**Investigation into the efficacy of text modification:
What type of text do learners of Japanese
authenticate?**

By

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DEDICATION

To my parents,
who taught me that the world does not have limitations for a person with
passion

To my daughter, Akane,
who leads me in this world without limitations with her amazing
inspiration

ABSTRACT

The dissertation is a study of the efficacy of reading materials for learners of Japanese as a foreign language (JFL). It discusses the merits of 'authentic' materials written primarily for native speaker-readers compared to 'modified' texts adapted in some way for learners. Further, it compares various sorts of modifications: simplification, elaboration, marginal glosses and the use of onscreen computer pop-ups. More broadly, it locates the study within the wider discourse of pedagogy concerning reading materials for second language learners, especially JFL learners.

Reading in Japanese as a second language is generally thought to be more demanding than reading in some other second languages. The study therefore argues that the authenticity debate and efficacy of text modification must be addressed specifically in the JFL reading pedagogy.

In the context of the authenticity debate, there are, broadly, two opposing views. One favours the predominant use of unmodified texts while the other promotes the efficacy of modified texts. While there have been numerous theoretical discussions and empirical findings in the reading pedagogy of English as a second or foreign language (ESL/EFL), the JFL reading pedagogy is currently lacking such academic endeavours. Hence, the present study seeks to fill the gap.

The study is mixed methods research, consisting of three projects in which both qualitative and quantitative methods are employed. This approach investigates equally the effects of text modification on participating learners'

cognitive changes (reading comprehension) and affective changes (motivation and perception).

The results indicate that learners of Japanese comprehend modified texts statistically significantly better than they do unmodified texts. Findings include that modified texts for Japanese are more efficacious than they are in the ESL/EFL context. However, modified texts that are insufficiently challenging fail to enhance learners' motivation. Advanced learners especially were found to have a negative attitude toward reading modified Japanese texts.

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ABBREVIATIONS COMMONLY EMPLOYED

CLT – Communicative Language Teaching

ESL/EFL – English as a second or foreign language

FL – foreign language

GEEs – Generalised Estimating Equations

GRs – graded readers

JLPT – Japanese Language Proficiency Test

JSL/JFL – Japanese as a second or foreign language

L1* – native or first language

L2* – second or foreign language

NNSs – non-native speakers

NSs – native speakers

TWs – target words

Note: L1 and L2 – These words are used when two languages are viewed dichotomously as ‘the native tongue’ and ‘the other tongue used by a speaker either as a second language or a foreign language.’

Chapter 1. Introduction

1.0 Overview of the chapter

This chapter explains what motivated the current study. It also shows the content of each chapter and the outline of the research approach taken in the study.

1.1 The motivation for the present study

In 1986, Ray Williams proposed ‘Top Ten Principles’ for EFL reading pedagogues. Two and a half decades later, these principles still give foreign language (FL) reading teachers “a starting point for a re-evaluation of their own philosophy” (ibid., p. 42). They encourage FL reading teachers to contemplate how they can help L2 learners to become autonomous and capable readers. The first and second principles assert the most important factors in teaching reading: “1. *In the absence of interesting texts, very little is possible,*” and “2. *The primary activity of a reading lesson should be learners reading texts*” (ibid., p. 42, italics in the original). The first principle reminds us that texts have to be interesting to enhance learners’ motivation. The second principle confirms that “learners learn to read by reading: there is no other way” (ibid., p. 42). These two principles have been empirically supported by numerous extensive reading¹ studies (e.g., Elley & Mangubhai, 1983; Mason & Krashen, 1997; Smith, 2006; Takase, 2004).

My scholarly exploration of reading development started because of dismay arising from a teaching situation which defied William’s top ten principles in many respects. In the final year of a university Japanese language course which I had been teaching for a decade, many students reached the stage of giving up on mastering their target language reading. I similarly reached the stage of wondering whether

¹ Extensive reading is an approach in which learners read many easy books for meaning, which is thought to nurture pleasure in L2 reading (Day & Bamford, 1998, 2002), improve learners’ fluency (e.g., Beglar, Hunt & Kite, 2011), and enhance their motivation to read (e.g., Macalister, 2008).

mastery of Japanese reading might be achieved by only a few exceptional students who were naturally talented and extremely hard-working. Hence, I turned my attention to extensive reading as a way in which ordinarily dedicated students of Japanese could develop reading fluency and find joy in reading. This was my motive in conducting a case study on extensive reading (Tabata-Sandom & Macalister, 2009). During the case study, I experienced a problem which is faced by other researchers and practitioners of Japanese (e.g., Fukumoto, 2004; Goda, Iijima, Noda & Yoshida, 2005; Hitosugi & Day, 2004; Ikeda, 2003; Leung, 2002): the appalling scarcity of appropriate reading materials for learners of Japanese. This is what helped my primary pedagogical dismay to grow into a more specific academic interest in materials development, selection and provision, as well as text modification.

1.2 A need for specific discussion of ‘authenticity debate’ in the context of JFL

In the ‘authenticity debate’ of reading materials discussed in the context of ESL/EFL, some support the superiority of so-called ‘authentic texts’ (e.g., Berardo, 2006; Honeyfield, 1977; Neikova, 2005; Swaffer, 1985) while others claim the efficacy of so-called ‘simplified texts’ (e.g., Bamford, 1984; Bamford & Day, 1997; Nation & Deweerdt, 2001; Richards, 2006). However, the same discussion has not yet occurred in the context of JSL/JFL. Therefore, this debate remains a relevant debate for this specific field.

Reflecting a reasonable success in the context of ESL/EFL, extensive reading has started drawing attention in the context of JSL/JFL. It is important to examine texts given to learners of Japanese before extensive reading is widely

promoted and graded readers (GRs)² are actively produced. The learners in my case study express that the difficulty of *kanji*, i.e., logographs in Japanese texts, is demotivating (see Appendix 1 for a sample Japanese text which contains *kanji*). The fact that the difficulty of *kanji* poses a big learning challenge for learners of Japanese is often reported (e.g., Chang, 2011; Kondo-Brown, 2006). This factor alone justifies why the authenticity debate needs to be discussed in the context of JSL/JFL. Allen, Bernhardt, Berry and Demel (1988), Maxim (2002) and Young (1993)³ demonstrate that when learners' native language (L1) and their target language (L2) share the same orthographic system, even elementary- and intermediate-level learners are capable of comprehending original texts satisfactorily. However, different phenomena may be observed when learners' L1 and their L2 are very distant, e.g., when L1 English learners read L2 Japanese texts.

