

## The Role of L1 in Facilitating L2 Production

Yoshie Ochi  
(Ehime University)

*This study argues for use of learners' first language (L1) to facilitate learners' second language (L2) output in the classroom by students through Interpreting Training Methods (ITM). The activity of producing the target language may raise learners' consciousness and improve performance on the target language. In particular, the positive use of L1 through ITM may bring to their attention what they need to do to enable successful L2 output and also lower learning anxiety to increase their motivation for L2 output. To test student performance in the target language and investigate the effectiveness of ITM in English education, thirty-three Japanese high school students participated in this research project through output task activities and follow-up interviews. The result shows that L1 task comprehension seems to facilitate L2 output removing learning anxiety that often arises when students try to communicate in the L2.*

### 1. Introduction

There have been many pedagogic approaches to English as Second Language (ESL) which discourage students from use of their first language in the classroom, such as the Natural Approach (Krashen & Terrell, 1983), the Direct Method (Cook, 1999) and the Total Physical Response approach (Asher, 1977). The basic assumption is that more language acquisition will take place if learners do not depend on their L1, or if they do not translate (Ellis, 1984). However, Japan has a long tradition of foreign language learning called *yakudoku*, a teaching method in which English is translated into Japanese word by word. However, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) (2003) issued an *Action Plan to Cultivate "Japanese with English Abilities"* proposing that, in order to improve English classes, teachers should conduct classes "principally" in English and introduce many activities where students can communicate with each other in English. Since that time, many English teachers have felt guilty using L1, admitting the importance of using the L2 exclusively in class. But, while recognizing the importance of teaching English for communication proposed by MEXT,

---

OCHI Yoshie, "The Role of L1 in Facilitating L2 Production," *Interpreting and Translation Studies*, No.9, pages 123-140. © by the Japan Association for Interpreting and Translation Studies.

English teachers still feel the need to primarily conduct non-communicative activities for grammar-oriented entrance examinations for university.

By using the *Interpreting Training Method* (ITM) I have made a breakthrough for the dilemma of grammar-teaching and communicative language teaching. These methods I use in the class include *quick response practice, shadowing, summarization, and sight translation*. *Quick-response practice* is one of the methods used by professional interpreters who have to acquire technical terms in a short period of time. In the class, students listen to Japanese words or phrases and say the corresponding expressions in English on the spot and vice versa using Japanese as the medium immediately after listening. *Shadowing* is immediate verbatim repetition of the input in the same language. *Summarization* is to give a brief statement of what the students learned in English. *Sight translation* is a special type of simultaneous interpreting, which is the rendition of a written text at sight. In the class, this method is used to put English passages into Japanese and Japanese into English verbally, sense group by sense group. In Ochi (2005), it is said:

The major aim of my practice is to enhance students' ability in the acquisition of listening, speaking, reading, and writing skills through the methods. A two-year implementation proved that there are a lot of benefits, bringing energy, vitality, changes, interaction and concentration into the classroom activities. (p.203)

It is learned that through my trial use of ITM mentioned above in senior high school English classes, L1 plays an important role in making sense of the meaning of the text students are learning, raising consciousness, organizing the ideas they are going to speak about in L2, retaining what they have learned, and decreasing learning anxiety. According to Gardner and MacIntyre (1993), learning anxiety is the unpleasant feeling that occurs when the learner is supposed to perform in a second or foreign language. In addition, these methods provide students with many opportunities to achieve target language production using pair-work activities. Currently, few studies explore the multifaceted role that L1 plays in L2 output in secondary school in Japan. Due to the fact that current literature discussing L1 use to facilitate L2 output does not address the use of ITM, the present paper will investigate the efficacy of employing ITM through L1 to enhance L2 input.

The research questions to be investigated in this paper are the following:

1. Does the use of learners' L1 remove learning anxiety and result in improved output in L2?

## 2. How does L1 enhance the L2 oral output process?

The goal of my research is to examine what roles interpreting training methods play on L2 output in the English class. My project intends to do so by comparing the English output of students making use of L1 compared to those who do not.

### **2. Review of Literature**

The five main areas of literature related to my project that are worth review are: the use of learners' and teachers' L1 for L2 output, learning anxiety, the study of human memory, *yakudoku* method, and output theories.

