

The Use of Chunk-based Reading in English Language Teaching

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ABSTRACT: This paper discusses the use of translation as a potentially effective way to improve students' reading comprehension. Although the use of translation has been marginalized in the belief that it hinders language acquisition, translation has never ceased to be used in Japanese ELT, but has remained the primary method in it. This study aims to examine the effect of translation, particularly, the effect of the chunk-based reading on reading comprehension, and also find out Japanese students' attitudes towards translation by addressing the two research questions: 1) What are the effects of chunk-based reading on reading comprehension in Japanese ELT?, and 2) What are Japanese students' attitudes towards translation? Despite the mixed results of reading comprehension tests in the first stage of the research process, the results of the surveys on attitudes in the second and the third stages showed that the students felt translation was both effective and necessary, indicating that translation could be a helpful learning strategy for students.

I. INTRODUCTION

Translation has long been used in foreign language teaching around the world including Japan. Japanese English teachers use their native language and translation in class, and translation still occupies an important part in Japanese English language teaching (hereafter, Japanese ELT). Hart said that until very recently, *yakudoku*, which is similar to the grammar-translation method, was the only instructional approach that had been widely used in different school levels throughout Japan (as quoted in Young, 2010, p.19). Nakamura (2009) even said with absolute certainty that no Japanese studying a language only in Japan could master a foreign language without using the process of translation.

On the other hand, the use of translation has often been criticized for being ineffective and outmoded in this age of communicative language teaching. Against the backdrop of this criticism, the Ministry of Education, Culture, Sports, Science and Technology (hereafter, MEXT) issued a new Course of Study (the curriculum guidelines), and stated that teaching in English should be standardized in English classes at senior high schools (MEXT, 2009). However, teachers feel that the Ministry of Education does not understand the real situation at schools and that the new plan would not be feasible (Nakai, 2010). As Yamaguchi (2004) mentioned, the criticism against translation was a fallacy, which resulted from a wrong assumption that translation results in

linguistic interference. It appears that the low proficiency problem is not a simple one, and there are a number of factors behind the failure of Japanese English education, such as the late introduction into the curriculum, insufficient teaching hours, a large number of students in one class, to name just a few. It is wrong to blame all the inefficiency of English education in Japan on translation. Often translation has become an easy target of criticism, and it has been simplistically assumed that it is outmoded and harmful to teach English using it.

At the same time, there has been little research on the effect of translation so far, and there are no academic grounds for disapproving translation. Much more research, both theoretical and teaching practice-based, is needed to find sufficient evidence before the decision is made: to abandon translation as an old-fashioned, useless, and even a harmful strategy or to promote it as an effective learning strategy. In defense of translation, Cook (2010) noted that translation in language teaching had been ostracized in the modern teaching theories, but the reasons for this ostracism were not well-founded, and there had been very little research to back it up. “The rationale for the complete outlawing of translation in many teaching contexts, and its almost complete neglect in theory and research for many decades, cannot claim descent from the academic arguments of the Reform Movement” (Cook, 2010, p.18).

Thus, obviously, more research is required in order to determine the future direction, and this paper undertakes a step in this research. It aims to investigate what effects translation, particularly chunk-based reading (translating chunk by chunk), has on reading comprehension, and considers the possible role that translation can play in Japanese ELT. It also aims to consider the use of translation from learners’ perspectives and beliefs.

It is important to understand learners’ needs and to respond to these needs in order to make EFL instruction more student-centered. The study needs to clarify whether students perceive translation as unnecessary (as MEXT does), or if they consider it a useful strategy.

In order to achieve the above-mentioned purpose of the study, the following research questions have been set:

- 1) What are the effects of chunk-based reading on reading comprehension in Japanese ELT?
- 2) What are Japanese students’ attitudes towards translation?

II. TRANSLATION AS A LANGUAGE STRATEGY

This chapter will try to provide an overview of the available existing evidence on the topic of translation by addressing three areas related to the strategic use of translation in Japanese ELT. Popovic wrote: “If a strong case for translation in the language classroom is to be made, at least three things ought to be demonstrated: criticisms against it are not valid, learners need it, and it promotes their learning” (Popovic, 2001, p.1). In accordance with this idea, the first section

will address research related to the criticisms against translation and their counterarguments. Then, the second section will deal with studies of learners' attitudes towards translation. The final section will discuss Japanese research related to chunk-based reading.

2.1. Criticisms of the use of translation in language teaching pedagogy

There have been criticisms of the use of translation in language classes, but these seem to stem from the traditional Grammar-Translation Method, which focuses on studying grammatical rules through written exercises. The method was criticized because it mainly dealt with the translation of isolated sentences out of context and because the method did not promote listening and speaking skills (Leonardi, 2010). Cook stated that some of the assumed reasons for criticism seem to have been pedagogic (translation is boring and de-motivating), or cognitive (translation hinders the acquisition of language), and others are practical (translation is unnecessary in the real world) (Cook, 2009). Leonardi quoted the objections to the use of translation in language classes from Malmkjaer (as quoted in Leonardi, 2010, p.22) as follows:

- a) Translation is independent of the four skills which define language competence: reading, writing, speaking and listening
- b) Translation is radically different from the four skills
- c) Translation takes up valuable time which could be used to teach these four skills
- d) Translation is unnatural
- e) Translation misleads students into thinking that expressions in two languages correspond one-to-one
- f) Translation prevents students from thinking in the foreign language
- g) Translation produces interference
- h) Translation is a bad test of language skills
- i) Translation is only appropriate for the training of translators

Despite these criticisms, translation has widely been used, especially in classes where students who share one language are taught by the teacher, who knows both their L1 and L2 (Cook, 2009). And in recent years we have seen the reinstatement of translation in language teaching, as Widdowson stated: "Translation has been too long in exile, for all kinds of reasons which have little to do with any considered pedagogic principle. It is time it was given a fair and informed appraisal" (Widdowson, 2003, p.160). Cook (2010) noted that translation in language teaching has been ostracized in 20th century teaching theories, but the reasons for this ostracism are not well-founded, and there was very little research to back it up. Campbell (2002) said that Malmkjaer's criticisms mentioned above are mostly simplistic and that it was the economic and

demographic reasons that augmented the objections to translation.

