# A Model to Support Learner-Oriented English-Speaking Practice with Gamification and Self-Regulation Elements

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# Abstract

This paper proposes a model for sustainable remote English-speaking practice by incorporating two elements, namely, self-regulation and gamification. Six Japanese-speaking university students participated in this research for approximately five weeks, and the results were analysed quantitatively and qualitatively. The TOEIC Speaking Test was adapted as the pre- and post-test for the quantitative analysis. As a result, significant differences were obtained by t-tests. As for the qualitative analysis, text-based and oral interviews were conducted, and the results were analysed using qualitative data analysis (QDA) software MAXQDA 2020. The results of the qualitative study showed that incorporating the above-mentioned two elements into remote English-speaking classes increased the motivation of the participants and their willingness to attend the next session.

Keywords: gamification, remote learning, self-regulation, speaking practice,

### 1. Introduction

Foreign language education has a history of adopting the new technologies of the time, and recent years have seen significant changes in Japan as the ICT environment develops. Mobile devices, including tablets in the classroom, allow the consumption of online media and easy real-time connection with people elsewhere (for example, connecting the main school in an urban area with a branch school, or a class with an English instructor overseas). After 2020, with the spread of the COVID-19 pandemic, the use of such "distance" or "remote" learning formats rapidly extended to other areas, including subjects which involve physical practice and training and where face-to-face teaching was the norm. However, in this rapidly expanding current form of remote learning, the construction of an autonomous and sustainable methodology that is highly effective, easy to implement and has a wide range of applications has not yet been seen.

## 2. Background

#### 2.1 Remote classes and social presence

Many educational institutions now offer various remote classes and distribute content via the Internet, attracting attention as a new form of education and learning. Remote learning has the potential to expand the 'time' and 'place' of education, but in recent years, some remote learning methods have revealed its effectiveness and some weaknesses. According to Sugihara (2005), remote classes would reduce social presence and offer fewer (and slightly mistimed) visual clues, and technical difficulties could impair the spontaneity, diversity, and smoothness of conversations. According to Short, Williams, & Christie (1976, p. 65), social presence means "the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships." The term 'social presence' was begun to be used in the 1990s, together with research on distance education. In addition, as Kubota (2000) mentioned, learners are isolated in distance learning, so self-control and motivation are more important than ever to keep them on task and learning.

On the other hand, there is some research that indicates the advantages of remote learning. For example, according to Richmond & McCroskey (2004), "some students, such as those with a high level of communication apprehension, prefer the relative anonymity of a lecture format." Additionally, Katori (2019) claims that "although anonymity diminishes social presence or social identity, this, in turn, can lead to the elicitation of more utterances during conversations."

The universities that the participants belonged to did not have English-related departments, and judging from the results of standardised English language tests (TOEIC, G-TELP) taken by the participants, and from daily practical classroom observations, it was expected that participants would have concerns about communicating in English. In fact, in the questionnaire conducted during the study, some participants answered that they "would not like to be laughed at or made fun of by others in the class." When the respondents were asked to confirm this, their responses reflected their anxiety that they had not actually experienced such things, but that they would not like it if it happened. Summarising the results of the questionnaire showed that Japanese university students participating in this study were anxious about speaking English in public, so it was anticipated that the low social presence in the distance classes would have a positive effect on the participants in this study.

#### 2.2 Self-regulation

The concept of 'Self-Regulation Learning,' which has attracted attention in recent years as a motivational factor in second language learning, was proposed by Zimmermann (2000). According to Schunk & Zimmermann (2008), "Self-regulation learning (or self-regulation) refers to the process by which learners are personally active and sustain cognitions, affects, and behaviours that are systematically oriented toward the attainment of learning goals." Likewise, Nakata (2010, p. 2) mentioned that "The best-case scenario in this respect is for learners to enjoy what they do, to feel in control of their own learning (e.g., by setting their own goals), and to be able to take steps to manage or regulate the tasks they undertake to learn."

In this study, I adapted two kinds of self-regulation phases in the session of the remote class (see next chapter). One was in the second phase in the flow of a session, and the other was in the final phase of a session. In the second phase, when the participants check their transcription with the instructor, "six corrective feedback strategies" by Lyster & Ranta (1997) were adopted to encourage students to notice mistakes. According to Lyster & Ranta, there are six types of corrective feedback that are essential for bringing about learners' own 'noticing.' Those are (1) recast, (2) clarification request, (3) elicitation, (4) repetition, (5) explicit correction, and (6) metalinguistic feedback. Then, at the last stage of one session, the learner should create and send a 'self-regulation sheet' for self-feedback, comprising three sections, such as, "About this session", "What I noticed", and "What I want to do next time (goals)" to encourage intrinsic self-motivation and autonomy.

