<Practical Studies>

Team-competition Style Vocabulary Tests Using Kahoot!:
Developing a Motivating Test Format

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1. Introduction

Vocabulary learning is crucial for English learners. According to Schmitt (2010), vocabulary knowledge affects various aspects of second language (L2) ability, including reading, listening, speaking, writing, grammatical accuracy, sociolinguistic appropriateness, and language fluency. Thus, regardless of their English learning goals, learners must memorize a large number of English words and expressions.

However, many English learners do not have high vocabulary learning motivation (Yamamoto, 2022). Memorizing vocabulary tends to be a tedious and monotonous task; therefore, it is often difficult to find enjoyment in it. Rather, vocabulary learning may be a significant demotivating factor. According to Sakai and Kikuchi (2009) who investigated Japanese high school students' demotivators of English learning, difficulty in memorizing words and phrases was the strongest demotivating factor among 35 possible demotivators in their survey.

Another finding about vocabulary learning motivation is that intrinsic motivation for vocabulary learning and that for general English learning are independent (i.e., the correlation between the two is not very strong), and the former predicts learners' motivated vocabulary learning behavior more strongly (Yamamoto, 2022). In addition, Zhang et al. (2016) indicated that learners with strong intrinsic vocabulary learning motivation tend to use more learning strategies and have larger vocabulary. They also suggested that extrinsic motivation, as well as intrinsic motivation, may play a role in vocabulary learning. Therefore, enhancing learners' vocabulary learning motivation is an important mission for English teachers.

Hiromori (2023) introduced motivating vocabulary learning activities based on the three basic psychological needs (autonomy, competence, and relatedness), which according to self-determination theory (Ryan & Deci, 2017) significantly affects learners' intrinsic motivation (Hiromori, 2005). For instance, he suggested that competitive or cooperative vocabulary learning games could satisfy learners' need for relatedness, which could increase their motivation.

Yamamoto (2022) designed and conducted vocabulary learning strategy training programs that focused on learners' motivation. One feature of his strategy training was the promotion of collaborative vocabulary learning. The participants were requested to think of effective and enjoyable collaborative

vocabulary learning methods in groups, and actually implement them with group members outside of class as preparation for a vocabulary test. The results of the post-surveys showed that participants generally had positive perceptions of collaborative vocabulary learning. However, the results of the delayed post-survey indicated that few participants voluntarily studied vocabulary with peers after the training.

Considering the importance of motivation in vocabulary learning, the present study attempted to create a motivating vocabulary test format, used it repeatedly in English classes, and examined its effectiveness based on the vocabulary test scores and survey results. Although a number of vocabulary tests have been developed by researchers and practitioners, only a few (e.g., Takefuta et al., 2019) have focused on learners' vocabulary motivation enhancement. However, some previous studies (e.g., Kitazawa et al., 2014) have indicated that test styles and methods affect learners' motivation. Therefore, increasing learners' vocabulary learning motivation through motivating vocabulary tests may provide productive learning outcomes, and researching how to create such tests seems meaningful.

2. The Practice

2.1 Participants and background of the practice

The participants of the study were 85 third-year students at a *kosen*[1]. The first author taught an English class to 43 students in the second semester of 2022, and the second author taught an English class to the remaining students in the first semester of 2023. The classes were usually conducted once a week. Each class was 90-minute long.

In the school, students are required to memorize approximately 25 English words or expressions from *DataBase 4500* (5th ed.), a well-known vocabulary book published by Kirihara Shoten, and take an in-class vocabulary test every week. Before the commencement of the classes, the first author was told that many of the participants had struggled with vocabulary tests, which were common paper-and-pencil vocabulary tests in which students wrote Japanese definitions of target English vocabulary or semantically matched English words with their Japanese counterparts. Thus, he decided to develop a motivating vocabulary test format for his class.