1.3 The research orientation of the current study

Since I employed a qualitative approach as well as a quantitative approach in order to pursue my academic exploration, I am now obliged to explain my stance as a researcher. Furthermore, Claridge (2011) suggests that “even in quantitative research the position of the researcher has to be taken into account” (p. 52, 53). Thus, I owe readers self-description of my perspectives that influence my research stance.

First of all, having been a teacher for over a decade, my general stance is very similar to that of Dörnyei (2007):

I cannot relate well to research texts that are too heavy on discussing the philosophical underpinnings of research methodology. Although, ... I do

² Graded readers (GRs) are graded reading materials which are used in extensive reading. The level of difficulty of GRs is determined by vocabulary and grammar difficulty. Some GRs are rewritten from original texts while others are written with language learners being their intended readership.

³ Participants' L1 (native languages) and L2 (second languages) of studies by Allen, Bernhardt, Berry and Demel (1988), Maxim (2002) and Young (1993) are respectively: English and French/Spanish/German, English and German, mainly English (not clearly stated) and Spanish.

accept that our behaviours (and particularly sustained and consistent behaviours such as research efforts) are governed by abstract principles, I get easily disoriented in the midst of discussing research at such an abstract level, and often find myself thinking, ‘Can’t we just get on with it...?’ ... The other side of the coin is, however, that I really dislike bad research. Therefore, I firmly believe in the importance of becoming familiar with the ‘research lore’ – that is, the principles of best practice – that past researchers have accumulated over the decades. (p. 18)

I value pedagogical benefits created by research as much as I weigh “the philosophical underpinnings of research methodology.” At the same time, I strongly agree with Dörnyei that it is important to familiarize ourselves with what previous researchers have achieved. That saves us from repeating the same mistakes and enables us to improve the current theory and practice. Unfortunately, there have not been previous researchers in the developing context of JSL/JFL who held a similar research interest as that held by me. Nevertheless, I have learnt tremendous lessons from researchers who dedicated their energy to text modification studies and authenticity issues in the contexts of ESL/EFL. The learning from them has guided me to make the decision to take a more-quantitative approach in Project One.

On the other hand, the urge to deepen my research interest upon completion of the first two projects played a part in prompting me to take a more qualitative approach in Project Three. Such an insight had not been well explored by researchers even in the advanced ESL/EFL fields. Therefore, Project Three tended to be exploratory in nature.

Specifically, this study investigated the extent to which learners of Japanese benefited from reading L2 texts which were modified especially for them. In other words, the study examined the relative effects of various text modification measures on learners’ cognitive and affective factors in three projects.

Project One examined the relative effects of different text modification measures on learners' reading comprehension and affective changes, using a free recall task, a short answer reading comprehension test and a semi-structured exit interview. Quantitative data analysis by means of Generalised Estimating Equations (GEEs) of participants' scores gained from the free-recall task and the short answer reading comprehension test demonstrated that their reading comprehension changed according to differently modified texts (refer to Hanley, Negassa, Edwardes & Forrester, 2003; Liang & Zeger, 1986; Zeger & Liang, 1986 for GEEs). Qualitative data analysis of the participants' free recall protocols and their interview comments presented their affective changes. Project Two is a questionnaire survey which was conducted to confirm the findings of Project One. Although Project One had more than 150 readings to analyse, its sample size was relatively small (N=31). Therefore, this questionnaire survey was conducted with a larger group of similar learners of Japanese (N=51). By employing the think-aloud procedure, Project Three investigated learners' online responses toward two types of L2 texts: original literary works and their GR versions. This dissertation starts from the same premise about 'authenticity' as that of Widdowson (1979): that authenticity does not inherently reside in the text itself, but that it is realized as an interaction between the reader and the text. It was hypothesized that delving into the interaction between the participating learners and the two GRs used in Project Three would clarify whether or not 'authenticity' as perceived by Widdowson was realized when modified texts were given to L2 Japanese learners.

1.4 Content of each chapter

This thesis consists of seven chapters. The next chapter, Chapter Two, explains the reading process and how L2 learners comprehend their target language

texts, by reviewing some theories of reading. Chapters Three and Four review the previous relevant literature. Chapter Three provides a review of literature on the ‘authenticity debate.’ The historical background of text modification studies is explained in Chapter Four. The current study categorizes text modification measures into three types, i.e., simplification, elaboration and easification (Nation, 2001). Hence, empirical findings are provided from numerous text modification studies which deal with these three text modification measures. Chapter Four also extends arguments about text modification to a framework of input modification and examines two types of different-medium reading, i.e., hard copy reading and computerised reading. Taking into consideration that information technology has made remarkable advances, and that increasing numbers of language learners use such technology for L2 reading (e.g., Bell & LeBlanc, 2000), it is important to investigate how a new type of text modification measure, i.e., computer annotation, influences L2 learners’ cognitive and affective aspects of reading development.

Chapter Five reports on the methodology of the three projects undertaken in the current study. Chapter Six then presents and discusses the findings of the three projects. Finally Chapter Seven draws conclusions, discusses pedagogical implications and proposes directions for future studies.

Chapter 2. What is reading?

2.0 Overview of the chapter

It is important to understand the reading process when the efficacy of text modification is discussed. In this chapter, therefore, the components of the reading process and the way L2 learners comprehend texts are explained. The chapter concludes that automaticity of lower-level reading processes such as word recognition is crucial for fluent reading and that reading large quantities of comprehensible texts facilitates such automaticity acquisition.

2.1 Understanding the reading process

It is essential to understand how the reader processes a text in order to determine what influences the reader's understanding and motivation in L2 reading. Such an understanding is especially important when the relative effects of different text modification measures are examined. While a thorough review of the literature about the reading process is beyond the scope of this thesis, the relevant issues are briefly reviewed.