In response to the above criticisms, some counterarguments could be made in favor of the use of translation in language classes.

- a) Translation is independent of the four skills which define language competence: reading, writing, speaking and listening

The process of translation is a complex one, which involves all of the four skills (Leonardi, 2010), and translation can be used in many different ways in ELT as the fifth skill, along with the four other skills (Naimshin, 2002).

- b) Translation is radically different from the four skills

Translation is a supplementary skill to further strengthen the four skills of reading, writing, listening and speaking, and it should be perceived as a means to improve these skills. It can also be used to test these different skills (Leonardi, 2010).

- c) Translation takes up valuable time which could be used to teach these four skills

It is true that reading by translation takes longer than otherwise, but it is worth the time it takes. When students read without translation, they do not necessarily understand every detail. On the contrary, translation requires complete understanding, thus promoting accuracy. House says translation explains the meaning of foreign language items unambiguously, and that knowledge will be more exact (House, 2009). To develop academic competence, knowledge of linguistic structures is essential and translation can be an effective tool.

- d) Translation is unnatural

Translation naturally and maybe unconsciously occurs in our mind when we learn a foreign language. Randaccio (2012) said, “It has often been pointed out that learners tend to translate anyway, regardless of the teaching method they are subjected to” (p. 82). Moreover in today’s global world, it is an important social skill required in various situations, such as business negotiations and international conferences.

- e) Translation misleads students into thinking that expressions in two languages correspond one-to-one

Cook (2010) maintained that “a ‘good’ translation is seldom word for word” (Cook, 2010, p. 97) and that the presumption that those students who have studied through translation are more susceptible to word-for-wordism than those who have not, is the least validated in Direct Method methodology, and needs more research as with other interesting notions in translation teaching

(Cook, 2010).

f) Translation prevents students from thinking in the foreign language

It is impossible for us to prohibit students from thinking in their native language, since that cognitive function cannot be controlled. Lower proficiency students especially tend to think in their L1 instead of thinking in English (Leonardi, 2010). She asserted, “However, through translation students can learn to think in both languages and this allows, in turn, a kind of control over L2 production” (ibid. p. 27).

g) Translation produces interference

Leonardi maintained that this criticism is not totally correct because interference not only occurs in translation but also with language acquisition (Leonardi, 2009). She adds, “The difference is, however, that translation skills help noticing and controlling interference through contrastive analysis of both languages, that is L1 and L2” (ibid. p.28). Translation could deepen the understanding of structure of the sentence by comparing the source and target language. This means that learners can get an opportunity to notice the linguistic characteristics of their own language, which can lead to the development of ‘Common Underlying Proficiency (CUP)’ in L1 and subsequently lead to that in L2. This is what Leonardi called “Grammatical analysis and explanation,” and she said translation helps two fundamental functions:

- 1) It can help learners notice both similarities and differences between L1 and L2 in a constructive perspective and it can also allow them to better evaluate L1 influence and transfer over L2 structures.
- 2) It can help learners improve awareness and proficiency in the use of their own mother tongue (Leonardi, 2010, p. 82).

Awareness is a key issue in language learning. Unlike the acquisition of L1, which is unconscious, the acquisition of L2, especially by adult learners needs conscious efforts. Though Krashen (1981) stated exactly the opposite in his Monitor Model, saying that ‘acquisition’ is subconscious and that acquisition should be distinguished from ‘learning,’ which is not conducive to acquisition, Schmidt (1990) disagreed with him and said that acquisition and learning do not necessarily have to be distinguished and that conscious learning helps adults to acquire a second language.

Translation requires more conscious effort than just reading, and it requires readers to read more carefully and analytically. It is important for learners to notice language items, and the first process of the acquisition of the second language is to pay attention to them. Without such attention or notice, input will not be converted to intake (Saville-Troike, 2006). Translation makes language processing conscious and can be an effective strategy to draw attention to

the meaning, to the form or syntactic structure, and to the message. This encourages a form-meaning connection that would make the function of the form clearer to the learner and helps the learner form ‘form-meaning-function mapping’ in their mind (VanPatten, 2004). Moreover the teacher can clarify where students have difficulty by checking their output of translation. Since we cannot check what is inside of the students’ mind without translation, the teacher could not locate at what level a problem is taking place, that is, whether it is misunderstanding of sentence structures, or simply misunderstanding of a word. Saito called it a ‘trouble-shooting function’ of translation (Saito, 2011).

h) Translation is a bad test of language skills

It was claimed that what is assessed in translation tests is the translation skill itself rather than linguistic competence (House, 2009), and the examinee is presented with random translation problems, which makes it impossible for the diligent student to prepare for the exam (Randaccio, 2012). However, translation is a comprehensive skill and in order to produce a good translation, all four skills are required (Leonardi, 2010), and has been widely used to measure students’ overall proficiency as an easily administered alternative (House, 2009).

i) Translation is only appropriate for the training of translators

Naimushin (2002) observed that the objectives and methods of translation in an ELT classroom are very different from those in the training for professional translators and interpreters. Students use translation as a study tool, and translators are trained for the acquisition of a vocational skill.

