

A Proposal for the “Input-Question Model”: Advantages and Disadvantages of
Interaction between Students and a Teacher in Classrooms

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ABSTRACT

This paper investigates the effects of “Input-Question Model (I-QM)” which is a new teaching method designed by the author. I-QM is based on Swain’s idea (Swain, 2005) of the necessity of considerable output with comprehensible input along with Krashen’s “i+1” (Krashen, 1982). I-QM exercise is a kind of interaction between a teacher and class. When a teacher asks questions to a class, all of the students in class simultaneously answer the teacher. The study confirmed six following points: (1) I-QM is a feasible communicative exercise in class, (2) I-QM works better than Teacher-Student(s) interaction to improve students’ general conversational skills, (3) I-QM increases both students’ concentration on input from teachers and the amount of student output, (4) It is a stabile exercise, (5) It is effective for all students in class, and (6) I-QM requires extra encouragement by teachers because students feel shy when answering vocally. Although this study is a first step in exploring I-QM, the continued use of I-QM will bring more findings which will contribute to the research areas of teaching communicative languages.

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INTRODUCTION

1. Background of the Study

Most teachers think that oral “output” activities in EFL (English as a Foreign Language) classes are crucial in order to improve their students’ speaking abilities. Because of this, teachers tend to focus on increasing chances for students to practice speaking (one form of “output”) in their classrooms.

There are two types of opportunities for students to speak in class in terms of partners; with their teacher and with other student(s). That is, classroom conversation is often seen as one of two types; Teacher-Student(s) (T-S) and Student(s)-Student(s) (S-S). The two main advantages of T-S interactions are the students’ exposure to teachers’ highly-proficient language and the availability of corrective feedback from the teachers. The obvious disadvantage is that the chance for student output is decreased because there are other students for teachers to talk to.

The primary advantage of S-S interaction is that the students have numerous opportunities to speak with their peers. One disadvantage is that they are commonly exposed to other students’ interlanguage, also known as learners’ language (Selinker, 1972), which typically contains a number of errors. Moreover, S-S interaction does not usually contain input with “i+1” (Krashen, 1982) which is necessary for partner students to acquire a second language.

When a class is small, the disadvantage of T-S interaction is minimized. Small-sized classes enable teachers to talk to all of the students much more often than in large-sized classes. Locastro, who is a renowned professor of linguistics, writes “The most likely answer presumably would be that with a group of more than 15, it is difficult to give all the learners chances to practice the target language” (Locastro, 2001) in response to the question “To

what extent does theory and research inform the teaching of English to large classes?” proposed in the international journal called “TESOL Quarterly”.

The majority of language classes are usually large-sized in Japanese high school with 40 students in one class. Although teachers use T-S and S-S interactions, those activities have following drawbacks. (1) Shortages of “i+1” input during S-S interaction, (2) Few chances for students to interact with teachers during T-S interaction, (3) The students’ anxiety during T-S interaction, (4) Repeated production of the same or similar improper usages through output and incorrect input for other students, and (5) Fossilization known as learner’s interlanguage discontinues improving and never shows further progress (Selinker, 1972).

2. Research Questions

The primary purpose of this paper is to propose the “Input-Question Model (I-QM)”, which is a new teaching method designed by the author. In this method, every student in class begins responding simultaneously to the teacher two seconds after the teacher asks them a question. Students evaluate how they answered on a feedback card immediately after they answer each question. If students have difficulty answering vocally, they have other options such as answering silently until the time when their teacher thinks they are ready to answer aloud.

I-QM is based on the idea of the necessity of considerable output with comprehensible input (Swain, 2005) with “i+1” (Krashen, 1982). This model differs from ordinary T-S and S-S interactions in the following three aspects. First, all students have more opportunities for input (listening practice) from teachers as well as chances for output (speaking practice). Second, this model attempts to minimize certain negative influences, which are student anxiety and frequent exposure to other students’ interlanguage. Third, I-QM can work well in large-sized classrooms.

This paper attempts to deal with three hypotheses followed by research questions (Chapter 3) concerning the effects of I-QM: (1) I-QM is a feasible communicative exercise in class, (2) I-QM works better than T-S interaction to improve students’ general conversational skills, and (3) The advantage of I-QM is to increase the amount of input from teacher and student output. The disadvantage is that I-QM requires extra encouragement by teachers compared to T-S interaction because I-QM exercise is a drill-like method, which can feel monotonous.

In the process of examining the hypotheses, qualitative and quantitative analyses were carried out in both the I-QM group that underwent I-QM exercise ($n = 40$) and the T-S group that received T-S interaction ($n = 40$). The author gave two kinds of pre-questionnaires and post-questionnaire, pre-speaking test and post-speaking test, and two-week classroom experiment in order to collect data.

Significant findings suggest that teachers should use I-QM as a feasible communicative language teaching technique in large classrooms. Despite a few defects of I-QM exercise found in this study, it is worth attempting for teachers to utilize I-QM exercise in their class.

CHAPTER 1

Literature Review

1.1 Necessity of “Comprehensible” and “i+1” Input in SLA

The term “input” as used in this paper follows Mackey’s definition “Input refers to the language that is available to a learner through any medium (from listening or reading, for example, or through gestures in the case of signed languages)” (Mackey, 2012, p. 9). As this paper focuses on enhancing a learner’s English communicative skills, “input” in the paper principally means oral input for learners obtained by listening to the target language, which is English.

According to Krashen’s “input hypothesis”, language acquisition only occurs through comprehensible input (Krashen, 1982, pp. 20-30). What is significant about his theory is that he did not include “input” which is not comprehensible for learners. This clarifies the ineffectuality of listening to incomprehensible language materials and teachers/others who speak the target language considerably above the learner’s level. “It amounts to the claim that when the acquirer does not understand the message, there will be no acquisition. In other words, incomprehensible input, or “noise”, will not help” (Krashen, 1982, p. 63).

Conversely, input is not useful in enabling learners to acquire a language when it does not contain any higher structure. One example is input through interaction with lower proficiency learners. Krashen explains in his input hypothesis that “(...) a necessary (but not sufficient) condition to move from stage i to stage $i+1$ is that the acquirer understand[s] input that contains $i+1$ ” (Krashen, 1982, p. 21). This “ i ” represents the learner’s current competence. He also states that “We acquire, in other words, only when we understand language that contains structure that is ‘a little beyond’ where we are now” (Krashen, 1982, p. 21). What is “ i ” and what can be “ $+1$ ” are not defined specifically enough for teachers to

utilize in analyzing individual cases. However, the idea behind “i+1” is persuasive because acquiring a second language requires acquiring new linguistic structures.

Krashen’s idea of “i+1” seems to have received only scant attention in English classes in Japanese public high schools, where most interaction depends on peer interactions due to large classrooms. Ensuring “comprehensible” input with the element of “i+1” to all students, even in a large classroom, was one major factor leading to the I-QM illustrated in Chapter 2.

1.2 Necessity of Output in SLA

In order to acquire a target language, comprehensible input alone is not enough. “Output” which means language production is also necessary. This was argued by Swain after her longitudinal research with French immersion education. She proposed the “comprehensible output hypothesis” (Swain, 1985), which emphasized the necessity of output along with Krashen’s comprehensible input. She argues that “The act of producing language (speaking or writing) constitutes, under certain circumstances, part of the process of second language learning.” (Swain, 2005)

Swain claims that there are “four ways in which output might play a role in the process of second language learning: (1) Language production provides the opportunity for meaningful practice of one’s linguistic resources permitting the development of automaticity in their use. (2) [Output] may force the learner to move from semantic processing to syntactic processing. (3) Producing language may serve the language learning process through hypothesis testing [Learners test out their hypothesis of the language they are learning]. (4) Feedback would presumably have been useful, at least some of the time, to the students (...) It may generate responses from speakers of the language which can provide learners with information about the comprehensibility or well-formedness of their utterances.” (Swain, 1993, p. 160)

Although learners who live in a country where the target language is not spoken do not receive much benefit from (3) and (4), (1) and (2) are very useful for most learners in any location. Furthermore, negative aspects of output should be considered carefully; repeated production of the same or similar wrong usages through output and wrong input for other learners, increased learning anxiety and “Fossilization.”

1.3 Student Anxiety

A high degree of language anxiety is one of the potential reasons why students are not successful in SLA, despite a large amount of input. Language anxiety causes the “affective filter” (Krashen, 1982) to block comprehensible input. According to Krashen’s affective filter hypothesis, “Learners’ negative attitude acts as a filter”, which will prevent the learner from making use of input (Krashen, 1982, pp. 30-32). “It seems clear that high levels of language anxiety are associated with low levels of academic achievement in second or foreign language courses” (MacIntyre, 1999, p.34).

Language anxiety has serious effects on language learning. Even if a teacher showers students with an enormous amount of target-language input, students may not internalize it. “(…) even if they understand the message, the input will not reach that part of the brain responsible for language acquisition, or the language acquisition device” (Krashen, 1982, p. 31). “A learner who is tense, anxious, or bored may filter out input, making it unavailable for acquisition” (Lightbown & Spada, 2013, p. 106). No matter how much input is offered in classrooms, students with a high degree of language anxiety may not take in as much input as they are supposed to do. If teachers can lower their students’ language anxiety, it would help students make use of the input offered in class.

Output can also become a strong potential source of learning anxiety. Speaking activities are usually designed to produce output in a communicative learning environment.

MacIntyre states “The single most important source of language anxiety seems to be the fear of speaking in front of other people using a language with which one has limited proficiency” (MacIntyre, 1999, p. 33). When learners need to produce output in class in front of others, they may often have anxiety connected with language production. However, teachers often utilize T-S interaction in 40 student classrooms in Japan without realizing that T-S interaction can be a great cause of increasing anxiety. The language anxiety triggered by output often leads to the ineffectuality of input, which suggests that the teacher should try to relieve students of language anxiety as often as possible.

1.4 Repeated Production of the Same or Similar Improper Usages

Output produced by language learners is often not perfect. This is why there is very little disagreement on the spread of wrong usages of the target language among groups of learners. Especially in an environment without native speakers of the target language, the wrong usages are often repeated and mimicked by other learners (Wang, 2011, pp. 66-67).

Furthermore, learners sometimes fail in believing in the utility of S-S interaction. “The unintelligibility or linguistic inaccuracy of learner language represents a major setback to the positive effects of learner interaction on second language learning. Learners’ apparent need for corrective feedback and the more advanced other [conversation partner] (but the lack of it) then further diminishes the perceived usefulness of classroom student-student interaction” (Kuo, 2011, p. 288).

There are students who do not see S-S interaction as particularly useful, even though it provides chances to practice speaking. Those students prefer working with more advanced learners than themselves. “I prefer to speak with the partner whose language, English language, is higher than mine” (Kuo, 2011, p.283). It would be ideal if the teacher could play a role of each individual student’s partner. Although classrooms provide advanced speakers

(the teachers), learners do not always get corrected because it is impossible for a teacher to correct 40 students individually in each lesson. The following is a modified conversation of a pair work activity in one of the classes the author once taught.

Student A: How is the weather today?

Student B: *Today is rainy.

- After switching the role-

Student B: How was the weather yesterday?

Student A: *Yesterday was cloudy.

There are potentially at least three negative impacts on both students in this activity.

- (1) Student B may have presumed that his/her answer was correct because Student A answered in the same way.
- (2) Student A might have mimicked Student B’s answer, assuming Student B’s answer was correct.
- (3) Student A may have confirmed that his/her knowledge – Yesterday was cloudy – was right, listening to the Student B’s answer before s/he answered.

No matter which situation exists, neither of the students could have realized that they had made errors without the teacher’s feedback. In cases such as this, students are exposed to wrong usages in the target language by producing output as well as through output produced by their peers. This is not an ideal environment for language learning.

1.5 Fossilization

The causes of Fossilization (i.e., Learner’s interlanguage, which is a type of language produced by learners who are in the process of learning a language, discontinues improving and never show further progress) have been under study by researchers (Han & Selinker, 2005). One possibility is the repeated use of students’ interlanguage in class. “[T]he role of interaction in leading to the learners’ continued restructuring of their interlanguage system. (...) There is a possible causal relationship between certain pedagogical procedures and fossilization” (Han & Selinker, 2005, p. 466).

S-S interaction is performed through interlanguage in most cases. Learners’ interlanguage typically contains incorrect grammar and low vocabulary. Repeating and listening to interlanguage all the time in class can lead to fossilization, especially where students do not have sufficient input from native speakers or corrective feedback. This is not only a problem for the speaker; it also affects other learners who are constantly exposed to such input.

CHAPTER 2

An Outline of Input-Question Model

2.1 The Ideas behind “Input-Question Model”

The author designed “Input-Question Model” (I-QM) in order to increase students’ “comprehensible” and “i+1” input in class without decreasing student output opportunities. The demand for English language education at school in Japan has gradually changed over half a century from mainly preparing for university entrance exams to training students to be able to communicate in English. Nevertheless, the majority of classes still contain 40 students with one Japanese teacher of English. Due to EFL (English as a Foreign Language) environment in Japan, English classes are the only place where most students use English. Given those conditions, it is time to explore new ways to teach communicative English more effectively even in a large classroom.

Teachers often use S-S interaction such as pair work in order to increase student output in large classrooms. However, the quality of the input from peer students is not always high. Although it can be comprehensible, usually it does not contain “i+1” such as new expressions and new linguistic structures.

Teachers also use T-S interaction in class. A teacher talks to the whole class and students talk to the teacher, usually one at a time. Although the teacher can provide students with input containing “i+1”, the teacher cannot talk with all 40 students individually in class. What is often seen in class is that a teacher talks with several students and moves on to the other activities.

S-S interaction and T-S interaction are used as the primary means for increasing students’ communicative practice. However, both appear to have disadvantages either in the quality of input (comprehensible and “i+1”) or in the quantity of student output. Table 1

illustrates “quality and quantity of input” and “quantity of output” in T-S and S-S interaction as often observed by the author in Japanese high schools (Table 1).

Table 1

Quality and Quantity of Input and Output as Seen by the Author in T-S & S-S interactions in large classrooms

Types of Interaction	T-S interaction	S-S interaction
Input for students		
Quality (comprehensible)	Satisfactory	Depends on the partner
Quality (i+1)	Satisfactory	Depends on the partner
Quantity	Not Satisfactory	Depends on the partner
Student Output		
Quantity	Not Satisfactory	Satisfactory

If I-QM is successful by employing advantages from both S-S interaction and T-S interaction as proposed in Table 2, it can be satisfactory in all areas where other models are not.

Table 2

Quality and Quantity of Input and Output in I-QM, T-S & S-S Interactions

Types of Interaction	I-QM	T-S interaction	S-S interaction
Student Input			
Quality (Comprehensible)	Satisfactory	Satisfactory	Depends on the partner
Quality (i+1)	Satisfactory	Satisfactory	Depends on the partner
Quantity	Satisfactory	Not Satisfactory	Depends on the partner
Student Output			
Quantity	Satisfactory	Not Satisfactory	Satisfactory

Output is an important factor in acquiring a target language. However, output has several negative aspects as listed in Chapter 1. I-QM is designed to be effective by reducing the negative influences which can arise when producing output. This model provides a large number of opportunities for student output elicited by a teacher’s questions to students. Students mostly answer in undertones, which could minimize the negative influence from normal vocal output.

In I-QM teaching method, “questions” play a significant role because they provide all students with opportunities to answer. Questions will assist students not only in becoming active listeners but also in paying attention to grammar and expressions in question sentences in order to answer them. Additionally, students will be able to practice utilizing what they have learned. In the process of creating answers, they will be able to test their hypotheses, such as the use of vocabulary and grammar. As a result, students in I-QM exercise will be able to make the best use of questions provided during the exercise.

The ideas behind I-QM are:

(1) Comprehensible input with $i+1$ and considerable output are necessary for successful second language learning.

(2) Minimizing negative influences associated with output is important for successful language learning.

(3) Learners should be able to learn the language effectively even in an EFL environment.

(4) There should be a convenient communicative teaching method for teachers who teach in a large classroom.

2.2 An Example of I-QM Exercise in Class

2.2.1 Explaining rules

Teachers need to explain the rules to students to prevent confusion when they introduce I-QM in class. Here is an example made by the author showing one way to introduce I-QM in class.

Teacher: I'll explain the rules of communication between you and me in class.

When I ask questions, I'd like all of you to answer aloud at the same time.

Please do not answer loudly so that the students next to you will not be disturbed. But, remember, everyone should answer. When you are finished answering, please mark this card (See Figure 1). (Distributing cards to students) There are five signs to mark. The double circle (◎) means that you don't mind sharing your answer later in front of the others. The circle (○) means that you were able to answer in a complete sentence. The triangle (△) means that you answered in words or phrases but not in a sentence. X means that you weren't able to answer at all. The question mark means that you didn't understand the teacher's question.

/	Class	No.	Name
Q1	Q6	Q11	◎
Q2	Q7	Q12	○
Q3	Q8	Q13	△
Q4	Q9	Q14	×
Q5	Q10	Q15	?

◎ I answered and I don't mind sharing it with class	○ I was able to answer
△ I answered a little	×
? I don't understand teacher's question	I could not answer

Ex: What did you eat for dinner last night? I had curry rice and salad. → ○ or ◎
 I... Curry rice. → △
 I... → ×

Figure 1. Students' Feedback Card Used for I-QM exercises (Designed by the Author). Students write signs in blanks next to Q1 - Q15 following the directions below. Students are to write total numbers of each sign in blanks next to the sign.

2.2.2 Practice before implementation

Generally, students do not have any experience of answering the teacher’s question simultaneously in class. Practicing a few times before exercising I-QM would help avoid confusion. It is important that all the students participate in answering to prevent some students from feeling embarrassed if answering alone. The following is an example of the practice.

Teacher: I will tell you how to exercise I-QM. First, I will ask a question and say “Two, one!”, then you all answer together. Let’s say, I ask “How are you today? Two, one!” you should say “I’m good!” Do you understand? Each of your answers should be different because you all talk to me individually. Remember, all of you answer my question simultaneously. When you hear “Two, one!” then you answer. Do you have any questions? Let’s practice three times! I’m sure you can get the hang of it very soon.

“What time did you get up this morning? Two, one!”

(Students answers.)

That’s it! “What did you have for breakfast? Two, one!”

(The teacher continues until students understand how to answer.)