2.2 Characteristics of the practice

The first characteristic of the practice was to conduct most vocabulary tests using the online game-based learning platform *Kahoot!* (https://kahoot.com/). Using this platform, teachers can create and administer multiple-choice quizzes for their students. Learners can answer these questions using smartphones. As several studies (e.g., Licorish et al., 2018; Wang & Tahir, 2020) have shown, Kahoot! can be a motivating, enjoyable, and effective learning tool. Moreover, conducting vocabulary tests using Kahoot! is practical because it is time-efficient for teachers: the quizzes can easily be created online, printing test papers is not required, and grading is performed automatically.

The second characteristic was to answer the Kahoot! vocabulary tests in pairs and compete against the other teams[2]. The participants were advised to study with their partners outside of class as preparation for the vocabulary tests so that they could help each other during the tests. Yamamoto (2022) had used Kahoot! in this way as part of his strategy training program, with significant positive outcomes for out-of-class vocabulary learning motivation. It was also indicated that the Kahoot! vocabulary learning contest itself was fun for most participants. Thus, this study adopted this method for our vocabulary tests.

The third characteristic was to conduct a paper-and-pencil review test after three Kahoot! vocabulary tests. This test was taken individually by the participants. It was assumed that the reviewing opportunities would help the participants retain the learned vocabulary.

The fourth characteristic was the grading system used in the vocabulary tests. While the review tests accounted for 25% of the final grades of the class, the Kahoot! test scores accounted for 5%[3]. However, the three teams that achieved the best scores in the Kahoot! tests were rewarded with small extra points (i.e., The grading for the Kahoot test! could be, for example, 11 out of 10.). The main reason we made the review tests more significant in the grading is that Kahoot! test scores may be affected by the team members the participants were paired with. If such a type of tests strongly influenced their grades, some students might deem it unfair. On the other hand, if the Kahoot! test scores did not affect their grades at all, their motivation might not be enhanced. In many schools, the scores of assignments and tasks in which performance is affected by peers such as paired speaking tests (e.g., Yamamoto et al., 2021) and group projects, are often used as part of students' class grades. Although this is one weakness of this test format, we assume that using Kahoot! test scores, as a small proportion of grades should be acceptable.

3. Method

3.1 Procedure

The schedule of the practice is summarized in Table 1. The procedures of the vocabulary tests and their grading method were explained in Week 1. Following this, a practice Kahoot! test was conducted using the vocabulary that the participants had studied in the previous semester.

In the weeks prior to the Kahoot! tests, teams were formed. Each time, the participants were requested to find a partner different from the previous one. Each team typically consisted of two students, although a team of three students was formed if there was an odd number of attendees. The participants were advised to study with their team members for the following week's Kahoot! test outside of class.

Table 1. The procedure of the practice

	In-class	Out-of-class (Homework)
Week 1	Introduction, Practice of using Kahoot!	Preparation for Kahoot! test ①
Week 2	Kahoot! test ①	Preparation for Kahoot! test ②
Week 3	Kahoot! test ②	Preparation for Kahoot! test ③
Week 4	Kahoot! test ③	Preparation for Review test ①
Week 5	Review test ①	Preparation for Kahoot! test ④
Week 6	Kahoot! test ④	Preparation for Kahoot! test ⑤
Week 7	Kahoot! test ⑤	Preparation for Kahoot! test ⑥
Week 8	Kahoot! test ⑥	Preparation for Review test ②
Week 9	Review test ②, Survey	

The Kahoot! tests were conducted at the beginning of the classes[4]. They took approximately ten minutes, including the time the participants took to connect to Kahoot!. One smartphone in each team was used to answer the questions. Every Kahoot! test consisted of ten four-choice questions out of about 25 target English words, or sometimes idioms, assigned during that week. Most of them were either questions to choose the correct Japanese definitions of English words[5] or the correct English words that semantically matched the Japanese words. Sometimes, questions involved choosing the word with the most similar meaning (e.g., choosing a word that implies "conceal," from options: a) overlook, b) hide, c) vanish, and d) advertise). The options of this type of questions were usually from vocabulary the participants had studied in the previous semester or earlier. After the answer to a question was shown, the teachers sometimes provided additional information, such as the meanings of the vocabulary used as incorrect choices and effective ways to memorize the words (e.g., explaining the prefix and suffix of the words).