2.2. Learners’ attitudes towards translation

Cook (2010) insisted that exclusion of the students’ first language could be counterproductive and asked why they should be denied translation in class even if they might find it helpful. He went on to say that it is ironic that student-centered methods that were developed after the 1970s did not incorporate “one of the main components of student identities—their own languages” (Cook, 2010, p. 28). Critchley (2002) reported the result of the survey questionnaire administered to Japanese learners that upwards of 80% of respondents prefer some L1 support, which can function as scaffold when overwhelmed with an L2, and that they rely on it for class participation and avoidance of pragmatic failure.

Liao (2006) developed three sets of survey questionnaires: (1) the inventory for Beliefs about Translation (IBT), (2) the Inventory for Translation as a Learning Strategy, and (3) the Individual Background Questionnaire (IBQ) as well as (4) the qualitative interviews to find out “(1) What are students’ beliefs about using translation to learn English? (2) What learning strategies employing translation do students report using? (3) What are the relationships among learners’

beliefs about and use of translation? (4) To what extent do learners' background variables relate to their beliefs and use of translation?" (Liao, 2006, p.191). The survey was administered to about 350 students in a five-year junior college in central Taiwan and the results were analyzed through descriptive statistics, factor analysis, canonical correlation and multivariate analyses.

One of the principal findings suggested that most participants shared beliefs that translation facilitated their learning and that it was inevitable to use translation at their present stage of learning, but "learners also had conflicting beliefs about translation, resulting from their different understandings of both the positive and negative effects of using translation" (Liao, 2006, p. 208). While they expressed the necessity of using translation, they were concerned that translation causes interference, by inhibiting their thinking in English. Since the sample population of this research was junior college students in Taiwan, whether the findings are applicable to Japanese students needs to be found out with more research.

2.3. Translation as scaffolding

It should be emphasized that translation is not a goal but a process in a reading lesson, and a scaffold to help students understand the meaning at a sentence level. Probably for learners whose native language is closer to English in terms of both lexicon and sentence structure, this way of understanding the meaning of each sentence seems redundant, but it would be necessary for beginner students, who have difficulty with lexico-grammatical encoding at clause level, to understand the meaning accurately before they go on to understand the topic of each paragraph and the main idea of the whole text, which is the goal in reading class.

Kadota (2007) said that processing the sentence at a word level has an important key in reading and it functions as a prerequisite of comprehension. The model of reading he suggested is that "Reading=Decoding × Comprehension." This means that lexical processing is a precondition in order for the processing of understanding to work well. Decoding includes three sub-skills of eye fixation, word recognition (lexical processing), and phonological coding. Native speakers do this automatically. As for learners of L2, with plenty of good practice of reading aloud, the whole decoding process will be automated. On the same note, Danchev said that comparison between L1 and L2 promotes faster decoding of difficult structures of the target language (as quoted in Randaccio, 2012).

The disadvantage of using translation, which is frequently claimed, is that eye movements become regressive in reading, and understanding of meaning is not direct in the target language (Norris, 1994). This does not apply to chunk-based reading. The translation is processed not sentence by sentence, but sense group by sense group, and students can understand the meaning in the same order as the target language. In this process, translation is just an aid to understanding the meaning, and not any more than that. It can function as scaffolding for those students who

have difficulty understanding the target language without any help of L1.

It is this type of translation—chunk-based reading that was used in this research to examine the effect of the use of translation in language learning, and to examine whether it can work as a bridge between the target language and the native language. Eventually, learners are expected to read without translation as they advance. Before reaching that level students need some help, just as children need training wheels when they practice riding a bicycle. Moreover, chunk-based reading is thought to transfer to listening comprehension skills (Shiokawa, 2008; Yubune, 2011). In listening, input is a series of sound. To comprehend the meaning, a listener need to identify the sense group and understand the structure of the sentence in the same order as they listen. Chunk-based reading can be a good practice to prepare for it.

Shiokawa (2008) said that we process incoming information by a unit called a chunk. It is a “perceptual/productive sense unit” for understanding both L1 and L2. He claimed that chunk-based reading (he used the term ‘phrase reading’) is effective in preventing learners at a lower level of English from reading English by translating it into a Japanese syntactical pattern, and it enhances students’ ability to process incoming information in the same order as the target language. Fujii & Iseno (2011) found out through their research at a junior high school that the combination of chunk-based reading (they called it phrase reading) and semantic mapping was effective. Shiokawa (2008) also believed it to be useful in understanding the structure of the whole text, as well as the meaning of each sentence.

Tanabe (2004) investigated whether chunk-based reading (she used the term “sight translation”) helped students understand English sentences with complicated structure. The study showed that having students use translation revealed their weaknesses in understanding the structure of sentences, and almost all students said that chunk-based reading helped them understand the meaning of sentences.

Yubune (2012) conducted research into the effect of chunk-based reading with 56 university freshmen, by developing a website with which they can practice chunk-based reading. On the screen, students can check the meaning of each chunk, and if they press the ‘next’ button, another chunk appears on the screen. He used this web-material through the semester to improve students’ chunk-based reading and shadowing. The results of a post and a pre reading test showed the increase of the reading speed (from 96.28 wpm to 105.17 wpm), as well as improved reading comprehension score ($p < 0.01$, $r = 0.56$) and listening comprehension score ($p < 0.01$, $r = 0.43$).

However, as Hijikata (2004) pointed out that there is only a little experimental research to provide convincing evidence that chunk-based reading is effective for Japanese learners. She said that opinions are divided among studies over which proficiency level can benefit most from chunk-based reading, and it is difficult to compare the proficiency level of participants and the difficulty level of the text from a cross-cutting perspective.

