterward, I sorted the students' comments for each question into those that could be interpreted "positively" and those that could be interpreted "negatively."

Next, I extracted responses that could be summarized into three or more descriptive comments. However, I did not include simple answers that were difficult to analyze, such as "I think it is good," and "I don't like it." I however counted these comments as positive or negative.

In relation to the question "What do you think about learning English?" Table 5 displays the results for the number of comments in response to the first survey, conducted at the beginning of the course, while Table 6 shows the results for the number of comments in response to the second survey conducted later in the academic year.

Table 5. *First Survey: What do you think about learning English?*

Group	EL Positive	EN Positive	EL Negative	EN Negative
1	15	9	4	1
2	15	10	1	5

Table 6. *Second Survey: What do you think about learning English?*

Group	EL Positive	EN Positive	EL Negative	EN Negative
1	18	11	3	1
2	13	14	2	3

Student viewpoints at the start of the course (first survey)

Regarding the students' attitudes toward learning English, the most common response in each of Group 1 and Group 2, EL Positive and EL Negative was "the recognition of the need for English in the future," for example, "*I think it's a good idea to study English because it will be necessary for the future*" and "*I want to study English diligently because I will need it in the future.*" Six students from Group 1, EL Positive, 8 from Group 2, EL Positive, 5 from Group 1 EN Positive, and 5 from Group 2 EN Positive had commented as mentioned above. Additionally, four participants in Group 2 EL Positive expressed "enjoyment in learning English," for example, "*Learning English and different cultures is enjoyable.*" Negative comments regarding English proficiency were fewer for both Group 1 and Group 2 students who liked and disliked English. However, among students who liked English, 4 mentioned that English was difficult. For instance, one student stated, "*English is too challenging, so I prefer not to study it, if possible,*" while another student

wrote, "*I dislike English because it is difficult to master.*" Among students who disliked English, 2 respondents mentioned that English was difficult, but no further negative comments were reported.

Student viewpoints towards the end of the course (second survey)

In the second survey on English learning, similar to Table 5 first survey, students in Group 1 EL Positive (seven respondents), Group 1 EN Positive (four respondents), and Group 1 EL Positive (six respondents) provided comments on "the recognition of the need for English in the future." On the other hand, in Group 2 EN Positive, unlike the first survey, the most frequent responses were related to "the enjoyment of learning English" with 6 students, while "the recognition of the need for English in the future" was mentioned by 3 students.

   Although there were no responses that could be considered unanimously identical among students in both EL Negative and EN Negative groups 1 and 2, a student wrote, "*I felt that my English didn't improve in this class.*" On the other hand, negative comments from those who disliked English mentioned a preference for a class where the teacher explained without asking students to engage in any group activities.

Student viewpoints about working with others in their English class

Regarding the question "How do you feel about working in pairs or groups in English class?" Table 7 summarizes the responses from the first survey, and Table 8 from the second.

Table 7. *First Survey: How do you feel about working in pairs or groups in English class?*

Group	EL Positive	EN Positive	EL Negative	EN Negative
1	14	12	3	5
2	12	17	2	4

Table 8. *Second Survey: How do you feel about working in pairs or groups in English class?*

Group	EL Positive	EN Positive	EL Negative	EN Negative
1	17	10	10	5
2	14	17	1	6

Working with others at the start of the course (first survey)

In the initial survey on pair or group activities, the most commonly expressed comments in each of the groups, Group 1 EL Positive (10 respondents), Group 2 EL Positive (5 respondents), Group 1 EN Positive (9 respondents), Group 2 EL Positive (5 respondents), Group 2 EN Positive (5 respondents), was "learning from others," for example, "*I can increase my knowledge through learning from others.*" On the other hand, Group 2 EN Positive (3 respondents) also extracted responses of "the joy of learning with others." For example, studying in a group makes learning English fun.

   Although there were no responses that were identical in meaning from the students in EL Negative and EN Negative Groups 1 and 2, the students responded as follows. Students in Group 1 EL Negative expressed concerns about their own proficiency, stating that they were not good at English and felt they might inconvenience others during group work. Students in Group 2 EL Negative mentioned their discomfort with group activities and expressed a desire to minimize their involvement. Among Group 1 EN Negative comments indicated a reluctance to adapt to the group dynamic, perceiving it as too bothersome.

