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Using the Concept of Frame for EFL Reading Instruction

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This paper examines the possibility of using the cognitive concept of frame for English reading comprehension instruction. Frame has much potential to be applied to language education since the linguistic resources and the content knowledge of a reading text can be taught in a simplified manner. For the purpose of this study, framing material and activity were developed as a before-reading activity. The activity, 'framing', using the framing material was conducted for a semester against two groups, treatment group 1 and 2, of Korean university students. Compared with the treatment groups, a control group was involved in the study who were given traditional reading instruction. In order to see the effects of including the framing activity in English reading instruction on learners' reading comprehension ability, the three groups were tested at the beginning and end of the semester on their reading comprehension ability. The results of statistically analyzing the test results of the three groups show that the two treatment groups had improvement and the control group's performance declined in their reading comprehension tests. Based on the results, advantages of using the concept of frame in EFL reading instruction was discussed.

[English reading instruction/reading comprehension/frames, framing/before-reading activity]

I. INTRODUCTION

There have been huge efforts looking for the best way to teach English reading comprehension in classroom for decades, such as reading techniques of decoding skills, skimming and scanning, or bottom-up, top-down, and interactive model of reading to list a few (Brown, 2001; Carrell, Devine & Eskey, 1988; Grabe, 2009; Koda, 2005). Because reading comprehension is more than decoding the linguistic data and looking for the facts or main ideas in the text, English reading instruction should help learners effectively deal

with linguistic resources of words and grammatical aspects as well as culturally specific text structures, and information as content knowledge in the reading text. Reading in English for university level of students in EFL Korea is a pathway to world knowledge to learn cultural, societal, scientific, and many other sources of information beyond the scope of their experiences. This is especially true when they are freshmen who have just finished learning English for the purpose of university entrance exam preparation. For their improving English reading comprehension ability, reading instruction needs to be explicitly conducted towards the way of leading learners to better comprehend a reading text.

The concept of frame may present a key to this issue. Frame is concerned with meanings by connecting human experiences and linguistic expressions. In cognitive linguistics, meaning is perspectival, dynamic and flexible, encyclopedic, and non-autonomous (Geeraerts, 2006). For instance, the word 'land' is seen from the sky while 'ground' is from the sea, based on our experiences and perspectives (Fillmore, 1982; 1985). As seen in this instance, one frame may involve many words, and, likewise, a word may contain different meanings derived from more than one frame, so the number of frames of a word indicates the number of meanings. Associating our experiences with the language we use, frame is an organized system of knowledge that is shared between people (Radden, 2008). The system is constructed with conventional and cultural background, and knowledge of a word can also be different between language users. For example, the word 'wedding' brings us the frames of couples, rings, and honeymoon as shared knowledge, reminding people of different formal dresses, church or temple for the ceremony, and marriage between a man and a woman or between the same genders according to respective cultures. In short, people invoke the frames of a word, and words may evoke frames in the process of understanding the meaning of a word (Fillmore & Baker, 2010).

In this regard, frame is conceptually powerful enough to decide the meaning of words and phrases, and comprehension of a text. Due to its multilevel nature, the frame of a text authorizes us to select the sense of word meanings in order to interpret a text. Linguistic resources are structured into sentences that are arranged to make the whole meaning of a text, and a reading text is composed surrounding the frame of a text within a context following the convention of the language. That is, the frame influences how a text to be constructed under the culture of the language being used, and the frame is context dependent and is related with the goal of the communication (Fillmore, 1985). So, frame shows readers what is going on in a textual communication and indicates what refers to which meaning within the context of the ongoing communication. In addition, meanings of words and expressions in the text are to be taken beyond definitions provided by dictionaries from which approximates to the communicative language use (Fillmore, 1982; Lee, 2004). 'A mother' may indicate someone who gave birth to a child in genetic sense,

but she may be someone who raised a child according to the context of the text where the word ′mother′ is used (Lee, 2004). Therefore, interpretation and understanding a text should be based on the frame of the text. It will be useful especially for readers of different language from the language used in the text to understand the frame of the text in reading comprehension because the frame can provide us with the knowledge of the content, cultural differences, and the meaning of the linguistic resources at a time.

As it was unprecedented practice using the concept of frame for English reading comprehension, it is meaningful to take advantage of the concept of frame for English reading instruction. Although countless efforts have been devoted to improve learners' English reading comprehension with reading models of theories and practices, it was hardly seen to be agreed on the best and effective way to teach English reading comprehension. By adopting the frame of the reading text written on the basis of the convention of the target language, linguistic, cultural, and the content knowledge may simply be combined to be taught in classroom. Context and culture bound frame will allow the linguistic resources and the meaning of the text to be taught explicitly without losing the track of the general content flow of the text by avoiding overly focusing on local language and interpretation itself.

On this premises, this study explored the way to develop a teaching method of English reading instruction using the concept of frame and to see how effective it is to employ this method in classroom to improve learners′ English reading comprehension. In this regard, it was discussed how this instruction effectively deal with English reading resources of language and the content of the text. The implications of the instruction using the framing activity on both teachers and learners were also discussed. For this purpose, first, this study investigated the way to frame a reading text into a material and to practice a before-reading activity using the material. Second, in order to identify the effects of English reading instruction using the concept of frame, the learners′ reading comprehension ability was tested before and after the instructions. By doing these, this study may take the first step to looking for utilizing the concept of frame in reading instruction of language education.

II. THEORETICAL BACKGROUND

1. Frame and Reading Comprehension

Frame provides the way to comprehend a reading text. It is the gateway to understand how a text is formatted and its sequence is developed along the communicative purpose of the text. A letter, an article, an essay, or a recipe all take their forms and structures according to the goal of each text. The content of a text is sequenced surrounding the gist,

and the text is completed with details by putting main words or phrases to use. These elements are brought together under the frame of the text to form its meaning. Accordingly, understanding a text means having the frame knowledge of the text, which is the nature of communication. It corresponds to having the information of what happens in the event of the text (Fillmore 1982). This means that interpretation of a text occurs when a reader has the frame of the text and when the reader accepts the knowledge of the frame. By bringing in the frame, or the shared knowledge among people and conventions of the language the text is written in, a reader interprets a text with an expectation to envisage what is inside the text.