#### **2.1 The Use of Learners' and Teachers' L1 for L2 Output**

Many research efforts have been directed toward the issue of using the L1 in foreign language learning over a few decades. Previous researchers found benefits in using the students' L1 (Cook, 2001; Hosoda, 2000; Liu et al., 2004). According to their claims, the major benefits of using L1 in class are: facilitating learning and communication and enhancing the affective environment and the motivation for learning. Considering the goal of SLA, teachers can utilize the L1 as a tool or necessary scaffolding which is gradually removed over time, a time-efficient strategy and effective with students whose L2 proficiency is low (Liu et al., 2004), and as a bridge between the L1 and the L2, providing a more comprehensible and comfortable learning environment (Auerbach, 1993).

In addition, Cook (1997) referred to the two languages in which the L2 meanings do not exist separately from the L1 meanings in the learner's mind. Auerbach (1993) reexamined the policy of English only in the ESL classroom, and suggested that teachers were able to use L1 as a bridge between the L1 and the L2, providing a more comprehensible and comfortable learning environment. Cole (1998) questioned whether or not to use students' first language (L1) in foreign language classes, a relevant issue in culturally homogeneous environments such as Japan, where the majority is monolingual. He suggested that a teacher's skills would develop with regular consideration of when and how to use L1.

#### **2.2 Learning Anxiety**

According to Gardner and MacIntyre (1993), learning anxiety is the unpleasant feeling that occurs when a learner is supposed to perform in a second or foreign language. Oxford (1999) states, "harmful anxiety can be related to plummeting motivation, negative attitudes and beliefs, and language performance difficulties" (p.60). Therefore, it is essential that we consider the role of anxiety in order to create a successful learning setting.

Another factor which negatively correlates with anxiety is self-esteem, which is “based on feelings of efficacy, a sense of interacting effectively with one’s own environment” (Oxford, 1999 p.62). She also lists lack of tolerance of ambiguity as a factor that correlates with anxiety. Moreover, Dörnyei (2001) states “people with a low sense of self-efficacy in a given domain perceive difficult tasks as personal threats; they dwell on their own personal deficiencies and the obstacles they encounter rather than concentrating on how to perform the task successfully” (p.87).

It is essential to remove affective barriers and decrease anxiety that could negatively impact on students’ motivation. In addition, eliminating ambiguity has an influence on enabling students to communicate orally in their L2; they may or may not be ready to do this willingly depending on how much they can tolerate feelings of ambiguousness that arise with negotiating for meaning in communication.

### **2.3 *Yakudoku* Method**

In Japan, the L2-only approach has not necessarily been mainstream in the EFL context. Japan has a long tradition of foreign language learning through a method called *yakudoku*. In this method, English is translated into Japanese word by word, and the resulting translation is reordered to match Japanese word order, which is often identified with the goal of studying English itself. This method, however, has been criticized for several reasons. First, Hino (1987) observed that Japanese students of English tend to use the word “yakusu” (translate) synonymously with “yomu” (read), which suggests that yakusu may even be the goal of reading a foreign language itself. Second, the method has adverse effects on the four language skills – reading, listening, speaking, and writing. It has been said that students who have been trained only in *yakudoku* tend not to speak and listen to English well, no matter how long they study English through this method. Third, this habit limits the speed at which the student reads. For these reasons, *yakudoku* practices definitely lack opportunities for students to practice L2 output. If L1 can facilitate comprehension (Auerbach, 1993), then, we can promote L2 output, improve speed of comprehension, and raise listening ability, making use of the L1.

### **2.4 The Study of Human Memory**

In the field of Psycholinguistics and Cognitive Psychology, researchers have identified five basic memory stages: acquisition, registration, storage, access, and transfer (Baddeley, 1997). The process of acquisition consists of exposure to the stimulus and selective intake and is also highly dependent upon exposure and experience (Baddeley, 1997). It is likely that one of the interpreting training methods, quick-response practice, is based on the former strategy, and makes use of the strategy positively. And, sight translation has something to do with both in that

the student is exposed to L2 or L1 input and makes oral output in L2 or L1.

For information to be stored effectively into long-term memory, Robinson (1995) argues that the processing of information to the long-term memory from working memory involves encoding that is dependent upon additional processes known as rehearsal. He identifies two types of rehearsal: a data-driven process known as maintenance rehearsal, and a conceptually driven process known as elaborative rehearsal. The former one converts oral input into phonological form through the phonological loop and leads to long-term memory (Baddeley, 1997). Robinson (1995) found that the latter one, on the other hand, involves a non-automatic learning process and establishes connections between the information in short-term memory and long-term memory. What has been noticed while teaching through interpreting training methods is these methods are reasonable ways of making use of these two types of rehearsal.