Although a complex mental activity such as reading “is perhaps the most thoroughly studied and least understood process in education” (Clarke, 1980, p. 203), a definition of reading proposed by Nuttall (1996) provides a good starting point. She views reading as “the transfer of meaning from mind to mind” (ibid., p. 3). That is to say, reading is a communication process in which the writer encodes his/her message by means of written texts and then the reader attempts to decode the message. The reader, however, changes the way of reading depending on his/her purposes and contexts (Grabe, 2009). Grabe points out six purposes for reading. They are, “reading to search for information (scanning and skimming),” “reading for

quick understanding (skimming),” “reading to learn,” “reading to integrate information,” “reading to evaluate, critique, and use information,” and “reading for general comprehension (in many cases, reading for interest or reading to entertain)” (ibid., p.8). The current study examines what type of text is an optimal text when university-level learners of Japanese read their target texts for meaning independently, which is the last of Grabe’s taxonomy. Hence, this chapter seeks understanding of how the reader gains meaning from a text, i.e., how the reader acquires general comprehension from a text.

2.2 Component processes of reading

Reading researchers explain the whole reading process by its component processes. Those components are divided into lower-level and higher-level processes. Lower-level processes include “word recognition, syntactic parsing, and meaning encoding as propositions (more formally, semantic-proposition encoding)” (Grabe, 2009, p. 21), whereas higher-order processes contain “text-model formation (what the text is about), situation-model building (how we decide to interpret the text), inferencing, executive-control processing (how we direct our attention), and strategic processing” (ibid., p. 21). Rapp, van den Broek, McMaster, Kendeou and Espin (2007, p. 290) confirm that “reading experts have identified basic skills (e.g., phonological awareness, decoding, fluency, and vocabulary knowledge) that are important for successful reading ... At the same time, it has become clear that higher-order reading skills – those involved in comprehension itself – are also essential to successful reading.”

2.3 How the reader comprehends the text

In this section, the process in which a reader comprehends a text is outlined, following Grabe’s (2009) thorough explanations (Chapters 2 & 3, p. 21– 58).

How lower-level processes work – importance of word recognition

The aforementioned lower-level processes, i.e., word recognition, syntactic parsing and semantic-proposition encoding, have to be automatized for fluent reading to occur. In particular, the importance of fluent, efficient word recognition cannot be overemphasized (e.g., Grabe, 2009; Koda, 2005; Perfetti, 2007; Perfetti, Van Dyke & Hart, 2001). Koda (2005, p. 29) defines word recognition as “the processes of extracting lexical information from graphic displays of words.” Perfetti (2007, p. 357) asserts that “comprehension depends on successful word reading. Skill differences in comprehension can arise from skill differences in word reading.” Grabe (2009, p. 23) also emphasizes this aspect, claiming that “fluent reading comprehension is not possible without rapid and automatic word recognition of a large vocabulary...word recognition represents the part of comprehension that is unique to reading.” In short, fluent word recognition is a key to fluent reading.

During the word recognition process, readers access their mental lexicon for a word’s meaning and pronunciation, utilizing orthographic and phonological information. The role played by semantic and syntactic information that is thought to be available after word recognition is not fully established, but they do contribute to lexical access in terms of integrating gained information and facilitating comprehension. Grammatical information helps readers to form semantic propositions which construct comprehension of a given text. The most important point about this complex process of word recognition is that it has to be automatic for reading to be fluent. When word recognition is automatic, it does not take up space in working memory and the other processes can be allocated more cognitive space for their operation. Since working memory, i.e., the on-going active network

of information, is capacity-limited, the efficiency of word recognition is vital for readers to be able to comprehend a text successfully.

Higher-level process operation

Whereas the above-mentioned lower-level processes are operated automatically (or supposed to be operated automatically), higher-level processes sometimes require conscious attention. Three components, “a text model of reader comprehension, a situation model of reader interpretation, and a set of reading skills and resources under the command of the executive control mechanism in working memory” (Grabe, 2009, p. 39) form higher-level processes.

What is formed from word recognition, syntactic processing and semantic-propositional encoding is not enough for a reader to understand a whole text. A reader has to construct “an integrated understanding of the text across sentences” (Perfetti, Van Dyke & Hart, 2001, p. 131). Newly encoded propositions have to be connected into previously encoded semantic propositions so as to construct a coherent representation of textual input, i.e., a text model of reader comprehension or a text base. McNamara, Kintsch, Songer and Kintsch (1996) elaborate the concept of the text base as follows:

The text base contains the information that is directly expressed in the text, organized and structured in the way that the author had organized the material... The construction of the text base involves the extraction of semantic information from a text... The process of transformation from words to meaning units involves a certain amount of inferential activity... In general, this is the minimum amount of processing that a cooperative and motivated reader would perform. (p. 3)

This text model of reader comprehension, i.e., the text base, is constructed through processing numerous factors such as bridging inferences to fill gaps of the network coherence and identifying the referents of pronouns (ibid., p. 3). As

McNamara et al. claim, this text model is “the minimum amount of processing” and readers further construct a situation model of text by adding their own interpretation. This situation model is “superimpose[d] over the growing text model of comprehension” (Grabe, 2009, p. 43). Perfetti, Van Dyke and Hart’s (2001) explanation distinguishes these two models clearly:

The text base is a mental representation of the propositions of the text, as extracted from the reading of successive sentences, supplemented only by inferences necessary to make the text coherent. The reader builds a situation model from the text base by combining knowledge sources through additional inference processes. Thus, a text base is essentially linguistic, consisting of propositions derived from sentences, whereas a situation model is essentially agnostic in its form of representation. (p. 133)

Unlike the first model (a text base/a text model of a reader’s comprehension), the second model (a situation model) incorporates not only textual information but also other variables such as readers’ purpose of reading and background knowledge, as well as types of a text, e.g., a diary or a newspaper article. Therefore, which model is activated more vigorously depends on these factors. A text base which is closer to a writer’s original intention is more appropriate when a reader reads an expository text for gaining specific information to apply it to a practical situation. On the other hand, an intriguing literary piece solicits the reader’s interpretation, which vigorously facilitates building a situation model of a reader’s own world of meaning.

For forming either a text model or a situation model, various other processing occurs under the attentional executive control in working memory. They include suppressing irrelevant information, goal-setting/-shifting, utilizing appropriate reading strategies, activating background knowledge and monitoring.