Also, frame lets us make inferences of a situation (Radden, 2008). The frame of a text is the knowledge encompassing the elements of how the text is organized, what the events are, what is expected in the event, and what the language means in the text. A funeral, a business meeting, and so on are structured with a beginning, an ending, participants and other components with related frames. The components of the ceremony are supposed to be in the scene as our experiences of an event are schematized and translated into linguistic expressions (Fillmore & Atkinson, 1992).

Therefore, a text is meaningless when a reader comes up with inconsistent frame-based knowledge from the text and the sentences of a text do not interact with the reader′s mental frame (Lee, 2004). Words of a text form into the scheme of an event in the text and constitute parts of a sentence that become a part of the text. For example, ′a present′ means a gift in a text about a Christmas story, and it schematizes a scene in which there are Christmas trees, carol songs, lights, and so on at the background. However, the word ′present′ means ′to give′ as a verb in a different context, which requires a presenter as an agent, an object and a target as a receiver both conceptually and grammatically. Differently from its usage as a noun which is used with an article in the context of celebration, the word ′present′ as a verb can be used in the context of a text accompanying argument structure. Thus, the frame of a text provides readers with background knowledge necessary to understand the meanings of words in the text, and the frame of the words also influence the text (Fillmore 1982). The change of the frame in reading is the change in comprehension of the reading. Though there have hardly been any studies that revealed the relation between the frame and reading comprehension, reading comprehension is closely connected with lexical semantics and a context is constructed by frames evoked by lexical items in a text in the process of understanding the text.

In light of this, frame has its great importance in language teaching. Especially the process of reading comprehension can be summarized as a series of interactions between the frame of a text and a reader′s mental frame. A language learner who reads a text in target language is required to understand the frames of the language of the text. Because frame is culture dependent, two different languages convey different frames respectively.

Accordingly, reading comprehension can be successful when it entails reader′s understanding of the cultural frames of the target language. The following displays the culturally specific characteristics of frame, which is a famously cited paragraph found on the internet (Fillmore & Baker, 2010):

A woman's dream breakfast

She's seated at a table in her garden with her gourmet coffee. Her son's picture is on the Wheaties box. Her daughter's picture is on the cover of 'Business Week'. Her lover's picture is on the cover of 'Playgirl'. And her husband's picture is on the back of the milk carton.

This is an exemplary paragraph that shows how important it is to have the frame knowledge in order to understand a text. It seems that the woman in the paragraph is simply enjoying her coffee time in peace without cultural background knowledge. However, this paragraph bears a great sense of humor if it is understood by a reader that a picture of a famous sportsman is on the Wheaties box, a young attractive man′s picture is on the cover of Playgirl, and a missing person′s picture is often on milk cartons. Unfortunately, the paragraph is literally interpreted in Park′s (2013) experiment of translation conducted against Korean university students who didn′t have the knowledge of the cultural frame.

As seen in this example, a text is structured and styles of the text are selected in accordance with the cultural conventions of a language. For example, a letter begins with a direct statement of the purpose of the writing in English. However, it begins by talking about the weather or asking about the recipient′s health in Korean culture. A recipe, as another example, is written with imperative sentences in English while first person plural subjects are used in a Hungarian recipe (Lee, 2004).

It is also important understanding the different frame knowledge of the two languages in translation. When a frame of a language is different from or lacking in another language, lexical items in translation need to be carefully selected (Park, 2013). One to one translation may not work for understanding words with diverse meanings, polysemy, as they have multiple frames. A particular word or expression is understood accurately from the perspective of the frame (Hong, 2016). The frames of words or expressions in a text that do not have corresponding frames in the reader′s mind need to be understood with other words in the same frame (Moon, 2004).

Taken altogether, the concept of frame will likely apply to foreign language education. Learning a foreign language must include learning the frames of the language considering the importance of how frames can influence understanding language. Acquiring new

frames, or new concepts of the target language is a part of language acquisition apart from learning the linguistic interpretation (Fillmore & Baker, 2010). In this regard, English reading can be meaningful for learners when it is learned through an understanding of the frames in the text (Oh, 2010). Without awareness of the frames of a language, reading a text may end up being no more than linguistic interpretation missing the real meaning inside the text such as humor, the writer′s intended meaning, or, even worse, misunderstanding. On the basis of the conceptual meaning and functions of frame outlined so far, it is clear that the concept of frame has great potential to be promoted in English reading comprehension.

2. Framing English Reading Text and Classroom Instruction

Based on the theoretical background of frame, a reading text can be framed through framing. The frame of a reading text consists of social, cultural, contextual, and linguistic dimensions. Using the concept of frame to develop framing material for classroom instruction can address the possible complexities of teaching associated with processing both linguistic and informational resources, such as vocabulary, semantic and syntactic knowledge, and background knowledge in detail. The procedure of framing is suggested by demonstrating how to frame English reading text before a class and then it is proposed how to apply the framing to classroom activity in the following.

Before class, first, an English reading text is to be framed. Framing begins by reading a text material to be taught carefully in order to determine the frame of the text. This is done by the teacher in order for her or him to guide the learners to the comprehension of the text later in the class. The frame allows the teacher to lead the students to the main stream of the text with the understanding of linguistic data, and then to the final comprehension stage. When the frame is decided, key words or expressions are selected from the text which will be included in the text summary. The details of a text can be arranged in a shortened summary putting the words and expressions that are connected with the fundamental frame of the text. Following the conceptual frame of the text, key words and expressions are to be included along the development of the content in the summary. This preparation stage can be seen in the example below (excerpted from Blass, Vargo & Wisniewska., 2016, pp. 27-29).

No time to sleep

In spite of the importance of sleep, many people are not getting enough. For example, Americans sleep one hour less per night on average than they did 20 to 30 years ago. "The dependency on caffeine and the whole Starbucks culture is certainly one proof that our society is sleepier than ever before," says William Dement, a sleep researcher at Stanford

University. Sleep is a biological need, much like food and water. If totally deprived of shut-eye, humans ultimately perish. Yet millions of people are increasingly skimping on their sleep.