Likewise, students in Group 2 EN Negative expressed feeling highly uncomfortable in certain group settings.

Working with others towards the end of the course (second survey)

In the second survey, as with the initial survey in both Group 1 EL Positive (7 students) and Group 2 EN Positive (4 students), "learning from others" was the most common response. On the other hand, in Group 2, EL Positive, the most frequent response was "joy of learning with others" from seven students, followed by "learning from others" from four. In the first survey, the most frequent response was "learning from others" followed by "joy of learning with others," but in the second survey, the order of these responses had reversed.

Among Group 2, EN Positive, the most common response was "learning from others," with four students mentioning it. Additionally, "helping others" (3 students) and "the joy of learning together" (3 students) were also mentioned. Specific examples related to "helping others" included statements such as "*Learning in groups allows us to assist one another*" and "*Group activities are important as they foster mutual learning.*"

The number of Group 1 EL Negative increased from 3 to 10 compared to the first survey. The most common negative comment among Group 1, EL Negative, was the "difficulty in working together with others," with 9 out of 10 expressing this concern. For example, "*Working in a group can be difficult because I have to accommodate others*", "*I can't always do things the way I want to in the group*" and the other one commented, "*I don't like it.*" However, in Group 2 EL Negative, only one student wrote a comment (no comments from students that were identical in meaning could be extracted from them). Similarly, students in both Groups 1 and 2 EN Negative also frequently mentioned the "difficulty in working together with others." This aligned with the negative comments from Group 1 EL Negative. Examples of comments included statements like "*I don't find group activities necessary*" and "*Group activities consume too much time.*"

Student views about reflection activities

The question posed in Table 9, "How do you feel about the activity of reflecting on pair or group work?" was administered exclusively to Group 1 during the latter part of the academic year. As Group 2 did not engage in reflection activities, they were not surveyed about this.

Table 9. *Group 1 Task: How do you feel about the activity of reflecting on pair or group work?*

Group	EL Positive	EN Positive	EL Negative	EN Negative
1	20	4	2	1

Among EL Positive, the most common positive comment was related to "Finding areas for improvement," with 7 respondents expressing this view. They appreciated being able to assess not only their strengths but also their weaknesses. One student mentioned that the reflection activities led to new discoveries. On the other hand, although the number of positive comments from EN Positive was small, some of them also acknowledged the benefit of identifying areas for improvement. For example, one student mentioned that the reflection activities helped them see what they needed to fix. However, there were negative comments as well, with some students finding the reflection activities tedious or expressing a lack of perceived need for them.

Discussion

With the first research question, "To what extent do reflection activities contribute to improving learners' perceptions of group work?" I aimed to determine the effectiveness of reflection activities in enhancing learners' perceptions of cooperative learning. Surprisingly, the results showed significant differences in the "cooperative effect factor" between the group that did reflection activities and the group that did not. This result indicates that there was a more significant effect on the cooperative factor in Group 2, which did not do any reflection activities, compared to Group 1, which did. Contrary to previous studies (Kaneda, 2022; Kobayashi, 2020) indicating that reflection activities enhance learners' learning outcomes and awareness, the group without these particular reflection activities. Although reflection activities are widely used in English education, it appears that incorporating reflection activities into lessons can sometimes diminish the enthusiasm for cooperative engagement among learners. For example, in the class where I conducted reflection activities, some students appeared to be rushing to complete the reflection sheets during the lesson, possibly because they did not want to do it as homework. Additionally, since some students had not completed the reflection activity as homework, they seemed to be trying to finish it in the last few seconds before submission. This is because, for students who do not enjoy English or hold a sense of difficulty toward it, reflective activities seem to be somewhat coercively conducted in class against their will. This suggests that, according to the specific learning context, reflection activities should be voluntary rather than imposed.