2.4 Metaphorical reading models and compensatory interactive models

In the previous section, all the component processes of reading are outlined. Now it is important to review the reading models proposed by some reading researchers that explain how lower-level and higher-level processes operate. Grabe (2009, p. 55) asserts that “it should be evident that efficient reading ability combines aspects of higher-level and lower-level processing, often referred to as bottom-up and top-down processing.” However, how to explain such a combination of higher-level processing and lower-level processing has not been straightforward in the scholarly discourse of reading research history.

Two types of metaphorical reading models, i.e., the bottom-up processing models (e.g., Gough, 1972; LaBerge & Samuels, 1974) and the top-down processing models (e.g., Goodman, 1967; Smith, 1971, 1982), were equally incapable of explaining how lower-level and higher-level processes combine in the reading process. That is because the bottom-up processing model failed to account for how higher-order processing affects lower-level processes because it views the reading process as a sequential linear progression of discrete sub-processes whereas the top-down processing model was also criticised mainly for its excessive emphasis on readers’ interpretations.

Some theorists, then, tried to explain significant empirical findings with more accommodating metaphorical reading models which were termed ‘interactive models’ (e.g., McClelland & Rumelhart, 1981; Rumelhart, 1977; Samuels & Kamil, 1984). Rumelhart (1977) proposed that both lower-level and higher-level knowledge sources simultaneously interact to complete the reading process. However, this seemingly-more-accommodating metaphorical model is now

criticised for it fails to explain more recent empirical findings. Grabe and Stoller (2011) explain the shortcomings of interactive models:

The seeming compromise to satisfy everyone is to propose interactive models of reading, again as a general metaphorical explanation... Unfortunately, using this logic leads to a self-contradictory model. As it turns out, the key processing aspects of bottom-up approaches, that is, efficiently coordinated automatic processing in working memory such as automatic word recognition, are incompatible with strong top-down controls on reading comprehension. (p. 26)

What they mean here is that when word recognition is being conducted automatically, top-down operations such as inferencing and background utilizing are not involved in the process because such top-down operations actually slow down the process and are not efficient. Thus, Grabe and Stoller suggest that “modified interactive models that highlight the number of processes, particularly automatic processes, being carried out primarily in a bottom-up manner with little interference from other processing levels or knowledge sources” (ibid., p. 27) are of better use to explain the general reading comprehension. Nevertheless, these scholars emphasize that even such modified interactive models are incapable of explaining various factors of comprehension processes occurring during reading for different purposes.

While the above-mentioned metaphorical models demonstrate incapability in explaining updated research findings, other specific reading models try to present more accurate explanation. One such specific reading model is the interactive compensatory model proposed by Stanovich (1980). Stanovich elaborated original interactive models into his interactive-compensatory model which was “equally applicable to developmental and individual difference studies” (ibid., p. 37). He explained that “a process at *any* level can compensate for deficiencies at any other level...one might assume that, given a deficit in a particular process, the reader

would rely on other knowledge sources, *regardless* of their level” (p. 36, italics in the original). With this interactive-compensatory model, many paradoxical findings were more successfully explained. This model basically admits the independent operation of automatic processes and at the same time points out that when difficulty arises, “the reader compensates for limitations in automatic processing of the text by slowing down and using additional attentional resources” (Grabe & Stoller, 2011, p. 28). This model provides good explanations for the complex L2 reading process because L2 readers tend to suffer from many deficiencies and such compensatory operations may often occur during developing L2 learners’ reading process.

2.5 Bernhardt’s compensatory model

Bernhardt (2005, p. 133) “argues for a compensatory processing conceptualization: one that recognizes that knowledge sources act in an interactive, synergistic fashion, not an additive one.” She asserts that L2 reading pedagogy needs a specific contemporary reading model since there are numerous variables which need to be incorporated into a model to explain the complex L2 reading process. Such variables include the native language reading proficiency, L2 linguistic proficiency, the influence of background knowledge, reading strategies, the linguistic distance of L1-L2, and learner variables. Referring to her own model, she asserts that “the model intends to revitalize the conceptualizations of the second language reading process as a juggling or switching process in cognition” (ibid., p. 140). Hence, the focus of her compensatory model was to try to explain how each factor, e.g., L1 reading proficiency and L2 linguistic proficiency, interacts and how much such factors account for the variance in L2 reading.

2.6 Factors which explain L2 reading

This section reviews the various factors that Bernhardt suggests should be incorporated into a L2 reading model.

2.6.1 L1 reading proficiency and L2 linguistic proficiency

In 1984, Alderson presented his famous article: “Reading in a Foreign Language: A Reading Problem or a Language Problem?” (p. 1 – 27). Bernhardt (2005) emphasizes the importance of this article, commenting that “the field owes much to Alderson who consistently highlighted the need to examine the question of whether the field of second language reading should focus principally on the *reading* part of the proposition or on the *language* part of the proposition” (p. 136, italics in the original). Alderson’s article asked:

Do L2 learners fail to read satisfactorily due to their L1 reading deficiency
and/or failure of transferring their L1 reading skills to L2 reading process?

or

Do L2 readers fail to read satisfactorily due to their L2 linguistic deficiency?

Supported by empirical findings, Alderson concludes for this question as follows:

...only moderate to low correlations have so far been established between reading ability in first language and reading ability in the foreign language when the same individuals are studied in both languages. Some evidence, however, tentative, suggests that proficiency in the foreign language may be more closely associated with foreign-language reading ability. (p. 20)

In short, Alderson claims that unsuccessful L2 reading is more a language problem in L2 than a reading problem in L1. The influence of L2 linguistic proficiency, however, differs according to learners’ developmental stages. The reading comprehension of lower proficient learners is affected more greatly by L2 language ability than that of higher proficient learners. It is suggested that L2 learners have to

acquire a linguistic threshold level in order to comprehend their target language texts. Below such a threshold level, learners experience short-circuits in reading process (Clarke, 1980).