Why has sleep deprivation become such a big problem? There are a couple of possible reasons*. Researchers say that today's sleep deprivation is partly due to modern expectations. These days, consumers expect information, entertainment, and food to be available round-the-clock. One of the results of this 24/7 culture is that consumers stay awake longer and later than they used to. Consequently, workers who provide us with goods and services can't stop working when the sun goes down, In addition, the fast-paced and competitive world of business often rewards employees for arriving at work early and staying late. As a result, many employees are willing to skip sleep in order to impress the boss.*

This is a part of a text titled *"Are you sleeping enough?*" from a textbook of an English reading class in a university as one of the subjects for general education. The main idea of this reading is that sleeping enough is crucial to our well-being. In this part of the text, it is said that Americans sleep one hour less than before despite the importance of sleep for biological needs due to modern expectations and a 24/7 culture, and this can be harmful to our health. The writer of this text is a fluent English speaker and the social and cultural frame of this text is based on American. From the viewpoint of the frame of the text, the cultural aspects of sleep less than before can possibly be introduced in the text using the word ′Starbucks′, a typical American culture of coffee caffeine that keeps people awake within the context. The expressions highlighted are the ones that surround the frame of the sleep-related phenomena in American society. Each of the expressions is connected to the frame, as sleep to ′shut-eye′, sleep less to ′deprivation′, ′skimping on′, ′stay awake′, and to ′skip sleep′, as the reason of sleep less to ′24/7 culture′, ′the fast-paced and competitive world of business′, and to ′impress the boss′, and finally as the effect of sleep less to ′perish′. Using these key words and phrases, the paragraphs above can be summed up like below following the main frame of the text.

"Are you sleeping enough?"

No time to sleep

-sleep = shut eye

-sleep less = sleep deprivation, skimping on their sleep, skip sleep, stay awake

-the reasons of sleep less: round-the-clock, 24/7 & Starbucks culture, fast-paced and competitive world of business, to impress the boss

-the effect of sleep less → to perish

This summary consists of the key points based on the frame of the text. Because the text is mainly about ‘the importance of sleeping enough’, the framing starts from paraphrased words of ‘sleep’ and ‘sleep less’ to indicate the trend of sleep in the American society and cultural phenomena that derives from the trend. In framing, the sign of equality, a colon, and an arrow are used as in the following. First, similar or paraphrased expressions to a word or phrase are connected by equality sign (=) as in “sleep = shut eye”. Second, after a colon (:) come explanatory phrases of the one before the colon, as in “the reason of sleep less: round-the-clock, etc.”. Lastly, an arrow (→) indicates the result or effect as in “the effect of sleep less → perish”. If two arrows are lying back to back (←→), the expressions before and after the two arrows present opposite meanings to each other. Verbs can be identified by putting ‘to’ before a verb as in ‘to perish’ at the end of the summary above.

According to the frame of this text, the two paragraphs are framed with the concept of the necessity of sleeping enough and the reason of sleep less in the American society. The highlighted vocabulary in the paragraphs is linked to the frame of sleep and the reasons and effects of sleep deprivation have been outlined in the summary. The excerpt of the whole text is contracted in a short summary from the perspective of the American socio-cultural trend. The vocabulary is all intertwined along with the frame.

In the class, the framed summary can be used for students to preview what the text is about. This summary may be used as it is at a before-reading stage because it can attract students’ attention by having them read and make inference of the meaning of the words in the material and the content of the reading. Using this material, the meanings of the words and phrases involved with sleep can be explained. In addition, these expressions are all understood from the American perspective as with the expression of ‘24/7 & Starbucks culture. The formal frames such as forms and structures of a text, content, and communicative styles of a text can also be described with the framing material. For the use of the framed material into classroom activity, more application can be made available. With this background, this study aims to explore the following questions:

1. What is the design of framing material like and is the procedure of practicing a before-reading activity using the material in English reading classroom?
2. What is the effect of practicing framing activities as an approach to English reading instruction on improving a student’s English reading abilities between the control and treatment group 1 and between treatment group 1 and 2?

III. METHODOLOGY

1. Participants

For the purpose of this study, reading instruction using the concept of frame was conducted against university level of students. Their information is in what follows. A total of sixty-nine university students participated in the study. They were all freshmen, except one junior student, at the same university in C province in Korea. All participants were taking the same liberal arts program of reading in English in three different classes during the 2016 fall semester. The three participant groups were recruited from two assigned groups of classes to the writer, treatment group 1 and 2, and one group, control group, to one teacher who willingly participated in this study. The control group was taught by the other teacher who employed a traditional reading comprehension method of a learning vocabulary list separate from a text, the grammar translation method, and scanning and skimming as a before-reading approach. Treatment groups 1 and 2 as the experiment groups were taught by the researcher who employed the frame approach developed in this study to teach reading comprehension in English. The two treatment groups were divided by the pre-test results. According to the results, the scores were higher in group 1 than in group 2 in reading comprehension pre-tests. The pre- and post-test results of the three groups were compared. Regarding changes in the participants′ pre- and post-test results, first, the control group were compared with treatment group 1. Then, group 1 was compared with treatment group 2. This is to see if the treatment had an impact on the groups of different reading comprehension ability.

The members of the control group were 20 students, 7 in biology education, 12 in physics education, and 1 in an undecided major. The members of treatment group 1 were 30 students, with 25 majoring in Korean education, 4 in education, and 1 in agricultural economy. The members of treatment group 2 were 19 students, and there were 13 majoring in applied biology, 2 in management, 2 in psychology, and 2 in food and nutrients. They were aged 19 to 21 years old, except 1 student who was 25 years old in treatment group 1. All of the participants were Korean learners of English who had learned English for more than 10 years in Korea. Individual level differences of English proficiency among the participants were not considered in this study because there were only five students who had English proficiency test scores, among whom two students in the first group had TOEIC scores of 740 and 820 in the control group, one student in treatment group 1 had a TOEIC score of 600, and two students in treatment group 2 had TOEIC scores of 670 and 790. Their information is summarized in the following table.