#### 2.3 Gamification elements

The idea of gamification has recently been incorporated into various learning situations and is attracting interest as an element of ICT-enhanced class development. In this study, I decided to incorporate game elements into a remote English-speaking class from the viewpoint of 'learning for fun' (Hung, Young, Hwang, Chu, & Wang, 2018), and the view that scores (rewards) are effective in motivating students to learn (Hayamizu, 1993; Kage, 1995; Ichikawa, 2001).

According to Werbach & Hunter (2020), gamification is defined as the "use of game design elements in a non-game context." Also, as Nemoto, Takahashi, Hayashi, Mizutani, Horita, Inoue (2014) mentioned, "Gamification means the use of game thinking and game mechanics in a non-game context, and is getting more attention as a means of selfmotivation and sustained behavioral change." Moreover, Khalil, Ebner, & Admiraal (2017) insist that "the gamification approach relies on weekly feedback to drive students' intrinsic and extrinsic motivation." As the recent study by Peterson, White, Mirzaei & Wang (2020) suggests, "learning foreign language words through simulation games is not only fun and motivating for students, but also helps foreign language learners to retain their vocabulary." However, some disadvantages of game-based education are also pointed out, such as being "unnecessarily time consuming" or that it "makes it difficult for teachers to take control of the class" (Squire, 2005).

There are many definitions regarding games; however, in this research four defining traits of games by McGonigal (2011) were applied because they are simple and seem to be easy to adapt for remote learning classes. They are as follows:

- **1. Goal:** "is the specific outcome that players will work to achieve. It focuses their attention and continually orients their participation throughout the game. The goal provides players with a sense of purpose."
- 2. Rules: "place limitations on how players can achieve the goal. By removing or limiting the obvious ways of getting to the goal, the rules push players to explore previously uncharted possibility spaces. They unleash creativity and foster strategic thinking."
- 3. Feedback system: "tells players how close they are to achieving the goal. It can take the form of points, levels, a score, or a progress bar. Or, in its most basic form, the feedback system can be as simple as the players' knowledge of an objective outcome: 'The game is over when...' Real-time feedback serves as a promise to the players that the goal is definitely achievable, and it provides motivation to keep playing."
- 4. Voluntary participation: "requires that everyone who is playing the game knowingly and willingly accepts the goal, the rules, and the feedback. Knowingness establishes common

ground for multiple people to play together. And the freedom to enter or leave a game at will ensures that intentionally stressful and challenging work is experienced as safe and pleasurable activity."

# 3. Method of remote English-speaking practice

# 3.1 The remote English-speaking practice

The following are details of the remote Englishspeaking practice in this research.

- **Period:** July to September, 2021 (during the summer holidays)
- Type: optional and non-credit bearing
- Participants: 6 Japanese University students (undergraduates in 3rd and 4th year, L1 Japanese),
- Session duration: 30-minute sessions conducted once a week
- Number of sessions per student: 4 to 5 times
- Pre/Post test: TOEIC Speaking Test
- Session content: easy conversation on everyday topics (small talk, experiences that week, what I read/ate/watched/did etc.)
- **Debrief:** followed by questionnaire (MCQ and open-ended questions)

The remote English-speaking practice administrated in this research was conducted one-to-one between an instructor (the author) and the learner using Skype. Skype is a free telephone service, and it does not require an appointment. In addition, it is compatible with FaceRig, the free face recognition software, so that it was decided to use it in these speaking practices. The instructor used a PC for each class and informed the learners that they could use any devices that were convenient for them, but during the 2021 observation survey, the participants also used a PC. The time of day was decided by discussion with the participants each time.

### 3.2 Flow and phases in the session

In this study, a cyclic class was designed to support sustainable learning. Figure 1 shows the flow of the

# Figure 1

remote English-speaking class in this study. As Figure 1 shows, the class has five phases and an overview of each phase is given below.



# 3.2.1 Phase ①

Speaking practice with an instructor (approximately 15 minutes). This phase begins with 'small talk' and

elicits slightly longer utterances. After the 'small talk' as a warm-up, the learner's speech is transcribed using the Google Speech Recognition system.

# Figure 2

Speech recognition scenes using 'Google Speech Recognition'



#### 3.2.2 Phase 2

Peer reflection is conducted between the learner and the instructor while sharing learner's utterances transcribed by the Google Speech Recognition System (approx. 10 minutes). In this review, corrective feedback is given, referring to Lyster & Ranta (1997), to encourage learner awareness and spontaneous correction. I illustrate the details of the adapted six corrective feedback strategies below:

- recast (Learner; "I go to school yesterday." / Instructor; "Oh, you went ..."
- clarification request (Instructor; "What do you mean by ...?")
- 3. elicitation: (Instructor; "You ... (pause)"
- 4. repetition: (Instructor; "You ...go *J*?"
- 5. explicit correction: (Instructor; "You should say

'went', not 'go'.")

6. metalinguistic feedback: (Learner; "I go yesterday..." / Instructor; "Go? You are talking about yesterday, aren't you?")

In Phase 2, the above strategies were used while modifying the content of the textualised utterances.