The paper-and-pencil review tests consisted of 30 questions, which were selected from about 75 target words of the three previous Kahoot! tests. Of these, 20 involved writing the Japanese definitions of English words. The other 10 entailed writing appropriate English words in the blanks in English sentences, as shown below.

Any increase in fuel costs could have a bad (e　　　　　) on business.
どの程度の燃料費の上昇でも，事業に悪影響を及ぼすことがある。

The first letter of the word expected in the blank was given. The English sentences and their Japanese translations were obtained from the prescribed vocabulary book.

3.2 Data collection and analysis

Two types of data were collected and analyzed to examine the effectiveness of the practice.

The first dataset comprised the Kahoot! test scores. This set indicates how eagerly the participants studied vocabulary for the tests. The average scores for each test and standard deviations (*SDs*) were calculated. The extra points given to the winners were not included in this calculation.

The second set of data included the results of an anonymous survey administered after the second review tests. A total of 73 participants answered the questionnaire. This survey aimed to examine the participants' perceptions of our practice. It consisted of ten five-point Likert scale questions (5: I think so.; 1: I don't think so.), one multiple-choice question, and two open-ended questions (see Appendix A for further details). The mean values, *SDs*, and the percentages of the participants who chose the positive answers (i.e., "5" or "4") were calculated. For the open-ended questions, each response was coded, similar responses were grouped, and category names of each group were established in order to clarify what strong and weak points the participants perceived. This analysis was performed by the authors together.

4. Results and Discussion

4.1 Kahoot! test scores

Table 2 presents the average scores for each Kahoot! test in the first and second authors' classes in 2022 and 2023. The average scores were often 9 or higher out of 10. This result implies that many participants eagerly studied vocabulary for the Kahoot! tests.

Table 2. The mean scores and SDs of the Kahoot! tests

		KT①	KT②	KT③	KT④	KT⑤	KT⑥	Total
2022	*M*	9.90	8.94	9.06	9.39	9.21	9.61	9.35
	SD	0.30	0.91	0.85	0.89	0.77	0.59	0.33
2023	*M*	8.41	8.83	7.83	9.11	9.24	8.80	8.70
	SD	1.14	1.12	1.42	1.21	1.34	1.47	0.47

Notes. KT stands for "Kahoot! test." The maximum possible score was 10.

4.2 Survey results

The results of the Likert scale survey are summarized in Appendix A, and those of the qualitative data analysis are presented in Appendices B and C. Q1 inquired whether adopting a team-competition method could encourage the participants to study hard for their team members. Of the participants, 70% chose positive answers to the question, indicating that team-competition style vocabulary tests may enhance English learners' vocabulary learning motivation. In Q4, nearly 80% of participants answered that the Kahoot! test was more enjoyable than common vocabulary tests that students take

individually. Some responses to Q11 also suggested that there were participants who found the test format motivating (see Category 1). The tests appear to have motivated learners both intrinsically (e.g., "Vocabulary tests using Kahoot! was a lot of fun, like a game.") and extrinsically (e.g., "I did not want to bother my partner during the Kahoot! tests, which made me study hard."). In addition, the low mean value of Q2 (2.44) implies that most participants joined the team competition without experiencing strong anxiety. One participant stated "using Kahoot! for vocabulary tests made me more relaxed than doing paper-and-pencil tests every week." Although a few participants wrote negative opinions regarding their motivation and emotions in Q12 (see Category 10), it can be claimed that overall, the Kahoot! tests were effective in motivating the participants.

On the other hand, considering the low mean value for Q3 (2.32), the Kahoot! test did not encourage out-of-class paired vocabulary learning. As Yamamoto (2022) claimed, it is not easy to get learners to study vocabulary with peers outside the classroom. Nevertheless, at least a few learners did appear to study with their classmates (Category 4).