TABLE 1

Participants of Each Group

Groups	Number of students	Major (n)
Control	20 (12 Males & 8 Females)	Biology Education (7) Physics Education (12) Undecided Major (1)
Treatment 1	30 (12 Males & 18 Females)	Korean Education (25) Education (4) Agricultural Economy (1)
Treatment 2	19 (11 Males & 8 Females)	Applied Biology (13) Management (2) Psychology (2) Food and Nutrition (2)

In order to see the level differences of the reading comprehension ability, the test scores of the treatment group 1 and 2 were compared statistically using t-test in Table 2. The result showed that comparing the means between two treatment groups were significantly different (p = .001). Accordingly, comparing the post-test results of the two groups after the treatment could be involved in this study.

TABLE 2

Independent Samples *t*-Test for Pre-test Scores

Group	*M*	*SD*	*df*	*t*	*Sig.*
Treatment 1	11	0.46	29	5.65*	0.001
Treatment 2	8.4	0.8	18		

P<0.05*

2. Instruments

Two kinds of instruments were used for reading instruction and for testing participants' reading comprehension ability respectively in this study. First, materials for the framing activities were developed. As frame-based material for reading instruction was never produced before, the material in the present study was developed only on the basis of the concept of frame. Following the concept of frame explained in 2.1 and framing a reading text as presented in 2.2, the materials were an integration of words and phrases of the context according to the frame of the text and were used for a before-reading activity before working on teaching reading comprehension of a text in a student textbook. In order to help learners focus on reading itself, the materials provided a platform for a quiz-type activity that contained blanks to be completed with words and phrases surrounding the frame of the passage. As a result, the material for framing activity involves key expressions

that represent the context of reading passage, numbered blanks, and marks of equality, colons, and arrows to indicate the same or similar meanings, explanatory phrases, and the effect or purpose each.

Second, all participant groups took the reading comprehension pretest in English at the beginning of the semester and post-test at the end of the semester in order to identify differences in the reading comprehension ability of each group. Both pre- and post-tests consisted of 27 multiple choice questions, excerpted from the reading comprehension test named part 7 in a TOEIC practice book. Test scores indicated the number of right answers to the questions. The averages of test results indicated the characteristics of each group to be compared with each other. The changes of the average scores in the pre- and post-test results in each group were interpreted as a reflection of the effects of the teaching methods, using a traditional approach in the control group and a frame approach in the treatment groups, on reading comprehension in English. Then, the differences of the averages of the pre- and post-test results were used to compare the differences of the effects of the teaching approaches employed in the control group and treatment groups 1 and 2.

3. Data Analysis

For effective comparison of the average reading comprehension test scores within each and between the groups, the statistical analysis, a split-plot analysis of variance (ANOVA) was conducted using SPSS 22 for Windows. The split-plot ANOVA was an analysis of variance that incorporated a repeated measure effect and a between-groups effect. This was useful to compare the averages within a group and between groups. The pre- and post-tests taken by all of the participants were scored by the writer, and the average scores of each test in each group were compared with each other. First, the average scores of pre- and post-tests in each group were compared in order to see changes. Second, changes in the averages were compared between the control group and treatment group 1 to see the differences in the participants' performances on the reading comprehension tests between those practicing the framing activity and the traditional method. Then, the changes in the mean scores were also compared between treatment groups 1 and 2 to see the differences in the participants' performances on the reading comprehension tests when practicing the framing activity between the groups of different levels. In short, a comparison of the average score differences within and between groups will be given.

4. Procedure

The procedure of collecting data and of reading instruction using the framing material for this study was in the following. First, participants' pre-test scores of reading

comprehension test were collected from the students of reading in English as liberal arts program. Second, reading instruction was given to the participants of the two treatment groups for 12 weeks during the semester. A total of eight units of the text book with 16 reading passages were covered. One theme of one chapter in the textbook contained two passages. Eight themes of the reading covered during the semester were framed and the information of the framing material is in the Table 3.

TABLE 3

Information of Framing Material Developed for English Reading Instruction

Chapter	Theme	Frame
1	Hidden Miracles	The Art of Time-Lapse photography
2	Sleep Matters	Sleep in American Society
3	Cyborg Tech	The development of Ergonomics
4	Happy Planet	Happiness from Statistical viewpoint
5	Career Paths	The importance of break time in one's career path
6	Text Generation	The Textual Language
7	Barrier and Bridges	Bridging the World Together
8	Personality Types	Acknowledging Different Personality Types

Table 3 shows the themes and frame of each chapter in the textbook. Themes were recognized as a title of each chapter of the reading and frame was decided by the writer. Frame of reading texts was decided after many times of reading the text intensively because it was inferenced considering the main idea and background knowledge of the text. This was most difficult but important part of preparing for the framing material in terms of the process to be made for the decision. Some related factors with the frame were, first, parts of the knowledge, such as natural science, engineering, humanities, and so on, second, cultural background of western, oriental, and so on, and social issues of feminism or stereotypes existing between people. Other elements of frame also included in considerations that mattered in comprehending the text. Key words and phrases were chosen from the text following the decision of the frame.

Meanwhile, the control group did not work on framing but on the grammar translation method and on vocabulary lists. According to the teacher, they worked on the vocabulary list before reading, and then reading class was given by reading and translating each line of a text from the beginning through to the end. During the class, students learned the meanings of vocabulary on the list given by the teacher, first, and assigned group of students for each unit of reading gave a presentation of reading and translating the text in

Korean. Then, finally, the teacher read and translated the reading passage in detail with explanation of grammar and structures. At the end of the semester, finally, participants' post-test scores of reading comprehension test were collected. After collecting the data, the pre- and post-test results were analyzed to examine the possibility of change in their reading comprehension ability in three groups.

IV. RESULTS

In this section, the results are presented in two parts. First, the classroom activity developed for use as classroom material and used as an approach to teaching English reading comprehension is provided. Second, the results of the statistical analysis with the data obtained by testing the learners' English reading comprehension at the beginning and end of the semester are displayed.

1. Framing Material and Activity for Teaching English Reading Instruction

As for the first research question of how to develop a pedagogic approach to English reading comprehension to practice in the classroom, class material for a before-reading activity has been developed. The classroom activity of framing an English reading text includes working on vocabulary, background knowledge, and the context of the text in order to help learners concentrate on reading before the class ends.