The focus of this debate presented a significant change in the mid-1990s. Researchers' interest was "no longer one of difference and influence, but rather of accountability – how much did first language literacy account for literacy in a second?... How much was raw grammatical knowledge in a language able to account for a given second language performance?" (Bernhardt, 2005, p. 137). Bernhardt's 2005 compensatory model, thus, demonstrates that L1 reading proficiency accounts for 20%, and L2 language knowledge accounts for 30% in the variance of L2 reading proficiency. This means that the remaining 50% is still unaccounted for in the model. She points out that factors such as "comprehension strategies, engagement, content and domain knowledge, interest, motivation" (ibid., p. 140) are included in the variables which can possibly account for the second half of the variance.

2.6.2 The influence of background knowledge

In addition to the factor of the L2 linguistic threshold level, the influence of background knowledge is often pointed out as a strong determiner in L2 reading. Some researchers claim that background knowledge is a more influential variable than other variables such as difficulty of a text in L2 reading comprehension (e.g., Carrell, 1987a; Johnson, 1981; Keshavaraz, Atai & Ahmadi, 2007; Klare, 1976; Lee, 2007; Nakamura, 1981; Pritchard, 1990; Pulido, 2004; Yamada, 1995). Johnson (1981) demonstrates that cultural familiarity with a text positively affected the comprehension of her Iranian ESL subjects more than did reduced linguistic difficulty of a text. In the context of JSL, Nakamura (1981) asserts that learners who

do not have knowledge of the content of a given text find such a text incomprehensible. Pulido (2004, p. 508) asserts that “the construction of a coherent mental representation of a text involves the interaction between explicitly stated textual information and background knowledge.” Lee (2007) similarly demonstrates that topic familiarity enhanced Korean EFL students’ reading comprehension while text enhancement aided only acquisition of forms of vocabulary but reduced meaning comprehension. Thus, some scholars emphasize the importance of topic familiarity and background knowledge as the biggest influential variables.

It should be also noted that having knowledge of the difference in rhetorical organization of the target language has great significance. Learners cannot fully understand L2 texts without understanding the target language’s unique rhetorical organization (e.g., Carrell, 1987a; Chu, Swaffer, and Charney, 2002; Hague & Scott, 1994; Hinds, 1983; Honna, 1989; Jensen, 1987; Kaplan, 1966; Lee, 2002; McGee, 1982; Maynard, 1998; Sasaki, 2001; Sharp, 2004; Tateoka, 1996; Urquhart, 1984). The evidence of this phenomenon can differ according to the pairing of learners’ L1-L2. Jensen (1987) points out the distinct characteristic differences between the Western and the Eastern rhetoric. Although recent Japanese expository texts have a tendency to employ similar text structures to those of English, some texts still have a distinct rhetorical organization. In the context of JSL, Tateoka (1996) demonstrates that L1 English learners of L2 Japanese experienced difficulty in understanding the culturally unique text development in a given Japanese text, which negatively affected their comprehension. In her study, L1 Korean, Chinese, and English learners of Japanese as well as Japanese native readers read two texts, one with a traditional Japanese rhetorical organization and the other which was modified into an English-style rhetorical organization. L1 English learners of Japanese understood

the modified version better than the original. This result demonstrates that lack of knowledge about L2 rhetorical organization negatively affects L2 learners' reading performance.

2.6.3 The linguistic distance of L1-L2

The linguistic distance of L1-L2 is an influential variable in determining how well L2 learners read their target texts. Intuitively, when learners' L1 is linguistically close to their L2, L2 texts posit less difficulty compared to otherwise. For example, L1 English learners of L2 Spanish do not have as much difficulty in decoding their target texts as L1 English learners of L2 Japanese do because English and Spanish not only belong to a common language family, but also share the same orthographic system, i.e., the Roman alphabet, whereas English and Japanese which come from different language families have totally different orthographic systems: alphabet versus a combination of *kanji* (logograph) and *kana* (syllabary). The latter learners do not have the benefit of utilizing the same decoding skills that they use in reading their L1 texts when reading in their L2. Such inability of transfer of decoding skills from L1 brings additional difficulties to L2 learners.

The extent to which syntactic differences between L1 and L2 cause difficulty also varies depending on the pairing of particular L1 and L2. As Bernhardt (1987) and Koda (1993) point out, differences in syntax in L2 require different decoding skills from those used in L1 decoding processes. When a L2 learner comes from an L1 background which has notably different syntactic features from those of their L2, such decoding skills may be difficult for them to acquire. Koda reports that L1 Korean learners of Japanese demonstrated clearly different sentence processing skills during reading Japanese texts, compared to L1 English and Chinese learners of Japanese. She explains that the different results derived from the fact that Korean

employs similar case-marking signals to those of Japanese, whereas English and Chinese do not have such signals but predominantly rely on word order (ibid., p. 494). Koda's finding is one of the examples that adverse syntactic differences in L2 can affect learners' reading process negatively.

Akamatsu (2003) also demonstrates that L1 Chinese and Japanese learners have more difficulties in processing a text in which upper and lower orthographic cases alter randomly, compared to L1 Farsi learners. That is because such case alternations do not exist in Chinese and Japanese whereas it does in Farsi. This is another indication that learners' L1 characteristics may affect their processing skills in reading target texts.

2.6.4 Learner variables

Learner variables play a significant role in determining their reading comprehension although it is uncertain whether or not they can be quantitatively accounted for. First, learners' cognitive factors influence their understanding of target language texts. The influences of L2 learners' linguistic proficiency and background knowledge are mentioned above. Moreover, learners' cognitive maturity determines the final comprehension of a text. Chikamatsu (2003) mentions that many intermediate and advanced learners of Japanese understand the meaning of each sentence very well but often fail to grasp the meaning of the whole text deeply. She points out absence of rhetorical organization knowledge as one reason for such a phenomenon. Learners' cognitive maturity can probably be raised as another reason for it. When learners are still developing cognitively, they cannot truly relate the meaning of texts with highly intellectual or abstract contents to their own perspectives.

Secondly, the degree that L2 learners' affective aspects influence their reading comprehension cannot be underestimated. It is evident that L2 readers' confidence is not normally as high as that of L1 readers due to their limited linguistic abilities, equally limited knowledge of rhetorical organization, and inefficiency in reading. For these reasons L2 reading sometimes involves specific reading anxieties. Kondo-Brown (2006, p. 65) reports that "affective variables have direct and indirect associations with the development of L2 reading ability" among the advanced learners of Japanese in her study.