The second research question was, "What insights can be derived from learners' feedback regarding English learning and group work?" In the first survey on English learning, both groups of students frequently mentioned the "need for English in the future." However, in the second survey, Group 2, which did not engage in reflection activities, emphasized both the "need for English in the future," and "enjoyment of learning English." These comments suggest that Group 1 perceived English learning and group work as essential, while Group 2 primarily focused on the pleasure derived from the learning process. According to self-determination theory, "enjoyment of learning English" is considered to be the most favorable among the five factors of motivation: external regulation, introjected regulation, identified regulation, integrated regulation, and intrinsic motivation (Deci & Ryan, 1985; Ryan & Deci, 2000). In fact, enjoyment of English can be regarded as a stronger motivator than identified regulation, which is understood as the "need for English in the future." Thus, the increased joy in learning English could have positively influenced the cooperative effect, which goes some way to explaining the results of Research Question 1.

In the initial survey of pair and group activities, both Group 1's EL Positive and EN Positive, as well as Group 2's EL Positive and EN Positive, featured numerous comments related to "learning from others." However, by the second round, Group 2 also showed an increase in comments related to the "joy of learning with others." This suggests that, as mentioned earlier, not implementing reflection activities may lead to an enhancement in students' intrinsic motivation. Furthermore, in the second survey, the number of negative EL Positive comments in Group 1 increased from 3 to 10, with "difficulty in working together with others" as a commonly cited reason. This recalls Shaules et al.'s (2020) observation that while students may have the willingness to learn, some students also face internal resistance when it comes to the psychological demands of learning. In other words, reflection activities might potentially pose a psychological burden for students in the context of group learning in certain circumstances.

Finally, the third research question was, "What insights can be derived from learners' feedback regarding reflection activities?" A larger number of students made positive comments compared to negative comments, indicating they positively recognized the value of reflection activities. Although results showed that students' cooperative awareness tended to increase more without reflection activities in this research, it would be incorrect to claim that reflection activities necessarily harm cooperative learning awareness because, as confirmed in Table 9, the open-ended responses from Group 1, who conducted did reflection activities, showed more positive answers than negative ones. Furthermore, some students found value in implementing reflection activities.

Considering the significant number of positive comments from students, it becomes clear that qualitative aspects should be taken into account when assessing the impact of reflection activities. The reason for this is that, through listening to students' voices and appreciating their diverse viewpoints, it may be possible to understand better which of our learners may benefit from engaging in reflection activities to enhance their awareness of the value of group work, as well as those for whom it may not be effective.

Conclusion

My purpose in doing this research was to investigate the effectiveness of continuous implementation of reflection activities on improving learners' awareness of cooperative learning. Two groups were formed, one with reflection activities and one without. The results indicated significant differences in the "cooperative effect factor" with Group 2 (without reflection activities) showing higher awareness of cooperative learning. To gain further insights, students' comments on English language learning and pair or group work were analyzed. Group 1 tended to emphasize "the recognition of the need for English in the future English," and "learning from others for pair or group learning," while Group 2 focused more on "the enjoyment of learning English for English, and the joy of learning together for pair or group work." This suggests that the intrinsic motivation towards Group 2 English language learning and pair or group work influenced the results of the research question. Additionally, a larger number of students expressed positive comments about the reflection activities compared to negative comments. These findings indicate that the reflection activities did not diminish the sense of group work.

In reflecting on this inquiry research, two ongoing questions have come up for me: Why did incorporating reflection activities not improve students' awareness of cooperative learning? and Why might reflection activities become burdensome for students? One of my teaching goals is to have students believe in their ability to convey their opinions orally to others regarding the content they are learning. Expressing their opinions orally appears to be a challenging goal for them, which might have contributed to them perceiving reflective activities related to work as burdensome. However, in order to enhance students' awareness of cooperative learning, I made an effort to have students provide feedback on their insights and impressions in each other's reflection sheets rather than having the teacher do it so that they would work harder to be able to express their opinions to others. This approach made reflection an activity where students took the initiative and deepened their engagement within pairs or groups. Despite my best efforts to ensure that students could do the reflection activities without feeling burdened or taking too much time, this did not lead them to increase their awareness of group work.