As an example, based on framing a text discussed in chapter 2.2, the full text of "*Are you sleeping enough?*" in Appendix A has been framed, and the cloze-test material for framing activity has been produced with blanks as demonstrated below. The rest of the nine other passages in the textbook were framed following this method.

"Are you sleeping enough?"

Are you sleeping enough?
Sleeping enough, 1) _____ eye ←→ sleep 2) _____, or restless night

No time to sleep
- sleep = shut eye
- sleep less = sleep 3) _____, skimping 4) ____ their sleep, 5) _____ sleep, stay 6) _____
- the reasons of sleep less: 7) _____ clock, 8) ____ & Starbucks culture, fast-paced and 9) _____world of business, to 10) _____

-the effect of sleep less → to 11) _____

Effects of sleep deprivation

- 12) _____ impact
- sleeping only five hours a night for a week = drunk, 13) _____, 14) _____

- poor 15) _____, poor 16) _____ at work
- dangerous effects: plane 17) _____, car accidents
- 18) _____ problems: serious consequences on performance and treatment on patients
- fatigue-related mistakes: 19) _____ of patients, patients' 20) _____

- one in five adults: to 21) _____ from daytime sleepiness
- daytime sleepiness: to 22) _____with their work
- sleep: 23) _____ to the well-being

In this material, the reading text is outlined surrounding the topic of the importance of sleeping enough. The frame of the text is the American trend of sleeping less and the reason and the effects of sleep deprivation are discussed. It is constructed with subheadings and paragraphs. Vocabularies are blanked out so the students will focus on reading the text carefully looking for the right words or phrases.

The first paragraph ″Are you sleeping enough?" has been condensed into two types of expressions, one of which is ′sleeping enough′, similar to ′shut eye′, in contrast to the other of which is ′sleep deprivation′, similar to ′restless night′. The words for the blanks 1) and 2) are important in that they contain the main frame at the core of this text.

The second paragraph ″No time to sleep" discusses the phenomena of sleep less, and the reason and the effect of it. ′Sleep′ is the same with ′shut eye′. ′Sleep less′ is the same with ′sleep deprivation′, ′skimping on their sleep′, ′skip sleep′, and ′stay awake′ for the blanks from 3) to 6). ′The reasons of sleep less′ are ′round-the-clock′, ′24/7 Starbucks culture′, ′fast-paced and competitive world of business′, ′to impress the boss′ for the blanks from 7) to 10). ′The effect of sleep less′ is ′to perish′ for the blank 11).

Under the subheading ″Effects of sleep deprivation", the paragraphs from the third to the five are about the effects or result of sleep deprivation. In the third, the effects are, first, ′detrimental impact′ for 12) and, second, ′sleeping only five hours a night for a week′ is the same with ′drunk′, ′intoxicated′, and ′fatigue′ for the blanks from 13) and 14). In the fourth paragraph, the effects of sleep deprivation are ′poor grade′ and ′poor performance at work′ in the blanks 15) and 16). The ′dangerous effects′ are ′plane crash′ and ′car accidents′ for 17). There are also effects of ′grave problems′ which means ′serious consequences on

performance and treatment on patients′ for 18), and of ′fatigue-related mistakes′ are ′injury of patients′ and ′patients′ death′ for the blanks for 19) and 20). For the last paragraph, ′one in five adults′ are ′suffer from the daytime sleepiness′ in 21) and ′daytime sleepiness′ results in ′interfere with their work′. In conclusion, ′sleep′ is ′crucial to the well-being′ for the blanks for 22) and 23).

In classroom, the instruction was provided as described in the 3.4 procedure against the two treatment groups during the semester. The framed material containing blanks was used as a before-reading activity for five minutes for reading instruction to introduce reading texts to students in every unit of the textbook and help them frame the text while reading in full. The two of the participant groups, treatment groups 1 and 2, worked on the framing activity within five minutes as a before-reading task. The framing activity began after introducing the title and the format of the text according to the subheadings. Then, each participant was given the material as a handout and assigned a task to fill in the blanks on the material by reading the text in the book quickly. At this time, everyone in the classroom should have been concentrating on the task to look for the appropriate words and phrases for each blank to be connected with neighboring phrases in the material from the reading text. After the given time for the task, the teacher began working on the task of how to find the clues to the blanks on the task material together with the students by reading the text fast with the explanation of the background knowledge of the content and linguistic resources. During the course of discussing the background knowledge of the content, semantic and syntactic information of the linguistic resources as well as the information of text organization were also given to the learners. They had to do rereading every time they work on a reading passage while performing the before-reading activity.

The American trend of sleep as the frame of the reading was briefly introduced with this activity sheet. When the summary was presented to learners with key vocabulary blanked out, it was very useful in class to have students introduced to the frame of the reading, and students were focused. When students received the summary, they had to read the text while concentrating to work on the task of filling in the blanks within the limited time.

The unknown or key vocabularies were focused on in the blanks. Their semantic and syntactic knowledge can be given by the teacher using collocations on the material or in the textbook. For example, ′to perish′ for the blank 11) of ′humans ultimately perish′ within the second paragraph of the full text in Appendix A may not be familiar to the learners. The meaning can be understood by paraphrasing it into ′humans will come to die of lack of sleep in the end′ semantically and by explaining its location as a verb syntactically. Likewise, the word ′detrimental′ in the blank 12) comes with ′impact′ to become a phrase ′detrimental impact′, which means ′harmful impact′ in other word as an adjective

used before a noun. Some words are easy to understand when used alone but they may require attention in understanding the meaning when they are collocated with others. Specifically, ′grave problems′ in 18) had to be explained to learners, and it made it easier for learners to understand when those words were explained within a context. During the framing activity, frame-based summary could be linked to the full reading text naturally.

2. Statistical Analysis of the Pre- and Post-Test

The investigation of the question was undertaken by employing a split-plot analysis of variance (ANOVA) to discover what effect practicing a frame-based approach in an English reading classroom has on improving the learners' English reading comprehension ability. The classroom material developed in 4.1 was used as a before-reading activity in the classroom in treatment groups 1 and 2 for a semester, and the learners' English reading comprehension ability was tested. The statistical results of the tests are reported in Table 4 and Table 5.