It is important to choose questions suited for the students’ English levels when practicing. During these introductory activities, students should find that I-QM exercise is not too hard and they can do it. Success in this initial session provides a smooth introduction to I-QM exercises in class.

If students are hesitant to answer aloud, the teacher may need to wait until they are accustomed to answering mentally. Instead of raising their anxiety by forcing it, it is vital to

wait until the students are ready. The teacher can tell: “I would like you to answer aloud, but if you feel too shy to answer, you can answer silently at first. But you still have to move your mouth and answer in your mind. Remember, vocally or not vocally, try to answer all of my questions.” What is necessary for students is to experience answering questions even silently. Once they are accustomed to giving their answers and stop worrying about whether their answers are correct or not, the teacher’s encouragement to them in answering aloud would be more effective. Otherwise, students might be overwhelmed by what they are being asked to do, which can give rise to anxiety as noted before.

Students’ speech should be directed to their teacher even when unvocalized. I-QM is an exercise carried out between the teacher and students. In this regard, a silent answer is not the same as “private speech” that has been defined as “speech spoken out loud that is addressed either to the self or to no one in particular” (Bivens & Berk, 1990, p. 443).

It is important to watch students carefully during the exercises for deciding the best time to raise the level. When the teacher thinks that students are ready to answer vocally, the teacher can encourage them by saying phrases such as: “Since you’ve been doing a great job, I think it’s time for you to answer aloud.”

Feedback cards may encourage students to answer vocally. The teacher can tell the students that “No voice means not answering. You cannot mark a “circle” or a “triangle” if you don’t move your mouth.” Collecting feedback card after I-QM may help student to be motivated to answer.

2.2.3 An example of an I-QM exercise

The following example of I-QM was designed by the author to be used in communicative language group lessons. After a teacher asks questions to make students answer, s/he picks a student who marked a double circle (a double circle means that I

answered and I don’t mind sharing it with class) in the feedback card. Then the teacher gives appropriate feedback if necessary. If none of the students marked double circles in their cards, the teacher moves to the next question. However, s/he can give students feedback later to make sure that students know how they should answer the question. In this way, none of the students would be embarrassed and they have chances to learn typical errors.

Teacher: How’s the weather today? Two, one!

(All the students answer simultaneously)

Very good! Quickly mark your card.

(While students are marking their cards, the teacher is walking around looking at what they are writing. The teacher saw a double circle in Keigo’s [pseudonym] card.)

How’s the weather today, Keigo?

Keigo: *Today is sunny.

Teacher: Oh, yes. *IT* is sunny. Keigo, say it again?

Keigo: *It* is sunny.

Teacher: Excellent! Now, everyone, say it together!

Students: It is sunny.

Teacher: Very good! Students, how was the weather yesterday? How was the weather yesterday? (The teacher repeat the question if s/he thinks it is necessary.) Two, one!

(Students answers)

Teacher: OK, please mark your card quickly. (The teacher does not find any double circles in students’ cards. The teacher asks the next question.)

2.3 Teacher Responsibilities

2.3.1 I-QM questions

It is significant that questions are appropriate for students’ English levels. This is because students are not allowed to make inquiries to clarify their understanding of the teacher’s questions during I-QM. A teacher should use words which students have already learned. Furthermore, adding a few sentences helps clarify questions. For example, the teacher could say “You have gone on many school trips since you were at elementary school. Which school trip was the most fun for you?” instead of just asking “Which school trip was the most fun for you?” Students may understand the question better with the extra sentence. Moreover, they receive more input from their teacher.

The topic for the questions should be chosen carefully. When students are not proficient in English, the teacher needs to prepare questions which do not confuse students. For example, if the question is “What club are you in?” students who are not in any club may be confused and do not know what to answer. Until students are accustomed to I-QM exercises, low-level questions are more desirable.

When the teacher thinks that students may need a clue to answering, s/he can make statements as hints before the questions. For example, before asking “How far is your house from the nearest station?” the teacher says “My house is about four kilometers from Yokkaichi station. It’s about twenty minutes by car.” Students may try to answer using words such as “My house is....” “It’s about....” Although I-QM is not a pattern practice, making it possible for students to answer, even in a single word, is important for them to achieve the purpose of I-QM. However, teacher assistance should not be overused because students may start relying on teachers help without thinking about how to answer by themselves.

In I-QM, students begin answering each question two seconds after being asked. Questions which require thinking are not suitable. For example, “What color is a banana?”

Students already know the answer in their own language, so they only need to focus on answering in English “It’s yellow.” Questions such as “What do you think of declining birthrate?” are not appropriate because they require some time to think even in their own language.

Another thing to consider when planning questions is to make questions specific. A question such as “What is your English teacher’s name?” confuse students when they have more than one English teacher. For these reasons noted above, teachers should prepare questions beforehand. The following five points should be kept in mind when teachers prepare questions in I-QM.

- (1) The words used in questions should be those that have already been taught in class and are easy enough that all the students can understand them.
- (2) A few sentences can be stated before the question to clarify the situation as well as to give more input to students
- (3) The topics should be familiar to all the students.
- (4) Teacher output as a clue to answering the questions can be added before asking questions, although it should be limited in order to avoid student dependency on teacher’s help.
- (5) Questions should be specific and easy enough to answer in two seconds.

2.3.2 Teacher feedback

There are two chances for teachers to give feedback to students: (a) during I-QM exercise and (b) after the exercise. Teacher feedback during I-QM exercise depends completely on whether students want feedback or not. If students do not mind being corrected in front of others, they will mark double circles in their cards. If not, they will not. Reviewing

students’ feedback cards enables teachers to give feedback to students later. For example, when a large number of students marked a question mark, the question was presumably not suited for students’ level at the moment. The reasons could lie in difficult words, grammar and structure of the sentences or mixed of those. With some effort, the teacher will figure out the problems and teach those points in the next lesson.

2.3.3 Motivating students to produce output

Since students answer simultaneously, their output (answers) may not be easily observed. There will be students who stop participating in the I-QM exercise because they know their teacher cannot tell whether they are answering or not. That is why extra measures to motivate students should be taken. There are three simple ways to motivate students to produce output.

- (1) Setting a goal in the first lesson of the course.
- (2) Introducing a speaking test at the end of the course.
- (3) Collecting students’ feedback cards at the end of each lesson and giving teacher feedback to students.

Setting a goal.

Teachers should clearly show how often students are expected to produce output during the exercise. If a teacher expects students to produce 15 instances of output in each exercise three times a week, the goal can be 500 times in a semester. Using scaffolding such as a card (See Figure 2) can accelerate students’ motivation. Students will be able to see how many times they produced output in total during lessons using the output card.

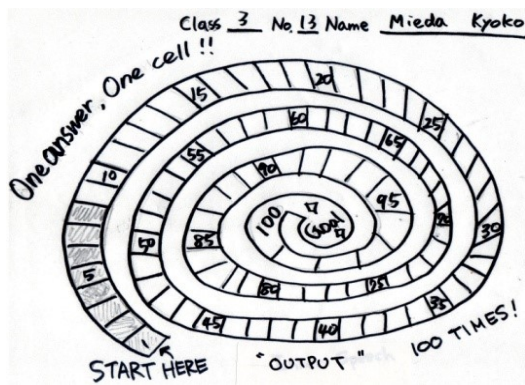


Figure 2. Output Card for Students (Created by the author)

Introducing a speaking test.

Introducing a speaking test at the end of the term is another way to motivate students to produce output. Conducting speaking tests both before and after giving I-QM exercises should be even more useful, if time permits. Providing students with detailed result of the speaking tests would encourage them to have a set goal.

Feedback cards.

Students are visually able to see the number of questions they answered by using a feedback card. In order to make the best use of the feedback card, asking questions such as “How many questions did you answer today?” and “Who answered more than 8 times?” may also encourage students to do their best. Collecting students’ feedback card will work to encourage students to produce output. It helps send a message that the teacher is checking how they did. Since writing comments on the cards can require a large amount of time, stamping the card instead of writing can be practical and effective.

CHAPTER 3

Method

3.1 Research Questions and Hypotheses

The following research questions were explored in this study. Each research question is then elaborated by a hypothesis derived from the literature review in Chapter 1.

Research Question 1: Is I-QM a feasible communicative exercise in class?

Hypothesis 1: I-QM is a feasible communicative exercise in class.

Research Question 2: Which interaction improves students’ general conversational skills more, I-QM exercise or T-S interaction?

Hypothesis 2: I-QM works better than T-S interaction to improve students’ general conversational skills

Research Question 3: What are the advantages and disadvantages of I-QM compared to T-S?

Hypothesis 3: The advantage of I-QM is to increase the amount of input from teacher and student output. The disadvantage is that I-QM requires extra encouragement by teachers compared to T-S interaction because I-QM exercise is a drill-like method, which can feel monotonous.

3.2 Participants

2nd Year students in two “Communication English II” classes at a medium-leveled high school in Japan took part in this study. One of the classes participated in this study as an “I-QM group” (n = 40) while the other class took part as a “T-S group” (n = 40). The two groups were named respectively after the exercises they experienced during this study. All of

the participants in both classes have Japanese as their first language. Their ages ranged from 16 to 17. All students had studied English for four years at Japanese middle and high schools before this study started. The majority of the participants were aiming to enter university.

Table 3 illustrates the differences between two groups in a test called “Benesse Study Support” (manufactured by Benesse Corporation), which the participants took in March 2015 in class, one month before this study started. “Study Support” measures Japanese high school students’ general English abilities. The mean score for each group was similar to the other (I-QM; 57.8, T-S; 57.0), although the distribution of each group’s scores (Figure 3) was different. The scores of the I-QM group clustered near the mean. In contrast, the scores of the T-S group varied. It is also shown in the differences in Standard Deviation (SD).

Table 3
Descriptive Statistics for the English Test “Study Support”

	Min-Max	Mean	Median	Mode	SD
I-QM Group (n = 40)	33-82	57.8	57	51	9.33
T-S Group (n = 40)	32-79	57.0	56	56	11.47

Note: Full score of the test is 100 points. SD means Standard Deviation.

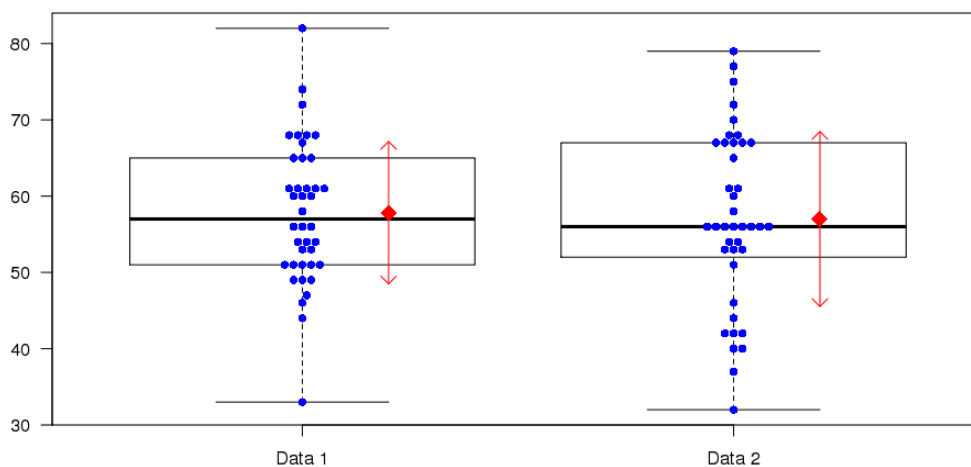


Figure 3. Box plots of individual data of “Benesse Study Support”. I-QM group =data 1, T-S group = data 2. +/-SDs are displayed as arrows. Black squares on the arrows are means.

3.3 Procedure

3.3.1 Design

A multi-factorial design with the I-QM and the T-S group was used in this study, which is indicated in Table 4. During the classroom experiments, the author took notes, observing the classrooms. Everything in Table 4 was carried out by the author of this paper during the regular English classes.

Table 4
The Outline of the Study

Treatments	I-QM group (n = 40)	T-S group (n = 40)
Pre-speaking test	April 13 - 14 (3 hours total)	April 13 - 14 (3 hours total)
Pre-questionnaire A	April 20	April 21
Pre-questionnaire B	April 28	April 27
Pilot Study	April 21 and 27	April 27
Classroom Experiment	April 28 - June 23 (14 times of I-QM exercises)	April 28 - June 23 (14 times of T-S interaction)
Post-speaking test	July 6 and 7	July 6 and 7
Post-questionnaire	July 7	July 7

Note: The year of these treatments was 2015.

3.3.2 Speaking tests

The pre-speaking test (Pre-test) and the post-speaking test (Post-test) in this study used an altered “HOPE” (High school Oral Proficiency Examination) created by HOPE project in Hyogo University of Teacher Education (Imai & Yoshida, 2007). HOPE is a one-to-one interview-styled six-minute speaking test, which consists of four parts; warm-up, picture task, role playing and wind down. There are six graded areas in HOPE; function, content, sentence structure, pronunciation, grammar, and fluency. Due to the time limitation, the author shortened HOPE to three minutes, which forced a change of the test contents. As Table 5 shows, speaking tests used for this study consisted of four parts; warm-up, picture task,

interview and wind-down. Four out of six grading points in HOPE were adapted for assessment of the speaking tests; sentence structure, pronunciation, grammar and fluency (See Appendix A for details). All the speaking tests were recorded by an IC recorder for later assessment.

Table 5
Procedures of the Pre-test and the Post-test (3 minutes)

Type of Activity		Samples of Interviewer's remarks
Warm-up	Greeting, confirmation of participant's name	Hi, how are you doing? Please tell me your name and student number.
Picture Task	Participant describes the situation in the picture shown by an interviewer.	Please take a look at the picture and describe the situation. What do you see in the picture?
Interview	Asking questions about familiar things such as family, school life.	How many brothers and sisters do you have? What club are you in?
Wind-down	Greeting, praise, encouragement	This is the end of the test. You did a great job!

3.3.3 Questionnaires

Four kinds of questionnaires were used in this study: pre-questionnaire A (Appendix B), pre-questionnaire B (Appendix C), and two kinds of post-questionnaires (Appendixes D & E). All of them were designed by the author of this paper.

Pre-questionnaire A.

The aim of the pre-questionnaire A was to obtain the following data regarding the previous year's (2014) English class “Communication English I”, listed as (1) through (5).

- (1) Frequency of input and output activities
- (2) Feedback from their teachers and peers during conversation practices
- (3) Participants' anxiety during output activities

- (4) Participants’ perception of S-S interaction
- (5) Participants’ chances of learning English outside of classes

Communication English I is a compulsory subject in Japanese high school. Although it attempts to focus on communication skills, formal lectures by teachers and certain mechanical exercises such as grammar or vocabulary worksheets are often used along with communication activities.

Factors possibly affecting this study included in the questionnaire were: private English instruction, experiences staying in English-speaking countries and access to English native speakers outside of the school.

Pre-questionnaire B.

Pre-questionnaire B was designed to explore the participants’ perception of T-S interaction. This was because the results of pre-questionnaire A showed that 37% of the participants (29 out of 78) did not experience T-S interaction at all in the previous year’s class. Therefore, the pre-questionnaire B was designed to collect data from all of the participants in spite of their learning experiences. If participants did not experience T-S interaction, they were asked to answer questions either based on their general learner beliefs or actual lessons they had taken until that time in questionnaire B.

Post-questionnaires.

In order to explore participants’ perceptions of attitudes towards the teaching method they received and its efficacy, two different post-questionnaires were designed: one was for the I-QM group (Appendix D) and the other was for the T-S group (Appendix E). Participants answered in four scales (4 = agree, 3 = somewhat agree, 2 = somewhat disagree, 1 =

disagree). The actual number of questionnaire items varied slightly depending on the group (I-QM group; 31 items, T-S group; 28 items). Because each I-QM or T-S group underwent a different exercise through this study, the questions in questionnaires were designed in association with each teaching method (I-QM and T-S).

3.4 Pilot Study

Two pilot studies were implemented. The first pilot study tested only the I-QM group. The aim of the first pilot study was to confirm the participants’ reaction to the I-QM exercise. The second pilot study tested both the I-QM group and the T-S group. The aims of the second pilot study were: (1) to test the improved I-QM again to the I-QM group after fixing problems found in the first pilot study and (2) to understand whether the T-S group can use the same questions as the I-QM group.

3.4.1 The first pilot study

The first pilot study confirmed the following five points: (a) The participants understood the procedure of I-QM exercise, (b) The questions were suited for their levels, (c) They were willing to listen and answer, (d) They were able to follow the directions and mark in their feedback card, and (e) The 15 questions were suitable for participants’ concentration.

For an I-QM exercise, it is crucial that the participants are willing to answer questions. The majority of the participants were thought to be too shy to answer aloud until they were accustomed to the exercise. This had been anticipated through the author’s fifteen year teaching experience in Japanese high schools. Therefore, the author planned to instruct the participants that they could answer silently until they felt more accustomed to the I-QM exercise.

Participants often underrate communicative activities because speaking ability is usually not tested in university entrance exam in Japan. In order to get students seriously involved in communicative exercises, two measures were taken: (a) The results of Pre-test containing each participant’s next goal to achieve were handed to all the participants in the I-QM group the day before the first pilot study and (b) Post-test at the end of the semester was announced.

The materials prepared for the pilot studies were: fifteen questions (See Table 6), a feedback card for each participant (See Figure 1 in Chapter 2.2.1), and an IC recorder. Questions for the I-QM exercise were deliberately prepared to be short and easy in order to eliminate the possibility that the difficulty would prevent participation. After explaining the procedure of the I-QM exercise, the author distributed feedback cards to all the participants. Although the participants had known the author through taking the Pre-test and the questionnaires, this was the first time the participants took the author’s lesson in class. Therefore, they were not especially familiar with the author herself, or with her English.

Table 6
Questions Used in the First Pilot Study

Q1.	How are you today?
Q2.	What time did you go to bed last night?
Q3.	What did you eat for dinner?
Q4.	What did you do after dinner yesterday?
Q5.	What’s your favorite color?
Q6.	What’s his name? (a teacher pointing at a stuffed Eeyore on the teacher’s desk in front of the classroom)
Q7.	What’s your favorite character in Winnie-the Pooh (Kumano-Pooh-San in Japanese)?
Q8.	How do you come to school?
Q9.	Where do you live?
Q10.	What is famous in your city?
Q11.	Where is the best place to go in your city?
Q12.	What is your favorite food?
Q13.	How often do you eat that (your favorite food)?
Q14.	What is your favorite restaurant?
Q15.	Please tell me about your homeroom teacher.