In the future, I would like to organize my classes where students reduce the burden of expressing their opinions orally by writing them down for others to understand. Also, I

must clearly define the goal setting for these students to conduct reflection activities. It would then be worthwhile to examine whether reflection activities, under such circumstances, would effectively contribute to improving students' awareness of cooperative learning.

Review Process

This article was open peer-reviewed by Paul Collet and Nathan Ducker of the Learner Development Journal Review Network. *(Contributors have the option of open or blind peer review.)*

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盛岡貴昭は、香川工業高等専門学校で教鞭を執っている。テンプル大学では、教育学TESOL修士号を取得した。関心のある研究テーマは、学習者の自律性、学習者の成長、協同学習、および動機付けである。現在、日本の学習者が自国の環境で英語力を身に着ける際に、どのように自己調整をおこなっているのかについて特に関心がある。

References

Barkley, C., Barkley, E. F., Cross, K. P., & Major, C. H. (2005). *Collaborative learning techniques: A handbook for college faculty*. Jossey Bass.

Boud, D., Keough, R., & Walker, D. (1985). *Reflection: Turning experience into learning*. Kogan Page. https://doi.org/10.4324/9781315059051

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Springer. https://doi.org/10.1007/978-1-4899-2271-7

Eigo navi [English navigator]. (n.d.). *English grade easy measurement*. Eiken Foundation of Japan & The Japan Institute for Educational Measurement. https://gm.ei-navi.jp/measurement/general

Higuchi, T., Takahashi, K., Izumi, E., Kagata, T., & Kubono, M. (2019). Q&A 高校英語指導法事典 現場の悩み133に答える [Q&A encyclopedia of high school English teaching methods. Answers to 133 problems in the field]. Kyoiku-Shuppan.

Kaneda, S. (2022). Fostering learner autonomy of EFL students at a Japanese high school: Logbook research. *Language Education & Technology*, *59,* 1-30. https://www.jstage.jst.go.jp/article/let/59/0/59_1/pdf/-char/ja

Kobayashi, A. (2020). Fostering learner autonomy in an EFL classroom through an action research by adapting extensive listening activities. *Language Education & Technology, 57,* 91–120. https://doi.org/10.24539/let.57.0_91

MEXT. (2022). 令和3年度「英語教育実施状況調査」概要 [Summary of the 2021 English language education status survey]. https://www.mext.go.jp/content/20220516-mxt_kyoiku01-000022559_2.pdf

Morioka, T., Tsumura, S., & Fukuhara, A. (2015). 学習意欲に乏しい大学生の協同学習と音読に対する態度 [Slow learners' attitude to reading aloud and group work]. In P. Clements, A. Krause & H. Brown (Eds.), *JALT2014 - Conversations across borders: Conference proceedings* (pp. 264-271). https://jalt-publications.org/sites/default/files/pdf-article/jalt2014proc_027.pdf

Morizumi, M., Iino, A., Ito, M., Johnson, H., Tajima, M., Sotoyama, K., Nakai, H., Wistner, B., Yokoyama, H., Yoda, R., & Kitagawa, T. (2017). *My Way English communication*. Sanseido.

Nagahama, F., Yasunaga, S., Sekita, K., & Kouhara, S. (2009). 共同作業認識尺度の開発 [Development of a collaborative work recognition scale]. *Japanese Journal of Educational Psychology, 57,* 24-37.

National Institute of Technology. (n.d.). https://www.kosen-k.go.jp/english/

Okazaki, H., & Kano, M. (2018). A study of English teachers improving their lessons through reflection. 中部地区英語教育学会紀要 [Bulletin of the Chubu Area English Education Society], *47*, 41-48.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68–78. https://psycnet.apa.org/doiLanding?doi=10.1037%2F0003-066X.55.1.68

Sekita, K., Sugie, S., & Simizu, T. (2001, September 7-9). 協同学習の導入の効果に関する事例的検討 [Case study on the effects of implementing cooperative learning] [Conference presentation summary]. In *43rd Japanese Education Psychology Association Annual General Meeting*, Aichi University of Education, Japan (p. 467). https://doi.org/10.20587/pamjaep.43.0_467