# 3.3.3 Phase ③

The revised transcription is evaluated using the original speech evaluation system, and the content and scores are presented to the learners as one of the gamelike elements (approx. 3 mins). First, the corrected transcript is 'copy-pasted' into Excel. Next, an Excel macro (Visual Basic) is used to score the transcript using a 'lemma list' adapted from the 'New JACET 8000 word list' or New JACET 8000 List of Basic Words, edited by the Japan Association of College English Teachers (JACET). The New JACET 8000 is known as the 'Educational Vocabulary for Japanese Learners of English' and is a corpus frequently used in the field of English language teaching and research in Japan. The British Natural Corpus (NBC) and The Corpus of Contemporary American English (COCA) are used as basic resources, but corrections have

# been made to reflect the process and goals of English language learning experienced by Japanese learners of English in elementary school, junior high school, high school and university. JACET 8000 selects 8,000 English words that can or should be used by learners of English educated in Japan and classifies them from easy level 1 to more difficult English words (level 8).

Now, some explanation of the 'lemma list' will be given here. Depending on the language, words can have different conjugations of the same word. Examples are conjugations such as 'table/tables' or 'have/had.' These conjugated forms are usually called 'entries.' If there are multiple entries in the same 'lemma,' they are represented by the highest lemma (e.g. am, is, are, was, and were are all represented by 'be'). As an example, during the remote class, if the participants use 'am', 'is', 'are', 'were', and 'was' in their utterances, then, the participant would be calculated to have used 'be' five times in one utterance. Another concrete example is when 'big' and its comparative class are used in the same utterance, as in 'big', 'bigger'. The word 'big' is processed and calculated as having been used twice as the total number of words and once as the number of word types used.





The participants' utterances modified in phase 2 are evaluated using the original evaluation system and presented to the learners. Figure 3 shows the first screen of the evaluation system. When the 'Paste' (1) is clicked, the participant's modified button utterance is pasted into the window. Next, click on the 'Evaluate' button (2) to present the details of the

# Figure 4

Detailed speech content evaluation screen

B c D м N E 163 Total number of words used Level Used numbe umber of different words usesd 96 1.00 Andian of words used 1.47 Avarage of words used 3 Thre highest level of words used 8 4 70,900 5 6 List of words used List of idioms Number of times the Jacet 8000 Number of times Used words Used idiom words used I evel Points the idiom used Level Pr nts 1600 get \* up consist \* of 800 100 be 700 to and 700 the 500 like 400 1 300 up 1 300 300 not 300 my 300 because at 300 300 1 200 want 200 sually 27 200 try 2

Figure 4 consists of four parts. The part denoted as '1)' shows 'total words used', 'different words used', 'average level of words used', 'highest level', and score (a figure calculated by combining all these factors). 'The total number of words used' is the total number of all words used, while 'different words used' is the number of 'words' used, even if a word is used more than once. For example, the word 'and' is counted as one word even if it is used more than once. In this case, although 'and' was used seven times it is calculated as 'one word.' The word-level assessment used the 'New JACET 8000.' The details of the JACET 8000 was mentioned above. Figure 4 shows that the participant had a total of 163 words, 96 different words, the highest word level used was 8,

and the score was 70,900. An explanation of how the scores were calculated is given in the next section.

The part marked (2) in Figure 4 shows how many words of which level were used. It shows that the participant used 144 level 1 words, 7 level 2 words, 5 level 3 words, and the same applies hereafter.

The part marked ③ shows the words actually used by the participants, the number of times the words are used, the word level and the score calculated from them. In the list, the words are displayed in order of frequency of use. '3' describes that 'i (I)' was the most frequent word used by the participant in this session. The second most frequent word was 'be', which was used 8 times.

The part marked ④ in Figure 4 indicates the use



utterance (see Figure 3).

When the 'Evaluate' button in Figure 3 is clicked.

the sharing screen changes to Figure 4. Here, the

participants' revised speech is evaluated using the

original speech evaluation system, and the content and

score are presented (approximately 3 minutes).

of idiomatic phrases. It shows the idioms actually used in the speech, the number of times they are used, the level of the idiom and the score calculated from this. For the notation of the idiom levels, Akao (2018) was referred to. Finally, the resulting score/ frequency profile is screen-shared with the student and briefly discussed. Participants were aware of their score in each session and seemed to enjoy the gamelike increase in their score. In fact, some participants answered in the questionnaire that they wanted to improve their scores even more.

# Table 1

#### Progress table

# 3.3.4 Phase ④

In the next phase, the evaluation made in Phase 3 is presented to the participants as tables and graphs. It is intended to be the 'progress bar' by McGonigal (2011). Then learners are given the opportunity to check whether goals were reached, with changes from previous sessions, to encourage learners to reflect (self-regulation) (approx. 2 mins). Table 1, and Figures 5 and 6 are examples to share as 'progress bars'.