## 2.5 Output Theories

These language processes and the practice of making utterances of the target language in the interpreting process are consistent with the claim made by Swain (1985) that what students need is not only comprehensible input, but also comprehensible output in L2 if they are to be both fluent and accurate in the target language.

Since the Output Hypothesis was first proposed, Swain (1993, 1995) has extended the scope and identified the following three functions of output. First, output has a hypothesis-testing function. Producing output is potentially a way of testing one's hypothesis about the target language. Second, output may have a metalinguistic function. It is claimed that "as learners reflect upon their own target language use, their output serves a metalinguistic function, enabling them to control and internalize linguistic knowledge" (Swain, 1995, p. 126). That is to say, output may require the learner to engage in more syntactic processing than comprehensible input. Finally, output may serve a "noticing/triggering" function.

The methods previously discussed do have an impact on facilitating learning and communication and enhancing the affective environment and the motivation for learning. They can fill the pedagogic void created by dependence on traditional *yakudoku* methods and make sense of the output-hypothesis. If L1 can facilitate comprehension (Auerbach, 1993), then, we can promote L2 output, improve the speed of comprehension, and raise the listening ability, making use of the L1. As will be shown with this study, the effect on output in English using L1 needs to be studied fully in order to better understand issues involving learners' cognitive processes.

## 3. Research Hypothesis

For this study, the two research questions mentioned before have been formulated as three

research hypotheses:

#### Hypothesis 1

The experimental group in this study, which is allowed to make use of learner's L1, would be more successful at organizing L1 written input (Appendix A), into L2 oral output than the control group, which is not allowed to use their L1.

#### Hypothesis 2

The experimental group would retain and organize the information they are supposed to convey through L2 output better than the control group.

#### Hypothesis 3

The experimental group would show more facility with use of expressions than the control group in the use of the target form on L2 output through the lowering of learning anxiety and the increased familiarity with the expectations of the task at hand.

### **4. The Study**

#### **4.1 Method**

##### **4.1.1 Setting and Participants**

The subjects of the study were first year students at a private girls' high school. They learned English through ITM (See p. 124) for about ten months from mid-April in 2006 to the end of February in 2007. The study was conducted at the end of January. The participants were 33 Japanese first-year female students of high school who were in my reading class. The students in the class were divided into two groups according to the results of the final term exams of the high school, which were mainly English reading comprehension tests designed by the author. The group's average English score were almost equal at the start of the study. The participants were assigned to an experimental group with 17 participants (EG, n=17) who were given an English passage and Japanese translation of a passage to be used for the project, and a control group with 18 participants (CG, n=18) who were given only an English version of the passage.

Based on their term examination scores, the subjects of each group were assigned to high and low reading ability groups. Students with the scores over 65% were assigned to the higher group, and those under 65% are assigned to the lower group.

##### **4.1.2 Survey Instrument**

In order to investigate what roles ITM plays on L2 output and the role that L1 plays in helping learners promote output in L2, I compared L2 output amongst an experimental group that used

an English passage (Appendix A), which was taken from the *Eiken* third level writing test and Japanese translation of the passage, and a control group with only an English passage. The *Eiken* test is a standardized English proficiency test commonly administered in Japan. And, the third level of *Eiken* is the level of a junior high school graduate. The topic of the passage is about an interesting festival in Italy called the Battle of the Oranges.

To measure the quality of information the participants conveyed and its accuracy for measuring L2 output, the scale used was based on the public version of IELTS (Hughes, 2002, p. 87) on the International English Language Testing System. Based on the objective of this research, the category of ‘Grammatical accuracy’ (Scored 1 to 8) was used (see Table 1). The total number of important items that the students needed to carry is 16. For example, the first item was that “a town in Italy has a festival,” or some variant. Points given are the following: one (1—2 items), two (3—4 items), three (5—6 items), four (7—8 items), five (9—10 items), six (11—12 items), seven (13—14 items), and eight (15—16 items). The maximum score of the test was 16 points.