First, the descriptive statistics in Table 4 show the performance of each group in the pre- and post-tests. According to the results of the pretest, treatment group 1 had the highest scores, 11 right answers to the given 27 questions, the control group had scores in the middle, 9.5, and treatment group 2 had the lowest, 8.4. However, in the post-test, treatment group 1 had the highest number of questions correct, 11.7, treatment group 2 had scores in the middle, 11, and the control group scored 8. As a result, treatment group 2, the lowest scoring group on the pretest, increased the most regarding pre- and post-test average scores, while among the three participant groups, only the control group's scores decreased. Treatment group 1, the highest scoring group on the pretest, improved marginally, only 0.7 on the post-test.

TABLE 4

Descriptive Statistics of the Means of the Pre- and Post-test of Each Group

Group	Number of students	Mean		*SD*	
		Pretest	Post-test	Pretest	Post-test
Control	20	9.5	8	3.6	3.3
Treatment 1	30	11	11.7	3.9	3.6
Treatment 2	19	8.4	11	3.5	3.4

P<0.05*

The performances of all of the groups in the pre- and post-tests of English reading comprehension were analyzed using the split-plot ANOVA in order to effectively test whether the treatment groups improved more after the treatment than the control group.

The analysis results are shown in Table 5 below. One independent variant is a fixed factor, the group types (control, treatment 1, and treatment 2), and the other independent variable is the repeated measures variable (the time, pre and post resilience). The main effect of groups was significant, [F (2, 66) = 3.73, $p < 0.05$]. The main effect of time was not significant, [F (1, 66) = 1.24, $p > 0.05$]. The interaction of these two factors was very significant, [F (2, 66) = 9.18, $p < 0.05$]. This indicates that there were no significant differences between the groups at the baseline, and the averages of one test result did not change much over the time. However, the group difference was significant, and especially for the interaction between time and groups.

TABLE 5

Results of Split-Plot ANOVA for the Effects of Group and Time on Reading Comprehension Tests

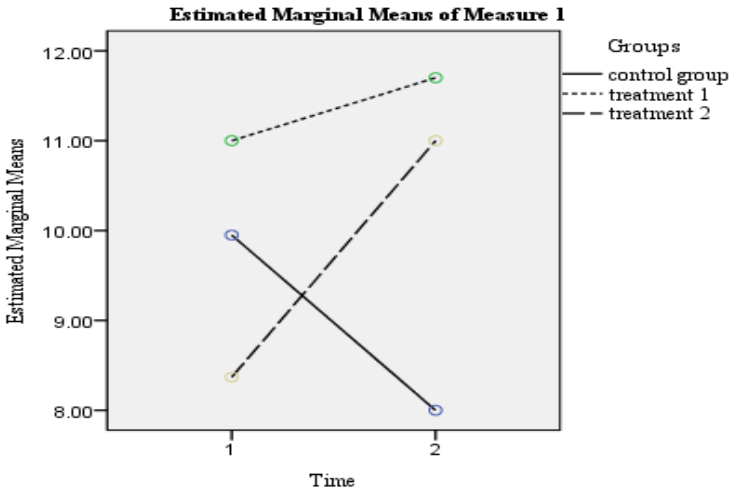
Source	*SS*	*df*	*Mean Square*	*F*	*p**	*Partial* η^2
Groups	149.48	2	74.74	3.73	0.03	0.10
Time	7.02	1	7.02	1.24	0.27	0.18
Time * Groups	103.74	2	51.9	9.18	0.00	0.22

P<0.05*

In order to make it easier to interpret the results of the analysis, a profile plot is shown in Figure 1 below. In Figure 1, the vertical axis of 'Estimated Marginal Means' indicates the test scores of each group. The horizontal axis of 'Time' indicates 'Time 1' for the pretest taken and 'Time 2' for the post-test taken. Lines for different groups indicate the time change of each group's test-taking performance at Time 1 and 2. The straight line shows that the control group moved down from Time 1 to Time 2, which means that they performed worse on their post-test than on their pretest. On the contrary, the lines for treatment group 1, the dotted line, and treatment group 2, the broken line, move upward, which means that two of the groups performed better on their post-tests of Time 2 than in their pretests of Time 1. Between the two treatment groups, group 2 rises sharply in the test of Time 2, much better than in Time 1. Even though treatment group 1 is at the highest points at Time 1 and Time 2, treatment group 2 shows the greatest change in their performances on the test over time among the three groups. This means that treatment group 2 shows the greatest improvements in performance compared with treatment group 1 and the control group, implying that the treatment worked best for treatment group 2. However, post-hoc test comparison with groups displayed some differences. The result between control group and treatment group 1 was significantly different ($p < 0.05$), while the results between treatment group 1 and 2 was not ($p = .179$). The findings indicated that practicing framing activity played a positive role against English readers with any level of reading comprehension ability.

FIGURE 1

Profile Plot



In sum, the findings of the present study showed that using frame as a basic concept for English reading comprehension can be applicable to develop classroom material and framing activity before English reading text. The English learners in this study performed better on their English reading comprehension test when they practiced the framing activity in learning reading comprehension in an English. From the split-plot analysis of variance, treatment groups 1 and 2 performed better on the post-test than the control group who performed worse on the post-test than on the pretest.

V. CONCLUSION

This study investigated the possibility of using the concept of cognitive frame to develop material for English reading instruction and how effective it is to practice the activity to improve English learners′ reading comprehension ability. For the investigation, first, framing material for a before-reading activity was developed. In the material, the content of the reading text was summarized with key words and phrases according to the frame of the reading, using the symbols of colons, arrows, and of equality. Next, before-reading activity, framing, was practiced against Korean university students of reading in English for a semester using the material. In order to see whether the learners′ English reading comprehension ability changes by taking the frame-based reading instruction, the participants′ reading comprehension ability was tested against 2 treatment groups and 1control group at the beginning, pretest, and at the end, post-test, of the experiment

semester. For the test, 27 questions from the TOEIC Part 7 Reading Comprehension Test were used.