III. RESEARCH INTO THE USE OF TRANSLATION IN JAPANESE ELT

3.1. Research subjects

This study took place in a private university in Japan. The data was collected from the two different freshmen classes, one in 2012 and the other in 2013. The first stage took place between September 2012 and January 2013. The participants were 38 Japanese freshmen at the age of 18 and 19. The second stage took place between April 2013 and October 2013. The participants were 34 Japanese freshmen at the age of 18 and 19.

3.2. Research methodology

In order to answer the research questions, the following means were used:

- 1) The study to see the correlation between the use of translation and reading comprehension,
- 2) A survey based on the Strategy Inventory for Language Learning (hereafter, SILL) Version 7.0 (ESL/EFL) @R. Oxford. 1989 and
- 3) Interview Guide (see Appendix for the interview guide) developed by Liao (2006).

In order to compare the study of the use of translation, the single-subject A-B-A design was chosen. It is a quasi-experimental design that follows an individual or groups of individuals over time, and it is used extensively in the field of the experimental analysis of behavior and applied behavior in behavior modification research. Unlike group research design, in which “control group” and “experimental group” are compared, this design involves only one group. ‘A’ indicates no-treatment phase, usually referred to as ‘baseline,’ and ‘B’ indicates treatment phase. A-B-A indicates a non-treatment baseline phase followed by a treatment phase, which is followed by a return to a non-treatment baseline phase. If the outcome is better during treatment than during either of the baseline phases, the treatment is considered effective.

In the first stage, *Reading Pass 2*, and in the second stage *Reading Pass 3*, were used as a reading material, respectively. They were textbooks written by Andrew E. Bennett and published by Nan’un-do. Each unit had a text of about 300 words long (*Reading Pass 2*), and a text of about 400 words long (*Reading Pass 3*). The textbooks also included two types of questions: 5 multiple choice questions and 3 open-ended questions. The researcher added 2 additional open-ended questions, so that the number of the two types of questions would be equal.

Both groups of students were also given a questionnaire about their attitudes towards English learning (Strategy Inventory for Language Learning (SILL) Version 7.0 (ESL/EFL) @R. Oxford, 1989). It contains 50 questions, and seven more questions regarding translation (Q51 to Q 57) were added by the author. However, in this research those questions which are related to translation were selected for analysis. They are as follows;

- Q. 19. I look for words in my own language that are similar to new words in English.
Q. 22. I try not to translate word for word.
Q. 27. I read English without looking up every new word.
Q. 51. I always look up an unknown word in the dictionary.
Q. 52. I can't grasp the meaning without translation.
Q. 53. I can understand the content better through translation.
Q. 54. I can't be sure that I understand the text without translation.
Q. 55. I find it bothersome to translate when I already understand the meaning.
Q. 56. I like translating.
Q. 57. I find it difficult to translate.

Along with the quantitative data mentioned above, qualitative data was also collected with the aid of the questionnaire. This was aimed at finding out what students thought and felt about translation from their free descriptive answers, which was difficult to ascertain by only choosing one to five stars on an evaluation scale. Nine open-ended questions were offered to the students.

3.3. Research procedure

The first stage of the study was conducted from September 2012 to January 2013. The class met once a week for 90 minutes over the course of 15 weeks, and 9 reading comprehension tests were administered during that period. The second stage of the study conducted from April 2013 to October 2013, and 11 reading comprehension tests were given during that period. The second stage took longer partly because of the increase in the volume and level of difficulty of the reading materials.

In Phase A the baseline was required to establish the student's pre-intervention performance level. In this phase the students were given two types of comprehension questions: multiple choice questions and open-ended questions. The subjects answered them in writing after reading a text of about 300 or 400 words, first silently while listening to a recorded texts on CD, then read silently again individually. In Phase B, they were required to produce an oral translation chunk by chunk. This was originally a method for training interpreters, in which they read the text silently and produce oral translation segment by segment, focusing on one unit of meaning at a time. In this study, the students were asked to form a pair, and one of them read aloud one sense group and had the partner translate that part into Japanese. Then they took turns. This was based on the idea by Kadota (2007) that reading aloud helps the decoding process. After that, they answered the two types of questions in the same format as in Phase A. In the second Phase A, the treatment (translation) was withdrawn. Then the results of the two types of reading comprehension tests used in this study were analyzed using both descriptive and inferential

statistics.

As the second measurement tool, a questionnaire survey was conducted in order to find the students' attitudes towards translation. The subjects were requested to choose relevant responses (1. Never or Almost Never, 2. Generally Not True of Me, 3. Somewhat True of Me, 4. Generally True of Me, 5. Always or Almost Always True of Me) to all the questions.

The interview questionnaire was only given to the 2013 students after they had finished the A-B-A phases of the reading comprehension tests.

3.4. Research results

- 1) Two types of reading comprehension tests were administered: multiple-choice questions tests and open-ended questions tests. To analyze and interpret the data elicited by them, statistical procedures were utilized. First, descriptive statistics were calculated for the scores of each phase of A, B, and A. To make it less confusing, the first A would be referred to as A1, and the second as A2, hereafter in the data analysis. The results are shown separately by year.

The findings from the 2012 data

Table 1 and Table 2 show the means and standard deviations of multiple choice tests in each phase, and those of open-ended questions, respectively. The mean scores of both multiple choice tests and open-ended questions in Phase B were higher than those in Phase A1. While the mean scores on open-ended questions got lower in Phase A2 (3.70 to 3.47), the mean score on multiple-choice tests showed an increase in Phase A2 (3.53 to 3.66).