TABLE 1 Scale Used to Measure Accuracy

<b>Grammatical accuracy (Score 1 to 8 points)</b>	<b>Points</b>
Few grammatical inaccuracies; occasional imperfect control or avoidance of difficult patterns.	8
Some inaccuracy, but developing control of major patterns, though often unable to sustain coherence in longer or complex speech.	6
Syntax is fragmented with frequent inaccuracies. Basic sentence patterns may be evident, but delivered in telegraph style with some confusion evident.	4
Almost all grammatical patterns inaccurate, except for a few short, stock phrases.	2

### 4.1.3 Procedures

The data was collected from all the students of my reading class at the end of January in 2007 after school individually and consisted of the following two analyses: recording of student output in L2, and an output task interview. The experimental group was given a Japanese translation of the passage and allowed to refer to the Japanese translation while reading the passage. Then, after eight minutes, the passage was taken away, and they were told to report orally everything they could remember from the passage in English. The control group simply read the passage for eight minutes and reported orally in English what they read in English. Immediately after finishing the task, each participant was called upon for a retrospective interview for approximately 10 minutes in Japanese. The student output in English and interviews in Japanese were tape-recorded and transcribed, and all reported instances of output in English were tabulated. From the transcriptions, the number of content items conveyed were counted, and the accuracy of their output was assessed.

Interviews in Japanese were also tabulated. The interviews include three questions 1) what procedures they used to comprehend and organize the story 2) how they retained the story 3) what the most difficult and the easiest part of the task was. To estimate the relative degree to which Japanese support was associated with output in English, the investigator examined the transcripts, scored them, and coded the follow-up interviews by discerning what specific examples of language learning anxieties were experienced by the participants.

## 4.2 Results

### 4.2.1 Frequency of English output with accuracy

The English output was measured using the IELTS scale, and the number of items of content participants produced orally, previously explained in the data analysis section. One example from each group and the points they received are shown in Table 2.

TABLE 2 Example of L2 Output – Display of Various Ratings Given

<b>Group</b>	<b>Level</b>	<b>English Output</b>
	<b>Accuracy</b>	
	<b>Items</b>	
	<b>(Total)</b>	

EG	High	<p>There are... there is a special festival in a little town of Ivrea in Italy. There are many parties and parades. And people make special food, too. At last three days they have a battle of oranges. They threw oranges at each other.</p> <p>In the little town people start this battle to remember the battle that happened 800 years ago. A ruler of the town was a very bad man then. So people of this town decided to fight him. People only had stones to throw at him and his soldiers. They fought hard and won. Now the battle of oranges is only for fun but they enjoy it. Every year a lot of visitors come to see this battle and some even join a team of battle of oranges. If they don't want to throw oranges, they have to wear a special red hats. After festival people in town have to clean up the town, but they enjoy it.</p>
	7 7 (14/16)	
	Low	<p>Every year a little town in Italy has a interesting festival. They are party and eat special food. The town is called Ivrea. “うー、えーと” (Um, well.)</p> <p>People, people, people is proud of this festival.</p>
	4 2 (6/16)	
CG	High	<p>The Ivrea is an Italian town. They have very interesting festival named ‘Festival of Ivrea’. Most interesting part is battle of orange. They throw the oranges each other in the street. They start this festival 800 years ago. In 1194, this time ruler was very bad man. One day people of Ivrea decided to fight with to him. They had only stone. They fought hard and they got the win. Now battle is only fun, they only threw oranges. Many people comes this town to see this festival through all over the world. After festival garbage in the street, and they clean up this. They proud this festival and enjoy this festival.</p>
	6 7 (13/16)	
	Low	<p>Every year little town in Italy has a interesting festival called.... Town is called Ivrea. Its festival is called the battle of oranges. “もうわかりません” (I can not do any more.)</p>
	4 1 (5/16)	

\*EG: experimental group      \*CG: control group

Table 3 below reports the raw totals of the scores of four subgroups. The experimental group was given a Japanese translation of the passage and allowed to refer to the Japanese translation while reading the passage. The control group simply read the passage for eight minutes and reported orally in English what they read in English. Both groups were divided into high and low ability groups. Table 3 represents the raw scores, the mean, the standard deviation

(SD), and the range of marks for each group.

TABLE 3 Raw Scores of Each Student out of the Four Subgroups

	<b>EG (High)</b> <b>(n=8)</b>	<b>CG (High)</b> <b>(n=8)</b>	<b>EG (Low)</b> <b>(n=9)</b>	<b>CG (low)</b> <b>(n=8)</b>
	9	8	9	7
	15	11	7	11
	8	12	7	5
	12	13	6	2
	9	10	8	4
	11	8	4	4
	9	7	7	3
	8	6	7	2
			6	
Mean	10.125	9.375	6.777	4.750
SD	2.416	2.504	1.394	2.964
Range	8-15	6-13	4-9	2-11

EG: experimental group      CG: control group      (mark range : 0-16)

The Cohen's d was used to assess if there were significant differences of mean scores of each group. The results are shown in Table 4.