Shaules, J., Fritz, R., & Miyafusa, S. (2020). Measuring resistance and engagement: The linguaculture motivation profiler. In P. Clements, A. Krause, & R. Gentry (Eds.), *JALT 2019 Teacher efficacy, learner agency* (pp. 92-99). Japan Association for Language Teaching. https://doi.org/10.37546/JALTPCP2019-12

Shimo, E. (2003). Learners' perceptions of portfolio assessment and autonomous learning. In A. Barfield and M. Nix (Eds.), *Autonomy you ask!* (pp. 175-186). Japan Association for Language Teaching Learner Development Special Interest Group. https://ld-sig.org/wp-content/uploads/2023/01/Shimo.pdf

Takagi, A. (2003). Learner autonomy and motivation in a cooperative learning class. In A. Barfield & M. Nix (Eds.), *Autonomy you ask!* (pp. 129-142). Japan Association for Language Teaching Learner Development Special Interest Group. https://ld-sig.org/wp-content/uploads/2023/01/Takagi.pdf

Takeuchi, O., & Mizumoto, A. (2014). 外国語教育研究ハンドブックー研究手法のより良い理解のために [Handbook of research on foreign language teaching. For a better understanding of research methods]. Shohakusha.

Tsuchimochi, K. (2015). ポートフォリオ学習を取り入れた英語授業の試み [An attempt to incorporate portfolio learning into English classes]. 鹿児島県立短期大学陣/Kagoshima Prefectural Junior College.

Yasunaga, S. (2009). Translator's preface. In E. F. Barkley, K. P. Cross, & C. H. Major (Eds., supervised by S. Yasunaga), 協同学習の技法: 大学教育の手引き [Cooperative learning techniques. Guide to university education]. Nakanishiya.

Appendix A Problem Exercises

Messages from Yanase Takashi: Lesson 2 Section 2

● やなせさんが考えるヒーローとはどのようなものでしょうか。
　Yanase had a question about the typical image of "heroes." When they fight against monsters, they usually destroy towns and forests.
　Yanase thought that real heroes helped people in trouble. Real heroes do not always fight. They give food to hungry people even when they themselves are hungry. This thought came from his experience in World War II . He learned that food was truly important in this world.
　For Yanase, real heroes devote themselves to others at any time and at any place. He put this message in the series of *Anpanman*.

Q&A
1. Did Yanase have a question about the typical image of "heroes?"
2. Do real heroes always fight?
3. What did Yanase learn from his experience in the war?

2 fight against 〜　〜と戦う
5 not always〜　いつも〜とは限らない　I'm not always free on Sundays.
6 even when 〜　〜のときでさえ
6 they themselves　かれらは自分自身が
8 World War II ＝World War Two 第二次世界大戦
10 devote oneself to 〜　〜に身をささげる
11 at any time　どんなときでも

Read Again

与えられた文字から始まる適切な語を（　　）内に入れて、対話をしてみましょう。
A: What do real heroes do in Yanase's idea?
B: Real heroes give (① f　　　　　　) to (② h　　　　　　) people even when they themselves are hungry.
A: Why do real heroes do so?
B: Because they (③ d　　　　　　) themselves to others.

Grammar　　　　　　　　●SVO（O＝that節）
●「〜ということを…する」＝［S（主語）＋V（動詞）＋ that 〜 ］

Yanase thought **that** real heroes helped people in trouble.
(S)　　(V)　　　　　　(S')　　　　(V)　　(O)

◆　　　　 の部分をthat節と呼びます。（→p.9 句と節）
◆動詞（V）には、think以外にbelieve「〜を信じる」、say「〜と言う」、realize「〜と気づく」、know「〜と知っている」なども同じように使えます。
例）I believe **that** he is honest.
She said (**that**) the movie was fun.