Q5 examined the participants' perceptions of the test format in which a paper-and-pencil review test was conducted after three Kahoot! tests. A high mean value (4.12) indicated that they generally perceived it favorably. In fact, many participants wrote in Q11 that conducting review tests was effective (see Category 2). However, a few participants felt that the review tests had points requiring improvement (see Category 8). For example, one participant stated "The review tests should be given more frequently, and the amount of vocabulary covered by each review test should be smaller."

Q6-1 pertained to the grading method. Most participants (77%) provided positive responses to this question. Q6-2 was for participants who chose neutral or negative answers (i.e., 1-3) to Q6-1 for that reason. The choices for Q6-2 were as follows: a) The ratio of Kahoot! test score was too small; b) it was unfair that my classmates affected my grade; and c) other (please write the reason). Nine participants chose "a," nine chose "b," and five chose "c." One participant who chose "c" wrote "Factors irrelevant for vocabulary knowledge such as clicking a wrong answer by mistake may affect the scores." This opinion is important because it is concerned with test validity. Careless mistakes can also be made in ordinary vocabulary tests, but if they are more likely to occur in Kahoot! tests, this can be one weakness of using Kahoot! for tests. This should be examined in future studies.

Q7 inquired whether extra points given to the winners in the Kahoot! tests increased the participants' motivation for test preparation. The mean value was not high (3.15), indicating that it was not a significant motivating factor. In Question 12, some negative opinions regarding the extra-point system were found (see Category 7). For example, eight participants found it unfair that answering quickly was needed for getting extra points because factors irrelevant to vocabulary knowledge, such as internet connection and reflexes affect answer speed. As shown in Table 2, the average Kahoot! test scores were generally high. Many teams gained perfect scores. Thus, quick answers were required to achieve third place or higher. We did not expect this to be a serious problem because the school adopted

an absolute grading system; even if extra points were given to classmates, their final grade would never be lowered. However, if the participants found the extra-point system unfair, dealing with this problem is necessary.

Q8 and Q9 asked whether participants regarded the test format as effective and motivating, respectively. The results showed that more than 60% of the respondents chose favorable answers to these questions. Moreover, in Q10, 66% of the participants answered that they hoped to take vocabulary tests in the same format in the next semester as well.

One unexpected finding from Q12 was that some participants had split the vocabulary to memorize with their partners in the Kahoot! tests (Category 11). In other words, they studied only half of the target vocabulary, answered questions pertaining to it, and let their partners answer questions about the other half. Although this strategy does not seem effective, considering that they would take review tests individually and that those scores are much more important than those of Kahoot! tests, some students may use this strategy to pursue short-term benefits. If out-of-class paired vocabulary learning is encouraged, this problem would become less likely to occur.

5. Conclusion and Future Directions

Considering the results of the analyses, the test format used in this study appear to be effective in enhancing learners' vocabulary learning motivation. Overall, average Kahoot! test scores and the mean values of the motivation-related survey questions were high. In addition, some participants' responses in the open-ended question (Q11) showed that the test format could motivate learners both intrinsically and extrinsically. Moreover, the combination of Kahoot! tests and paper-and-pencil review tests was perceived positively by many participants. A grading ratio of the two tests, 1:5, was generally supported.

However, some problems were identified. First, the test did not sufficiently encourage out-of-class paired vocabulary learning. Training of it might be required to solve this problem. For instance, teachers could suggest effective ways of studying vocabulary in pairs and allow students to practice using them in class. Consequently, some students may find paired vocabulary learning effective and may voluntarily do so. Although teachers do not have to force learners who prefer individual vocabulary learning to engage in paired vocabulary learning, it is important to increase the options for vocabulary learning methods, especially for learners struggling with vocabulary learning. Teaching effective paired vocabulary learning methods in class as well as providing students with good reasons to use them outside of class through team-competition style tests could be meaningful in supporting unmotivated learners.