TABLE 4 Cohen's d results-Four Subgroups

Group	N	M	SD	d-value	Effect size
EG (HI).	8	10.125	2.416	0.30	0.15
CG(HI)	8	9.375	2.504		
EG(LO)	9	6.777	1.394	0.88	0.40
CG(LO)	8	4.750	2.964		

Note: Cohen's d was used

EG: experimental group      CG: control group      (mark range : 0-16)

The mean of performance of the EG was higher than that of CG. I found results of 0.30 for the

high learners, which shows a modest effect. As for the low learners, results were 0.88, a strong effect. The difference was statistically significant for the low group students. As can be seen in Table 4, both high ability groups were found to be almost identical in both the means and SD. As for the result of low ability groups, the superiority of the EG mean score over CG mean score would lead us to speculate that the scaffolding by L1 promotes the L2 output especially for the students whose L2 ability is low. This suggests that the outcome is consistent with what Cook (2001), Hosoda (2000), and Liu et al. (2004) claim, which is the major benefits of using L1 in class are: facilitating learning and communication, and enhancing the affective environment and the motivation for learning. Teachers can utilize the L1 as a tool or necessary scaffolding gradually removed over time, a time-efficient strategy and effective with students whose L2 proficiency is low (Liu et al., 2004), and as a bridge between the L1 and the L2, providing a more comprehensible and comfortable learning environment (Auerbach, 1993). However, because of the small sample size of the study, the validity of this speculation should be examined empirically in a more detailed fashion in future research.

#### **4.2.2 The role of L1 for L2 output: Qualitative Results**

The qualitative results from participants' comments in the interviews showed that the primary functional benefit of L1 use is that it facilitated semantic processing. One participant (low CG) remarked, "I can understand the passage to some extent, but my comprehension is too vague to make L2 output." Another participant (low EG) stated, "when I tried to understand the passage referring to L1, it became clear enough to make L2 output." A third participant (low CG) stated, "I did not understand until I translated and thought about the sentence in Japanese, then it became clear. Then I tried to memorize the story in English. It took time to do two processes so I lost my concentration to make L2 output." Still another learner (high CG) said, "Even though I am totally familiar with all the words except the name of the town and I could have read it in English, I was not able to retain the gist well or express it well in English." Other learner (low EG) stated, "Japanese helped me to concentrate long enough for meaning to be internalize and get the gist better so I managed to make L2 output using another expressions I know."

It is important to note in these comments that L1 appears to serve as a means of maintaining concentration long enough for getting ready for the oral recall task. The participants' comments explain temporary storage inefficiency in their L2 as Service (1989) claims that the length of phonologically encoded word strings able to be retained in working memory may be reduced in a second language context. The use of Japanese, therefore, may reduce the load placed on cognitive resources. Such an outcome would explain comments such as "it was too long a sentence for me to retain the story in English."

It is observed that when participants found the words they were not able to pronounce

during the oral recall task, their function of comprehension seemed to stop and make it difficult to start getting ready for the English output. For example, many students seemed to have stopped their operations when they found it difficult to pronounce the name of a little town ‘Ivrea.’ This indicates that the words participants cannot pronounce hamper their retention and result in poor output.

#### 4.2.3 The role of L1 for L2 output: The Procedures and Learning Anxiety

How did participants comprehend and organize the story, removing learning anxiety? While comprehending and organizing the story for L2 oral output, the five principal factors of learning anxiety identified through the analysis were *nervousness*, *forgetting*, *vagueness*, *time constraints*, and *loss of concentration*. Table 5 summarizes subjects’ comments about learning anxieties that they felt during the performance.

TFABLE 5 Reported Learning Anxieties from the Four Subgroups

<b>Learning Anxiety</b>	<b>EG (High) (n=8)</b>	<b>CG (High) (n=8)</b>	<b>EG (Low) (n=9)</b>	<b>CG (low) (n=8)</b>
Nervousness	2 (25%)	6 (75%)	5 (56%)	7 (88%)
Forgetting	4 (50%)	6 (75%)	5 (56%)	7 (88%)
Vagueness	0 ( 0%)	6 (75%)	2 (22%)	7 (88%)
Time constraints	3 (38%)	5 (63%)	5 (56%)	7 (88%)
Loss of concentration	1 (13%)	1 (13%)	0 ( 0%)	3 (38%)