The variables brought by learners are intangible. However, the effect of these upon their reading performance and comprehension can be enormous. Therefore, when we think about how L2 learners read their target texts and understand them, learner variables should not be treated lightly.

2.6.5 Predictability of each factor

It is understood that there are numerous factors involved when L2 learners try to read their target texts for general comprehension. Reading researchers seem to agree that automatic lower-level processing holds the key to fluent reading: "two decades of empirical research have largely resolved these debates in favour of the bottom-up models. A greater use of context cues to aid word recognition is not a characteristic of good readers, developing phonological sensitivity is critical for early success in reading acquisition" (Stanovich & Stanovich, 1995, p. 99). Chikamatsu (2003) also mentions that higher-level processes such as inferencing often require attentional resources in L2 reading unlike in L1 reading. Therefore, such a process can place a burden on the whole processing and possibly disturb the comprehension process.

Some researchers managed to present accountability of each factor in their reading models. Bernhardt's (2005) model mentioned above indicates that L2 linguistic proficiency accounts for 30% and L1 literacy level accounts for 20% of the variance. McNeil (2012) endeavours to extend Bernhardt's model and proposes a new model with four factors as the main variables: "L2 language knowledge, L1 reading ability, strategic knowledge, and background knowledge" (ibid., p. 64). McNeil presents the predictive ability of each variable for two proficiency bands of learners. McNeil's main arguments are that "strategic knowledge subsumes some of the variance accounted for by L1 reading ability, making strategic knowledge the strongest predictor for higher-proficiency second language readers" (p. 70), "background knowledge plays a compensatory role in L2 reading" (p. 71), "language knowledge is a stronger predictor of L2 reading than background knowledge and that the positive effects of background knowledge may be limited" (p. 72). In McNeil's (2012) final extended model which is a synthesis of updated empirical findings, each component is placed from the strongest predictive ability to the weakest for the two proficiency bands as follows:

(For lower proficient learners)

L2 language knowledge → background knowledge → L1 reading ability → strategic knowledge

(For higher proficient learners)

Strategic knowledge → L2 language knowledge → L1 reading ability → background knowledge

This corresponds with what Hudson (2007, p. 65) explains about "the relationship among first language reading ability, second language proficiency, and second language reading ability." He states that "the higher the learner's second language

ability, the stronger the relationship is between first language and second language reading ... there is some general threshold at which the first language reader begins to be able to transfer first language reading skills and strategies” (ibid., p. 65).

From McNeil’s model, it can be understood that it is crucial to develop L2 linguistic capabilities during the early L2 reading instruction since this variable appears to be the stronger predictor of L2 reading variance. In particular, when we take into consideration that automaticity of lower-level processes such as word recognition plays a significant role in effortless fluent reading, strong language knowledge which facilitates automatic lower-level processes has grave importance for the L2 reading process.

2.7 Special aspects of L2 Japanese reading

McNeil (2012) claims that L2 linguistic proficiency is more important than L1 literacy levels and/or background knowledge regardless of learners’ developmental stages. However, Bernhardt (2005) claims that L2 reading research has suffered from monolingualism to date and most research findings have come from ESL/EFL contexts. Thus, theories which support reading models tend to address issues occurring in these mainstream contexts. L2 Japanese reading may possibly need special consideration because of its unique orthographic system and different syntactic characteristics from more commonly taught languages such as English, French, Italian and Spanish. In short, for L1 alphabetical language learners, L2 Japanese reading is possibly harder to acquire, compared to L2 reading of other European languages (Chikamatsu, 2003), which creates a need to account for L2 Japanese reading specifically.

There is not sufficient research history for determining how much the aforementioned reading theories and reading models are applicable to L2 Japanese

reading. Nevertheless, some studies have presented valuable findings. Empirical findings indicate that vocabulary knowledge can account for a large proportion of the variance in L2 Japanese reading. L2 Japanese learners show even higher reliance on vocabulary knowledge than learners of other languages do (Matsushita, 2012). Koda (1989) claims that vocabulary knowledge accounts for 55% of the variance in L2 Japanese reading. Similarly, Komori, Mikuni and Kondoh (2004) claim that word knowledge contributes 47% in reading comprehension. Noguchi (2008) proves that writing/vocabulary ability account for 40% of the variance across proficiency levels. Thus, vocabulary knowledge and *kanji* knowledge are one crucial predictor of L2 Japanese reading comprehension.

Although vocabulary and *kanji* knowledge are the most determinant factor, numerous other factors are involved when learners of Japanese read their target texts. Table 2 below is a summary of factors raised by Chikamatsu (2003) as specific factors, linguistic and non-linguistic, that distinguish L2 Japanese reading from other L2 reading.

Table 2. Factors specific to L2 Japanese reading

(Chikamatsu, 2003, p. 69. The researcher translated and schematized into this table.)

Knowledge of rhetorical organization/background		Purely linguistic factors	
Knowledge of rhetorical organization	Japanese has a unique rhetorical organization originating from China.	Orthography	A co-existence of syllabaries and logographs
Existing knowledge/background knowledge	Some texts may require culturally-specific knowledge.	Vocabulary/<i>kanji</i> knowledge	Vast number of <i>kanji</i> characters and <i>kanji</i> words need to be learnt. (Anecdotally the number of existing <i>kanji</i> is 50,000 ~ 85,000.)
		Grammar and syntax	Particles, unique word order, adjectives that conjugate

With many potentially difficult factors involved, how do L2 learners, specifically L2 Japanese learners, successfully comprehend their target texts? As mentioned in section 2.4, L2 learners, regardless of their target languages, probably

compensate for their deficiencies in some aspects of the reading process with other knowledge sources they have acquired (Stanovich, 1980). It can be surmised that some L2 Japanese learners may exert this compensatory procedure more to deal with extra difficulties caused by unique linguistic features in Japanese. When L2 learners successfully comprehend a target text, they will obtain a coherent mental representation of text which Rapp, van den Broek, McMaster, Kendeou and Espin (2007) explain below:

Indeed, one of the most consistent findings from cognitive psychological research on reading is that the construction of a coherent representation of text in memory is central to successful comprehension. A useful coherent mental representation contains the various pieces of information provided in the text, is integrated with the readers' prior knowledge, and is easily accessed and applied in a variety of situations. (p. 292)