Table 1 *Descriptive Analysis for Multiple Choice Tests (2012)*

	N	Mean	Std.Dev.
PhaseA1	38	2.82	0.87
PhaseB	38	3.53	0.64
PhaseA2	38	3.66	0.80

Table 2 *Descriptive Analysis for Open-ended questions (2012)*

	N	Mean	Std.Dev.
PhaseA1	38	3.27	0.69
PhaseB	38	3.70	0.68
PhaseA2	38	3.47	1.03

In order to find out the effect of the use of translation on the reading comprehension tests, the difference between the means of the scores of each phase was compared using a paired-samples t-test. The t-test was conducted between the scores of each phase for multiple-choice questions. Table 3 shows the t-test between Phase A1 and B, and Table 4 shows the t-test between Phase B and A2 for multiple choice questions. There was a significant difference between the mean of 2.82 (SD=.87) in Phase A1 and the mean of 3.53 (SD=.64) in Phase B, $t(37) = -7.44$, $p=.0003$, in favor of Phase B. There was no significant difference between the mean of Phase B and that of Phase A2:

Table 3 *t-test for multiple choice questions between Phase A1 and B (2012)*

PhaseA1& PhaseB	t	df	Sig(2-tailed)
	-7.44	37	0.0003

Table 4 *t-test for multiple choice questions between Phase B and A2 (2012)*

PhaseB& PhaseA2	t	df	Sig(2-tailed)
	1.69	37	0.427

The t-test was also conducted between the scores of each phase (Phase A1 and B, then Phase B and A2) for open-ended questions. Table 5 shows the t-test between Phase A1 and B, and Table 6 shows the t-test between Phase B and A2 for open-ended questions. There was a significant difference between the mean of 3.27 (SD=.69) in Phase A1 and the mean of 3.70 (SD=.68) in Phase B, $t(37) = -29.1$, $p=.0007$, in favor of Phase B. There was no significant difference between the mean of Phase B and that of Phase A2.

Table 5 *t-test for open-ended questions between Phase A1 and B (2012)*

PhaseA1 PhaseB	t	df	Sig(2-tailed)
	-29.1	37	0.007

Table 6 *t-test for open-ended questions between Phase B and A2 (2012)*

PhaseB& PhaseA2	t	df	Sig(2-tailed)
	-0.82	37	0.106

The findings from the 2013 data

Table 7 and Table 8 show the means and standard deviations of multiple choice tests in each phase and open-ended questions. The mean scores on both multiple choice tests and open-ended

questions in Phase B were lower than those in Phase A1 and Phase A2.

Table 7 *Descriptive Analysis for Multiple-choice Tests (2013)*

	N	Mean	Std.Dev.
PhaseA1	34	3.54	0.45
PhaseB	34	3.09	0.60
PhaseA2	34	3.27	0.78

Table 8 *Descriptive Analysis for Open-ended Questions (2013)*

	N	Mean	Std.Dev.
PhaseA1	34	3.30	0.53
PhaseB	34	3.19	0.92
PhaseA2	34	3.52	0.79

In order to evaluate the effect of the use of translation on reading comprehension, the difference between the means of the scores of each phase was compared using a paired-samples t-test. The t-test was conducted between the scores of each phase for multiple choice questions. Table 9 shows the t-test between Phase A1 and B, and Table 10 shows the t-test between Phase B and A2 for multiple-choice questions. There was a significant difference between the mean of 3.54 (SD=.45) in Phase A1 and the mean of 3.09 (SD=.60) in Phase B, $t(33) = -6.34$, $p=.0001$, in favor of Phase A. This suggests that the use of translation was not effective. There was no significant difference between the mean of Phase B and that of Phase A2.

Table 9 *t-test for multiple-choice questions between Phase A1 and B (2013)*

PhaseA1& PhaseB	t	df	Sig(2-tailed)
	-6.34	33	0.001

Table 10 *t-test for multiple-choice questions between Phase B and A2 (2013)*

PhaseB& PhaseA2	t	df	Sig(2-tailed)
	1.99	33	0.268

The t-test was then conducted between the scores of each phase for open-ended questions. Table 11 shows the t-test between Phase A1 and B, and Table 12 shows the t-test between Phase B and A2 for open-ended questions. There was a significant difference between the mean of 3.19 (SD=.92) in Phase B and the mean of 3.52 (SD=.79) in Phase A2, $t(33) = -3.95$, $p=.0075$, in favor of the Phase A. This suggests that the use of translation was not effective. There was no

significant difference between the mean of Phase A1 and that of Phase B.

Table 11 *t-test for open-ended questions between Phase A1 and B (2013)*

PhaseA1& PhaseB	t	df	Sig(2-tailed)
	-0.80	33	0.419

Table 12 *t-test for open-ended questions between Phase B and A2 (2013)*

PhaseB& PhaseA2	t	df	Sig(2-tailed)
	-3.95	33	0.0075

- 2) As for the SILL survey (modified by the author in order to accommodate focus on translation), the following results were obtained. In Table 13 and 14, dark grey boxes show numbers over 30 percent of the respondents, and light grey boxes show numbers over 20 percent of the respondents to highlight the large number of respondents.

The findings from the 2012 data

The result of the first category shows the tendency to look up every new word in the dictionary. Especially in Q 27, the number of students who answered both 1 and 2 amounts to 24, which accounts for 63.1% of the total number in the group. On the other hand, there is no such distinct tendency shown in the second category, which means that the students do not think that translation helps comprehension. The result of category 3 shows there is no shared attitude towards translation: some like it, and others do not, with the majority of respondents answering that they neither like nor dislike it. However, Q57 shows that more than half of them (55.3%) responded that translation is difficult (4 and 5 combined). (See Table 13 for the results of SILL and additional questionnaire in 2012).