The comments by the high ability EG were divided into two types. One type reported that they made use of L1 scaffolding to comprehend and organize the story they wanted to make through L2 output and felt no learning anxieties. For example, one student said, “It was too long for me to remember in English. Japanese helped me retain the gist of the story so that I was able to use another expression I knew when I forgot English expressions, while another student reported, “With the support of Japanese, I was able to remember English efficiently.” This type accounts for 50% among the EG high ability group. On the other hand, another stated, “The passage itself was easy enough to read in English and remember in English without L1 scaffolding though I made English output while thinking in Japanese.” Another participant who didn’t support L1 scaffolding said, “Sometimes Japanese disturbed me as I concentrated on memorizing just in English although I need Japanese.” Another student who has a high ability of reading comprehension reported, “It’s rather efficient to memorize in English because the passage was not so difficult. But I used Japanese to remember the story.” Still another

participant stated, “Though L1 helped me remember the story, it took too long to read Japanese, so I didn’t have enough time to practice expressing in English.”

The high ability CG made different comments. All the participants agreed that Japanese scaffolding is necessary to produce L2 output. For example, some participants said, “I tried to retain the story just in English but couldn’t retain the flow of the story in English. This is an example of forgetting and vagueness. With the help of Japanese, I could have built up the paragraph.” Another participant reported, “I can’t figure out another way to say because of the vagueness. I tried to translate the passage into Japanese, and then I got ready for the English output based on my L1 comprehension.” Six out of eight students reported that they were afraid of forgetting the story and felt insecure because of their vague comprehension. As a result they became nervous and had no confidence in their L2 oral output.

Both of the low ability groups reported more learning anxiety than those of the high ability groups. Both low ability groups made comments in a similar way. All the students except one (89%) reported that L1 scaffolding was very helpful to reduce the insecurity and gained confidence to make L2 output. Their comments showed that Japanese was imperative to comprehend and remember the story. One student said, “I just can do word level memorization, but it was difficult to remember the sentences.” Another said, “It is impossible to make English output without Japanese. Japanese helped me to reduce the insecurity that I feel when reading in English.” Several participants had similar comments, saying, “I was not able to grasp the flow of the story in English.” Another who used L1 and L2 separately said, “At first I had to understand the passage, and tried to memorize in English. Eight minutes was not enough.” This is an example of time constraints.

Seven out of eight participants from the low ability CG reported they became painfully nervous when they found unfamiliar words and structures and were not able to understand the meaning of the sentences. They felt uncertainty and lost their concentration, and therefore started to feel time constraints. On the other hand, all the low ability EG who are allowed to facilitate their L1 said when they were unable to comprehend a passage, they would often go back and check the meaning in L1 which gave them a little more confidence to communicate in their L2. Yet, they were afraid of forgetting the story.

These comments illustrate how the participants optimize their short-term retention by using their L1. Their L1 may allow the participants to establish a mental scratch pad where meanings can be assembled in the L1. The learners also have greater confidence for the oral recall task by making the input more friendly and familiar. Their L1 seems to facilitate comprehension to remove learning anxiety that often arise in reading the L2. Thus, L1 scaffolding may offer an affective boost to some students, who try to make L2 oral output.

## 5. Discussion

To summarize the major findings of this study in terms of the research questions set at the outset, the research question argued that learners' L1 removes learning anxiety and results in improved performance on the output in L2. This question was partially answered. The way in which L1 seems to facilitate the output in L2 is to remove learning anxiety that often arises when students try to make L2 oral output. By making the input more familiar, the participants have greater confidence in their ability to comprehend and make output in L2. The low ability experimental group participants were able to make better output in L2 in their immediately subsequent production than that of the low control group. This suggests that from their output, their input was converted into easier and more familiar expressions, enhancing the participants' confidence in their English output. For example, one student used the expression "there was a bad ruler," instead of the expression of the passage "the ruler of the town was a very bad man." It, however, appears that the more advanced a participant was in the target language, the less facilitated their output was by their L1 scaffolding. It suggests a developmental trend where learners rely less on L1 scaffolding as they become familiar with the target language. So, for these types of participants it could be valuable to remove the L1 scaffolding for that level of comprehension.