The findings for the I-QM group in the first pilot study clarified what participants could and could not do. Excluding vocal answers, the I-QM exercise proceeded entirely as planned. The participants seemed to understand the rules and listened to the questions seriously. They properly marked their feedback cards. They were able to follow the directions and kept up with the author’s pace.

Conversely, not one of the participants in the I-QM group answered aloud. Some moved their mouths, but there was no sound. The others did not even move their mouths. Although there were no voices in the classroom, most participants seemed to try to answer. The author collected the participants’ feedback card at the end of the pilot study. Table 7 presents the results.

Table 7

Descriptive Statistics for the Participants’ Feedback Cards Collected After the First Pilot Study

	Mean	Min	Max	Median	Mode	No. of the respondents				
						?	×	△	○	◎
Q1	4.0	3	5	4	4	0	0	4	34	2
Q2	3.9	3	5	4	4	0	0	7	31	2
Q3	3.9	2	5	4	4	0	1	3	35	1
Q4	4.0	3	5	4	4	0	0	3	34	3
Q5	4.1	3	5	4	4	0	0	1	36	3
Q6	3.7	2	5	4	4	0	6	3	29	2
Q7	3.6	1	4	4	4	1	1	12	26	0
Q8	3.7	3	5	4	4	0	0	15	23	2
Q9	3.9	2	5	4	4	0	1	6	31	2
Q10	3.4	1	5	3	4	1	3	17	18	1
Q11	2.9	1	5	3	3	3	9	17	10	1
Q12	4.1	4	5	4	4	0	0	0	38	2
Q13	3.2	2	5	3	3	0	5	22	12	1
Q14	3.7	2	5	4	4	0	2	8	29	1
Q15	3.3	1	5	3	3	1	4	19	15	1

Note: ? = I don’t understand teacher’s question (Ordinal scale =1)

× = I could not answer (Ordinal scale =2)

△ = I answered a little(Ordinal scale =3)

○ = I was able to answer (Ordinal scale =4)

◎ = I answered and I don’t mind sharing it with class (Ordinal scale 5)

An ordinal scale of 1 to 5 was adapted to analyze the feedback cards. According to their responses, Q11 (Where is the best place to go in your city?) was the hardest question. Q12 (What is your favorite food?) was the easiest question. Figures 4, 5, and 6 are the pictures of the participants' feedback cards whose Pre-test's scores were the highest (Figure 4), the lowest (Figure 5), and the median (Figure 6). All personal information is obscured in this paper.

Figures 4, 5, and 6 show that the marks for each question varied depending on the participants. This variation of marks was seen in other participants' feedback cards. Only five participants marked “○” (I was able to answer) for all questions. Although those five participants may have answered honestly, a test to check the reliability of these marks would be needed.

Q1	⊙	Q6	⊙	Q11	△	⊙	4
Q2	⊙	Q7	⊙	Q12	⊙	○	6
Q3	×	Q8	⊙	Q13	△	△	2
Q4	⊙	Q9	⊙	Q14	○	×	1
Q5	⊙	Q10	△	Q15	○	?	0

⊙ I answered and I don't mind sharing it with class ○ I was able to answer
 △ I answered a little × I could not answer
 ? I don't understand teacher's question

Ex: What did you eat for dinner last night? I had curry rice and salad. → ⊙ or ⊙
 I... Curry rice. → △
 I... → ×

Figure 4. Feedback card of the participant whose score was the highest in the Pre-test.

Q1	△	Q6	○	Q11	?	⊙	0
Q2	△	Q7	△	Q12	○	○	2
Q3	△	Q8	○	Q13	×	△	6
Q4	△	Q9	×	Q14	×	×	3
Q5	○	Q10	△	Q15	?	?	2

⊙ I answered and I don't mind sharing it with class ○ I was able to answer
 △ I answered a little × I could not answer
 ? I don't understand teacher's question

Ex: What did you eat for dinner last night? I had curry rice and salad. → ⊙ or ⊙
 I... Curry rice. → △
 I... → ×

Figure 5. Feedback card of the participant whose score was the lowest in Pre-test.

Q1	○	Q6	○	Q11	×	⊙	0
Q2	○	Q7	○	Q12	○	○	10
Q3	○	Q8	△	Q13	△	△	3
Q4	○	Q9	○	Q14	×	×	2
Q5	○	Q10	×	Q15	△	?	0

⊙ I answered and I don't mind sharing it with class ○ I was able to answer
 △ I answered a little × I could not answer
 ? I don't understand teacher's question

Ex: What did you eat for dinner last night? I had curry rice and salad. → ⊙ or ⊙
 I... Curry rice. → △
 I... → ×

Figure 6. Feedback card of the participant whose score was the median in Pre-test.

After analyzing the feedback cards, speaking test results, and answers given during I-QM exercises, the author came to a conclusion that their marks in the feedback cards were reliable. Highly proficient participants marked more circles than the other students. Low proficiency participants marked more Xs (I could not answer) or question marks (I didn't understand the teacher's question). Even without voices, the majority of the participants seemed to have answered in their mind or in their mouth and marked the card as they were told to.

In order to improve the reliability of their marks in feedback card, one measure was added to the second pilot study; writing down the answer when the author directed. The author picked one question out of fifteen and told the participants to write down the answer after they answered silently. This way, their written answer can act as evidence for how they answered.

A few other details of I-QM were adjusted based on the first pilot study. For example, the author planned to ask questions walking around the classroom instead of standing in front. However, the participants kept staring at the authors' mouth, presumably trying to help their understanding by watching how the author's mouth moves. The mouth movements seemed to work as scaffolding for understanding. In the second pilot study, the author stood in front of the classroom.

3.4.2 The second pilot study

Both the I-QM and the T-S group separately underwent second pilot studies.

I-QM group.

The author conducted the second pilot study with the I-QM group one week after the first pilot study. The second pilot study for the I-QM group was intended to confirm: (a)

Whether participants are able to write down answers when they are directed to do so, (b) Whether their marks and their answers are similar enough for the author to judge if they are really participating in the I-QM exercise, (c) Whether they can keep up their concentration without getting bored, and (d) Whether they can move their mouths when they answer.

Additional new rules (i.e. writing down one answer when instructed by the author and moving their mouths) were explained at the beginning of the second pilot study to the I-QM group. Regarding answers with mouth movement, the author directed all participants to put the palms of their hands on their cheeks when they answered. This way, their mouths were blocked from the view of nearby participants so that they would feel less embarrassed.

Although none of the participants answered aloud during the I-QM exercise, about one half to two thirds of the participants moved their mouths when they answered. Most participants seemed to focus on listening and making their own answers, regardless of their mouth movements. After the participants answered the question “How many hours did you study English last weekend? (Q12)”, they were suddenly directed to write down what they had just answered. Table 8 illustrates the comparison between the participants’ self-evaluation and their actual written answers.

Table 8

The Comparison between the Participants’ Self-evaluation in Their Feedback Cards and the Author’s Evaluation Depending on their Actual Written Answers for Q12

Items	No. of participants based on their self-evaluation	No. of participants judged by the author depending on the participants’ answers.
I don’t understand teacher’s question	0	
I could not answer	0	Blanks 1
I answered not in a sentence	10	Answer not in a sentence 6
I was able to answer in a sentence	29	Answer in a sentence 33
I answered and I don’t mind sharing it with class	1	

There were slight differences between participants’ marks and their written answers as seen in Table 8. The explanation for these differences could be that participants had more time to think about their answers while they were writing them down. Given the small differences, most participants seemed to have marked their cards accurately based on their written answers.

Making participants write down answers can be beneficial for both students and their teachers. Students would be reminded that they are being checked by teachers. They need to actively take part in I-QM exercises rather than unconsciously checking boxes without actually answering. Furthermore, the students’ written answers would help teachers understand students’ English levels. For example, an average of 5.6 words (Min = 1, Max = 10) were used to answer Q12 by participants. Teachers could estimate their students’ ability to make sentences by checking how many words they use to answer.

Table 9 presents six randomly chosen participants’ written answers for Q12, which contain grammatical mistakes. Teachers can use students’ written answers for giving feedback later for more improvement. It is not realistic to check students’ English composition every day for busy teachers. Yet, taking a quick look at students’ written answers in their feedback cards and seeing their typical grammar mistakes are practical for most teachers.

Table 9

Random Samples of Participants’ Written Answers for Q12 in the I-QM Group’s Second Pilot Study

I studied English in an hour.*

It’s two hours.*

I studied English for three hours last weekend.

Zero.

I didn’t study last weekend.

I had studied it for one hour.*

Note: * means that there is more than one grammar mistake in the sentence.

Grammar mistakes are deliberately not corrected in this table.

T-S group.

T-S interaction used the same questions as I-QM did during the second pilot study. This was intended to explore how T-S interaction would work using the same questions as the I-QM. Unlike the I-QM exercise, the author added extra sentences, repeated questions, or rephrased them when necessary during T-S interaction.

There were two findings. First, T-S interaction can use the same questions as I-QM. Second, as Table 10 shows, the T-S group took three minutes longer than the I-QM group. The duration for T-S interaction was greatly influenced by the participants’ performance. In T-S interaction, some participants did not respond immediately, others were not focusing on the questions. In order for both the I-QM and T-S groups to receive the same amount of total interaction time, T-S interaction should not use every question.

Table 10*Time Needed for Each Question in Each Group in the Second Pilot Studies*

	I-QM exercise Duration	T-S interaction Duration
Q1	37 sec	12 sec
Q2	51 sec	} 3 min 25 sec
Q3	20 sec	
Q4	1 min 21	2 min 34 sec
Q5	28 sec	26 sec
Q6	25 sec	9 sec
Q7	34 sec	41 sec
Q8	33 sec	25 sec
Q9	60 sec	29 sec
Q10	37 sec	36 sec
Q11	44 sec	40 sec
Q12	45 sec	35
Q13	38 sec	35
Q14	33 sec	33
Q15	56 sec	1 min 31
Total Duration	Approx. 11 minutes	Approx. 14 minutes

Note: Duration is measured from when the author started asking question to when participants finished answering.

Q2 and Q3 for T-S interaction was combined during interaction

The author added a little explanation about Q14 in English.

3.5 Classroom Experiments

The I-QM group and the T-S group underwent the different teaching methods in class twice a week, 14 times in total over two months (See Table 11). The materials used for classroom experiments were: prepared question sheets (Appendix F), Feedback cards used only for the I-QM (See Figure 1 in Chapter 2), and an IC-recorder for recording all classroom experiments. The time used for T-S interaction in that group was equal to that used for I-QM in its group. One session took from eight to ten minutes depending on the day.

Table 11
Classroom Experiments Schedule for I-QM and T-S Groups

	1st	2nd	3rd	4th	5th	6th	7th
I-QM	April, 28	May, 11	May, 12	May, 18	May, 15	May, 26	June, 1
T-S interaction	April, 28	May, 11	May, 12	May, 18	May, 25	May, 26	June, 1
	8th	9th	10th	11th	12th	13th	14th
I-QM	June, 2	June, 8	June, 9	June, 15	June, 16	June, 22	June, 23
T-S interaction	June, 2	June, 8	June, 9	June, 15	June, 16	June, 22	June, 23

Note: The experimental dates were restricted by the school lesson schedule.

At the beginning of the 8th I-QM experiments, the author directed the group to answer in a soft voice rather than silently moving their mouths. In order to smooth the transition, the group practiced as noted in Chapter 2 before the exercise started. From the 8th to 14th I-QM exercises, all participants were required to answer in undertones. Although about a half to two third of participants answered vocally, there were participants who apparently did not. Regardless, most participants seemed to concentrate on the I-QM exercise through all 14 classroom experiments. T-S group did not receive a large amount of correction from the author unless communication broke down. Because encouraging learners to simply speak was important, feedback and correction were reduced.

CHAPTER 4

Results

4.1 Speaking Test Results

Regarding the Pre-test, participants were told that while Pre-test scores would not affect their grades, it was very important for judging their current communication ability. The results of the Pre-test were returned to each participant, which included their next goals in four graded areas. Participants were encouraged to achieve the goals by the time of the Post-test, which was taken in the same manner as the Pre-test. One major difference was that participants were informed that their improvements from the Pre-test would affect their grades.

The picture task used one out of four different free picture materials retrieved from the Internet (Figure 7). All pictures were associated with school life. One of the pictures was randomly picked by the author and handed to a participant with the direction “Please take a look at the picture and describe the situation”. Four new pictures for Post-test were retrieved from free Internet materials (Appendix G). Participants who frequently paused were given extra time beyond the normal three minutes. Participants who did not understand the directions or questions received an explanation in simpler English.



Figure 7. The Four types of pictures used for pre-speaking test. Top pictures - www.Emiko-m.com (retrieved in April, 2015). Bottom pictures- www.edu-dtr.pref.kanagawa.jp (retrieved in April, 2015).

4.1.1 Results between groups

Table 12 provides the descriptive results of the Pre-test and the Post-test of the I-QM group (n = 37) and the T-S group (n = 39). Three participants in the I-QM group were excluded from data analysis because two of them were taking extra English lessons and one of them frequently missed the I-QM exercises. One participant in the T-S group missed the Post-test.

Table 12

Descriptive Statistics of Speaking Tests of the I-QM group and the T-S group

	Pre-test					Post-test				
	Mean	Min-Max	Median	Mode	SD	Mean	Min-Max	Median	Mode	SD
I-QM group (n = 37)										
Sentence structure	2.6	1-3	3	3	0.56	3.1	3-4	3	3	0.31
Pronunciation	3.1	2-5	3	3	0.54	3.9	3-6	4	4	0.77
Grammar	3.0	2-4	3	3	0.72	4.0	3-5	4	4	0.46
Fluency	2.9	1-4	3	3	0.82	4.0	3-5.5	4	4	0.59
T-S group (n = 39)										
Sentence structure	2.6	2-4	2.5	3	0.54	3.1	2-4.5	3	3	0.43
Pronunciation	2.9	2-5	3	3	0.65	3.3	3-5	3	3	0.57
Grammar	2.8	2-5	3	3	0.79	3.6	2.5-5	3.5	3	0.63
Fluency	2.7	1-5	3	3	0.83	3.5	2-5	3.5	3	0.73

Note: Range of each scale is from 1 to 6 based on HOPE.

SD means standard deviation

First, as Table 12 shows, both groups improved in all four areas. However, improvements in the I-QM group were larger than the T-S group except for sentence structure. Comparing in pronunciation, the mean improvement of the I-QM group is twice that of the T-S group (I-QM; +0.8, T-S; +0.4). The median and mode of pronunciation in both groups were level three in Pre-test. However, the I-QM group improved to level four in median and mode in pronunciation, while there was no change in the T-S group. In grammar, both groups had

improvements (I-QM; +1.0, T-S; +0.8). With regard to median and mode, the I-QM group improved from level three to level four in both items, while the improvement was slight or non-existent in the T-S group (Median; from 3 to 3.5, Mode; no change).

The biggest improvement as a group among all four items was the mean of fluency in the I-QM group (from 2.9 to 4.0). Median and mode are also improved from 3 to 4. Although there was an improvement in mean in T-S group (from 2.7 to 3.5), median improved slightly (from 3 to 3.5) and there was no change in mode. Although it should be taken into consideration that the T-S group started lower in three points in Pre-test compared with the I-QM group, the improvement in the I-QM group was larger than the T-S group.

4.1.2 Results of each group from participants' individual data

Table 13 illustrates individual improvements of each group on the Post-test compared to the Pre-test. An improvement by one level from the Pre-test to the Post-test would appear as “1” in Table 13.

There are three striking findings in Table 13. First, no participants' scores deteriorated in the I-QM group, while there were seven participants in the T-S group who received worse scores than in the Pre-test (two of the seven scored worse in two areas). Second, about half of the participants of the I-QM group increased by one level in pronunciation, while half of the participants in the T-S group had no change between the Pre-test and the Post-test. Overall, 27 participants of the I-QM group improved, whereas 16 participants of the T-S group did. Third, 12 participants of the T-S group did not improve or got worse in fluency. However, only three participants of the I-QM group had no change and there were none who received worse scores. Moreover, the range of distribution between the two groups in fluency differs by just one level (I-QM; from 0 to +3, T-S; from -1 to +2). Box plots of individual data

(Appendix H) and changes between the Pre-test and the Post-test (Appendix I) also indicates individual participants’ improvements in Fluency.

Table 13

Comparison of Individual Improvements in the Post-test between the I-QM group (n = 37) and the T-S groups (n = 39) in Four Graded Areas

Balance between Pre-test & Post-test (Improvements)	The total number of participants based on their improvements in each items							
	Sentence structure		Pronunciation		Grammar		Fluency	
	I-QM	T-S	I-QM	T-S	I-QM	T-S	I-QM	T-S
-1				1		2		1
-0.5				2				3
+0	16	16	10	20	8	9	3	8
+0.5	7	7	1	6	4	4	8	5
+1	11	15	20	8	12	18	14	11
+1.5		1	5	1	6	2	4	6
+2	3		1	1	7	4	5	5
+2.5							1	
+3							2	

Note: -1 and -0.5 means that participants received lower levels in Post-test
 Levels of each item in speaking tests are from 1 to 6.
 One participant received worse scores in three items.

4.2 Questionnaire Results

Both pre-questionnaires (Pre-questionnaire A and B) were used by both the I-QM group and the T-S group. They were conducted the same way. Participants answered each question one by one, as the author read them aloud. Each questionnaire took roughly ten minutes to complete. They were collected by the author as soon as they were finished. All questionnaires used in this study were created in Japanese for ensuring the participants’ understanding.

The post-questionnaire was administrated to both the I-QM group and the T-S group on July 7, 2015, which was two weeks after the last classroom experiment. The two week interval was due to the school exam period.

4.2.1 Pre-questionnaires

Pre-questionnaires revealed intriguing findings with regards to;

- (1) The frequency of S-S and T-S interactions
- (2) The input received by students and student output,
- (3) Feedback from the teacher and peers
- (4) Student’s anxiety during S-S and T-S interactions
- (5) Participants’ perception of T-S interaction

(1) The frequency of S-S and T-S interactions

The frequency of S-S interaction was found to be much greater than T-S interaction in previous years’ “Communication English I”. T-S Interaction was scarcely used (Table 14).