Another problem is the validity of the extra-point system, which requires answer speed. Some participants felt that it was unfair because it was influenced by internet connection and reflexes. Improving internet connections may be difficult for teachers to achieve. However, if students are

convinced that the answer speed is related to the quality of vocabulary knowledge rather than reflexes, they would find the rule less unfair. In fact, one participant wrote in Q11 "It was interesting that the answer speed of students who memorized the vocabulary perfectly and those who just had faint memories of it were differentiated." If this is proven true in future research, using answer speed to decide who receives the extra points can be justified because the access speed of vocabulary is important in communication. This could encourage learners to gain easy-to-access vocabulary knowledge.

A limitation regarding the research methodology is that this study did not include a control group. If a control group that takes ordinary vocabulary tests is created and their vocabulary learning outcomes and motivation levels are compared with those of the treatment group, the effectiveness of this practice could be presented more persuasively.

As discussed previously, vocabulary learning is a notable demotivator for English learners. It is valuable to conduct further research on motivating vocabulary test development and explore ways to make vocabulary learning less demotivating.

Notes

1. *Kosen* are colleges of technology that provide five-year engineering education from the age of 15. Thus, third-year students at Kosen are equivalent to third-year high school students (i.e., most participants in this study were 17 or 18 years old.).

2. The Kahoot! scores are determined based on the accuracy and speed of the students' answers. The winning teams and their scores are displayed on the screen after each question, so a fun and competitive atmosphere is created.

3. The remaining 70% of the final grades was determined based on scores on the mid-term, speaking, and final tests.

4. Except for the time for the vocabulary tests, the classes basically focused on developing students' English communication skills using various communicative activities.

5. Memorizing Japanese definitions of target English words is often criticized, mainly because such knowledge may not be applicable during communication and literal translations are often inaccurate. However, Nakata (2019) claims that it is valuable because memorizing Japanese definitions is often sufficient for learning of English words, may help restore vocabulary, and can be the first step in gaining knowledge available in communication.

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Appendix A: The question items and results of the survey

		M	*SD*	% of 4 or 5
Q1	語彙テストがチーム対抗形式だったので、パートナーのために頑張って単語を勉強しようと思えた。(Since the vocabulary test was in a team-competition style, I felt I should study the vocabulary hard for my partner.)	3.78	1.10	70%
Q2	語彙テストがチーム対抗形式だったので、不安が高まった。(Since the vocabulary test was in a team-competition style, my anxiety was heightened.)	2.44	1.41	26%
Q3	語彙テストがチーム対抗形式だったので、昨年よりクラスメートと一緒に単語を勉強する機会が増えた。(Since the vocabulary test was in a team-competition style, I studied vocabulary with my classmates more than before.)	2.32	1.33	23%
Q4	チーム対抗 Kahoot!テストは、個人で行う一般的な語彙テストよりも楽しかった。(Team-competition style Kahoot! tests were more fun than common vocabulary tests taken individually.)	4.18	0.98	79%
Q5	チーム対抗 Kahoot!テストを3回行い、その3回分の範囲をもう一度個人で行うテストで確認するという方式はよかった。(The format consisting of three team-competition style Kahoot! tests and one individual review test was good.)	4.12	1.05	75%
Q6-1	チーム対抗 Kahoot!テストの結果と、個人で行う語彙テストの結果を1:5の割合で評価したのはよかった。(It was good that the ratio of grading between the Kahoot! tests and review tests was 1:5.)	3.97	1.10	77%
Q6-2	［Q6-1 で1〜3と答えた方］その理由として最も当てはまるものを選んでください。(［For those who chose 1-3 in Q6-1］Please choose the reason.)	see 4.2		
Q7	チーム対抗 Kahoot!テストで3位までに入ったチームは、1人で行う語彙テストの得点に加点するという方式は、チーム対抗 Kahoot!テストに向けた語彙学習へのやる気を高めた。(Since the three teams with the best scores on the Kahoot! tests were given extra points, my motivation for the Kahoot! tests was boosted.)	3.15	1.37	47%