> that は、このあとにもう１つの文［節］が続くというしるしだよ。この that は省略することもある

TRY
意味がとおるように（　　）内の語を並べかえて、対話をしてみましょう。
1. A: What did your teacher say?
B: (that / she / said) the class was canceled.
2. A: Why did you go to the repair shop?
B: Because (realized / I / that) my watch was slow.
3. A: What do you think of your new classmates?
B: (think / I / are / they) nice.

cancel(ed) 〜を中止する　repair 修理realize(d) 〜に気づく　slow（時計が）遅れている

Appendix B Class Worksheet

Lesson 2-2 L2-2

Class   Number   Name

Partner's name

1. 音読しましょう！（前回の復習）

Yanase Takashi wrote many picture books.	やなせたかしさんは多くの絵本を書きました。
Anpanman is one of them.	『アンパンマン』はそのうちのひとつです。
He made a very interesting hero in the story.	彼はその作品の中で、とても興味深い主人公を作りました。
He named the hero Anpanman.	彼はその主人公をアンパンマンと名付けました。
The hero's head is anpan, or a sweet bean paste bun.	その主人公の顔はあんパン、言い換えると甘いアンパンの形をしているのです。
The story of Anpanman was originally for adults.	『アンパンマン』のお話は、もともとは大人向けでした。
It was not so popular at first.	当初はあまり人気はありませんでした。
However, it became popular among little children later.	しかし、後に小さな子供たちの間で人気が出ました。
Yanase did not change the essence of the story.	やなせさんは物語の本質を変えませんでした。
He believed in children's potential.	彼は子供たちの潜在能力を信じていました。
He has a belief: children understand deep themes and messages.	彼には、子供たちは深いテーマもメッセージも理解するとういう信念がありました。

2. Vocabulary ペアと協力し単語を覚えましょう。単語を言えるようになったら空欄に〇をつけましょう。

英語	日本語	英→日	日→英
fight against〜	〜と戦う		
Destroy	破壊する		
not always〜	いつも〜とは限らない		
even when〜	〜のときでさえ		
they themselves	かれら自身が		
devote oneself to〜	〜に身をささげる		
at any time	どんなときでも		

3. 音読　意味を考えながら、（　　　　）語・語句を補って音読しましょう。（　　　）には何も書かないように！

Yanase had a question about the typical image of ("h　"). When they fight against monsters, they usually destroy (t　) and forests. Yanase thought that real heroes (h　) people in trouble. Real heroes do not always (f　). They give food to hungry people even when they themselves are (h　). This thought came from his experience in World War II. He learned

that (f　) was truly important in this world. For Yanase, real (h　) devote themselves to others at any time and at any place. He put this (m　) in the series of *Anpanman*.

4. 考えてみよう！

Yanase thought that real heroes helped people in trouble. For example, they give food to hungry people even when they themselves are hungry. For you, what kind of people are real heroes?

Appendix C Weekly Self-Assessment Form (original in Japanese)

自己評価表

月　　　日　　　曜日

クラス・名前：_____

グループの仲間：_____

グループを改善していくためにグループ活動を評価しましょう!

Ⅰ. 次の質問に番号で答えましょう。

1:そう思わない　　　　2:あまりそう思わない　　　3: まあ、そう思う　　　4: そう思う

1. グループに貢献するために準備をおこなった。　　　　　　　（　　　　　　　）

2. 課題に取り組んだ。　　　　　　　　　　　　　　　　　　　（　　　　　　　）

3. 仲間の発言をよく聞いた。　　　　　　　　　　　　　　　　（　　　　　　　）

4. 話し合いに参加した。　　　　　　　　　　　　　　　　　　（　　　　　　　）

5. 全体的に考えて、グループ活動にうまく参加できた。　　　　（　　　　　　　）

Ⅱ. グループにより貢献するためには次回はどうすべきですか?

_____
_____
_____
_____
_____
_____

Appendix C Weekly Self-Assessment Form (English translation)

Self-Assessment

Day, Month_____

Class・Name: _____

Classmate's name: _____

Evaluate your group's activities to improve your group!