According to the results, the newly developed before-reading activity is deemed to have positive effects on learners′ reading comprehension ability. In the pretest, treatment group 1 scored the highest, the control group scored in the middle, and treatment group 2 scored the lowest. In contrast, the post-test scores of each group were in the order of treatment group 1, treatment group 2, and the control group from high to low. Regarding the improvement rate, the treatment group 2 was much more than treatment group 1, as shown in Figure 1. However, although we cannot disapprove of the potential effect of the different levels of the participants' language ability, it can be concluded that the treatment was effective against English learners of reading comprehension despite the level of reading comprehension ability while grammar translation and vocabulary learning did not help improving English reading comprehension ability.

Not only on the results of the tests, but it seems useful to include the framing activity in the reading instruction based on the following reasons. First, through the framing activity, comprehensive knowledge of a text can be introduced before and during reading of a full text. The contextual, cultural, and social dimensions of frames of a reading text give readers a perspective of how to interpret a text. Second, structural format of a reading text can also be made known to the learners. The formal frame of a text in English guides readers to anticipate how the text is established and developed according to the type of the text. Third, as for vocabulary, the syntactic and semantic knowledge surrounding the keywords can be given. Key words that evoke the frame of a text signal the contextual and structural frames for English readers. The incorporation of formal, contextual, cultural and social factors of a text in addition to linguistic resources in English reading is already condensed into the concept of frame. It can be said that frame makes it possible to explain all of these components and the differences existing in different languages, which will in turn help enhance a reader′s language processing ability within the context.

Also, adopting the frame-based learning method in English reading has some benefits for both teacher and learners. For a teacher, the framing activity served as facilitator for reading instruction. Going through the before-reading activity, teacher could enjoy the economy of teaching vocabulary within its contextual, cultural, and social background, supported by the concept of frame. The highlighted vocabulary in the reading could be taught with its own structural and semantic knowledge. Such an approach is meaningful in that the vocabulary is taught within the context of the frame without separating them from the text. All information of linguistic resources and background knowledge entangled with the reading text could be presented together with the frame and the context of the reading text by undertaking the activity.

For learners as English readers, some positive aspects have been shown in their reading

behaviors while taking part in the framing activity as in the following. First, students′ speed reading was seen while they were trying to find the words and phrases for the blanks from the full text. Otherwise, it would be difficult to observe their reading a text that quickly according to the writer′s experiences of teaching. Second, it was noticeable that the learners were motivated to read. They worked hard doing the task of the before-reading activity even before they were told to do so whether or not they completed the tasks. Third, they were focused on reading activity itself while rereading and carefully making the meaning of the text. Fourth, there was no time to be wasted during the instruction as learners absorbed themselves into the action of reading in the process of making the meaning of a text doing the task for five minutes of before-reading activity, not allowing the learners to feel bored.

Through this study, learners of English reading were found potentially good readers if appropriately devised pedagogical method was used. Good readers are fluent readers who effectively recognize words and process both linguistic and informational knowledge of the content of the text they are reading (Grabe, 2010). If the aim of English reading instruction is to help English readers become fluent readers, which will be accomplished after a long period of time of reading English text, the instruction should involve the activity of rereading and repetition in classroom (Grabe, 2009; Nation, 2006). Pedagogical implications of fluent reading is that reading instruction should be conducted for the purpose of reading fluency by reading a text repeatedly through practices within time limit for helping learners to become good readers (Grabe, 2010). Reading fluency promotes accuracy, and accuracy is an indication of increasing fluency in language performance (Segalowitz, 2000). In doing so, word recognition, processing the information of a reading text, and reading speed will be bettered and, as a result, reading fluency will be boosted.

In conclusion, it seems appropriate using the concept of frame in English reading instruction designed in this study. Rather than relying on each of the linguistic or content knowledge factors at the cost of the others or apart from each other, it has shown that how explicit instruction of word and text reading under the concept of frame helps enhancing the efficiency of English reading instruction. Besides, giving the frame-based instruction of English reading made it possible to have learners reread a reading text in a fast manner, so teaching method to support reading fluency has been realized by using framing activity before reading the full text of reading. Under the notion of frame in a reading text, the issue of teaching linguistic resources, multidimensional facets of social, cultural, and contextual frame as well as learners′ actions of reading in English has turned out to be possibly filled into English reading instruction without separating from reading comprehension. This will be of help to take another step forward to communicative language teaching of reading comprehension for university level students, leading to meaningful language learning.

The present study provides valuable insights into frame as a resource for developing

teaching approaches to English reading comprehension. A text is a body of language with a frame, and the frame governs all the meanings and usage of any units of the linguistic resources in the text. This applies to every skill of language use, such as listening, writing, or speaking, which is structured and composed by frames. Therefore, understanding language use should be followed by understanding the frame and its interrelated linguistic and background knowledge, especially in language material in English. Accordingly, material developed using the concept of frame can be introduced for before- or after-reading activities, or review tests. Also, framing activities may work with any other types of text, such as reading texts for test preparation, learning academic text books, reading for fun, and so on. Moreover, the materials for framing activities can be included in a book of language learning to make it easy for teachers and learners to get easier access to a text, which would be favored by those involved in language education. Teachers may enjoy the five-minute activity and use it in classrooms. Learners can see themselves enjoy reading and improve their reading ability.

The limitations and recommendations for the follow-up studies are like this. There are some elements that can be variables to the results of this study. First, in addition to testing participants′ reading comprehension ability using shortened forms of English proficiency test in this study, participants could also be surveyed and interviewed concerning the effects of using the concept of frame into English reading instruction in the future. Second, teachers′ responses to conducting the frame-based reading activity can be a good source of information in supporting the instructions of the concept of the frame. Third, different types of texts could be investigated for their frames in future studies instead of placing limitations on the subject. Finally, which level of learners will benefit from framing activities needs to be examined under different conditions.

It still needs to be discussed further as to how simply and easily framing material can be produced. It depends on the instructor's understanding and inferencing capability making a decision on the frame of a reading text for now. Nevertheless, the results of this study are valuable, which can serve as a foundation for further studies on using the concept of cognitive frame in the field of language education in the future.

REFERENCES

Blass, L., Vargo, M., & Winsniewska, I. (2016). *21st century reading student book 3: Creative thinking and reading with TED talks.* Boston, MA: National Geographic Learning/ Cengage Learning.