In order to connect on-going processed textual information into “a coherent representation of text in memory,” lower-level processes have to be automatic. If such lower-level skills are not automated but use processing resources in working memory, reading will be a slow laborious process and comprehension will suffer because other processes cannot be adequately carried out (Grabe, 2009). Alderson (2000) confirms the importance of automaticity of word recognition, asserting that “it is clear that word recognition, and especially the automaticity with which this proceeds, is central to fluent reading” (p. 80). Stanovich and Stanovich (1995) elaborate the properties of automatic word recognition:

Efficient word recognition has the properties of autonomous, or modular, processing as defined in recent work in cognitive science...the properties of speed, low capacity usage, and obligatory execution, free from interference by other ongoing operations. The key to the rapid acquisition of reading skill is the development of word recognition mechanisms that have these properties. (p. 91)

Then, how do learners gain automaticity of lower-level processes? Grabe (2009) explains that automaticity in reading processes results from extensive exposure to meaningful input. That is to say, after reading meaningful input in large quantities over a vast amount of time, learners' lower-level processes will be proceduralized and then automatized (ibid., p. 28).

Meaningful input emphasized in this argument is input that gives learners an opportunity to train for automaticity of processing skills. Such input possibly gives learners positive affective changes as well. Such input should not be too demanding because when a text is too difficult, it requires too many attentional resources and learners' reading process becomes slow and inefficient. Learners develop fluent lower-level skills from effortless and relatively speedy reading. In order for learners to read effortlessly and speedily, a given text has to be at the appropriate linguistic level. In other words, texts given to learners have to be relatively easy for the purpose of automaticity development.

Also, the contents of texts need to be meaningful. As mentioned above, learners' motivation affects reading process to a great extent although such an aspect is hard to quantify in reading models. When learners find given texts intriguing, their reading process tends to be more motivated, resultantly more successful and effortless. It is impossible to choose a text that can be interesting for everybody in a particular group. Thus, ideally learners should be given a wide variety of texts from which they can find some that they enjoy. However, practical attributes such as course objectives and funding availability make such an ideal situation from being realized.

Hence, the extensive reading approach is spot-lighted as a way for developing automatic lower-level processes and fluency in L2 reading, as well as

enhancing L2 reading motivation. Nation (2001, p. 339) claims that “Speed reading and Extensive reading of graded readers provide fluency improvement by getting learners to work on easy material and giving them large amounts of practice. To be effective, speed reading courses need to be written within a limited vocabulary so that learners can focus on the reading skill without having to tackle language difficulties.” Day and Bamford (1998) also point out that graded reader texts which contain easy lexical and syntactic features build up learners’ motivation and sight vocabulary.

When learners are given meaningful and relatively easy reading materials, they can focus on getting general comprehension without being impeded by the linguistic difficulty of such materials. Reading such comprehensible texts from a wide variety of materials probably encourages learners to read more. Then their fluency increases and so does their reading motivation. Beglar, Hunt and Kite (2011) demonstrate that pleasure reading instruction (a type of extensive reading approach) increased learners’ reading rate, i.e., a type of measurement of reading fluency, more than intensive reading instruction after one year. Yet this fluency gain did not sacrifice the degree of comprehension. They conclude that “reading simplified rather than unsimplified texts resulted in greater reading gains” (p. 1).

2.8 Rationale for the current study – overarching research question

By understanding the L2 reading process, we now know that fluency development is crucial for L2 reading instruction and that modified texts with easier linguistic features play an important role in terms of automatizing lower level processes. However, such discussions have been actively conducted mainly in the context of ESL/EFL. There is a need to investigate whether or not what has been discussed in the contexts of ESL/EFL can be applicable to the context of JFL. Thus,

the current study is conducted in order to answer to its overarching question, ‘whether or not, and to what extent, modified texts are efficacious in L2 Japanese reading instruction.’

Then consideration of what the optimal text is is essential. What type of text is the most appropriate for L2 learners to read independently for meaning? Both unmodified and modified texts have to be examined from this perspective. Furthermore, when modified texts are critically examined, it is necessary to verify what type of text modification measures are beneficial and for whom.

In the following chapter, the previous scholarly contributions to the ‘authenticity debate’ are presented. The chapter attempts to clarify what has been claimed by the two sides of the ‘authenticity debate’ regarding reading materials: the proponents of unmodified texts and the supporters of modified texts. Moreover, the relevance of the debates conducted in ESL/EFL contexts to the current JFL context will be examined.

Chapter 3. The ‘authenticity debate’

3.0 Overview of the chapter

This chapter reviews what has been discussed in the name of the ‘authenticity debate.’ Understanding the authenticity debate is a prerequisite for addressing the issues of text modification, because it informs us why some scholars disagree with modified texts and why others support modified texts.

3.1 Authentic texts or simplified texts?

Many researchers and practitioners agree that the goal of FL reading instruction is, as put forward by Nuttall (1996, p. 31) “to enable students to enjoy (or at least feel comfortable with) reading in the foreign language, and to read without help unfamiliar authentic texts, at appropriate speed, silently and with adequate understanding.”

In practice, however, many differing, often opposing, theoretical perspectives and methodologies have been proposed and employed to achieve this goal. Regarding texts which are given to L2 learners, there has also been discord in researchers’ and practitioners’ perceptions, involving an extensive discussion regarding the issue of so-called ‘authentic texts’ or ‘simplified texts.’ Researchers and practitioners present quite opposing perspectives about this so-called ‘authenticity debate.’ Some assert that ‘authentic texts’ should be used predominantly in FL reading instruction (e.g., Berardo, 2006; Bernhardt, 2011; Blau, 1982; Gilmore, 2011; Honeyfield, 1977; Johnson, 1981, 1982; Kilickaya, 2004; Leow, 1993; Mountford, 1976; Pearson, 1974; Swaffer, 1985; Swaffer, Arens, & Byrnes, 1991; White, 1987) while others believe in the efficacy of the use of ‘simplified texts’ (e.g., Allen & Widdowson 1979; Bell, 2001; Claridge, 2005; Darian, 2001; Davies, 1984; Day, 2003; Day & Bamford, 1998; Everson & Kuriya,

1998; Gardner & Hansen, 2007; Lucas, 1991; Nation & Deweerdt, 2001; Richards, 2006; Salaberry, 1996; Schulz, 1981; Uzawa, 2001; Wodinsky & Nation, 1988).