I. Answer the following questions with a number.

1: Strongly disagree 2: Disagree 3: Agree 4: Strongly agree

1. I prepared to contribute to the group.   (   )

2. I worked on the assignment.   (   )

3. I listened carefully to what my peers said.   (   )

4. I participated in discussions.   (   )

5. Overall, I was able to participate well in the group activities.   (   )

II. What should you do next time to contribute more to the group?
_____
_____
_____
_____
_____
_____

Appendix D The Cooperative Work Awareness Scale (original in Japanese)

協同認識尺度

このアンケートは授業改善を目的としており、成績とは全く関係ありません。ご協力お願いします。当てはまる数字に○を付けて回答してください。

クラス:＿＿＿＿＿＿　番号:＿＿＿＿＿＿
氏名:＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

1. そう思わない　2. あまりそう思わない　3. まあそう思う　4. そう思う

1	英語を学習するのが好きだ	1	2	3	4
2	たくさんの仕事でも、みんなと一緒にやればできる気がする。	1	2	3	4
3	協同することで、優秀な人はより優秀な成績を得ることができる。	1	2	3	4
4	みんなで色々な意見を出し合うことは有益である。	1	2	3	4
5	個性は多様な人間関係の中で磨かれていく。	1	2	3	4
6	グループ活動ならば、他の人の意見を聞くことができるので自分の知識も増える。	1	2	3	4
7	協同はチームメートへの信頼が基本だ。	1	2	3	4
8	一人でやるよりも協同したほうが良い成果を得られる。	1	2	3	4
9	グループのために自分の力（才能や技能）を使うのは楽しい。	1	2	3	4
10	能力が高くない人たちでも団結すれば良い成果を出せる。	1	2	3	4
11	周りに気づかいしながらやるより一人でやるほうが、やりがいがある。	1	2	3	4
12	みんなで一緒に作業すると、自分の思うようにできない。	1	2	3	4
13	失敗したときに連帯責任を問われるくらいなら、一人でやるほうが良い。	1	2	3	4
14	人に指図されて仕事はしたくない。	1	2	3	4
15	みんなで話し合っていると時間がかかる。	1	2	3	4
16	グループでやると必ず手抜きをする人がいる。	1	2	3	4
17	協同は仕事のできない人たちのためにある。	1	2	3	4
18	優秀な人たちがわざわざ協同する必要はない。	1	2	3	4
19	弱いものは群れて助け合うが、強いものにはその必要はない。	1	2	3	4

英語学習についてどう思いますか。

英語の授業でのペアやグループでの作業についてどう感じますか。

振り返り活動についてどう思いますか。

Appendix D The Cooperative Work Awareness Scale (English translation)

The Cooperative Work Awareness Scale

The survey is for class improvement, and it has nothing to do with grades. I appreciate your cooperation. Please circle the number(s) that apply.

Class _____ Number _____

Name _____

1: Strongly disagree 2: Disagree 3: Agree 4: Strongly agree

1	I like learning English.	1	2	3	4
2	I feel I can do a lot of work, but only if I do it with others.	1	2	3	4
3	By working together, smart people can get better grades.	1	2	3	4
4	It is beneficial for everyone to have a variety of opinions.	1	2	3	4
5	Individuality is improved in diverse relationships.	1	2	3	4
6	Group activities allow people to hear other people's opinions and increase their knowledge.	1	2	3	4
7	Cooperation is based on trust in teammates.	1	2	3	4
8	Cooperation produces better results than working alone.	1	2	3	4
9	It is fun to use your strengths such as talents and skills for the good of the group.	1	2	3	4
10	Even people who are not highly skilled can achieve good results if they work together.	1	2	3	4
11	It is more rewarding to work alone than to work with others.	1	2	3	4
12	When we work together, we cannot do things the way we want to do them.	1	2	3	4
13	I would rather work alone than be held jointly and severally liable when making a mistake.	1	2	3	4
14	I don't want to work under the direction of others.	1	2	3	4
15	It takes too much time to discuss things with everyone.	1	2	3	4
16	When we work in groups, there are always people who cut corners.	1	2	3	4
17	Cooperation is for people who can't do the work.	1	2	3	4
18	There is no need for excellent people to cooperate.	1	2	3	4
19	Weak people will flock together to help each other, but there is no need for strong people to do so.	1	2	3	4

What do you think about learning English?

How do you feel about working in pairs or groups in English class?

How do you feel about the activity of reflecting on pair or group work?