From the research, in terms of temporary storage in working memory, some of the comments the students made show that L2 words are rehearsed less efficiently than L1 words (Cook, 1986). As far as this research is concerned, two factors contribute to storage inefficiency in L2 output. First, inexperienced L2 learners may have difficulty comprehending and understanding semantic clusters. As a result, they may translate word-by-word and just store words in working memory, which places a burden on memory capacity, producing poor output. Second, Japanese scaffolding may allow the learner to establish a mental scratch pad, where phrase-level and discourse-level meaning can be retained. This would explain comments such as "Japanese helped me retain the gist of the story so that I was able to use other expressions I knew when I forgot English expressions," and "With the support of Japanese, I was able to remember English efficiently."

The findings of this study lead to several implications for L2 instruction. First, as this study provides some evidence that Japanese learners use Japanese scaffolding to successfully store and increase L2 output, language teachers might be encouraged to look favorably upon L1 as an effective tool. Learners particularly at lower levels of English competence might be advised to use L1 to grasp the gist of stories, to clarify vocabulary and grammatical rules, and to convert the input into a more familiar form. Second, though this study does not aim at advocating Japanese use as an absolutely effective method, the finding of this study partially supports the greater comprehension in learners' L1 than in learners' L2. If teachers could provide students with opportunities to keep L2 in their minds and use L2 as much as possible,

L1 comprehension checks through ITM might accelerate learners' second language learning. Finally, choosing teaching material should be considered based on two points. One is the material aiming at L2 output should be appropriate for the students according to their vocabulary knowledge.

There are limitations with this study. One limitation is that the difficulty of the text can have an effect on the extent to which L1 is used and benefited from. The passage was taken from *Eiken* third level writing test, which is the level of junior high school graduate. So I expected that the participants had no difficulty reproducing the content in L2. The result was rather different. Just recognizing contents is one thing and expressing another. Perhaps variation in difficulty of the passage would prompt a different output result. Another limitation is the small sample size of the study. The generality of the results from this study is distorted by the small sample size, and more focused studies are needed to support the claims made here. The other limitation is that there was no investigation of how well the students read in their native language, Japanese. It could be argued that the students who have difficulty keeping the main idea in their minds in their native language would be those who have difficulty in producing output in target language.

## 6. Conclusion

The purpose of this study was to investigate the effect of output in English through interpreting training methods, focusing on Japanese scaffolding for L2 output. Two research questions were posed: 1) Does learners' L1 remove learning anxiety and result in improved performance on the output in L2? 2) How does L1 enhance the L2 oral output process? I have investigated whether use of learners' L1 removes learning anxiety and whether L1 enhances the L2 oral output process. I have found that the difference between experimental and control groups in terms of assessment was not significant, but that both higher and lower ability subgroups in the experimental group reported less learning anxieties than the control group.

Several conclusions can be drawn from this study. The students' use of the L1 in foreign language learning played an important role in facilitating output in L2, and enhancing the affective environment and the motivation for speaking in L2. Considering the goal of SLA, both teachers and students can utilize the L1 as a tool or necessary scaffolding for consolidating meaning and retaining contextual information. For the students whose L2 proficiency is low, the L1 use in foreign language learning is effective and a time-efficient strategy. As Auerbach (1993) indicates, the students' L1 use can be a bridge between the L1 and the L2, providing a more comprehensible and comfortable learning environment.

Considering the role the native language plays in L2 output is a significant objective in the development of a theory of L2 output. It is hoped that further research exploring the assorted

ways in which L1 has an influence on L2 output process through interpreting training methods will shed light on the questions raised in this study.

.....

#### 【著者紹介】

越智美江 (OCHI Yoshie) 愛媛大学非常勤講師、聖カタリナ女子高等学校教諭。コロンビア大学大学院 (英語教育学) 修了。研究領域は「英語教育」、「通訳教育」、「自律学習」、「認知言語学」など。著作には『TOEIC150 点アップを目指す通訳訓練法』2009 年大阪教育図書、「Autonomous learning through interpreting training method and extensive reading during asadoku」『JALT LD forum』(2006) などがある。連絡先 : yoshieochi@hotmail.com