Not only did 29 participants (37%) answer that they never interacted with their teacher in class throughout the year, but 22 participants replied that they received it extremely few times.

These answers ranged from once a year to three times a semester.

Table 14

Frequency of T-S Interaction in Class (Q1) (n = 78)

Frequency	No. of participants	Percent
Never	29	(37%)
Once or twice a year	7	(9%)
Once or twice a semester	11	(15%)
3 times a semester	4	(5%)
Once a week	10	(13%)
Once or twice a week	9	(12%)
Once in every lesson	5	(6%)

Note: Frequency was written by participants. Three participants wrote that they didn’t remember.

In contrast, 58 out of 78 participants’ answered that they worked in pairs or group in almost every lesson or in every single lesson for communication practice (Table 15).

Table 15
Frequency of S-S Interaction or Group Work (Q10)

Frequency	No. of participants and percent (n = 78)
Every lesson	11 (14%)
Almost every lesson	47 (60%)
Sometimes in lesson	15 (19%)
Very few	2 (3%)
Never	3 (4%)

(2) The input received by students and student output

Input for students in both T-S and S-S interactions had its own problems. Although 63 participants (85%) mostly understood their partners, 45 participants (58%) did not think that they learned much from peers’ English during S-S interaction (Table 16). In contrast, 34 participants (44%) did not understand teachers’ English well. Moreover, 18 participants (23%) were not paying attention to T-S interaction when they were not the one who was talking to the teacher (Table 17). With regard to the amount of input, 56 participants (72%) answered that they were exposed to oral English in one lesson (See Q9 in Appendix B).

Table 16
Students’ Perception of Learning from Peers during S-S Interaction

Q11. Did you understand your partner’s English?	No. of participants and percent (n = 74)
Yes, I understood everything	2 (3%)
I understood most of it	61 (82%)
I understood a little	11 (15%)
I did not understand	0 (0%)
Q12. Did you learn anything from your partner that you think will improve your English?	No. of participants and percent (n = 78)
Yes, I learned a lot	3 (4%)
Yes, I sometimes learned	30 (38%)
No, I did not learn often	42 (54%)
No, I never learned	3 (4%)

Table 17*Students' Attention to T-S interaction and Intelligibility of Teachers' English*

	No. of participants and percent
Q7. How well did you understand your teacher in English (Inc. Classroom English)?	
I understood everything	0 (0 %)
I understood almost everything	44 (56%)
I only understood a little	31 (40%)
I did not understand anything at all	3 (4%)
Q4. When your classmate was having a conversation with the teacher in class, did you listen to the teacher as if you were the student who was having a conversation with the teacher?	
I was listening very well	7 (9%)
I was mostly listening	52 (68%)
I wasn't listening much	18 (23%)
I wasn't listening at all	0 (0%)

Note: Q7 (n = 78), Q4 (n = 77)

Table 18 illustrates that output frequency was somewhat lacking in spite of frequent use of S-S interaction indicated in Table 15. As the main partners for interaction were peers (52 participants, 79%), most participants were assumed to talk with peers once or twice in most lessons. Participants' belief in efficiency of output through S-S interaction was slightly higher than that of input. (Very efficient; 14%, a little efficient; 69%, not so efficient; 13%, very little efficient; 4%) Furthermore, 28 participants (36%) answered that they were not thinking about how to answer when their teacher was having a conversation with others in class (Table 19).

Table 18*Frequency of Students Output in Each Lesson & Main Partner for Classroom Interaction (Q8)*

Frequency	No. of participants and percent (n = 78)
More than 5 times	0 (0%)
3-5 times	18 (23%)
1-2 times	51 (65%)
zero	9 (12%)
Main partner for interaction	(n = 66)
Teacher	14 (21%)
Students	52 (79%)

Note: Respondents of main partner for interaction was 66 due to 9 participants having answered zero for frequency of classroom interaction and three participants who did not respond.

Table 19*Whether Students Made Their Own Answers When Others were Talking with the Teacher (Q5)*

	No. of participants and percent (n = 77)
I was thinking of my answer in mind	14 (18%)
I was sometimes thinking of my answer	35 (45%)
I wasn't thinking much	24 (31%)
I wasn't thinking at all	4 (5%)

(3) Feedback from the teacher and peers

Feedback was provided more by the teachers than by peers. 22 % of participants received feedback from peers during S-S interaction, whereas 61% of them received feedback from their teacher during T-S interaction (Table 20).

Table 20

Feedback from a Teacher (Q2) or Peers (Q13)

Feedback from a teacher during T-S interaction	No. of participants and percent (n = 49)
Every time	3 (6%)
Sometimes	27 (55%)
Rarely	15 (31%)
Never	4 (8%)
Feedback from peers during S-S interaction	No. of participants and percent (n = 78)
A lot	1 (1%)
Sometimes	16 (21%)
Not often	47 (60%)
Never	14 (18%)

Note: The number of respondents was different in T-S interaction and S-S interaction because 29 participants answered that they did not experience T-S interaction.

(4) Student's anxiety during S-S and T-S interactions

Student's anxiety during T-S interaction was found to be high. 11 participants (23%) responded that they were very nervous. Putting this together with 24 participants (50%) who chose “I was a little nervous”, the majority of participants replied that they felt nervous (Table 21). Furthermore, 47 participants replied that they do not really like their teacher asking the questions in class or they do not like it because of lack of confidence in their English ability

Table 21
Students’ Anxiety during T-S Interaction (Q3) (Q6)

	No. of participants and percent
Q3. Did you feel nervous when your teacher talked to you in front of everyone in class in English? (n = 48)	
I was very nervous	11(23%)
I was a little nervous	24(50%)
Neither	7(15%)
I wasn’t very nervous	5(10%)
I wasn’t nervous at all	1(2%)
Q6. Do you like your teacher asking you questions in class in English? (n = 78)	
I like it very much	1(1%)
I like it	3(4%)
Neither	27(35%)
I don’t like it much	32(41%)
I don’t like it	15(19%)
Five top reasons for choosing “I don’t like it much” or “I don’t like it” in Q6 (n = 47)	
I’m not confident with my answer	26
I’m worried if I’m making any mistakes	26
I feel tense	15
I’m not confident with my pronunciation	11
I feel shy	9
Note: The number of respondent of Q3 and Q6 were different due to their experience in T-S interaction.	

Table 22 shows that the majority of participants had neither positive nor negative responses to pair-work for communication activities. Approximately a quarter of the participants liked and enjoyed working in pairs. Another quarter disliked or did not enjoy the pair work.

Table 22*The Participants' Perception of S-S interaction (Q16) (Q17)*

	No. of participants and percent
Q16. Do you find it fun to work in pairs for conversation? (n = 78)	
Very fun	3(4%)
Fun	15(19%)
Neither	48(62%)
Not so fun	10(13%)
Not fun	2(3%)
Q17. Do you like pair work for conversation? (n=78)	
I love it	2(3%)
I like it	14(18%)
Neither	45(58%)
I really don't like it	12(15%)
I don't like it	5(6%)

(5) Participants' perception of T-S interaction

The results of pre-questionnaire B (Appendix C) indicated that more than 60 % of the participants had a positive response to T-S interaction. They thought that T-S interaction would improve their general English ability including listening and speaking skills (Table 23). For instance, 83% thought that T-S interaction would help their listening ability. 72% thought that it would help general conversation skills because they would always think of their own answer even when they would not be the one who would be communicating with a teacher. 67% of participants did not think it was inefficient. At the same time, approximately 30% of the participants had a negative reaction to T-S interaction's efficiency according to the result (See Table 23). One clear example was that 33% of participants agreed with Q19 “I think it is inefficient for practicing English conversation.”

Table 23*The Participants' Perception of T-S Interaction (n = 79)*

	Agree		Somewhat agree		Somewhat disagree		Disagree	
	n	percent	n	percent	n	percent	n	percent
Q1	23	29%	39	49%	15	19%	2	3%
Q2	8	10%	46	58%	22	28%	3	4%
Q3	5	6%	16	20%	51	65%	7	9%
Q4	3	4%	19	24%	51	65%	5	6%
Q5	6	8%	24	31%	45	58%	2	3%
Q6	14	18%	43	54%	20	25%	2	3%
Q7	11	14%	41	53%	23	29%	3	4%
Q8	31	39%	35	44%	11	14%	2	3%
Q9	7	9%	34	43%	34	43%	4	5%
Q10	2	3%	15	19%	46	58%	16	20%
Q11	8	10%	33	42%	36	46%	2	3%
Q12	28	35%	32	41%	16	20%	3	4%
Q13	11	14%	21	27%	43	54%	4	5%
Q14	8	10%	24	30%	38	48%	9	11%
Q15	2	3%	21	27%	47	59%	9	11%
Q16	3	4%	22	28%	44	56%	10	13%
Q17	3	4%	16	20%	56	71%	4	5%
Q18	6	8%	18	23%	42	53%	13	16%
Q19	6	8%	20	25%	43	54%	10	13%

Note: Refer to Appendix C for question sentences. The shaded items are the longest number and percentage in each question.

4.2.2 Post-questionnaires

The I-QM group and the T-S group took different questionnaires, because they underwent different treatments. Nineteen questions in the questionnaires for the I-QM group and the T-S group were identical. Twelve of those were related to exercises they participated in and seven of them were general questions associated to English or English lessons. The other questions were different between I-QM group and T-S group because they asked about their perceptions of each different exercise. Due to this, the results appear in the following order; (a) The twelve questions about the exercises given to both groups, (b) The seven

general questions about English and lessons given to both, (c) The participants’ perception of I-QM exercise, (d) The participants’ perception of T-S.

(a) The twelve questions about the exercises given to both groups

Table 24 indicates the result of 12 questions about the exercise.

Table 24

Comparison of the Questions Given to Both the I-QM Group and the T-S Group

	Percent of participants who marked 4-1							
	I-QM (n = 38)				T-S (n = 39)			
	4	3	2	1	4	3	2	1
Q1(1) Effectiveness for listening practice	26.3	60.5	13.2	0	30.8	59.0	7.7	2.6
Q2(4) Effectiveness for speaking practice	28.9	60.5	7.9	0	53.8	33.3	10.3	2.6
Q3(3) Paying attention to teacher’s questions	39.5	57.9	2.6	0	33.3	53.8	7.7	5.1
Q4(5) Effort for answering	55.3	44.7	0.0	0	24.3	51.4	18.9	5.4
Q5(6) Anxiety during answering	13.2	44.7	34.2	7.9	22.2	41.7	19.4	16.7
Q8(17) Desire for improvement	47.4	44.7	7.9	0	28.2	51.3	17.9	2.6
Q9(18) Enjoyment	10.5	50.0	34.2	2.6	5.1	59.0	28.2	7.7
Q10(19) Effectiveness for speaking tests	28.9	52.6	18.4	0	17.9	51.3	25.6	5.1
Q11(20) Accustomed to listening	21.1	63.2	15.8	0	15.4	59.0	23.1	2.6
Q12(21) Accustomed to speaking	18.4	60.5	21.1	0	5.1	51.3	41.0	2.6
Q13(22) Efficiency of I-QM/T-S	0	18.4	76.3	5.3	2.5	23.1	61.5	12.8
Q14(23) Accustomed to the teacher’s English	18.4	68.4	13.2	0	7.6	84.6	5.1	2.6

Note: 4-Agree, 3-Somewhat agree, 2-Somewhat disagree, 1-Disagree

The numbers in () are question numbers of questionnaires for T-S group.

There are six findings:

(1) Nearly 90% of the participants in both groups found their exercise quite useful for improving their speaking and listening abilities. However, regarding effectiveness in preparing for speaking tests, I-QM was higher than T-S (I-QM; 81.5%, T-S; 69.2%).

(2) I-QM participants turned out to have paid more attention to the teacher’s questions (I-QM; 97.4%, T-S; 87.1%). Furthermore, they made more effort in answering questions (I-QM; 100%, T-S; 75.7%).

(3) Anxiety during speaking or answering to questions was high in both groups (I-QM; 57.9%, T-S; 63.9%). However, T-S participants chose “agree” more than I-QM participants by 10%.

(4) More I-QM participants raised their desire for improvement through the exercise than T-S participants (I-QM; 92.1%, T-S; 79.5%).

(5) I-QM participants became more accustomed to speaking and listening than T-S participants. For example, I-QM students’ survey result showed them to be 22.5% more accustomed to speaking than T-S students. However, T-S participants became more used to teacher’s English than I-QM participants (I-QM; 86.8%, T-S; 92.3%).

(6) I-QM participants found the exercise more efficient than those of T-S (I-QM; 81.6% T-S; 74.3%).

(b) The seven general questions about English and lessons given to both

Table 25 illustrates the comparison of general questions about participants’ attitude towards English between the two groups (I-QM and T-S). There are three findings:

(1) More T-S participants like their teacher asking them questions in class and more of them do not mind being corrected when peers are watching than I-QM participants. However, similar percentages of both the T-S and I-QM participants were hesitant to talk about their personal matters in class.

(2) I-QM participants understood the teacher’s English more than T-S participants (Q27; I-QM = 65.8%, T-S = 56.5%).

(3) Slightly more I-QM participants liked speaking and listening than T-S participants (Speaking; I-QM = 42.1%, T-S = 38.5%, Listening; I-QM = 39.4 %, T-S = 30.7%).

Table 25

Comparison in General Questions between the I-QM group and the T-S group

		Percent of participants who marked 4-1							
		I-QM(n = 38)				T-S (n = 39)			
		4	3	2	1	4	3	2	1
Q24(7)	Enjoyed being questioned by a teacher	2.6	7.9	60.5	28.9	7.7	25.6	53.8	12.8
Q25(8)	Disliked being corrected	2.6	44.7	39.5	13.2	2.6	20.5	56.4	20.5
Q26(12)	Disliked talking about personal matters	2.6	39.5	50.0	7.9	12.8	30.8	43.6	12.8
Q27(24)	Intelligibility of a teacher’s English	7.9	57.9	34.2	0.0	10.3	46.2	41.0	2.6
Q28(25)	Exposure to sufficient English	15.8	63.2	21.1	0.0	10.3	69.2	20.5	0.0
Q29(26)	Liked speaking English	10.5	31.6	47.4	10.5	7.7	30.8	48.7	12.8
Q30(27)	Liked listening to English	10.5	28.9	55.3	5.3	5.1	25.6	61.5	7.7

Note: 4-Agree, 3-Somewhat agree, 2-Somewhat disagree, 1-Disagree

The numbers in () are question numbers of questionnaires for T-S interaction

(c) The participants’ perception of I-QM exercise

Table 26 displays participants’ perception of I-QM exercises regarding three viewpoints; feedback for participants’ answers, answering vocally or not, and efficacy of feedback cards and speaking tests. First, 92.1% of I-QM participants wondered whether their answers were correct (Q6). They also wished to know how to answer correctly (Q7, 89.4%). However, only 45% of the participants were interested in listening to other participants’ answers. Furthermore, 94.8% of the participants did not want other participants to hear their own answers (Q16). Second, 89.5% of participants disagreed or somewhat disagreed that T-S interaction would be more fun than I-QM, although exact half of the participants thought that T-S interaction had more things to learn (Q18). Third, 58% of participants found “answering

vocally” easier than “answering silently” (Q19) as well as 84% of them thought that it is good for speaking practice (Q20). However, 68% of participants found “answering aloud” embarrassing (Q21). The participants assessed both feedback cards and speaking tests highly (feedback cards; 92.2%, speaking tests; 84.2%) for raising their motivation (Q22 & 23).

Table 26
The I-QM Group’s Perception of I-QM Exercise

		No. of the respondents and the percent							
		4		3		2		1	
Q6	I wondered if my answer was correct	21	55.3	14	36.8	3	7.9	0	0.0
Q7	I wish I had been taught how to answer correctly	17	44.7	17	44.7	4	10.5	0	0.0
Q15	I wish I could've heard other students' answers	2	5.3	15	39.5	18	47.4	3	7.9
Q16	I wish other students had had chances to listen to my answers	0	0.0	2	5.3	15	39.5	21	55.3
Q17	T-S interaction would be more fun.	1	2.6	3	7.9	26	68.4	8	21.1
Q18	T-S interaction would have more to learn.	1	2.6	18	47.4	17	44.7	2	5.3
Q19	It's easier to answer vocally than to answer silently	7	18.4	15	39.5	15	39.5	1	2.6
Q20	Answering aloud is better practice for my speaking ability than answering silently	17	44.7	15	39.5	6	15.8	0	0.0
Q21	I feel less shy when I answer out loud than silently	2	5.3	10	26.3	23	60.5	3	7.9
Q22	Feedback cards helped us work harder	8	21.1	27	71.1	3	7.9	0	0.0
Q23	Speaking tests made us want to work harder	10	26.3	22	57.9	6	15.8	0	0

Note: 4-Agree, 3-Somewhat agree, 2-Somewhat disagree, 1-Disagree

(d) The participants’ perception of T-S

Table 27 indicates the participants’ perception of T-S interaction. 71.8% of participants appeared to think that listening to other students’ answers during T-S interaction was good practice for their listening skills (Q2). 69.3% of the participants agreed that they learned how to answer questions by watching other students answering. However, only 51.3% of the participants learned new expressions or pronunciation by doing so (Q11). Their perception of whether their teacher was correcting students’ English or giving feedback to them was

divided in half. 51.3% of them thought that the teacher was correcting or giving feedback, while 48.7 did not think so (Q9).

Concerning peers' wrong usages or pronunciation, 74.3 % of the participants did not agree that it caused a negative influence. However, 25.6 % of the participants thought there was negative influence from other students (Q13). 33.3% of participants answered that they were bored when they were just watching T-S interaction. 25.6 % of the participants felt that they were wasting time when students were taking a long time to answer. Although 59% of the participants enjoyed listening to other students' answering to a teacher more or less, 41% of the participants did not (Q16). Moreover, it is worth mentioning that none of the participants chose “agree” for this question.