Participant 1	1st	2nd	3rd	4th	5th
Total number of words used	80	179	134	163	180
Number of different words used	54	104	76	81	104
Median of words used	1.00	1.00	1.00	1.00	1.00
Average of words used	1.35	1.37	1.3	1.28	1.38
The highest level of words used	4	6	4	4	7
Score	16,400	68,700	45,600	57,000	78,200

Change of 'Total number of words & Number of different words used' by a participant



#### Figure 6



Change of 'Total score' by a participant Score

#### 3.3.5 Phase (5)

After each session, the instructor sends the learner's speech transcription made in Phase ②, the list of words and phrases created in Phase ③, and the feedback table and graph presented in Phase ④ to the learner. Then learners are asked to send a 'self-regulation sheet' intended to encourage intrinsic self-

motivation and autonomy. Participants are required to describe "About this session", "What I noticed", and "What I want to do next time (goals)" on the sheet. In this research, this process was considered a part of the gamification — rules by McGonigal — of this English-speaking practice. Figure 7 shows an example of the self-regulation sheet.

# Figure 7

Example self-regulation sheet

1. About the last remote conversation class.

I tried to speak without preparing in Japanese. I think I could do well because I could speak a lot of what I wanted to say in English without Japanese. I couldn't explain at all about how to cook in English. I can now use the causative verb "make" properly.

# 2. What I noticed by myself.

I feel like I have more drawers in my brain. When I try to speak in English two or three words come to my mind now. For example, "dish", "cuisine", "food", etc. In the beginning, I was nervous and thought I had to speak quickly, but now I feel I can relax and speak slowly and carefully.

### 3. What I want to do next time (objective).

Can deliver an accurate sentence with correct grammar. Can communicate accurately what I want to say.

### 3.3.6 How to calculate scores

As I mentioned above, in this research, as one of the features of this speech evaluation system, I decided to add a 'score display' as a gamification element, referring to the definition of a game by McGonigal (2011). Participants' scores were calculated based on the number of words, the word level used, and the idioms and levels used in the session of the day. The calculation method was based on interviews with university students who played the game on a daily basis, and was as follows:

- Word scores: square of the word level used x number of times used x 100
- Idiom scores: square of the idiom level used x number of times used x 100
- Bonus points: if the total number of words used is 100 or more, the total number of words divided by 50 and rounded down to the nearest whole number x 10,000.
- Total points: word score + idiom score + bonus score.

# 4. Findings

# 4.1.1 Quantitative results by speech content evaluation

Although 6 university students participated in this research, in this section, 'participant 6' is excluded. He asked for the macro and did some sessions by himself, but I was not able to grasp the exact periods he experienced. Therefore, 'participant 6' is literally off these charts. However, he responded positively to the post-class questionnaire and sent in his answers; therefore, 'participant 6' will be added to the qualitative results.

According to Figures 8 to 11, after the participation in the remote English-speaking practice during the summer holiday in 2021, participants' 'total number of words used', 'total number of different words used', and 'total score' have generally increased with each successive class session.



# Figure 9

Total number of different words used



# Figure 10

verage level of words used





However, as Figure 10 shows, the 'average level of words used' only changed slightly. This is presumably because the 'Level 1 words' in the new JACET 8000 contain many function words. Generally, as the total number of words used increases, the use of function words (conjunctions, articles, pronouns, prepositions, etc.) increases accordingly. As an example, in the <sup>(2)</sup> section of 'Figure 4' above, 16 words are found (i (I), be, to, and, the, like, up, of, not, my, because, at, a, want, usually, try), and 12 of these words can be

classified as function words, depending on the context of the utterance, and all are in the Level 1 category.

# 4.1.2 Quantitative results (pre-post test)

Five of the six learners who participated in this research took the TOEIC Speaking Test IP (on-demand method) before and after the class. The results are shown below. The maximum score for the TOEIC Speaking Test is 200 points.

Table 2	
TOEIC Speaking pre-post te	st (T-TEST)
pre	post
90	110
110	130
120	120
100	110
80	100
<i>t</i> = 3.5.	
p = .0249.	
Two tailed	
Significance Leve	l is 5%

The result is significant at p<.05.

Table 2 shows that there was a significant difference between the TOEIC Speaking IP Test results of the learners who participated in this research. For the five participants in this observational study, this indicates that there was a change in TOEIC Speaking Test scores before and after participation in the speaking class. Strictly speaking, it cannot be concluded with certainty that an increase in the results of one English standardised test necessarily corresponds directly to an improvement in the speaking ability of individual participants. However, taking into account the results of Figures 8 to 11 above as well, the remote speaking classes organized in this study was found to have brought some quantitative change in speaking ability for the five participants.