Q8	今学期の語彙テストの形式（チーム対抗 Kahoot!テスト×3 & 個人のテスト×1）は、生徒の語彙力を高めるのに効果的だ。(This semester's vocabulary test format of three Kahoot! tests and one review test was effective in developing students' vocabulary.)	3.66	0.97	64%
Q9	今学期の語彙テストの形式（チーム対抗 Kahoot!テスト×3 & 個人のテスト×1）は、生徒の語彙学習へのやる気を高めるのに効果的だ。(This semester's vocabulary test format of three Kahoot! tests and one review test was effective in increasing students' motivation.)	3.70	1.06	63%
Q10	今後の英語の授業でも語彙テストを行うのであれば、今学期の語彙テストの形式（チーム対抗 Kahoot!テスト×3 & 個人のテスト×1）を継続してほしい。(I want my teacher to keep using this semester's vocabulary test format of three Kahoot! tests and one review test in the next semester.)	3.86	1.06	66%
Q11	今学期の語彙テストの良かった点を教えてください。（Q1～Q10 の質問と関連する内容でも構いません）(Please tell us good points about this semester's vocabulary tests. You can write something related to Q1～Q10.)			
Q12	今学期の語彙テストの改善点や欠点を教えてください。（Q1～Q10 の質問と関連する内容でも構いません）(Please tell us weak points or points needing improvement about this semester's vocabulary tests. You can write something related to Q1～Q10.)			

Appendix B: The results of the qualitative analysis for Q11

1. The test had positive effects on learners' motivation and emotions.
a	Kahoot! had positive effects on learners' motivation and emotions. (7)
	「単語テストがカフート形式なのがゲーム感覚でできとても楽しかったです」 (Vocabulary tests using Kahoot! were a lot of fun, like a game.) 「毎週ペーパーテストを行うより気持ち的に軽い点」(Using Kahoot! for vocabulary tests made me more relaxed than doing paper-and-pencil tests every week.)
b	The team-competition style has positive effects on learners' motivation. (6)
	「ペアに迷惑かけないようにするために勉強しなきゃいけないと思い、勉強することが出来る」 (I did not want to bother my partner during the Kahoot! tests, which made me study hard.) 「対決するのが楽しかったです」 (The competition was fun.)

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c　Other (8)

「苦手な語彙学習のやる気が出た点」(I was motivated for vocabulary learning, which I am usually not good at.)

「一般的な単語テストよりもやる気が高まった」(This style of vocabulary tests was more motivating than ordinary vocabulary tests.)

2. Reviewing opportunities were given. (10)

「個人テストで復習ができたので良かった」(It was good that I was able to review the vocabulary in the review tests.)

「二回同じ単語の勉強ができたため，定着しやすいと感じた点」(Since I studied the same words twice, my vocabulary knowledge was likely to be strengthened.)

3. The amount of target vocabulary for each test was appropriate. (3)

「単語の量がちょうどいい」(The number of target words for each test was appropriate.)

「範囲が適切」(The amount of vocabulary covered by each test was appropriate.)

4. We could make opportunities to study with peers. (2)

「単語学習を友達とできる点」(I can study vocabulary with my friends.)

「みんなが一緒に勉強できます！」(We can study together.)

5. It is possible to get some points without studying. (2)

「勉強しなくても5点分取れる」(I could get 5 points without studying.)

「自分がクソでもパートナーができてたらまあまあ点取れるところ」(Even if I could not answer the questions, I still could get a fine score if my partner did well.)

6. Other (6)

「kahoot のテストは単語がうろ覚えの人と完璧な人で回答時間に差がつくので面白いと思いました」(It was interesting that the answer speed of students who memorized the vocabulary perfectly and those who just had faint memories of it were differentiated.)