The findings from the 2013 data

The result of the first category shows the same tendency as in 2012: 42.1 percent of students answered that they always or almost always look up every new word in the dictionary. In the second category concerning the comprehension, Question 53 stood out. 68.4 percent of students (those who chose 4 (42.1%) and 5 (26.3%) combined) answered they could understand the content better through translation. In Question 54 more than half (52.6%) of the students (those who chose 4 (28.9%) and 5 (23.7%) combined) said that they cannot be sure that they understand the text without translation. As for the attitude towards translation, 36.8% of the students said that translation is not bothersome even when they already understand the meaning, and Question 57 showed the same result as in 2012: 39.5 % of the students found it difficult to translate. If 4

(23.7%) and 5 (39.5%) were combined, more than 60 % of them share the idea. (See Table 14 for the results of SILL and additional questionnaire in 2013).

Table 13 *SILL and additional questionnaire (2012)*

	Q19	Q22	Q27	Q51	Q52	Q53	Q54	Q55	Q56	Q57
Answer 1	5	3	10	2	2	2	2	3	7	1
2	13	20	14	7	9	2	5	8	11	6
3	14	8	8	10	14	13	15	12	10	10
4	3	4	3	6	5	12	6	10	8	6
5	3	3	3	13	8	9	10	5	2	15

Percentage1	13.2	7.9	26.3	5.3	5.3	5.3	5.3	7.9	18.4	2.6
2	34.2	52.6	36.8	18.4	23.7	5.3	13.2	21.1	28.9	15.8
3	36.8	21.1	21.1	26.3	36.8	34.2	39.5	31.6	26.3	26.3
4	7.9	10.5	7.9	15.8	13.2	31.6	15.8	26.3	21.1	15.8
5	7.9	7.9	7.9	34.2	21.1	23.7	26.3	13.2	5.3	39.5

Average	2.6	2.6	2.3	3.6	3.2	3.6	3.4	3.2	2.7	3.7
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Table 14 *SILL and additional questionnaire (2013)*

	Q19	Q22	Q27	Q51	Q52	Q53	Q54	Q55	Q56	Q57
Answer1	4	4	6	1	2	2	2	4	1	1
2	9	11	12	4	9	2	5	14	10	2
3	10	9	6	7	8	4	7	9	13	7
4	11	7	7	6	12	16	11	2	9	9
5	0	3	3	16	3	10	9	5	1	15

Percentage1	10.5	10.5	15.8	2.6	5.3	5.3	5.3	10.5	2.6	2.6
2	23.7	28.9	31.6	10.5	23.7	5.3	13.2	36.8	26.3	5.3
3	26.3	23.7	15.8	18.4	21.1	10.5	18.4	23.7	34.2	18.4
4	28.9	18.4	18.4	15.8	31.6	42.1	28.9	5.3	23.7	23.7
5	0	7.9	7.9	42.1	7.9	26.3	23.7	13.2	2.6	39.5

Average	2.8	2.8	2.7	3.9	3.1	3.9	3.6	2.7	3.0	4.0
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IV. DISCUSSION

The effect of the Use of Translation on reading comprehension

In the study done with the 2012 quantitative intervention, the results showed a significant difference between Phase A1 and B for both multiple choice questions and open-ended questions tests, indicating that the use of translation facilitate reading comprehension. However, the t-test between Phase B and A2 showed no significant difference. The lack of significant differences in the latter phase could have been related to the small number of tests (two) administered in Phase A2 (withdrawal phase), due to the scheduling problem. The number of the tests may have been insufficient to get reliable data.

The result of the 2013 tests was rather disappointing. The unfavorable effect and lack of significant differences in that year could have been due to the unfamiliar topics and difficult grammar structures. It was likely that they made the cognitive task overly difficult, which led to poor comprehension. Thus, in 2013, clear understanding of the effect of translation on reading comprehension could not be established.

Survey of Learners' Attitude toward Translation

Although the students in 2012 had a rather neutral view as to whether translation was helpful in understanding text, translation was almost always used at word level by more than half (52.6%) of the respondents. They did not have any preference or aversion for translation, but most of them found it difficult.

Overall, compared to the students surveyed in the previous year, the 2013 subjects showed more dependence on translation. More than half (52.6%) of the students answered that they felt insecure and unsure whether they understood the text correctly without translation. At the same time, it was revealed that they thought of translation as not an easy task. They did not show any clear preference toward translation, but they did not find it bothersome, either. About half (47.3%) of students (those who chose 1 (10.5%) and 2 (36.8%) combined) said that translation was not bothersome even when they could understand the meaning without it.

Dependence on and usefulness of translation demonstrated in the quantitative survey were further supported by the qualitative interview data gathered in the third stage.

The responses to the questionnaire were categorized in two major themes: 1) the necessity of translation (Questions #1, #2, #3, #8 and #9) and 2) the effect of translation as perceived by subjects (Questions #4, #5, #6 and #7).

1) The necessity of translation. The data showed that most of the students found thinking only in English difficult, and said they could not do without translation when reading English.

One surprising finding was that some students answered that they had never been advised to think directly in the target language without translation (Question #2), contrary to expectations. It had been expected such advice had a conflicting influence on students' attitudes toward the use of translation in their learning, but this was not the case. Question #8 asked what they thought about eliminating their habit of using translation gradually as their learning advanced. Most students answered that, although it would be ideal if they could eliminate it, they would feel uneasy and anxious without translation and that translation had become their habit, so they could not eliminate it. Others said there was no need to eliminate it at all. Some students answered that without translation they could not understand the meaning and that they needed it because of their insufficient proficiency. Others said that they wanted to use more translation in the future. One subject said, "I take it for granted that I translate when I read." On the other hand, some subjects pointed out the adverse effect of translation, saying that they tended to pay more attention to Japanese than English, if they used translation.