Table 27

The T-S Group's Perception of T-S Interaction

	No. of respondents and percent in ()			
	4	3	2	1
Q2 Listening to what other students said was useful for improving my English.	5 (12.8)	23 (59.0)	9 (23.1)	2 (5.1)
Q9 My teacher corrected students' English.	3 (7.7)	17 (43.6)	17 (43.6)	2 (5.1)
Q10 I learned how I should answer by listening to the interaction between my teacher and other students.	4 (10.3)	23 (59.0)	12 (30.8)	0 (0.0)
Q11 I learned expressions or pronunciation from what other students said.	1 (2.6)	19 (48.7)	16 (41.0)	3 (7.7)
Q13 I felt like other students incorrect English may harm my English.	3 (7.7)	7 (17.9)	24 (61.5)	5 (12.8)
Q14 I felt bored listening to other students having conversations with a teacher.	2 (5.1)	11 (28.2)	20 (51.3)	6 (15.4)
Q15 I felt like I was wasting time because there were students who took a long time to answer the teacher.	3 (7.7)	7 (17.9)	20 (51.3)	9 (23.1)
Q16 It was fun to listen to other students' answers.	0 (0.0)	23 (59.0)	11 (28.2)	5 (12.8)

Note: 4-Agree, 3-Somewhat agree, 2-Somewhat disagree, 1-Disagree

4.3 Feedback Cards

Feedback cards were employed in order to explore the following four perspectives; (a) participants’ performance, (b) reliability of their self-evaluation, (c) the effect on motivation, and (d) its potential uses for giving feedback to students. Feedback cards were collected at the end of every exercise.

The data was organized based on participants’ performance in each session (Appendix J), participants’ performance on each question in each session (Appendix K), and comparison between the author’s evaluation and the participants’ self-evaluation on nine designated questions through the experiments (Appendix L).

There were three findings as a whole. First, their self-evaluations for each question varied considerably enough for the author to think that they were based on their actual performance (Appendixes J&K). Second, the reliability of the participants’ self-evaluation appears to be high because their self-evaluation generally matched the level of questions asked during the exercises. For instance, 34 participants marked “four” (I was able to answer in a sentence) for a simple question “How are you today?” However, only eight participants gave four to more complicated question “Imagine, I am a new student. Where is the bathroom?” Moreover, the difference between the author’s evaluation by checking participants’ written answers and the participants’ self-evaluation was general small (Appendix L).

Third, utilizing feedback cards so that teachers can provide feedback to participants was found to be feasible. Even just going over individual participants’ evaluation on the cards showed which questions participants had trouble understanding or answering. Organizing self-evaluation in the feedback cards assisted analyzing the weakness of the individual participant as well as the group.

4.4 Author’s Notes

The author took notes during her classroom experiments in order to investigate “advantages and disadvantages of I-QM” and “advantages and disadvantages of T-S interaction.”

4.4.1 Advantages and disadvantages of I-QM

The seven advantages found were:

- (1) The rhythmic tempo of the I-QM exercise kept classroom atmosphere high.
- (2) The author was able to concentrate on the exercise because everyone in class was involved in the exercise.
- (3) Topics for the exercise could be varied because they did not have to be always entertaining.
- (4) Participants seemed to have taken the exercise seriously due to its training style
- (5) Keeping to a strict time limit is easy because the exercise is not dependent on individual behavior.
- (6) The loudness of their voices when they answered questions during I-QM illustrated what was difficult for them.
- (7) Participants’ feedback cards helped the author to know what they could and what they could not do.

Three disadvantages were:

- (1) The author had to constantly encourage participants to make their own answers and answer vocally.
- (2) The author’s improvised words were restricted because those could confuse participants, especially at the early stage of the exercise.

(3) Ten minutes for the exercise appeared to be the limit considering the participants’ concentration.

4.4.2 Advantages and disadvantages of T-S interaction

Advantages of T-S interaction were:

- (1) Participants’ unexpected/interesting answers made the interaction very amusing.
- (2) T-S interaction itself appeared to be very entertaining for the class, especially when the topic was interesting for them or the participant who was having a conversation was popular in class.
- (3) Participants’ answer to a question could elicit another question from the author, which made the conversation natural.
- (4) The author could repeat, rephrase or explain when necessary
- (5) The author did not need to pre-plan everything s/he would say in class.

Disadvantages were:

- (1) The conversation always had to be entertaining to keep the class’ attention
- (2) Classroom atmosphere was likely to be affected by certain participant(s)’ poor performance
- (3) Planning the time was challenging because it depended on how slow/poor the participant who was being asked could answer
- (4) There were participants who lost interest in just listening, or who regarded T-S interaction as merely a chat, not listening and speaking exercise
- (5) When a quiet/shy/unpopular participant was having a conversation with the author, a large number of the participants appeared to lose interest in listening. There were

participants who even attempted to sleep or started doing different things such as doing homework or reading books.

(6) Picking participants equally was fairly impossible due to the classroom atmosphere, participant’s personality, and their attitude towards the exercise.

CHAPTER 5

Discussion

5.1 Research Hypothesis One

Hypothesis 1 (I-QM is a feasible communicative exercise in class) was verified in this study for two reasons: (1) Both the author and the participants were capable of practicing I-QM exercises as the author planned, and (2) I-QM exercises are useful if used regularly.

(1) Both the author and the participants were capable of practicing I-QM exercises as the author planned

For participants.

There are three reasons supporting the conclusion that participants were capable of practicing I-QM exercises. First, the feedback card data (Appendixes J-L), post-questionnaire results (Chapter 4.2), and Post-test results (Chapter 4.1) proved that participants were able to carry out I-QM exercise as they were directed. The participants’ feedback card showed that they actively took part in the exercise. Second, the author herself perceived that most participants were trying to answer seriously during the classroom implementation (See Chapter 4.4). Third, the result of the post-questionnaire illustrated that 97.4% of the participants agreed that they paid attention to the author’s questions. Furthermore, 100% of the participants answered that they made an effort towards answering the questions (Table 24 in Chapter 4.2.2).

Feedback cards and post-questionnaire results are based on participants’ own perception and self-evaluation. However, Post-tests results (Table 12 &13 in Chapter 4.1) showed that I-QM participants improved in all four graded areas. The Post-test results not

only match the participants’ self-evaluations, they strongly support the conclusion that participants were able to carry out the I-QM exercises.

For teachers.

For teachers, it is feasible to utilize I-QM exercise in the classroom. Through 14 sessions of I-QM exercises in class, the author was able to prepare questions beforehand, implement the exercises and control the class. Preparation took approximately 10 minutes for each session, time which most teachers have. The English ability for an I-QM teacher was less than T-S interaction because questions were pre-scripted. Controlling 40 students was easier than a class using T-S instruction. This is mainly because I-QM controlled exercise style made it harder for participants to behave poorly or interrupt the exercise.

(2) I-QM exercises are useful if used regularly

There are five findings in this study, which support the idea that I-QM exercises are useful if used regularly. They are:

- (1) The majority of the participants thought it useful
- (2) Post-test proved its effectiveness
- (3) Two-thirds of the participants found it fun
- (4) I-QM exercise is handy for teachers to use in class
- (5) I-QM can be linked to other activities in lessons

First, the result of the post-questionnaire indicates that 86.8% of the participants agreed that I-QM was an effective exercise for improving their listening skills (See Table 24 in Chapter 4.2.2). Moreover, 89.4% of the participants agreed that it was effective for improving

their speaking abilities. 81.6% of the participants answered that I-QM exercise was efficient for improving their conversational skills.

Second, Post-test shows that 56.8% of the participants improved their ability of “sentence structure”, 73.0% of the participants improved their pronunciation, 78.4% of the participants improved grammar, and 91.9% of the participants improved their fluency (See Table 13 in Chapter 4.1). The number of participants who improved in all four graded areas was greater than that of T-S interaction. On the post-questionnaire, 81% of I-QM participants agreed or somewhat agreed with its effectiveness for speaking test preparation, which generally agreed with their actual improvements found on the Post-test.

Third, approximately two-thirds (60.5%) of the participants enjoyed the I-QM exercise (See Table 24 in Chapter 4.2.2). In comparison with the T-S interaction (65.0%), it is not a small number.

Fourth, I-QM exercise is a convenient exercise for teachers. A 10 minute-exercise is easy for teachers to fit in their lessons. Little preparation is required: Merely writing 15 questions and copying feedback cards. If teachers do not want to make their own questions, they can save time by utilizing textbooks or the Internet to obtain questions. What is more, teachers who are not completely confident in their English can still teach I-QM exercises because they know what they will say during the exercise.

Fifth, it is possible for teachers to link an I-QM exercise with other activities in class. For instance, the participants reviewed their reading materials during I-QM exercises when the author asked questions about their contents (See questions in the 13th experiments in Appendix F). Furthermore, the author introduced the topic of the lesson while asking questions related to it (See questions in the 11th experiments in Appendix F). The five pieces of evidence noted above prove that teachers are able to employ I-QM exercise regularly in

class. Therefore, the hypothesis 1 (I-QM is a feasible communicative exercise in class) was confirmed by the study.

5.2 Research Hypothesis Two

Hypothesis 2 (I-QM works better than T-S interaction to improve students’ general conversational skills) was confirmed by the results of the Pre-test and Post-tests (See Table 12 & 13 in Chapter 4.1). Table 12 indicated greater improvements for the I-QM group in pronunciation, grammar, and fluency than those of the T-S group.

Fluency.

The I-QM group shows the biggest improvement, which is “1.1” (Pre-test; mean = 2.9, Post-test; mean = 4.0), in fluency of all four graded areas (i.e., sentence structure, grammar, pronunciation, and fluency). The T-S groups’ improvement in fluency was 0.8 (Pre-test; mean = 2.7, Post-test; mean = 3.5). It may be unfair to conclude that the T-S group’s improvement was smaller than the I-QM group’s, when their mean score of the T-S group started lower (Pre-test’s mean = 2.7) than that of the I-QM group (Pre-test’s mean = 2.9). However, 91.9% of the participants of the I-QM group improved their fluency, whereas only 69.2% of the participants of the T-S group did. Given this result, it is possible to say that the I-QM group has succeeded in improving in fluency through I-QM exercise more than the T-S group which underwent T-S interaction.

With regard to SD (Standard Deviation) of fluency, Post-test’s SD of the I-QM group decreased more than that of the T-S group (I-QM; Pre-test’s SD = 0.82, I-QM; Post-test’s SD = 0.59, T-S; Pre-test’s SD = 0.83, T-S; Post-test’s SD = 0.73). This means that individual participants’ scores of the I-QM group clustered. The increased mean scores, median, and

decreased SD can be interpreted as a success for the improvement as a group. Additionally they showed that I-QM was efficient in improving lower proficiency participants as well.

The post-questionnaire result indicates that the participants of the I-QM group became more accustomed to listening and speaking through the I-QM exercise than the T-S group (See Table 24 in Chapter 4.2.2). One reason may be the repeated opportunity for all of the participants to listen to a question and answer during the exercise. They were required to actively get involved in the exercise regardless of their level of fluency. In contrast, the participants of the T-S group had the option of passively sitting in class until s/he was directly asked questions by the author.

Grammar.

With regard to grammar, improvement of the mean score of the I-QM group was larger than that of the T-S group (I-QM; Pre-test mean = 3.0, I-QM Post-test mean = 4.0, T-S; Pre-test mean = 2.7, T-S; Post-test mean = 3.5). Similar to fluency, the mean scores of the T-S group started 0.3 lower than that of the I-QM group. However, 35.1% of the participants of the I-QM group improved more than 1.5 (See Appendix A for the scales), whereas only 15.4% of the participants of the T-S group did. On the other hand, 5% of the participants (2 participants) of the T-S group's scores deteriorated.

The participants of the I-QM group presumably attempted answering most questions in a complete sentence in Post-test. Attempting to answer in a complete sentence may have led them to focus on sentence structures such as the order of subjects and verbs. This may have assisted them in receiving higher scores in grammar.

The reason for the difference in improvements in grammar between the two groups could be their different environments when they answered the questions. Because I-QM exercise was designed to lower anxiety by eliminating the necessity of answering in front of

other students, participants may have been able to focus on making complete sentences without worrying about what other participants may think of his/her answers.

In contrast, the participants of the T-S group answered when their peers were watching. As 63.9% of the participants of the T-S group felt (somewhat) tense when they answered in class (See Table 24 in Chapter 4.2.2), the combination of their anxiety and other participants' attention on them might have led them to answer in a simple way, such as a single word or phrase. Choosing a correct subject and verb for making a sentence can cause mistakes. The questionnaire showed that participants did not like being asked questions by their teacher in front of peers because they were not confident in their answers or they were worried about making mistakes (Appendix M). If participants had chosen their answer simply in order to make the fewest mistakes, they may have missed chances to practice answering in a sentence.

Moreover, the individual participants of the T-S group had less opportunity to answer in an actual conversation. 75.7% of the participants of the T-S group answered that they were making their own answer mentally when other students were answering the author (See Table 24 in Chapter 4.2.2). However, the mental answers may have been just a couple of words or the answers may not have been as complete as they later remembered. Because the participants of the I-QM group needed to mark signs according to how they answered, they were presumably reminded to answer in a complete sentence as much as they could during the exercise.

The SD of the Post-test of the I-QM group decreased more than that of the T-S group (I-QM Pre-test; 0.72, I-QM Post-test; 0.46, T-S Pre-test; 0.79, T-S Post-test; 0.63). The same as with fluency, this appears to reflect that even the low proficiency participants were able to improve.

Pronunciation.

An improvement in pronunciation of the I-QM group was the least expected because the author did not teach pronunciation to the I-QM group at all. The T-S group sometimes received corrected pronunciation during the T-S interaction from the author when necessary. For this, it is more surprising that improvement of the I-QM group is twice that of the T-S group (I-QM Pre-test; 3.1, I-QM Post-test; 3.9, T-S Pre-test; 2.9, T-S Post-test; 3.3).

One explanation for this could be that because the participants of the I-QM group answered two seconds after being asked, they may have unconsciously mimicked the author's pronunciation when they used similar vocabulary. Another explanation could be that the participants of the I-QM group had to listen actively in order to answer so that they listened to the author's English more attentively than the T-S group. Since neither of those postulates has any proof in this study, further research is needed.

Unlike fluency and grammar, the SD of the I-QM group in the pronunciation part of the Post-test increased (I-QM Pre-test; 0.54, I-QM Post-test 0.77, T-S Pre-test; 0.65, T-S Post-test; 0.57). One main reason was that eight participants improved more than two levels (+2; 5 participants, +2.5; 1 participant, +3; 2 participants) (See Table 13 in Chapter 4.1.2). These eight participants' improvement was so large that it affected SD.

Sentence structure.

The only area which did not show a significant difference between two groups is sentence structure. The fact that both groups were neither expected to answer with complicated sentences during exercises, nor had to make an effort to continue the conversation would explain the result. Both groups only had to answer the author's questions. Most participants were not ready for the level four sentence structure “.....S/he attempted to speak beyond what were asked” (See Appendix A). However, there were participants who

achieved the level three “Although some speech was just words or phrases, participants was able to make a sentence with their own words. However, they were only able to answer the questions, not add any new content or start further conversations” after the experiments. That is why some improvement was seen in both groups.

Although there were not significant differences in sentence structure, there was a large difference in improvement in the three graded areas (fluency, grammar, and pronunciation). The noteworthy result in improvement of the I-QM group would be a strong evidence to verify the hypothesis 2 (I-QM works better than T-S interaction to improve students’ general conversational skills).

5.3 Research Hypothesis Three

Hypothesis 3 was: The advantage of I-QM is to increase the amount of input from teacher and student output. The disadvantage is that I-QM requires extra encouragement by teachers compared to T-S interaction because I-QM exercise is a drill-like method, which can feel monotonous.

The advantage in Hypothesis 3 was only partly confirmed. The increase of student output was confirmed. However, “the increase of the amount of input from teacher” was not confirmed. The hypothesized disadvantage was confirmed. A few more advantages and disadvantages were also found in the study.

5.3.1 Advantages of I-QM

The amount of input from a teacher.

The amount of input from a teacher in I-QM does not appear to be significantly larger than that of T-S interaction. In ten minutes of I-QM exercise, the author asked 15 questions as she had planned. In ten minutes of T-S interaction, the author was able to ask only five to

eight questions on average. This was mainly because there were always a few participants' who were being asked took a long time to answer. Nevertheless the author ended up speaking a considerable amount of improvised words to elicit answers rather than silently waiting. Even though the T-S group was asked only five questions on average out of 15 prepared questions in each session, the amount of input from the author was not necessarily less than the I-QM group.

Yet, one crucial difference between two groups was how actively each group was made to listen to the author's speech during the exercises. The participants of the I-QM group were constantly watched during the I-QM exercise by the author when they were listening, answering and filling in the feedback card. Moreover, the I-QM group had to actively listen in order to answer the questions and filling in feedback cards. The top reason for why they agreed with “Listening to the teacher's English during I-QM exercise was good practice for my listening ability” was “I concentrated on answering the questions” (Appendix N). As noted in Table 24 (Chapter 4.2.2), 100 % of the I-QM participants tried to answer. The I-QM group had specific reason why they had to listen, which could explain why more of them improved their scores on the Post-test than T-S group (See Chapter 4.1). Although most participants of both groups answered that they listened to the author (See Table 24 in Chapter 4.2.2), the I-QM group may have listened more closely than the T-S group.

Unlike the I-QM group, the participants of the T-S group appeared to have more room to relax during the exercise. It was clear to everyone that they would not be directly asked questions often when there were 40 classmates in class. For the author, there was no measure to tell whether participants who were quietly sitting were actually listening. Contrary to what they stated in the post-questionnaire, there were quite a number of participants who obviously did not seem to pay close attention to the conversation during T-S interaction for the entire time the author observed. The author often reminded the class of the upcoming speaking test,

emphasizing it was a part of the grading. She also explained several times that T-S interaction was not small talk, but it was an important exercise for improving listening and speaking ability.

To summarize, the I-QM teaching method is better suited to making the entire students listen actively compared to the T-S interaction. As a result, when the amount of input from a teacher is the same, more students in the I-QM group would utilize input than students who receive T-S interaction. Therefore, the hypothesis: “The advantage of I-QM is to increase the amount of input from teacher” was not confirmed in this study. It should be revised to “The advantage of I-QM is to increase students’ concentration on input from their teacher.”

Student output.

“The advantage of I-QM is to increase the amount of student output” was confirmed with two pieces of support found in this study. First, as noted in classroom experiments in Chapter 3.5, about one half or two-thirds of the participants’ output was observed during the I-QM exercise by the author. Their feedback cards also could be used as proof of their output during the exercise. Their feedback cards’ data (Appendix K) indicated that participants answered 14 times on average in each I-QM exercise.