#### References

- Asher, J. (1977). *Learning another language through actions: The complete teacher's guidebook*. Los Gatos, CA: Sky Oaks Production.
- Auerbach, E.R. (1993). Reexamining English only in the ESL classroom. *TESOL Quarterly*, 27(1), 9-32.
- Baddeley, A. D. (1986). *Working memory*. Oxford: Oxford University Press.
- Baddeley, A. D. (1997). *Human memory: Theory and practice* (Rev. ed.). Hove: Psychology Press.
- Cole, S. (1998). The use of L1 in communicative English classrooms. *The Language Teacher*, 22(12), 11-13.
- Cook, V. J. (1986). Do second language learners have a cognitive deficit? In V. Cook (Ed.), *Experimental approaches to second language learning* (pp. 73-79). Oxford: Pergamon Press.
- Cook, V. J. (1997). The consequences of bilingualism for cognitive processing. In A. de Groot & J. F. Kroll (Eds.), *Tutorials in bilingualism: Psycholinguistic perspectives* (pp. 279-299) Hillsdale, NJ: Lawrence Erlbaum.
- Cook, V. J. (1999). Going beyond the native speaker in language teaching. *TESOL Quarterly*, 33, 185-209.
- Cook, V. J. (2001). Using the first language in the classroom. *The Canadian Modern Language Review/La Revue Canadienne des Langues Vivantes*, 57 (3), 403-420.
- Dörnyei, Z. (2001). *Motivational Strategies in the Language Classroom*. Cambridge: Cambridge University Press.
- Ellis, R. (1984). *Classroom second language development*. Oxford: Pergamon Press.
- Gardner, R. C., & MacIntyre, P. D. (1993). On the measurement of affective variables in second language learning. *Language Learning*, 43, 157-194.
- Hino, N. (1987). *TOEFL de 650-ten: Watashi no eigoshugyou*. [TOEFL at 650 points: My English

- training]. Tokyo: Nanundo.
- Hosoda, Y. (2000). Teacher codeswitching in the EFL classroom. *JALT Journal*, 22(1), 69-93.
- Hughes, R. (2002). Teaching and researching speaking. London: Longman.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon Press.
- Krashen, S., & Terrell, T. (1983). *The natural approach: Language acquisition in the classroom*. San Francisco, CA: The Alemany Press.
- Liu, D., Ahn, G., Baek, K., & Han, N. (2004). South Korean high school English teachers' code switching: Questions and challenges in the drive for maximal use of English in teaching. *TESOL Quarterly*, 38(4), 605-638.
- Ministry of Education, Culture, Sports, Science and Technology. (2003). *An action plan to cultivate "Japanese with English abilities"*. Retrieved December 17, 2006, from <[http://www.mext.go.jp/b\\_menu/houdou/15/03/03033101/001.pdf](http://www.mext.go.jp/b_menu/houdou/15/03/03033101/001.pdf)>
- Ochi, Y. (2005). Koukou ni okeru tuyakukunrennhou wo toriireta genngokyouiku no kouka to tenbou [The effectiveness and the prospect of interpreting training methods in high school]. *The Journal of the Japan Association for Interpretation Studies*, 5, 203-224.
- Oxford, R. (1999). Anxiety and the language learner: New insights. In J. Arnold (Ed.), *Affect in language learning* (pp.58-67). Cambridge: Cambridge University Press.
- Robinson, P. (1995). Attention, memory and the "noticing" hypothesis. *Language Learning*, 45, 283-331.
- Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3-32). Cambridge: Cambridge University Press.
- Service, E. (1989). *Phonological coding in working memory and foreign language learning*. Unpublished doctoral dissertation, University of Helsinki.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235-253). Rowley, MA: Newbury House.
- Swain, M. (1993). The output hypothesis: Just speaking and writing aren't enough. *The Canadian Modern Language Review*, 50, 158-164.
- Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principle and practice in applied linguistics* (pp. 125-144). Oxford: Oxford University Press.

## Appendix A

### The Battle of the Oranges

Every year, a little town in Italy has a very interesting festival. The town is called Ivrea, and its festival is called the Carnival of Ivrea. There are many parades and parties, and people make special food, too. But the most exiting part of the festival is the Battle of the Oranges. For the last three days of the festival, teams of people throw oranges at each other in the streets of the town.

People started the Carnival of Ivrea to remember a battle that happened more than 800 years ago. In 1194, the ruler of the town was a very bad man. One day, the people of Ivrea decided to fight him. They only had stones to throw at the ruler and his soldiers, but the people fought hard and won the battle.

Now the battle is just for fun, so people don't throw stones anymore. Many teams take part in the orange battles, and each one has its own special uniform. Some teams ride on carts which are pulled by horses. The others have to walk, and they throw oranges at the teams on the carts. Thousands of visitors come to see the orange battles, and some even join a team. People who only want to watch have to wear special red hats. If they don't, everyone throws oranges at them, too.

After the festival, there are a lot of oranges to clean up. But the people of Ivrea enjoy their festival and are proud of its long and interesting history.