2) The effect of translation as perceived by subjects. Most of the subjects responded that translation helped and promoted deeper understanding. To be more specific, one student remarked: "By using Japanese the meaning sinks in and remains in the mind." Another one said: "Translation functions as a test of correct understanding." Many students also mentioned the role of translation as a useful tool for checking understanding, especially with long and complicated sentences. Question #6 asked what proficiency level could benefit most from using translation. Except for a few who answered "advanced" or "intermediate level," most subjects answered that beginners could benefit most. There were a few respondents who answered that translation could be effective for all proficiency levels. As to what language skills could be strengthened the most from using translation, the majority emphasized reading skills. Some subjects answered that either listening or both listening and reading skills could be strengthened with the help of translation.

Thus, the data revealed positive attitudes towards translation in both categories. Students on the whole characterized translation as both necessary and effective.

Limitations of the Study

Although two kinds of quantitative data as well as qualitative data were collected in the study in a bid to present as much data as possible, there were some limitations to the study. The first limitation was related to the sample and sample size. The results of this study were based on the total of only about 70 students at one university. Therefore, the findings may have limited application and may not apply to learners with different proficiency levels or to other educational settings. The research design might have its own limitations. However, it might also have been somewhat beneficial, as the students were able to compare the two different teaching methods:

chunk-based reading and reading without it. This experience might have had some influence on their ideas towards translation, which was revealed in the qualitative survey.

The second limitation was related to the implementation. Phase B was an intervention phase, in which chunk-based reading was added. Only three units of the reading textbook were covered in phase B, and only three tests were administered in this phase. Another negative factor - the absence of the students - was also beyond the researcher's control. There were sometimes a few to several students who did not attend class, and no data was collected from them. This may have lowered the validity of the data.

It could be suggested that this research needs to be implemented again with different variables: an extended testing period, an increased number of subjects, and, perhaps, a different research design. Results could then be compared and evaluated in a more accurate way.

Conclusion

First, regarding research question number one - What are the effects of chunk-based reading on reading comprehension in Japanese ELT? – contrary to expectations, a clear understanding of the effect of translation on reading comprehension could not be established. Even though the preliminary results indicated that translation was an effective strategy, the following stage of the reading comprehension tests did not convincingly support or undermine the use of translation (possibly, due to the nature of the reading material). Therefore, the hypothesis that chunk-based reading is effective can neither be proved nor disproved. The result might suggest, however, that translation is more effective for lower level students tested in 2012, but further study is needed to verify this.

Next, the data from two types of questionnaires with regard to the research question number two - What are Japanese students' attitudes towards translation? - showed that students found translation useful and helpful when they read. It was most interesting, and thus more worthy of serious consideration, that even though the reading comprehension tests showed otherwise, the students tested in 2013 showed favorable feelings toward translation, and that they needed translation to help them understand the reading passages deeply and accurately. Students on the whole characterized translation as both necessary and effective. Thus, findings suggested that translation can have an important role to play as a scaffolding tool, and it can be a valuable resource to compensate for their insufficiency. The result of the questionnaire also revealed that students are dependent on translation as a learning strategy and they feel uneasy without translation. Learning should be student-centered: their needs and wants must be identified, and the possible benefits of translation reported by the students should be respected.

Learners' mother tongue is not useless in foreign language learning, but it can rather have an important role to help facilitate learning. Quite unexpectedly it is MEXT that advocated this

belief in the Action Plan (MEXT, 2003). It said, “in order to cultivate communication abilities in English, the ability to express appropriately and understand accurately the Japanese language, which is the basis of all intellectual activities, will be fostered” (MEXT, 2003 [original English version], p. 18). Using translation is the most natural and effective way to be aware of the difference between these two languages and to understand them deeper and better. However, further and more systematic study is needed to verify the effect of the use of translation, and the various activities using translation should be developed to make the most of it. If used wisely, translation has an important role to play as the fifth skill in Japanese ELT, and therefore it should not be discarded, but have more light shed upon it, instead.

References

- Campbell, S. (2002). Translation in the context of EFL-The fifth macroskill. *TEFLIN Journal: A publication on the teaching and learning of English*, 8(1), 58-72.
- Cook, G. (2010). *Translation in language teaching*. Oxford: Oxford University Press.
- Critchley, M. (2002). The role of Japanese in communicative ELT. *Proceedings of the JALT Shizuoka International Conference, Japan*. November 23. 1-15. Retrieved from <<http://jaltpublications.org/archive/proceedings/2002/119.pdf>>.
- Fujii, Y., Iseno, K. (2011). Effective use of phrase reading and semantic mapping for enhancing reading comprehension. *Memoirs of the Faculty of Education and Culture, Miyazaki University. Humanities*, 19, 119-133.
- Hijkata, Y. (2004). Nihonjin gakushusha no yomikata ni okeru chunking tan'I no kannkei—sokudoku to seidoku ni okeru chunk no hikaku [Relationship between Japanese EFL Readers' Chunking Process and Text Comprehension—Comparison between chunking in speed reading and intensive reading]. *STEP BULETIN, The Society for Testing English Proficiency Inc*, 16, 73-85.
- House, J. (2009). *Translation*. Oxford: Oxford University Press.
- Howatt, A. P.R., with Widdowson, H. G. (2004). *A History of English language teaching (2nd ed.)*. Oxford: Oxford University Press.
- Kadota, S. (2007). *Shadowing to ondoku no kagaku [Science of shadowing and reading aloud]*. Tokyo: Cosmopia.
- Krashen, S. D. (1981). Principles and practice in second language acquisition. University of Southern California. Retrieved from http://www.sdkrashen.com/Principles_and_Practice/Principles_and_Practice.pdf
- Leonardi, V. (2010). *The role of pedagogical translation in second language acquisition: From theory to practice*. Bern: Peter Lang AG, International Academic Publishers.
- Liao, P. (2006). EFL learners' beliefs about and strategy use of translation in English learning. *Regional Language Centre Journal*, 37(2), 191-215.
- MEXT, (2003). Regarding the establishment of an action plan to cultivate“Japanese with English abilities.” Retrieved from http://warp.ndl.go.jp/info:ndljp/pid/286794/www.mext.go.jp/b_menu/houdou/15/03/03033101/001.pdf