Second, their improvement in Post-test is strong evidence of increased student output. As already discussed in Hypothesis two (Chapter 5.2), the I-QM groups’ improvement in pronunciation, grammar, and fluency was not only outstanding but also it was larger than T-S group. The I-QM groups’ post-questionnaire results; “accustomed to speaking”, “effort in answering”, and “practice for speaking” (Chapter 4.2.2), matched their actual improvements in Post-test.

As for T-S group, there are two reasons why T-S group had less student output than I-QM. The first reason is the number of students. Unlike I-QM, the frequency of actual

interaction was greatly influenced by the number of students in class. The author was able to talk to only five to eight students out of 40 participants in each session (approximately 10 minutes). Second, even though “answering mentally” is included as “student output”, the T-S group still had less student output according to the result of the post-questionnaires (See Table 24 in Chapter 4.2.2). Therefore, I-QM’s advantage in increasing student output over T-S is confirmed.

Two other significant advantages of I-QM found in this study were; (a) general effectiveness to students regardless of their levels and (b) its stability as a classroom exercise. As discussed in Hypothesis 2, participants’ level of improvement of the I-QM group was basically the same among all students as opposed to the T-S group. Because all the participants were forced to participate in the exercise regardless of their level of motivation or proficiency due to its exercise style, most participants improved (See Table13 in Chapter 4.1.2).

As discussed in Chapter 4, I-QM was unlikely to be influenced by certain participants’ poor behavior. Due to this, teachers can often anticipate how students will perform during the exercise as well as set aside appropriate time. Although T-S interaction can lead to lively or interesting interaction depending on students’ performances, the atmosphere of the class and the efficiency of the exercise can be harmed by students’ poor performance as well. In this way, T-S interaction can be an unstable exercise that teachers are not usually able to rely on for improving students’ communication skills, even though it is a useful exercise for students to practice English with their teacher. In contrast, I-QM exercise will not lead to an unexpectedly lively conversation that may excite students. However, it is a stable exercise. Teachers can anticipate students’ performance in the exercise, the amount of their input from teachers and student output, and plan the time for the exercise accordingly.

5.3.2 The disadvantage of I-QM

Hypothesis 3: The disadvantage is that I-QM requires extra encouragement by teachers compared to T-S interaction because I-QM exercise is a drill-like method, which can feel monotonous.

Hypothesis three was partly confirmed. Participants needed extra encouragement. However, the reason for the encouragement may not have been I-QM’s monotonous exercise. It appeared to be that participants felt shy when they answered vocally. In this section, discussion starts with (a) whether participants perceived I-QM to be monotonous and then (b) whether I-QM required extra encouragement and why is discussed.

(a) Whether participants perceived I-QM to be monotonous

I-QM exercise has a fixed interaction style. All the questions are planned beforehand. Students’ answers do not lead to any new topics due to its one-way interactive format. Unlike T-S interaction, what/how the students answer does not influence the exercise itself. Therefore, it could be monotonous, or boring to students. Unexpectedly, however, 60.5% of the participants reported that they found it (somewhat) fun. Although 34.2% of the participants answered that it was not really fun, only 2.6% of the participants (one participant) did not find it fun at all. Although being monotonous and being fun may be two different things, it is not appropriate to say I-QM is monotonous, or in another word, boring, when over 60% of the participants (somewhat) enjoyed the exercise

T-S group had a similar response to “enjoyment of the exercise” as the I-QM group (Table 24 in Chapter 4.2.2). Given a different interaction style between the two groups, it is interesting to find that a similar percent of participants found it fun in both groups. Because of this, whether participants perceived the I-QM exercise as monotonous was questionable. The I-QM group may have found answering itself to be stimulating/enjoying considering the

fact that an extremely high percentage reported “desire for improvement (92.1%). As a result, there is no evidence to confirm or deny the I-QM to be a monotonous exercise for participants..

(b) Whether I-QM requires extra encouragement and why

In this study, it was found that the I-QM group needed constant encouragement by the author to make their own answers and to answer vocally as noted in Chapter 4.4.1. One major reason appeared to be participants’ shyness. Students become shy for two reasons; (a) their voices could be heard from nearby peers, and (b) the act of answering with their own information.

According to the questionnaire, 68.5% of the participants reported that they felt shyer when they answered vocally than answering silently (See Table 26 in Chapter 4.2.2). This reflected that a large number of the participants felt shy when their voices were heard by peers. It was expected that participants would not be able to hear each other’s voices/answers because they spoke simultaneously during I-QM exercises. However, sitting close to each other, they could hear the other participants’ voices and answers.

57.9% of the I-QM group reported that they felt tense when they answered. It was surprising that their anxiety during output was not especially smaller than the report of T-S group who answered when the entire class was listening (I-QM; 57.9%, T-S; 63.9%) (See Table 24 in Chapter 4.2.2). This means that the number of audience members did not affect feelings of tension. The act of answering itself may have been the cause of anxiety if the participants were not used to it. As found in the pre-questionnaire result, the participants’ previous year’s communicative exercises mainly relied on pair-work, the contents of which may have been mostly reading textbooks or dialogues, not conversation with their own

answers or thoughts. If they had only experienced rote studies previously, the act of giving original answers may be the cause of tension rather than the I-QM or T-S method.

In conclusion, the advantages of I-QM compared to T-S interaction are: I-QM increases students’ concentration on input from teacher and the amount of student output. The disadvantage is that I-QM requires extra encouragement by teachers because students may feel shy making their own answers and answering vocally.

CONCLUSION

1. Findings in This Study

This study attempted to explore the effects of a new teaching method named “Input-Question Model” (I-QM) designed by the author. The goal of I-QM was to increase comprehensible input with “i+1” (Krashen, 1982) and student output (Swain, 1985) when students learn English in large classrooms as seen in Japanese public schools. I-QM’s feasibility in class, effectiveness in improving speaking skills, and its advantages and disadvantages were clarified as a result of this investigation. The following were the main findings of this study:

First, I-QM is a feasible communicative exercise in class for seven reasons: (a) Participants were able to practice I-QM exercise as the author planned, (b) The amount of preparation time and speaking skills necessary to adequately use I-QM were realistic for non-native English teachers, (c) The majority of the participants thought that I-QM was useful for improving their communication skills, (d) The Post-test proved I-QM’s effectiveness, (e) Approximately two-thirds of the participants found I-QM exercise fun, (f) I-QM exercise is convenient for teachers to use in class, and (g) Teachers are able to link I-QM exercise to other teaching contents which s/he teaches.

Second, I-QM exercise help improve students’ pronunciation, grammar and fluency compared to T-S interaction. Among those three grading areas, the most outstanding improvement was observed in pronunciation. Although this paper discussed possible reasons for the improvement (Chapter 5.2), further study is needed to identify real causes.

Third, the advantages of I-QM are: (a) I-QM exercise will increase students’ concentration on input from teachers and amount of student output, (b) I-QM exercise is a stable exercise so that teachers can rely on it as a classroom exercise, and (c) Students who

practice I-QM exercise will be likely to improve at the same rate. Even in large classrooms with only one teacher, I-QM will be a useful exercise both for the teacher and students.

Lastly, the disadvantage of I-QM is that I-QM will require extra encouragement by teachers because students may feel so shy that they will be hesitant to answer vocally. Considering that I-QM was designed to decrease student anxiety during student output by all students answering simultaneously, the high degree of student anxiety even in I-QM exercise is an important finding towards learner’s anxiety. This study may imply that there are few effective measures for completely removing student anxiety in large classrooms when students practice target language vocally. However, student anxiety may decrease when they become accustomed to the exercise. Hence, a longitudinal study would be necessary in this regard.

2. Defects in This Study

There are three defects of the study, which should be noted. First, the effect of S-S interaction was not examined at all, mainly because only two groups were available as participants for this study. Because I-QM uses input from teachers, the author chose T-S interaction to compare with I-QM in the study. However, this study found that teachers who teach in large classrooms appear to use S-S interaction more frequently than T-S interaction. Therefore, this study would have been more useful if the author could have examined S-S interaction along with T-S interaction.

Second, this study does not use commonly accepted speaking tests such as TOEIC (The Test of English for International Communication), TOEFL (Test of English as a Foreign Language) and OPI (The ACTFL Oral Proficiency Interview) as a means of assessing participants’ improvement. The main reason for using the HOPE speaking test was that it was

free and readily available. The results of the speaking tests would have been more persuasive if the author had been able to use speaking tests whose reliability is widely approved.

Third, although the effects of I-QM were confirmed, more study needed to be done to investigate points such as what the main cause of the I-QM group’s improvement in pronunciation was and the precise difference between the I-QM group’s anxiety and the T-S group. Hence, this study could be regarded as the first step toward future empirical studies.

3. Suggestions for the Use of I-QM Exercise

Despite a few defects noted above, the study contributes to exploring new communicative teaching methods which are feasible in large classrooms. Although a single case study cannot completely guarantee the effects of I-QM exercise, this study would suggest that I-QM exercise can be useful for teachers who have to teach large numbers of students in class. The use of I-QM can be an effective approach to improving students’ communicative skills in large classrooms. Since I-QM is less likely to be influenced by student behavior, teachers will be able to provide students with a stable learning environment, which can lead to better learning.

Every teaching method has its own advantages and disadvantages. Like any other methods, I-QM is not a perfect tool. However, it is strongly recommended that teachers should adopt I-QM exercises along with teaching methods they have been using. To merely continue using the same methods despite knowing their defects is a disservice to students. This problem is magnified when the defects can be decreased by using other methods. Furthermore, if teachers utilize I-QM in their classes, their new findings concerning I-QM will either make I-QM better-suited to classrooms or lead to another new teaching method which is more efficient than I-QM. As a result, the use of I-QM can lead to new developments in the field of teaching communicative languages.

This study is merely a first step of exploring a new teaching method. However, what the study confirmed and implied will lead to future researches, which will definitely contribute to teachers who teach communicative language in large classrooms.

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Appendix A

Four Graded Areas in the HOPE’s Evaluation Criteria (My Translation)

Sentence structure

Level 6: Coherent speech was produced using conjunctions. Complex sentences were also made using relative clauses or conjunctions such as “when” and “if”.

Level 5: Most speech was made through simple sentences. “And” or “but” were used for linking sentences. Complex sentences could be produced using subordinate conjunctions such as “when”.

Level 4: Participants were able to speak with simple sentences. S/he attempted to speak beyond what were asked. Their speech could be sometimes just words or phrases, rather than complete sentences.

Level 3: Although some speech was just words or phrases, participants was able to make a sentence with their own words. However, they were only able to answer the questions, not add any new content or start further conversations.

Level 2: Most of the speech consisted of words or phrases. Limited kinds of simple sentences were also produced.

Level 1: Most speech was made by simple words or phrase. Produced sentences were limited to formulaic sentences such as greetings.

Pronunciation

Level 6: Although there were incorrect pronunciations in terms of vocabulary, the whole tone of the speech sounded like native English.

Level 5: Although pronunciation was clear, incorrect pronunciations were produced when pronunciation was peculiar to English. Intonation and rhythms were often unnatural or monotonous.

Level 4: Pronunciation was affected less by the mother tongue than Level 3.

Level 3: Although each word was pronounced clearly, pronunciation which was affected by their mother tongue was often used.

Level 2: There were many words which could not be understood, or strongly affected by their mother tongue.

Level 1: Participants’ pronunciations were strongly affected by their mother tongue.

Grammar

Level 6: There were mistakes when s/he made complex sentences. S/he was mostly able to use the past tense correctly when talking about past.

Level 5: There were not many big mistakes, but still small mistakes in simple sentences. S/he was sometimes not able to use past tense when talking about past.

Level 4: Most speech was understandable. Big mistakes such as “lack of verbs” were not seen in simple sentences.

Level 3: There were big mistakes such as “lack of verbs”. Small mistakes such as subject-verb matching, singulars/plurals were also seen.

Level 2: Most speech was made by just words or phrases. Speech did not have subjects or verbs, or contained big mistakes, for example, not following proper word order.

Level 1: There were so many errors in grammar that interviewers had difficulty understanding participants.

Fluency

Level 6: When talking with coherent speech, interviewee stopped to think or hesitated before saying something. However, conversation was carried on at a mostly natural speed and rhythm.

Level 5: Fluency higher than Level 4. Interviewee could carry on conversation at a somewhat slow but stable rhythm.

Level 4: Although speech was made by many simple sentences, being able to answer “yes” or “no” with natural timing was possible. Although there were hesitations and repetitions of words, natural rhythmic conversation was observed.

Level 3: Although there weren’t any long pauses, interviewee stopped in the middle of their speech or was hesitant to say something. It was difficult to have natural rhythm in conversation.

Level 2: There were often long pauses. Speeches were slow and contained breaks between words.

Level 1: There were very long pauses or hesitation before saying anything. Speech was slow. Some conversation was carried out by just answering yes or no.

Appendix B

Pre-questionnaire A (Translated Into English)

Please answer questions below based on your experience of “Communication English I” class you participated in last year.

Q1. How many times did you have a conversation with your Japanese teacher of English in class? (Conversation includes situations in which your teacher asks you questions. Reading your answers from homework or workbook does not count.) If you do not have any, please mark “None”.

Yes (per an year), (per a semester), (per a week), (per a lesson)
Other answers () None

Q2. If your answer was “yes” in Q1, did your teacher point out or correct your mistakes or rephrase them?

Yes, every time Yes, sometimes Rarely No

Q3. If your answer was yes in Q1, did you feel nervous when you answered/talked to your teacher in front of everyone?

Yes, I felt nervous Yes, I felt nervous more or less Neither
No, I really did not feel nervous No, I did not feel nervous at all

Q4. When your classmate was having a conversation with the teacher in class, did you listen to the teacher as if you were the student who was having a conversation with the teacher?

Yes, I was listening very well Yes, I was more or less listening
No, I wasn’t really listening No, I wasn’t listening at all
I have never seen other students having conversations with a teacher

Q5. Did you make your own answer in mind as if you were the one who was asked questions?

Yes, always Sometimes Hardly Never
I have never seen other students having conversations with a teacher

Q6. Do you like your teacher asking you questions in front of others?

Yes I like it very much I like it Neither Not really No

If you chose “Not really” or “No”, please choose the reasons that apply to you.

I’m not confident with my answers I’m not confident with my pronunciation
I’m worried about making mistakes I feel shy I feel tense
My classmates are watching me Others ()

Q7. How well did you understand your teacher (including classroom English)?

I understood everything
I only understood a little

I understood almost everything
I didn't understand

Q8. How often did you converse in English in each lesson? Was your partner a teacher or a student?

Frequency: zero, 1- 2, 3-5, 6-9, 10-20, more than 20 times
Partner: Teacher, Students

Q9. Do you think you were exposed to lots of English in one lesson?

Yes, I think so Yes, I more or less think so
No, I really don't think so I don't think so at all

Q10. Did you work with other students in pairs? Yes No

If your answer was yes, please choose one below.

In every lesson In almost every lesson Sometimes Not often Never

Q11. If you answered yes in Q10, did you understand your partner's English?

Yes I understood everything I understood most of it
I understood a little I did not understand

Q12. Did you learn anything from your partner (expressions, pronunciation, etc.) that you think will improve your English?

A lot Sometimes Not often Never

Q13. Did your partner usually point out or correct your mistakes?

A lot Sometimes Not often Never

Q14. Do you think that pair-work with peers helps improve your speaking ability?

Yes, I think so Yes, I more or less think so
No, I really don't think so I don't think so at all

Q15. Do you think that pair-work with peers helps improve your listening ability?

Yes, I think so Yes, I more or less think so
No, I really don't think so I don't think so at all

Q16. Do you find it fun to work in pairs for conversation?

Very fun Fun Neither Not so fun Not fun

Q17. Do you like pair work for conversation?

I love it I like it Neither I really don't like it I don't like it at all

Q18. Do you like speaking English in general?

I love it I like it Neither I really don't like it I don't like it at all

Q19. Do you like listening to English in general?

I love it I like it Neither I really don't like it I don't like it at all

Q20. Have you ever had a conversation in English longer than 5 minutes? Yes No

If yes, please write down the situation.

Q21. Do you take any English lessons or study English conversation by yourself outside of high school?

Yes (hours a week) (times a week)

Q22. Do you have anyone close to you who is an English native speaker or who lives/has lived overseas?

Yes No

Thank you very much for your cooperation. Your answers will remain private.

Appendix C

Pre-questionnaire B (Translated Into English)

Imagine that you are in the situation below in your English class. Mark numbers 4-1 best suited for you. (4; Agree, 3; Somewhat agree, 2; Somewhat disagree, 1; Disagree)

Situation: Your teacher has a conversation with students in class as a part of a lesson. S/he talks to class as well as to individual students one at a time. Other students who are not speaking are supposed to listen to the conversation.

Q1. I think that my listening ability will improve by listening to what my teacher says.

Q2. Listening to what other students say is useful for improving my English.

Q3. Other students' English is not good, so I don't think I will learn much from them.

Q4. Since the teacher rarely talks directly to me, this situation doesn't help my speaking ability.

Q5. Students who do not speak directly to the teacher do not improve their speaking ability.

Q6. Since I always think of how I would answer if I was the one who was talking, I think it helps my communication skills.

Q7. I think it would help improve my communication skill if I have more chances to be the one to talk to teachers.

Q8. I sometimes wonder if my answers are right when I am not the one answering.

Q9. Listening to the interaction between my teacher and other students, I will learn how I should answer.

Q10. When I hear other students' English with incorrect usage, expressions or grammar, I feel like it may harm my English.

Q11. I am hesitant to say personal things when I am asked.

Q12. I feel like I need to answer correctly because other students are listening. Due to this, it takes time to answer.

Q13. Since my teacher may pick me any time, this makes me feel nervous. It's hard for me to pay attention to the conversation between my teacher and others.

Q14. I do not like it when my teacher corrects my English or pronunciation.

Q15. I feel bored by any listening to other students having conversation with a teacher.

Q16. I feel like a bystander because I do not get picked often due to the large classroom.

Q17. I feel like I may not focus on the conversation itself, because I pay more attention to whether the student who is picked can answer.

Q18. I feel like I’m wasting time because there are students who take a long time to answer the teacher.

Q19. I think the given situation is inefficient in terms of practicing English conversation.

Appendix D

Post-questionnaire for I-QM (Translated into English)

This questionnaire is not related to your grading. Please answer honestly. Read questions and choose 1-4 (1- Disagree, 2- Somewhat disagree, 3- Somewhat agree, 4- Agree).