#### 4.2 Qualitative results

I would say it is difficult to find a common structure when analyzing the process by which each individual acquires their own learning methods through specific experiences over a certain period. For this reason, this study adopted a qualitative analysis method based on case studies as well as the quantitative results above mentioned, and analyses are carried out rooted in individual contexts and situations. For the analysis of the qualitative data, qualitative data analysis (QDA) software MAXQDA 2020 was used. However, the results of a detailed qualitative analysis using MAXQDA will be presented in another research paper.

In this observational study, the 'rule' was that after each class, the learners sent a simple reflection sheet as part of the 'look back' process. The content of the sheet consisted of three items: "About this (that) class", "What I noticed" and "What I want to do next time (goal)." Here, I qualitatively analysed the contents of the 24 sheets (number of participants x number of times = 24 sheets). A QDA (Qualitative Data Analysis) software was used for the analysis. According to Ota (2015), MAXQDA is a qualitative data analysis software that is currently used in various research fields such as psychology, education, social sciences, nursing and linguistics.

#### 4.2.1 Self-regulation sheets

Figure 12 describes an example of 'self-regulation sheets' by a participant.

<ul> <li>▲ ↑ 1/8 国 Aa a* abc 总山         <ul> <li>▲ ↑ 1/8 国 Aa a* abc 总山</li> <li>▲ ↑ 1/8 国 Aa a* abc 急山</li> <li>▲ ↑ 1/8 □ A ↑ ↑ 1/8 □ A ↑ ↑ 1/8 □ A ↑ ↑ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓</li></ul></li></ul>	実際の「人」とのコミュニケージ	リョン希望		~ ¢ ¢o ¢o	0 / /	2 B @ @ @ @ @ @	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Ale	4	r ↑	1/8 📰 Aa a*	abc 4cd		
#29-713422     20日     20	は :ガティブな自己評 ポジティブな希望 黄色	1 参) 1回	加者1 4	今日のレッスンについて 英会話のやり方を聞いた。自 た文字に起こして、単語レペ 自分の単語レベルが低いと	目分の話した英語 ルを調べた。 つかった。	自分の気づき 自分の使っている単語レベルが低いの で、少しでも高いレベルの単語を使いた い.	次回やりたいこと 文字で起こせるように, はきはきと英語を 話したい.
ちがってかぬき るよしよ あがってかゆき るよしよ 第20日 いたいや、speaking of whichなど使利な熟 第25々てなぬき ほう し 本がってなからこおかって ホック・マカムの自身 ホック・マカムの目録 エック・ロター エック エック・ロター エック・ロター エック エック・	ポジティブな希望	20	回目 11 と よ す し 前 目	質問に対して、ある程度の必 ができた。自分が話したこ たってあまり開達えて入力ざ たった車で確に発音したり、 たい、単語総数や単語種 前回より少し増えたのでレイ 目指してこれからも頑躬長って	を度で回答することがコンピュータに とがコンピュータに いなかったので、こ 道度な声量で話 類数、平均値も いかの高い英語を いきたい。	自分の伝えたいことを英語で話そうとする とき難しく考えていたが、焦らずに考えると シングルな英語で伝えることができるとい うことが分かった。	自分の伝えたいことをあまり考え込まず。 シンブルに伝えたい、使用単語の平均 値を上げたい。
27から20年に時後 オジティブム毎日に ポジティブム毎日に ポジティブム毎日に ビリーフ く ビリーフ く ビリーフ く マリーブム毎日 ビリーフ く マリーブム毎日 ビリーフ く マリーブム毎日 ビリーフ く マリーブム毎日 ビリーフ く マリーブム毎日 「 ジーフ (10年) 「 フローゴー 「 「 「 フローゴー 「 「 フローゴー 「 「 フローゴー 「 「 「 「 「 「 「 「 「 「 「 「 「	ジティブな希望	30		ry toや,speaking of wh 吾が分かってよかった.細か いない.	ichなど便利な熟 い文法がわかって	質問に対して,言いたい事が日本語で 浮かばない。	覚えた熟語を積極的に使いたい。また覚 えた単語も積極的に使いたい。
ビリーク 🖞 5回目 今日は食べ物についての英語について学ん 以前よりはしっかりと受け答えできた。 次からは大学になるので、ゼミの人たち	ネガティブな自己評価 ポジティブな希望 ガティブな自己評価 ポジティブな希望	40		動面を分割した時の,右上: ちを知ることが出来た。	や左下などに言い	伝えたいことをきれいで完璧な英文で伝 えることはまだまだできないので、とにかく 言いたいことを英語で話してみることが大 切なのたと思う。	言いたいことを遠慮せずに英語で話して みたい。
ジティブな自己評価を工業であったのです。	ビリーフ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	50		今日は食べ物についてのあ 5. レシピの言い方をしっかり	を語について学ん と覚えたい。	以前よりはしっかりと受け答えできた・	次からは大学になるので, ゼミの人たちと 切磋琢磨していきたいです。

An examp	le of	'self-reg	gulation	'sheet
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In this sheet, the participant mentioned "The word level I am using is low..." after the first session. Then, after the second session, he said, "I want to raise the average word level I use." However, after the final session, he showed confidence and mentioned, "I could speak more confidently than before", and additionally, "The new semester starts soon and I want to continue practicing with seminar mates."