- MEXT, (2009). Koutougakkou gakushu shidou yoryo gaikokugo [Study of course guideline for foreign languages in senior high schools]. Retrieved from www.mext.go.jp/component/a_menu/education/.../1282000_9.pdf
- Naimushin, B. (2002). Translation in foreign language teaching. *Modern English Teacher*, 11 (4), 46-49.
- Nakai, H. (2010). An inquiry into teaching English in English at senior high school. *Osaka Jogakuin University Journal*, 7, 33-53.
- Nakamura, T. (2009). The reading-translation (Yakudoku) method of English teaching in Japanese university classrooms: its historical background and applicability to modern pedagogical practice. *The Bulletin of Liberal Arts & Sciences, Nippon Medical School*, 39, 33-54.
- Ng, H. K. (2004). The relative effectiveness of studying English vocabulary in associated pairs and in L2 context. Unpublished thesis of Master of Arts in Applied Linguistics, The University of Hong Kong.
- Norris, R. W. (1994). Getting students more personally involved: An alternative to the yakudoku- and lecture-dominated methods of teaching literature and reading. *Fukuoka Women's Junior College Studies*, 48, 25-38.
- Politics. (2010). In *Oxford advanced learner's dictionary* (p.1172, 8th ed.). Oxford: Oxford University Press.
- Popovic, R. (2001). The place of translation in Language Teaching. *The journal of the Thrace-Macedonia Teachers' Association*, 5, 3-8.
- Randaccio, M. (2012). Translation and Language Teaching: Translation as a useful teaching Resource. Aspetti della didattica e dell'apprendimento delle lingue straniere: contributi dei collaboratori del Centro Linguistico dell'Università di Trieste. Ed. Federica Gori and Christopher Taylor. Trieste: EUT Edizioni Università di Trieste, 2012, 78-91.
- Saito, Y. (2011). Translation in English language teaching in Japan. *Komaba Journal of English Education (KJEE)*, 3, 27-36.
- Saville-Troike, M. (2006). *Introducing second language acquisition*. Cambridge: Cambridge University Press.
- Schmidt, W. (1990). *The Role of consciousness in second language*. *Applied Linguistics*, 11 (2), 129-158.
- Shiokawa, H. (2008). Chunk wo ishiki shita reading shido [Chunk-based reading method]. *Unicorn Journal*, 68, Retrieved from http://www.bun-eido.co.jp/t_english/ujournal/uj68/uj680206.pdf
- Tanabe, K. (2004). Daigaku deno "jun okuri no yaku" o oyo shita koubun kaiseki shidou [Structural analysis using chunking at university]. *An Invitation to the Translation Studies in Japan*, 1, 125-135.
- VanPatten, B. (2004). *Processing instruction: Theory, research, and commentary*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Widdowson, H.G. (2003). *Defining issues in English language teaching*. Oxford: Oxford University Press.
- Yamaguchi, C. (2004). ELT in Japan: Beyond negative fallacies. *Bulletin of the Research Institute of Regional Area Study, Nagasaki Wesleyan University Nagasaki Wesleyan*, 2(1), 23-27.
- Young, M. O. (2010). Collaborative reasoning in Japan: English learners 'discussions and experiences. PhD. thesis of Philosophy in Curriculum and Instruction, the Graduate College of the University of Illinois.
- Yubune, E. (2011). Function of chunks and working memory in fluent reading. *Dialogue, Tanabe Applied Linguistics Kenkyuukai*, 9, 1-20.

Yubune, E. (2012). Chunk ondoku to shadowing no tameno Web kyouzai no kaihatsu [the development of web materials for chunk reading and shadowing]. *The Bulletin of the Institute of Human Sciences, Toyo University, 14*, 83-94.

Appendix

Interview Guide (Liao, 2006)

1. My understanding is that English teachers in Taiwan use both Chinese and English in the classroom. What is the reason for your teachers to use Chinese or English as the medium of instruction? What pattern of language use do you seem to find?
2. Usually, English teachers, parents, or your peers will give you some advice about how to learn English. Have they asked you not to use translation to learn English and to think directly in English when you are learning or using English? If so, what do you think of this advice?
3. Taiwanese learners often use Chinese or translation to help them learn English (for instance, the use of Chinese-English dictionaries). How do you personally do that?
4. How do you feel about using Chinese or translation to learn English?
5. What are the effects of using translation to learn English?
6. What proficiency level can benefit most from using translation? Why?
7. What language skills do you feel can be strengthened the most from using translation? Why?
8. Some people say that English learners can eliminate their habit of using translation gradually as their learning goes on? What are your ideas about how to change this habit?
9. Is there anything you would like to tell me about your experience or your thoughts using translation to learn English?

Note. Adapted from Liao, P (2006). "EFL Learners' beliefs about and strategy use of translation in English learning," by Liao, 2006, *Regional Language Centre Journal 37*.(2), p215.

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