Questions regarding I-QM exercise

Q1. Listening to the teacher’s English during I-QM exercise was good practice for my listening ability.

If you chose 1 or 2, please choose the reasons which apply to you.

I was not concentrating I wasn’t directly picked to answer I felt like I was a guest
I couldn’t concentrate because there were people who made too much noise

If you chose 3 or 4, Please choose the reasons which apply to you.

I was concentrating on answering questions I had to fill in the feedback card
Other students were also working hard The classroom was quiet
The teacher’s English matched my level

Q2. I think I-QM exercise was good practice for improving my speaking ability.

If you choose 1 or 2, please choose reasons apply to you.

I couldn’t answer well I was too tense to answer It wasn’t easy to answer when it’s
not one to one I felt shy because students around me could listen to me answering
I wasn’t able to answer Others ()

Q3. I think that I listened to my teacher’s questions.

Q4. I made effort to answer the teacher’s questions.

Q5. I felt tense or nervous when I answered.

Q6. I wondered if my answer was correct.

Q7. I wish I had been taught how to answer correctly.

Q8. Taking part in I-QM exercise made me want to improve my speaking and listening.

Q9. I-QM exercise was fun.

Q10. I-QM exercise helps prepare us for general speaking tests.

Q11. I think that I am used to listening to English through I-QM exercise.

Q12. I think that I am used to speaking English through I-QM exercise.

Q13. I don’t think I-QM is efficient for improving English conversation.

Q14. I think that I’m used to my teacher’s English through I-QM exercise.

Q15. I wish I could have heard other students’ answers.

Q16. I wished other students had had chances to listen to my answers.

Q17. I think that it would’ve been more fun having conversation when the class is listening.

Q18. I think that students would learn more conversing with a teacher one to one in class than through I-QM exercise.

Q19. It is easier to answer vocally than answer silently.

Q20. I think that answering aloud is better practice for my speaking ability than answering silently.

Q21. I feel less shy when I answer out loud than silently.

Q22. I think that having feedback cards helps us work harder than without feedback cards.

Q23. I think that having speaking tests makes us want to work harder.

General Questions

Q24. I like my teacher asking me questions in class when my peers are listening.

If you choose 1 or 2, please choose reasons or write it down.

I’m not confident in my answers I’m not confident in my pronunciation

I’m worried about making mistakes I feel shy I feel tense

My friends are watching me

Q25. I don’t want my English or pronunciation to be corrected by my teacher in front of other students.

Q26. I don’t want to talk about my personal things in front of others.

Q27. I mostly understood what my teacher said in English (including classroom English).

Q28. I think I am exposed to sufficient English in one lesson.

Q29. I like speaking English generally.

Q30. I like listening to English generally.

Q31. Have you learned English conversation outside of school since this April?

Yes. (hour(s) a week), (times a week) No.

Thank you very much for your cooperation! Your answers will remain private.

Q6. I felt tense or nervous when I answered during T-S interaction.

Q7. I like my teacher asking me questions in class when my peers are listening.

If you chose 1 or 2, please choose from the following reasons or write your own reason.

I'm not confident in my answers I'm not confident in my pronunciation

I'm worried about making mistakes I feel shy I feel tense

My friends are watching me

Q8. I don't want my English or pronunciation to be corrected by my teacher in front of other students.

Q9. My teacher corrected students' English (pronunciation, vocabulary, and grammar) during T-S interaction.

Q10. I learned how I should answer by listening to the interaction between my teacher and other students

Q11. I learned expressions or pronunciation from what other students said during T-S interaction.

Q12. I don't want to talk about my personal matters in front of others.

Q13. When I heard other students using English incorrectly, such as problematic expressions and grammar, I felt like it may harm my English.

Q14. I felt bored listening to other students having conversations with a teacher.

Q15. I felt like I was wasting time because there were students who took a long time to answer the teacher.

Q16. It was fun to listen to other students' answers.

Q17. Taking part in this activity made me want to improve my speaking and listening.

Q18. T-S interaction was fun.

Q19. T-S interaction helped prepare us for general speaking tests.

Q20. I think that I am used to listening to English through T-S interaction.

Q21. I think that I am used to speaking English through T-S interaction.

Q22. I don't think T-S interaction is efficient for improving English conversation.

Q23. I think that I'm used to my teacher's English through T-S interaction.

General Questions

Q24. I mostly understood what my teacher said in English (including classroom English).

Q25. I think I was exposed to sufficient English in each lesson.

Q26. I generally like speaking English.

Q27. I generally like listening to English.

Q28. Have you studied English conversation outside of school since this April?

Yes. (hour(s) a week), (times a week) No.

Thank you very much for your cooperation! Your answers will remain private.

Appendix F

Prepared Questions Created by the Author for the Experiments in Classrooms

Pilot Study 1

- Q1. How are you today?
 - Q2. What time did you go to bed last night?
 - Q3. What did you eat for dinner?
 - Q4. What did you do after dinner yesterday?
 - Q5. What’s your favorite color?
 - Q6. What’s his name? (the teacher points at a stuffed Eeyore on the teacher’s desk in front of the classroom)
 - Q7. What’s your favorite character from Winnie-the Pooh (Kumano-Pooh-San in Japanese)?
 - Q8. How do you come to school?
 - Q9. Where do you live?
 - Q10. Tell me about something famous from your hometown.
 - Q11. Where is the best place to go in your city?
 - Q12. What is your favorite food?
 - Q13. How often do you eat it (your favorite food)?
 - Q14. What is your favorite restaurant?
 - Q15. Please tell me about your homeroom teacher.
-

Pilot Study 2

- Q1. Hi, how are you today?
 - Q2. What did you study in the last period?
 - Q3. Who is your science teacher?
 - Q4. Is he tall, short, has black hair, wear glasses....What is he like?
 - Q5. Are you sleepy now?
 - Q6. What time did you get up this morning?
 - Q7. What did you eat for breakfast?
 - Q8. Who usually makes your breakfast?
 - Q9. Who do you usually eat breakfast with?
 - Q10. Oh, I love your pencil case. (Picking up a student’s pencil case and shows the class.) Where did you buy your own pencil case? (pointing at many students pencil case.)
 - Q11. How much was your pencil case?
 - Q12. How many hours did you study English last weekend?
 - Q13. By the way, how was the school trip?
 - Q14. What did you do at USJ?
(Ask students “Did you see any shows? Did you ride any rides?” if they need assistance.)
 - Q15. How did you spend the time on the bus from USJ to our school?
- *Q12: Students write down their answers in their feedback cards
-

1st Experiment

Questions: Easy questions

- Q1. How are you today?
 - Q2. What time do you usually go home on Monday?
 - Q3. I like English very much. What subjects do you like?
 - Q4. Imagine that I am a new student. Where is the bathroom?
 - Q5. I want to talk to Mr. Deguchi. Where is his office?
 - Q6. Kate is not Japanese. Where is she from?
 - Q7. What country do you want to visit?
 - Q8. I love to watch 名探偵 Konan. What is your favorite TV show?
 - Q9. I want to lose weight. Could you give me some advice?
 - Q10. What time do you usually take a bath?
 - Q11. Who usually cleans the bathtub?
 - Q12. Do you have an English dictionary?
 - Q13. How much was your English dictionary?
 - Q14. How often do you use your English dictionary?
 - Q15. Do you have an electronic dictionary?
-

2nd Experiment

Questions: Golden Week

- Q1. How are you today?
 - Q2. My Golden Week was very busy. I did a lot of things. How was your GW?
 - Q3. Actually, I visited my mother to celebrate mother's day. I gave her presents. What did you do during GW?
 - Q4. I had sushi and ice cream during GW. Tell me one thing you ate during GW?
 - Q5. Did you study during GW?
 - Q6. Well, what subject did you study the most during GW?
 - Q7. Of course, I watched “Meitantei Konan”(Detective Konan) on Saturday. It was exciting! What did you watch during GW?
 - Q8. How many times did you cook your own meal during GW?
 - Q9. Who in your family cooked the most during GW?
 - Q10. I hope you had some fun during GW. I went shopping and bought a bag. What was the most fun for you during GW?
 - Q11. I vacuumed the house and cooked dinner during GW. Did you do any housework during GW? If so, what did you do?
 - Q12. I heard some very bad news from Nepal. Could you tell me what happened in Nepal?
 - Q13. When an earthquake happens, I usually cover my head with my hands first. What do you usually do first?
 - Q14. So, we are going to study English in this period. What are you going to study in the next period?
 - Q15. Who is the teacher?
-

3rd Experiment

Questions: Birthday

- Q1. My brother's birthday is next month. I have to buy him a present. When is your

birthday?

Q2 My brother will be 30 years old on his next birthday. How old will you be on your next birthday?

Q3 I want a new computer for my birthday. What do you want for your birthday?

Q4 By the way, do you have any pets?

Q5 Which do you like better, cats or dogs?

Q6 OK, then, which do you like better, pigs or cows?

Q7 I love pigs. They are very cute. So, I try not to eat pork. I eat chicken the most. Which do you eat the most, pork, beef or chicken?

Q8 My favorite food is rice with natto. What is your favorite food?

Q9 I eat rice with natto almost every day. How often do you eat your favorite food?

Q10 My mother’s favorite food is Takoyaki. What is your mother or father’s favorite food?

Q11 I love green tea. What’s your favorite drink?

Q12 I drink green tea maybe 5 to 10 times a day. How often do you drink your favorite drink?

Q13 I had cold green tea this morning. What did you drink for breakfast?

Q14 I had water with my lunch. What did you drink with lunch?

Q15 At school, I usually drink green tea. What do you usually drink at school?

.....

4th Experiment

Questions: Telling Eeyore about school life

Q1 How was your weekend?

Q2 Imagine that he is a new student. Please tell him what time Kawagoe high school starts. (Showing students a stuffed Eeyore)

Q3 He is really looking forward to lunch time. Please tell him when the lunch break is.

Q4 Eeyore is going to take a music lesson. Please tell him where the music room is.

Q5 (Pretending as if Eeyore is asking by himself) What is the nearest JR station?

Q6 I forgot to bring my lunch. Where can I buy lunch?

Q7 I heard that students clean the school. What time does the cleaning start today?

Q8 I love sports! I am a boy, so who is my PE teacher?

Q9 I am very good at swimming. Do we have a swimming class?

Q10 I want to join the basketball club. Who should I talk to?

Q11 I don’t like math. Could you tell me how to study math?

Q12 I want to go shopping with you. When are you free?

Q13 I want to meet your family. Could you tell me how to get to your home from here?

Q14 I want to buy clothes, but I only know Aeon. I want to buy clothes somewhere else. Where should I go?

Q15 Thank you very much for teaching me. You are very nice! Could you be my friend?

*Q12: Students write down their answers in their feedback cards

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5th Experiment

Questions: Teachers

Q1 How was your weekend?

Q2 The weather was great in my area. How was the weather in your area last weekend?

Q3 Did you come to school last weekend?

Q4 I went to Nagoya on Saturday. I took a train. It was 620 yen! It was expensive! Where

did you go last weekend?

Q5 What did you do there?

Q6 You know, we have a vocabulary test today. Did you study for the test?

Q7 How many hours did you study for today’s vocabulary test?

Q8 By the way, you all know our principal. What’s his family name?

Q9 Then, what’s his first name?

Q10 I’m an English teacher. Take a guess what subject did our principle teach before?

Q11 How old do you think he is?

Q12 I have never asked him his age. But he is going to retire next march. So, I think he is around 60. OK, now you know our new vice principal. What’s his family name?

Q13 How old do you think he is?

Q14 I don’t know his age. It’s a little rude to ask someone’s age. Take a guess what subject did he teach before?

Q15 The last question. If you will become a teacher in the future, what subject do you want to teach?

.....

6th Experiment

Questions: School trip and places

Q1 How are you today?

Q2 You are going to Okinawa on a school trip this October. Have you ever been to Okinawa?

Q3 Okinawan food is very popular now. Tell me one Okinawan food you know.

Q4 In Okinawa, I went to beaches, Churaumi aquarium and kokusaidori. Where do you want to go in Okinawa?

Q5 How many nights are you going to stay in Okinawa?

Q6 How will you go there? By ferry?

Q7 You went to Universal Studio Japan in April. Where did you go on a school trip last year?

Q8 You have gone on many school trips since you were a child. Which school trip was the most fun for you?

Q9 If you could choose the school trip next year, which place would you choose, Nagoya, Osaka and Kyoto?

Q10 I live in Yokkaichi. Where do you live?

Q11 What’s the nearest train station to your house?

Q12 My house is about 4 km from Yokkaichi station. It’s about 20 minutes by car. How far is your house from the nearest station?

Q13 Is there any bus stop near your house? If so, what’s the name of the bus stop?

Q14 How many cars does your family have?

Q15 Who drives those cars?

*Q11: Students write down their answers in their feedback cards

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7th Experiment

Questions: Sazae-san (TV Show)

- Q1. How was your weekend?
- Q2. Last night, I watched Sazae-san. Did you watch Sazae-san?
- Q3. What is Sazae’s family name? (Fuguta)
- Q4. Well, Sazae’s family name is Fuguta. Did you get it? Now, who is Katsuo’s mother?
- Q5. Some people think Katsuo’s mother is Sazae. That’s not true. Katsuo’s mother is Fune. They have a cute white cat. What is the cat’s name?
- Q6. Yes, it’s Tama. I love Sazae-san. She is very cheerful and kind to everyone. Do you want to have a sister like Sazae?
- Q7. Do you know Namihei has a twin brother? What is Namihei’s brother’s name?
- Q8. That’s right. He’s brother’s name is Umihei. Isasaka-sensei lives next to Sazae-san. He always wears traditional Japanese clothes. What does Isasaka sensei do? What’s his job?
- Q9. Yeah, Isasaka-sensei is a writer. OK, now, who is Sazae’s husband?
- Q10. Good. This is a question for boys in this class. Do you want to marry a woman like Sazae and why? (After boys answers) OK, now girls turn to answer. Do you want to marry a man like Masuo and why?
- Q11. Changing subjects, do you have a smartphone or mobile phone?
- Q12. I check my smartphone once an hour. How often do you check your smartphone at home?
- Q13. I often use my smartphone to read news on line. What do you usually do with your smartphone?
- Q14. Does everybody in your family have smartphones?
- Q15. What is the color of your smartphone?

*Q13: Students write down their answers in their feedback cards

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8th Experiment

Questions: Teachers

- Q1. How are you today?
- Q2. Who is your homeroom teacher?
- Q3. What does he teach?
- Q4. What is he like?
- Q5. Do you know if he is married?
- Q6. What do you do in your free time?
- Q7. Which teacher is the friendliest teacher among all of the homeroom teachers?
- Q8. Who do you think is the strictest teacher?
- Q9. Who is the tallest teacher among all the second grade teachers?
- Q10. Who is the shortest teacher among all the second grade teachers?
- Q11. Who is the nicest teacher?
- Q12. Who gives a lot of homework to students?
- Q13. Are there any teachers who never give you any homework?
- Q14. If you could choose, which would you like to be, a teacher or a student?
- Q15. How many questions did you answer today?
-

9th Experiment

Questions: Home

- Q1. Hi everyone, how are you today?

- Q2. We had lessons last Saturday, but we had no school on Sunday. What did you do on Sunday?
- Q3. Was your mother or father at home yesterday?
- Q4. Are they usually at home on weekends?
- Q5. Who do you usually eat lunch with on Sunday?
- Q6. What can you cook?
- Q7. I had fried chicken for dinner last night. What did you eat for dinner last night?
- Q8. Today is Monday. Do you like Mondays?
- Q9. My favorite day of the week is Sunday. What is yours?
- Q10. Why?
- Q11. I like Sunday because I can relax at home. So now, what's your least favorite day of the week?
- Q12. My least favorite day of the week is Tuesday, because I'm very busy. When you go home after school, do you usually talk to your family?
- Q13. Do you have your own room or do you share a room with your brother or sister?
- Q14. Your house probably has a kitchen, a living room, toilets, your room, parents' room. In which part of your house do you spend the most time?
- Q15. Well, I usually spend the most time in the living room. So, how many questions did you answer today?

*Q14: Students write down their answers in their feedback cards

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10th Experiment

Questions: Daily routines

- Q1. How are you today?
- Q2. I like Japanese breakfasts, so I had miso soup and rice this morning. What did you eat for breakfast?
- Q3. It's cloudy! I love cloudy days! Which kinds of weather do you like the most, sunny, rainy or cloudy?
- Q4. Did you brush your teeth this morning?
- Q5. Do you brush teeth before breakfast or after breakfast?
- Q6. Do you brush teeth after dinner or before going to bed?
- Q7. When I was a child my mom bought my toothbrushes. Who buys your toothbrush?
- Q8. What color is your toothbrush?
- Q9. DO you share your toothpaste with your family?
- Q10. When you gargle, which do you use to get water, a cup or your hands?
- Q11. I usually brush for about 30 seconds. How long do you usually brush your teeth?
- Q12. Have you ever been to a dentist?
- Q13. What are the names of the dentists you have been to?
- Q14. Was he or she a good dentist?
- Q15. How many questions did you answer today?

*Q13: Students write down their answers in their feedback cards

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11th Experiment

Questions: Introduction of the story in the textbook

- Q1. How are you today?
- Q2. I went to bed very late last night. What time did you go to bed last night?
- Q3. What time did you get up this morning?
- Q4. How many hours did you sleep?
- Q5. Good, so you are not sleepy now?
- Q6. Changing subjects, my father calls me “Naoppe”. What do your parents call you?
- Q7. What is your nickname?
- Q8. My nickname was Nao when I was a student. Now, please look at this. (Showing a blue bucket to students) What’s this?
- Q9. What color is this?
- Q10. Yes, it’s blue! When do you use it?
- Q11. Do you have a bucket at home?
- Q12. How do you use the bucket?
- Q13. What do you usually put in the bucket?
- Q14. Have you ever carried water in a bucket and walked for more than 5 minutes?
- Q15. How many questions did you answer today?
-

12th Experiment

Questions: Places you like

- Q1. How are you today?
- Q2. I like rainy days very much. They are romantic! Do you like rainy days?
- Q3. What season do you like the best?
- Q4. Tell me why you like that season.
- Q5. Which do you prefer to go to in summer, the mountain or the ocean?
- Q6. Have you ever gone hiking?
- Q7. Where did you go hiking?
- Q8. I loved hiking on Yamanobeno-michi in Nara. Have you ever walked on the Kumano-kodo?
- Q9. I love Yokkaichi, but I also love Kumano! What cities do you like in Mie?
- Q10. I love Tokyo, Kyoto and Fukui. What prefectures do you like?
- Q11. If you had a lot of money, where would you like to go in Japan?
- Q12. If you had a lot of money, which country would you like to go?
- Q13. Have you ever been to Korea?
- Q14. Do you like Korean dramas?
- Q15. How many questions did you answer today?
-

13th Experiment

Questions: Reviewing last lesson

- Q1. Hi, how are you today?
- Q2. How was your weekend?
- Q3. Did you come to school to study on Saturday?
- Q4. I came to work on Saturday and saw some students. They were studying Math. What subject did you study the most last weekend?
- Q5. Remember the story in Lesson 2 we did last week. What animal did you learn about in Lesson 2?
- Q6. Yes, it was the sloth. Now, here’s a question for you. Is the sloth lazy?