Across all participants, there was a tendency to give negative self-evaluations to their performances after sessions 1-2. The following are examples:

- It was difficult to speak English.
- I didn't have or use any idioms this time.
- My vocabulary was not enough, and the grammar was not correct.
- I made a lot of grammatical mistakes.
- I could only use simple words.
- I noticed that I could not pronounce the words properly.
- I could not use the past tense.
- I did not find the words I wanted to use.
- I forgot to put verbs in the past tense.

On the other hand, positive self-evaluations were more common after later sessions. The following are examples:

- My total number of words, the number of word types increased a little from the last time.
- First, I had to think in Japanese and then in English, but now I am able to think in English.
- I was able to practice a lot of speaking in English without using Japanese.
- I can now use the causative verb 'make' properly.
- I can now speak without fear of making mistakes.
- I think I am getting better at speaking what I want to say, albeit slowly.
- I think I did better than last week.

In addition, towards the end of the session, some students came to express their own ideas, methods, beliefs, and attitudes about learning. Examples are given below:

- I learned that it is necessary to be aware of consonants.
- I have learned that it is not easy to communicate if I translate Japanese as it is.
- I think it is important to try to speak what you want to say in English anyway.

#### 4.2.2 Final questionnaire

In this section, the results of the descriptive questionnaire administered after the completion of this observation survey are analysed. The questionnaire used in this study was partly based on Araki (2014). The questions can be divided into four categories (see Appendix for the actual questionnaire sample):

- 1. about their previous experiences of learning English (questions 1, 2 and 8)
- 2. about their emotions and orientation towards learning English (Questions 3, 4, 5, 6 and 7)
- 3. about the remote English-speaking classes held in this study (Questions 9, 10, 11, 12, 13, 14)
- 4. the participants' thoughts on their future English language learning (Questions 15, 16, 17, 18, 19).

The analysis of the questionnaire results in this part include the answers of 'participant 6.' Participant 6 was not included in the quantitative survey results, but he voluntarily answered the questionnaire. During the period when other learners were participating in this remote learning, he continued to use the speech evaluation system designed for this research on their own and practiced.

After the text-based answers to the participants' questionnaires, I conducted additional oral or email interviews at a later date for those answers whose meanings and contents we wanted to confirm further. Questions 1 to 7 were based on Araki (2014) and were in MCQ format, and the others were in open-ended question format. In this section, MAXQDA 2020 was also used. In this paper, some part of the postquestionnaire will be analysed and the rest will be presented in another article. Figure 13 illustrates some example answers in terms of category 2.

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### Figure 13

Category 2: Emotions and orientation towards learning English

		1	2: 学校者 1	3: 参加者 2	4. 参加者 3	5: 参加者4	6: 10 20 20 5	7: #208 6
tput <b>ģ</b> ģģģģ	1	質問 3.美語4決絶のうち。最も大切と思う決絶は何ですか。	speaking	speaking	speaking	listening	speaking	speaking
Aput ¢¢¢¢¢¢	2	繁問 4. 英語 4技能の内。どれが好き・得意ですか、1番好き・得意な時に記入してく ださい	1 reading	1 reading	1 listening	1 reading	1 listening	1 listening
output	3		2 speaking	2 speaking	2 reading	2 writing	2 reading	2 reading
input	4		3 listening	3 listening	3 speaking	3 listening	3 writing	3 writing
nput óóóóóó	5		4 writing	4 writing	42 writing	4 speaking	4 speaking	4 speaking
input ốố ( input input output	6	気内5.前(+書)の気内でspassingが毎日(1番行そだない) 最多)と回答した か。spassingが毎日550時面は何ですか。(感覚歌)、①人気はすかが最多だか 5.①人家ではかが美で作いいから ②美国の美容で自然がないから ②だうは なぜが得かく調えなからかないから、③美国の大学ではないたの、相手く笑われ 0.5美国でされたりんないから ③その後、美術が(1歳東国聖な))				人と話すのが基手だから	<b>英語の発音に自信がないか</b> ら	自分の話をするのを行まり い為
output output output	7					日本語を英語に解明に実施 できないから、	美国が上手ではないため、信手に実 われたり、島産にされたりしないかと不 安だから	
output ミュニケーション不安	8						その他(具体的に: 伝えたいことを 正しく伝えられているか不安だから)	
曲信 コニケ・ <b>そそそそそそ</b> 弱い曲信 ミュニケーション不安 ミュニケーション不安	9	【前6、異語かりフルや下半なこと。他のことはありますか、(道家祭)・①発音を得 単位計正されること ①文法等を用意し訂正されると ②人材で見ますこと ②ううス 心作みんに実われたり、各種にこれたりすること ③状体の主族が発出する ②インス トラウッー物数点に営工的なことを言われたか、影響にされたひすること ③その他 其余の(2)(観察話等フル)	人前で話すこと	人前で話すこと	文法を何慮も訂正されること	人前で話すこと	人前で話すこと	人前で話すこと
1000000000000000000000000000000000000	10				ううスの他の人に実われたり島重にさ れたりすること		試験の点面が悪い事	
1二ケーション不安 4	11				インストラウクや教養に否定的なことを 言われたり、馬鹿にどれたりすること			
3二か、 ションサ・ ションサ・ ション市安 三次・ ション市安 三次・ ション市安 三次・ ション市安 三次・ ション市安 三次・ ション市安 三次 三次 三次 三次 二次・ 二次 二 二 二 二 二 二 二 二 二 二 二 二 二	12	気向:共語の552中、やりたいことしてないにとはADBオヤ、「連邦数:①発 音を通用に訂正していると、②光波を通用に訂正していると、③人相で為す と、②552の作用の人をから変相を行らして、③外球で高い人類をなえて、④ インル5555 - が肯定知なことを言ったりなかたりすること、③その後、其体的し) (単数回答:アン	試験で高い生産化ること と	発音を参加に訂正してくれ ること	発音を過渡に打正してくれること	見音を過激に訂正してくれる こと	発音を連携に訂正して(れること	ううスの他の人たちから意 見をもらうこと
NHEW CLOCK	13			文法を適用に訂正してくれ ぶこと	インストラウターが希定的なことを言っ たりゆめたりすること	交法を過機に訂正してくれる こと	文法を連续に訂正してくれること	他のメンバーと英語で話す 構会
時間方向 長長	14			37838増払い高5増減		ううスの他の人たちから意見を もらうこと	当ぶろき産生い高ヶ崎地	
Nitza (	15			インストラウラーが肯定的な ことを言ったり得めたりするこ と		試験で高い点景をとること	インストラクターが含定的なことを言っ たり切れたりすること	
10世王和 新聞王和	16					インストラクターが希定的なこ とを言ったりなわたりすること		