「勉強していればちゃんと点数が取れるところ」(If you studied properly, you could get a good score.)

Note. 1-6 are category names, and a-c are subcategory names. The sentences in 「　」 are examples of the participants' responses in the (sub)categories. The numbers in parentheses indicate the number of responses in the (sub)categories.

Appendix C: The results of the qualitative analysis for Q12

7. The rules about extra points were not appropriate.

a　It was not appropriate that the answer speed affected the score. (8)

「ネットの回線によって早く回答できるできないがあるのでそこは不公平」(It was unfair that Internet connection issues affected the answer speed.)

「kahoot は回答時間によっても点数が変動するので、その順位で語彙テストに加点をすると反射神経勝負になってしまうのは不平等に感じます」(The Kahoot! score is partially determined by the answer speed. This is unfair because students' reflexes affect their scores.)

b	Only three teams were given extra points. (4)

「1〜3位はハードルが高いと感じた」(I felt taking third place or higher was difficult.)

「カフートで上位3つに入るのは難しい」(Taking the third place or higher in the Kahoot! tests was difficult.)

8. The review tests had problems.

a	The amount of target vocabulary in the review tests was too much. (3)

「紙形式は範囲が多くなってしまうから大変だった」(The amount of vocabulary covered by one review test was too much, which was tough for me.)

「3回分の単語を覚えるのが大変」(It was tough to memorize the target vocabulary for the three Kahoot! tests for the review test.)

b	The review tests should be given more frequently. (2)

「2回で1回のペーパーベースがいい」(The review tests should be given after two Kahoot! tests.)

「個々人でのペーパーテストを増やし，範囲を狭めるといいと思う」(The review tests should be given more frequently, and the amount of vocabulary covered by each review test should be smaller.)

9. Getting a good score without studying may be possible. (4)

「選択問題だと勘で当たってしまう」(In the multiple-choice questions, we might choose the correct answers by chance.)

「ペアで組むのはいいが，回答する人間が偏りがちだった」(It was fine to make pairs, but the number of questions each student answered was often uneven.)

10. The test had negative effects on motivation and emotion. (3)

「普通に一人一人のテストの方がやる気出る」(Ordinary tests that students take individually are more motivating.)

「ペアでやるのが少しプレッシャーがあったこと」(Taking tests in pairs put me under some pressure.)

11. It was possible to split the vocabulary to memorize with the partner in the Kahoot! tests. (2)

「チームでやるので1人が1ページ目、もう1人が2ページ目といったように分担して行うときがあったので個人の方がしっかり勉強できる気がする」(We took the tests in teams, so sometimes my partner and I split the words to memorize. Taking tests individually could make students study more seriously.)

「よかったが、人によっては単語帳の前半後半で分担する人もいるのではないかと思った」(The test format was generally good, but some teams might split the vocabulary to memorize.)

12. It was difficult to make pairs. (2)

「毎回ペアを組み直すのがちょっと大変」(It was a little troublesome to make new pairs every time.)

「毎回ペアを変えなければならばならなかったこと」(We had to change pairs every time.)

13. It was difficult to check the pages of the target vocabulary in each test. (2)

「範囲の確認が簡単にできるようにしてほしい」(I wish I could have checked the pages of the target vocabulary in each test easily.)

「今後のテストの範囲をまとめてアップロードしていただけると助かります」(It would be helpful if a document showing the pages of the target vocabulary in each test is uploaded to our online class page.)

14. Other (5)

「紙のテストの比率をもっと下げてもいいと思う」(I think the ratio of grading of the review tests should be smaller.)

「回線の問題で Kahoot!へのアクセスが不安定だったこと」(Due to the Internet connection problem, I sometimes could not access Kahoot! stably.)

Note. 7-14 are category names, and a and b are subcategory names. The sentences in 「　」 are examples of the participants' responses in the (sub)categories. The numbers in parentheses indicate the number of responses in the (sub)categories.