Brown, H. D. (2001). *Teaching by principle: An interactive approach to language pedagogy* (2nd ed). NewYork, NY: Longman.

Carrell, P. L., Devine, J., & Eskey, D. E. (1988). *Interactive approaches to second language reading*. Cambridge: Cambridge University Press.

Fillmore, C. J. (1982). Frame semantics. In the Linguistic Society of Korea (Ed.), *Linguistics in the morning calm* (pp. 111-137). Seoul: Hanshin.

Fillmore, C. J. (1985). Frames and the semantics of understanding. *Quaderni di Semantica, 6*(2), 222-254.

Fillmore, C. J., & Atkinson, B. (1992). Toward a frame-based organization of the lexicon: The semantics of RISK and its neighbors. In A. Lehrer & E. Kitay (Eds.), *Frames, fields, and contrast: New essay in semantics and lexical organization* (pp. 75-102). Hillsdale: Earlbaum.

Fillmore, C. J., & Baker, C. (2010). A frames approach to semantic analysis. In B. Heine & H. Narrog (Eds.), *The Oxford handbook of linguistic analysis* (pp. 313-339). Oxford: Oxford University Press.

Geeraerts, D. (Ed.). (2006). *Cognitive linguistics: Basic readings*. New York, NY: Mouton de Gruyter.

Grabe, W. (2009). *Reading in a second language: Moving from theory to practice.* Cambridge: Cambridge University Press.

Grabe, W. (2010). Fluency in reading—Thirty-five years later. *Reading in a Foreign Language, 22*(1), 71-83.

Hong, J. M. (2016). Analysis of errors by graduate students in economy/finance translation from frame perspective. *Korean Journal of Applied Linguistics, 32*(1), 203-235.

Koda, K. (2005). *Insights into second language reading: A cross-linguistic approach*. Cambridge: Cambridge University Press.

Lee, D. (2004). *Cognitive linguistics: An introduction*. Oxford: Oxford University Press.

Moon, M. S. (2004). Frame semantics and translation of polysemy. *Deutsche sprach-und Literaturwissenschaf,* 28, 279-299.

Nation, I. S. P. (2006). How large a vocabulary is needed for reading and listening? *Canadian Modern Language Review, 63*, 59-82.

Oh, J. Y. (2010). A study on the cognitive learning of meaning through frame Semantics. *Cross-Cultural studies, 19*, 295-311.

Park, J. W. (2013). Translation of frame knowledge and metaphor: a cognitive linguistics approach. *Interpretation and Translation, 15*(1), 31-62.

Radden, G. (2008). The cognitive approach to language. In J. Andor, B. Hollósy, T. Laczkó, & P. Pelyvás (Eds.), *When grammar minds language and literature* (pp. 387-412). Debrecen: Institute of English and American Studies.

Segalowitz, N. (2000). Automaticity and attentional skill in fluent performance. In H. Riggenbach (Ed.), *Perspectives on fluency* (pp. 200-219). Ann Arbor, MI: University of Michigan Press.

APPENDIX A

The excerpt of a full reading text from a textbook, "Are you sleeping enough?"

Are you sleeping enough?

We've all had restless nights when we couldn't get to sleep-and have suffered the next day as a result. Sleep experts say the average adult requires seven to nine hours of sleep per night; in fact, anything less could harm our health.

No time to sleep

In spite of the importance of sleep, many people are not getting enough. For example, Americans sleep one hour less per night on average than they did 20 to 30 years ago. "The dependency on caffeine and the whole Starbucks culture is certainly one proof that our society is sleepier than ever before," says William Dement, a sleep researcher at Stanford University. Sleep is a biological need, much like food and water. If totally deprived of shut-eye, humans ultimately perish. Yet millions of people are increasingly skimping on their sleep.

Why has sleep deprivation become such a big problem? There are a couple of possible reasons. Researchers say that today's sleep deprivation is partly due to modern expectations. These days, consumers expect information, entertainment, and food to be available round-the-clock. One of the results of this 24/7 culture is that consumers stay awake longer and later than they used to. Consequently, workers who provide us with goods and services can't stop working when the sun goes down, In addition, the fast-paced and competitive world of business often rewards employees for arriving at work early and staying late. As a result, many employees are willing to skip sleep in order to impress the boss.

Effects of sleep deprivation

Sleep deprivation can have a significantly detrimental impact on our performance, however. According to Charles Czeisler of Harvard University, staying awake for 24 hours or sleeping only five hours a night for a week is like having a blood-alcohol level of 0.1 percent. That is well above the legal limit for safe driving in most countries. Most people probably wouldn't get drunk before going to work or taking an exam; but if they are sleeping an average of five hours a night, they may be working, studying, driving, and making decisions as though they are intoxicated.

Sleep deprivation can result in poor grades or poor performance at work. But in some cases, it can have more dangerous effects. In February 2009, a commuter plane crashed on the way from Newark, New Jersey, to Buffalo, New York, killing all 49 people on board and one person on the ground. An investigation determined that the crash was most likely a result of fatigue. The copilot, and probably the pilot, had slept very little the day before the crash. Not surprisingly, sleep deprivation is linked to car accidents, too. The U.S. Institute of Medicine reports that almost 20 percent of car accidents happen because drivers are sleepy.

Sleep deprivation can be a particularly grave problem in the medical profession. In 2007, Czeisler researched the habits of 2700 first-year medical residents. Most of these residents worked for extremely long periods, some working 30-hour-long shifts twice a week. Many admitted that fatigue had had severe consequences on their performance and treatment of patients. Twenty percent of residents acknowledged making fatigue-related mistakes that led to injury of a patient. Five percent confessed that lack of sleep caused them to make a mistake that resulted in a patient's death.

We all know that we need sleep, but sleep deprivation continues to be a widespread problem around the world. Studies show that one in five adults suffer from daytime sleepiness. Among those aged 18 to 34, 50 percent say that daytime sleepiness interferes with their daily work. To many, the ability to function without much sleep is something to brag about. However, sleep is crucial to our well-being and our performance. It may be time to wake up and change our perspective on sleep. (Blass, L., Vargo, M., & Winsniewska, I., pp. 27-29)

Examples in: English
Applicable Language: English
Applicable Levels: Elementary, secondary, tertiary

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