According to responses, such as "I am not good at public speaking", it can be seen that the participants in this observational study had communication anxiety. Questions 10 and 11 of category 3 were about the 'corrective feedback' conducted between the learner and the instructor (see Figure 1, Phase 2). As a result, the following responses were received as examples: "I can notice grammar mistakes", "I think it is efficient because I can find out immediately", "I have reduced the risk of repeating the same mistake by having them pointed out on the spot", "Looking back is better than doing it once and it helps to consolidate the expressions and grammar learnt at that time."

The following Q12 and Q13 were questions about game-like elements in this English-speaking practices, and generally, they responded favorably to the gamification element, such as "those elements are motivating (interesting/useful) to see and makes me want to score more next time", and "I love games, so it was nice to see graphed scores (like the progress bar)."

Next, Question 14 asked about the 'self-regulation sheet' requested for each session. All respondents answered that the 'self-regulation sheet' was effective; for example, "It's good because I can look back immediately", "What I write down each time didn't change so much, but it was good because I can try the next lesson after remembering", "I think it's an important initiative", "By reflecting on it each time, I can check how well I'm doing", "It motivates me to set goals for the next lesson", "I thought it would make it harder to drop out", "I thought it would be better to have a space where I could enter my longterm goals for the system or for learning English, in addition to my short-term goals", etc. It may be said that these responses indicate some participants came to express their own ideas, beliefs and attitudes towards language learning through self-regulations.

The final example is about Question 16 and that is a question to ask if they want to continue studying English, and all answers were "Yes, I want to continue."

#### 5. Discussion

In this observational study, a remote Englishspeaking class was conducted with 6 Japanese university students who were expected to have high 'communication anxiety' because they were "not good at public speaking." Although it has been pointed out that speaking through a screen reduces the sense of social presence, this seemed to have reduced the pressure of being 'watched by others' for the participants with high communication anxiety of this research.

In this research, two elements, namely selfregulation and gamification, were incorporated into the remote English-speaking class. From the results of the questionnaire survey, it can be seen that self-regulation twice during one session elicited participants' 'awareness' and encouraged their active participation in the next session. In addition, by reflecting on their own performance, the participants were able to come up with their own strategies for language learning somehow. In general, in speaking classes, it is difficult for learners to review all of their speech on the spot, but this time, by transcribing their speech, the participants were given the opportunity to review their own speech, and furthermore, by having them reflect on their overall performance and set goals for the next session at the end, it is expected to have led to an improvement in their ability.

Finally, participants in this study showed quantitative growth after approximately five weeks of remote English conversation lessons. As to qualitative aspects, participants initially commented negatively on their performance, but gradually began to express their performance in a positive manner. Participants also enjoyed scoring their speech and game-like gaining points in their sessions, and this seemed to increase their motivation to participate in the lesson. In the end, all participants expressed their wish to continue their English-speaking practices, suggesting the emergence of a sustainable autonomous learning cycle.