- Q7. Does the sloth usually move quickly?
- Q8. What does the sloth eat?
- Q9. Most humans eat 3 times a day. How many times do sloths eat a day?
- Q10. Where do they usually live?
- Q11. Right. They live on braches. Where do they leave their droppings?
- Q12. Do you think the sloth is cute?
- Q13. What are their enemies?
- Q14. We humans are warm blooded. Is the sloth warm blooded?
- Q15. How many questions did you answer today?

*Q14: Students write down their answers in their feedback cards

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14th Experiment

Questions: teachers

- Q1. Hi everyone, how are you today?
- Q2. Who is your Japanese teacher?
- Q3. What is Mr. Fujita like?
- Q4. Do you know where he lives?
- Q5. What is Mr. Deguchi’s first name?
- Q6. What is he like?
- Q7. What club does he coach?
- Q8. What is Ms. Kaji’s first name?
- Q9. What is she like?
- Q10. What’s the easiest class on Monday for you?
- Q11. What’s the hardest class on Friday?
- Q12. If you become a teacher in the future what subject do you want to teach?
- Q13. If you become a teacher, do you want to teach at elementary school, junior high school or high school?
- Q14. You know Ivanna is from New Zealand. Where is Kate from?
- Q15. Yes, she is from Palau. So, how many questions did you answer today?

*Q14: Students write down their answers in their feedback cards

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Appendix G

Four Pictures Used for the Post-test

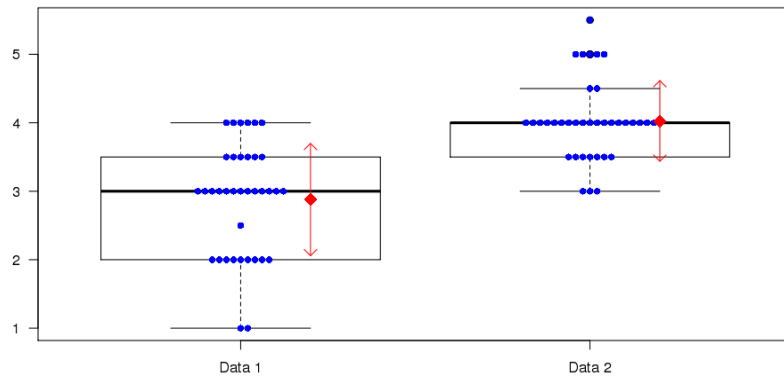


Figure 4. The Four types of pictures used for the post-speaking test. All pictures were retrieved in April, 2015 from <http://j-link.sub.jp> (top right), www.fumira.jp/cut/gakkou/ (top left), www.ameblo.jp (bottom right), and www.school.athuman.com (bottom left).

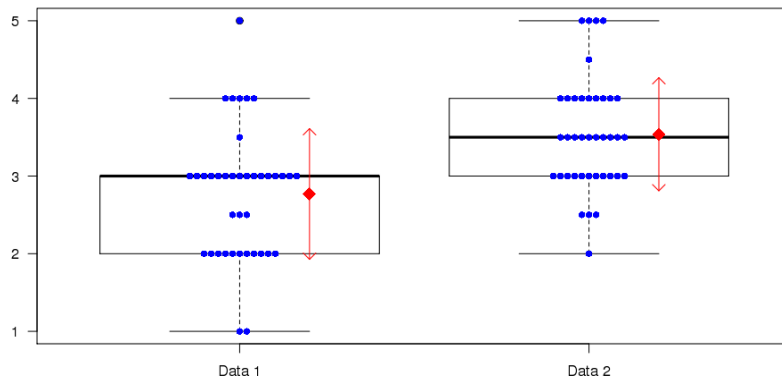
Appendix H

Box Plots of Individual Data in Fluency in the I-QM Group and the T-S Group

Top: I-QM group, Bottom: T-S group



+/-SDs are displayed as arrows. Black squares on the arrows are means.
Data 1 = Pre-test, Data 2 = Post-test

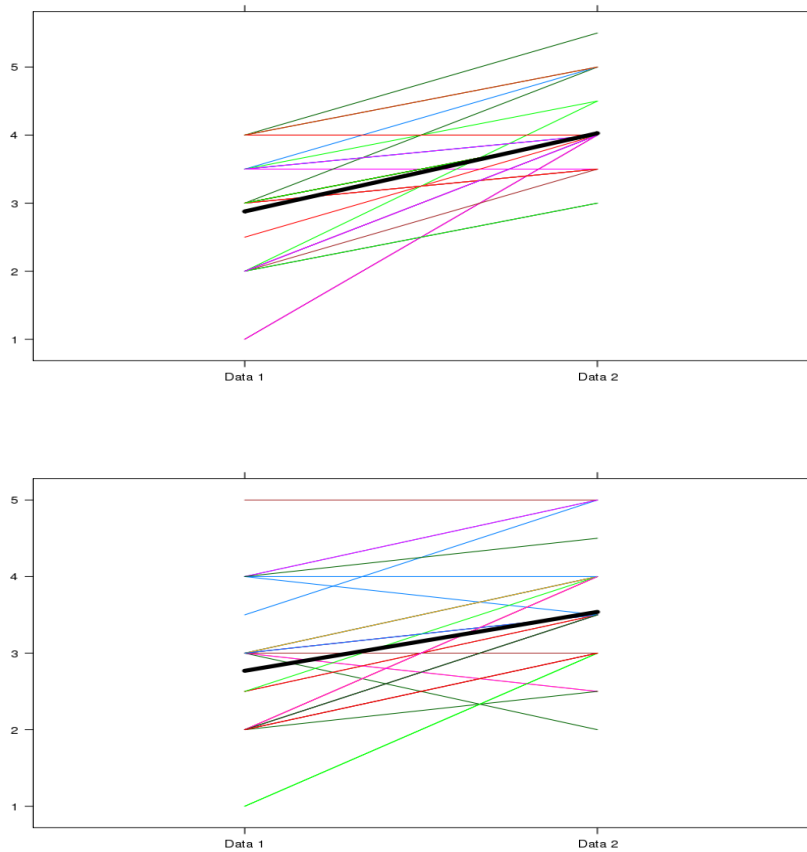


+/-SDs are displayed as arrows. Black squares on the arrows are means.
Data 1 = Pre-test, Data 2 = Post-test

Appendix I

Changes of Individual Data in Fluency between Pre-test and Post-test

Top: I-QM group (I-QM), Bottom: T-S group



Note: Data 1 = Pre-test, Data 2 = Post-test

Appendix J

Number of Participants Who Marked 5-1 in Their Feedback Cards for Each Question
during 14 times I-QM Exercises in Class

I-QM Exercise	N	No. of participants and percent in ()							
		5		4		3		2	1
1st	38	13	(2.3)	377	(66.4)	127	(22.4)	45	(7.9)
2nd	37	23	(4.1)	377	(67.9)	130	(23.4)	22	(4.0)
3rd	36	33	(6.1)	393	(72.9)	98	(18.2)	10	(1.9)
4th	37	15	(2.7)	313	(56.4)	168	(30.3)	51	(9.2)
5th	39	33	(5.6)	409	(69.9)	104	(17.8)	33	(5.6)
6th	39	42	(7.2)	376	(64.3)	135	(23.1)	21	(3.6)
7th	37	55	(9.9)	379	(68.3)	91	(16.4)	23	(4.1)
8th	37	23	(4.1)	333	(59.8)	153	(27.5)	40	(7.2)
9th	37	27	(4.9)	396	(71.4)	121	(21.8)	9	(1.6)
10th	39	39	(6.7)	428	(73.2)	108	(18.5)	8	(1.4)
11th	38	41	(7.2)	407	(71.4)	100	(17.5)	21	(3.7)
12th	40	65	(10.8)	431	(71.8)	86	(14.3)	14	(2.3)
13th	38	46	(8.1)	389	(68.2)	109	(19.1)	19	(3.3)
14th	39	35	(6.0)	432	(74.0)	111	(19.0)	5	(0.9)

Note: 5- I answered and I don't mind sharing it with class
 4- I was able to answer (in a sentence).
 3- I understood a little (with words or phrases).
 2- I could not answer.
 1- I don't understand teacher's question.

Appendix K

Data Collection of Feedback Cards: Number of Participants Who Marked 5-1

for Each 15 Question in 14 Times of I-QM Exercises

	1st (n = 38)					2nd (n = 37)					3 rd (n = 36)				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
Q1	4	34	0	0	0	11	25	1	0	0	7	28	1	0	0
Q2	0	25	11	2	0	1	31	5	0	0	5	27	4	0	0
Q3	3	31	3	1	0	0	25	11	1	0	3	29	3	0	1
Q4	0	8	19	10	1	1	32	4	0	0	4	30	2	0	0
Q5	1	13	13	11	0	3	30	4	0	0	2	29	4	0	1
Q6	1	27	7	3	0	0	30	7	0	0	1	23	9	0	3
Q7	1	29	7	1	0	2	28	7	0	0	0	25	10	1	0
Q8	1	28	8	1	0	0	24	12	0	1	4	30	2	0	0
Q9	0	16	12	9	1	0	28	6	3	0	1	18	14	3	0
Q10	1	36	1	0	0	0	26	9	1	1	1	28	7	0	0
Q11	0	30	6	2	0	0	20	15	2	0	2	31	2	1	0
Q12	0	29	6	1	2	1	15	14	7	0	0	19	13	4	0
Q13	0	22	14	1	1	2	17	14	4	0	2	25	9	0	0
Q14	1	18	16	3	0	0	18	14	4	1	0	27	7	1	0
Q15	0	31	4	0	1	2	28	7	0	0	1	24	11	0	0
	4th (n = 37)					5th (n = 39)					6th (n = 39)				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
Q1	4	26	7	0	0	5	31	2	1	0	8	31	0	0	0
Q2	0	25	11	1	0	1	35	3	0	0	7	31	1	0	0
Q3	0	16	17	2	2	6	28	5	0	0	2	25	12	0	0
Q4	1	9	14	13	0	1	33	5	0	0	4	28	7	0	0
Q5	0	26	5	5	1	3	27	8	1	0	0	15	16	4	4
Q6	0	13	17	7	0	4	31	4	0	0	4	31	4	0	0
Q7	0	26	8	3	0	2	29	8	0	0	3	26	8	1	1
Q8	0	26	10	1	0	4	22	10	2	1	0	18	16	4	1
Q9	2	28	4	3	0	3	20	10	5	1	1	25	10	2	1
Q10	2	18	11	5	1	0	22	12	4	1	5	30	4	0	0
Q11	0	16	18	3	0	2	30	5	2	0	2	22	14	1	0
Q12	0	25	11	1	0	0	18	11	10	0	0	21	15	3	0
Q13	0	12	20	4	1	0	30	5	4	0	1	18	16	3	1
Q14	2	20	10	3	2	0	28	7	4	0	1	29	7	1	1
Q15	4	27	5	0	1	2	25	9	0	3	4	26	5	2	2
	7th (n = 37)					8th (n = 38)					9th (n = 37)				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
Q1	6	26	5	0	0	5	33	0	0	0	4	33	0	0	0
Q2	7	29	0	1	0	2	27	9	0	0	1	30	6	0	0
Q3	4	24	7	2	0	0	16	20	1	0	2	29	6	0	0
Q4	5	27	4	1	0	0	34	2	1	0	2	27	6	2	0
Q5	5	30	2	0	0	3	29	3	2	0	2	21	14	0	0
Q6	2	25	9	1	0	3	19	9	5	1	2	24	10	1	0

Q7	5	24	6	2	0	1	17	13	6	0	2	30	5	0	0
Q8	1	26	4	5	1	2	15	15	4	1	1	32	4	0	0
Q9	5	24	5	1	2	2	20	14	1	0	2	26	8	0	1
Q10	2	20	11	1	3	1	23	13	0	0	1	16	18	1	1
Q11	4	32	1	0	0	1	24	9	3	0	2	27	7	1	0
Q12	1	17	15	4	0	1	15	14	4	3	3	26	7	1	0
Q13	4	22	10	1	0	0	16	8	11	2	2	23	12	0	0
Q14	0	22	10	4	1	1	18	15	2	1	1	25	10	1	0
Q15	4	31	2	0	0	1	27	9	0	0	0	27	8	2	0
<hr/>															
10th (n = 39)					11th (n = 38)					12th (n = 40)					
<hr/>					<hr/>					<hr/>					
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
Q1	7	31	1	0	0	9	29	0	0	0	10	30	0	0	0
Q2	5	33	1	0	0	6	30	2	0	0	8	31	1	0	0
Q3	3	32	4	0	0	5	33	0	0	0	7	31	2	0	0
Q4	4	34	1	0	0	4	20	14	0	0	3	24	12	1	0
Q5	2	24	13	0	0	4	34	0	0	0	4	26	10	0	0
Q6	3	26	9	1	0	1	30	7	0	0	3	31	5	1	0
Q7	1	31	7	0	0	3	28	6	1	0	1	17	16	3	3
Q8	3	33	3	0	0	0	23	13	2	0	5	34	0	1	0
Q9	3	32	4	0	0	1	29	6	2	0	3	27	8	2	0
Q10	2	23	14	0	0	0	25	11	2	0	4	30	5	1	0
Q11	0	32	7	0	0	2	28	5	3	0	4	26	7	2	1
Q12	3	28	8	0	0	0	19	13	6	0	3	28	9	0	0
Q13	1	21	16	1	0	0	15	17	5	1	5	33	1	1	0
Q14	1	19	13	4	2	4	32	2	0	0	4	30	5	1	0
Q15	1	29	7	2	0	2	32	4	0	0	1	33	5	1	0
<hr/>															
13th (n = 38)					14th (n = 39)										
<hr/>					<hr/>					<hr/>					
	5	4	3	2	1	5	4	3	2	1					
Q1	9	28	1	0	0	11	28	0	0	0					
Q2	5	29	4	0	0	6	29	4	0	0					
Q3	4	33	1	0	0	3	28	8	0	0					
Q4	1	30	7	0	0	2	34	3	0	0					
Q5	3	27	8	0	0	1	33	5	0	0					
Q6	2	31	4	0	1	1	29	9	0	0					
Q7	4	29	5	0	0	3	32	4	0	0					
Q8	4	21	13	0	0	0	32	7	0	0					
Q9	1	26	8	3	0	1	27	11	0	0					
Q10	3	21	13	1	0	1	17	18	2	1					
Q11	0	16	17	4	1	1	29	9	0	0					
Q12	4	27	7	0	0	2	29	7	1	0					
Q13	1	16	12	6	3	0	31	8	0	0					
Q14	2	21	9	4	2	1	21	15	2	0					
Q15	3	34	0	1	0	2	33	3	0	0					

Note: Number of participants varied in each session due to participants' absence.

5: I answered and I don't mind sharing it with class

4: I was able to answer (in a sentence)

3: I understood a little (with words or phrases)

2: I could not answer

1: I don't understand teacher's question

Appendix L

Comparison between the Author’s Evaluation and Participants’ Self-evaluation on Questions

	1 st (Q12)		2 nd (Q11)		3 rd (Q13)		4 th (Q11)		5 th (Q14)		6 th (Q11)		7 th (Q13)		8 th (Q14)		10 th (Q13)	
	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P
5	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	1	0	1
4	29	29	27	20	34	27	27	16	31	28	31	22	31	22	27	18	28	21
3	5	6	2	15	0	7	6	18	0	7	4	14	2	10	7	15	8	16
2	0	1	0	2	0	1	0	3	0	4	0	1	0	1	0	2	0	1
1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Mean	3.9	3.6	3.9	3.5	4	3.7	3.8	3.4	4	3.6	3.9	3.6	3.9	3.8	3.8	3.4	3.8	3.6
Min	3	1	3	2	4	2	3	2	4	2	3	2	3	2	3	1	3	2
Max	4	4	4	4	4	4	4	4	4	4	4	5	4	5	4	5	4	5
Median	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4
Mode	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4

Note: A = Author’s evaluation by checking participants’ written answers.

P = Participants’ self-evaluation.

5: I answered and I don’t mind sharing it with class

4: I was able to answer (in a sentence)

3: I understood a little (with words or phrases)

2: I could not answer

1: I don’t understand teacher’s question

The author did not make participants write answers in 9th and 11th-14th session.

Appendix M

Reasons Why Participants Did Not Like Being Asked Questions in Front of Peers in Class

Reasons	Pre-questionnaire			Post-questionnaire		
	I-QM (n = 24)	T-S (n =24)	Total	I-QM (n =31)	T-S (n =27)	Total
I'm not confident in my answers	10	16	26	21	13	34
I'm not confident in my pronunciation	5	6	11	5	5	10
I'm worried about making mistakes	15	11	26	17	14	31
I feel shy	3	6	9	6	4	10
I feel tense	9	6	15	12	6	18
My classmates are watching me	1	1	2	0	0	0
Others	3	2	5	1	0	2

Note: Only those participants who answered “I don’t like being asked questions in front of peers in class” gave reasons for that answer. More participants answered this question in the post-questionnaire because they could not choose “neither like nor dislike” in the post-questionnaire, which existed in the pre-questionnaire.

Appendix N

The Reasons Why “Listening to the Teacher’s English during I-QM Exercise” Was
Good Practice for My Listening Ability” (n =33)

Reasons	No. of respondents and percent
I concentrated on answering questions	23 (69.7%)
I had to fill in the feedback card	5 (15.0%)
Other students were also working hard	1 (3.0%)
The classroom was quiet	2 (6.1%)
The teacher’s English suited my level	3 (9.1%)
Other reasons	2 (6.1%)