#### 6.Conclusion

The aim of this study was to propose a sustainable model of remote English-speaking practice by incorporating elements of self-regulation and gamification. After about five weeks of individual remote English-speaking practice for 30 minutes per session, which included self-reflection and a game-like element, the participants showed quantitative changes before and after the class participation. In terms of qualitative results, the possibility of the emergence of sustainable class participation was also indicated. As a result, I would say, the model of a remote Englishspeaking class consisting of five phases, shown in Figure 1, was effective for the participants in this research, both quantitatively and qualitatively.

After 2020, with the spread of the COVID-19 pandemic, "distance" or "remote" learning formats were rapidly extended to language learning areas as well. The construction of sustainable and effective methodology that is easy to implement and has a wide range of applications has not yet been seen. While further research and practice is certainly needed to establish generalisable, effective and sustainable remote language learning strategies, I hope that the inclusion of self-reflection and gamification elements will be one of the hints for sustainable remote language learning.

#### (2023年1月31日受付)

This article is based on a part of the author's doctoral thesis submitted to Future University Hakodate, with additions and revisions by the author.

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# **Computer Software**

- MAXQDA 2020 [Computer software]. LightStone Corp, Tokyo.
- Skype (Version 14.56.182.0) [Computer software]. Microsoft Corporation, WA: Redmond.

#### **Appendix : Questionnaire (extract)**

- 英語を勉強し始めて何年になりますか?
   (1)6~10年 (2)10~20年 (3)20年以上
- 2. 英語と今日までかかわってきた動機は何です か? (複数回答あり)
  - (1) 英語が好きだから
  - (2) 英語標準テストなどに合格したいから(高いスコアを取りたいから)

- (3) 卒業単位等で必要だから
- (4) 外国の文化を知りたいから
- (5) 外国の人たちと不自由なくコミュニケー ションを取りたいから
- (6) 英語力が高いと就職等に有利だと思うから
- (7) その他(具体的に: )
- 3. 英語 4 技能のうち,最も大切と思う技能は何 ですか?
  - (1) listening (2)reading (3) speaking(4) writing
- 4. 英語4技能の内、どれが好き・得意ですか?
   1番好き・得意な順に1~4の番号を()
   の中に記入してください.
  - ( ) listening ( )reading
    - ) speaking ( ) writing
- 前の質問で speaking が4番目(1番好きではない・苦手)と回答した方.
   speaking が4番目だった理由は何ですか?(複数回答あり)
  - (1) 人と話すのが苦手だから

(

- (2) 人前で話すのが恥ずかしいから
- (3) 英語の発音に自信がないから
- (4) どう話せば相手に通じるか分からないから
- (5) 英語が上手ではないため、相手に笑われたり、馬鹿にされたりしないかと不安だから
- (6) その他 (具体的に:
- 6. 英語のクラス中で不安なこと・嫌なことはあ りますか?
  - (1) 発音を何度も訂正されること
  - (2) 文法を何度も訂正されること
  - (3) 人前で話すこと
  - (4) クラスの他の人に笑われたり,馬鹿にされ たりすること
  - (5) 試験の点数が悪いこと
  - (6) インストラクタや教員に否定的なことを言われたり、馬鹿にされたりすることでの他(具体的に:
- 英語のクラス中、やりたいこと、してほしい ことはありますか?
  - (1) 発音を適度に訂正してくれること
  - (2) 文法を適度に訂正してくれること
  - (3) 人前で話すこと

- (4) クラスの他の人たちから意見をもらうこと
- (5) 試験で高い点数をとること
- (6) インストラクタが肯定的なことを言ったり ほめたりすること
  - その他(具体的に:
- これまでの経験で、自分の英語のコミュニケーションカ向上に最も役立ったと思われる勉強 法はどのようなものでしたか?
- 9. (省略)
- 会話クラスで話した内容が音声認識により、 文字化されることについて、どのように役 立ったと思いますか?
- 音声認識の後、インストラクタと一緒にちょっとした文法のミスなどを、振り返りながら直してくことはどう思いましたか?
- 12. 使用単語や熟語,単語レベルからポイント が計算されることはどう思いましたか?
- 13. 毎回の使用語彙数や使用単語レベル,総合

得点などを最後にグラフで見られることは どう思いましたか?

- 14. 毎回「振り返りシート」を書いてもらって いますが、そのことについて、どう思いま したか?
- 15. 今回の英会話練習システムを自分でも自由 に使えるとしたら使用してみたいですか?
- 16. 英語の勉強を更に続けていきたいと思いま したか?
- 英語の勉強を続けたいと思う方、どのよう に続けて行きたいと思われますか? 具体 的なプランはありますか?
- 今回のリモート英語スピーキング練習終了
   後、今も個人的に続けている(英語能力向 上のために)ことがありましたら教えて下 さい.
- 19. (省略)
- 20. (省略)