However, many scholars, including some of those mentioned above, take a more or less eclectic approach, which is demonstrated in studies by researchers such as Devitt (1997), Dumitrescu, (2000), Guariento and Morley (2001), Kuo (1993), Li, Xu and Wang (2005), Ragan (2006), Tomlinson (2003), and Urquhart (1984).

3.2 Ambiguous terminology

Before examining the arguments of the long-standing authenticity debate, it is first necessary to point out the rather ambiguous usage of some terminology in the literature. The terms ‘simplification’ and ‘simplified texts’ have typically been used in order to refer to texts which are modified from their original, in the context of text modification debates. Tsang Wai King (1987) argues that ‘simplification’ has inherently misleading connotations. Furthermore, various other text modification measures such as elaboration and easification have been proposed in addition to simplification (e.g., Bhatia, 1983; Brewer, 2008; Kim & Snow, 2009; Leow, 1993; O’Donnell, 2009; Urano, 2000; Yano, Long & Ross, 1994; Young, 1999). The effects of these measures have been empirically tested and their efficacy has been debated, which has resulted in more diverse discussions of text modification. In the more recent scholarship, terms such as ‘elaborated texts’ have been used in order to distinguish these from ‘simplified texts.’ The fact that some authors prefer to use other umbrella terms such as ‘edited texts’ and ‘contrived texts’ has exacerbated the ambiguity of related terminology.

In this study, I will use the term ‘modified texts’ to refer to those which have been altered from their original. Similarly, I will use the term ‘unmodified texts’ in my own arguments in order to refer to those which have not been altered, i.e., those

which are original. By doing so, I avoid using the term ‘authentic texts’ which contains misleading connotations. However, in many aspects of the related academic discourse, it is often difficult to use each term with a precise distinctive definition. In many cases I am obliged to maintain the original authors’ usage of terminology when introducing their arguments.

There is another issue which draws our attention when we try to divide texts into dichotomous types such as unmodified and modified texts: the issue of texts which belong to a genre called “language learner literature.” “Language learner literature” is a term that has been disseminated by Day and Bamford (1998). They define it as follows:

Language learners are an audience on a par with any other. To write material for an audience of second language learners is no less an act of communication than other forms of writing. Since there is an identifiable audience, since the terms authentic and simplified are ambiguous and inaccurate and carry unsatisfactory connotations, and since it is not simplification or elaboration but communication that is the issue, we suggest an alternative term for reading materials that has been written with an audience of second language learners in mind: language learner literature...whatever form it takes, language learner literature presupposes the integrity that marks all genuine writing: that is not a lesser version of something else but a fully realized, complete-in-itself act of communication between author and audience. (p. 64)

It must be noted that one sub-genre of unmodified texts is texts belonging to language learner literature. While they can be categorized as unmodified texts, they share the same intended readership with modified texts, i.e., second language learners. Thus, there are two types of unmodified texts in terms of the intended readership. One is written with an intended audience of native readers and readers with an equivalent ability to that of native readers, whereas the other is written with an intended audience of second language learners. When scholars discuss the authenticity debate in terms of texts, many of them tend to refer to texts which are

written with an intended audience of native speakers as unmodified texts, and such researchers may not acknowledge unmodified language learner literature texts.

3.3 History of the authenticity debate

3.3.1 Henry Sweet – the earliest advocate of authentic materials

I shall first trace how the authenticity debate has developed historically within the framework of the participating authors of this debate. The brief reviews by both Tickoo (1993) and more recently Gilmore (2007) provide an outline of this long-standing academic discourse. According to Gilmore, Henry Sweet (1899) was one of the earliest advocates of authentic materials:

The great advantage of natural, idiomatic texts over artificial ‘methods’ or ‘series’ is that they do justice to every feature of the language... The artificial systems, on the other hand, tend to cause incessant repetition of certain grammatical constructions, certain elements of the vocabulary, certain combination of words to the almost total exclusion of others which are equally, or perhaps even more, essential. (p. 178)

Sweet criticised modified materials, “artificial systems” in his words, for their tendentious emphasis on particular selected linguistic elements. These elements are presumably the target linguistic features which material writers selected for learners to acquire. His remarks can be interpreted to mean that pedagogically constructed “artificial” texts in structural textbooks cannot provide many aspects of the real linguistic features of the target language that unmodified texts can offer. This is one of the often-claimed points by later advocates (e.g., Granena, 2008) for the predominant use of unmodified texts.

3.3.2 Michael West and Harold Palmer – two pioneers of graded readers

Graded readers (GRs) may be defined as graded series of modified reading materials. Tickoo (1993) reports that Michael West and Harold Palmer, the two

pioneers of GRs, lamented poorly constructed structurally modified materials. They showed their dissatisfaction with the materials used in British Bengal and Japan respectively in the 1920s. Their dissatisfaction came from the reality that the readers (reading materials) used in these two countries by EFL students tended to have very unsuitable, often immature linguistic characteristics in both lexical and stylistic aspects for the intended readership (Tickoo, 1993, p. ix, x). While Sweet focused on criticizing modified texts and advocating the superiority of unmodified texts eloquently, West and Palmer took the opposite course and shed light on the efficacy of modified materials. Consequently, the two pioneers of GRs embarked on a significant mission to construct more appropriate readers (reading materials) for L2 learners. The differing attitudes between Sweet and the two pioneers of GRs might have come from their different professional environments. While Sweet was a scholar probably without much exposure to L2 learners, West and Palmer were active EFL teachers in remote countries far away from the target cultures, who probably sensed more sharply what their students needed.

3.3.3 The rise of GRs

With West and Palmer as a starting point, these series of modified reading materials called GRs are widely used nowadays in ESL/EFL classrooms all over the world. The degree of GRs' penetration into ESL/EFL pedagogy is evoked by Hill (2008):

...the sheer number of series and titles suggests that graded readers play a more significant part in language learning than ministries of education and university departments of applied linguistics or education are prepared to admit. (p. 189)

So, what then is the original rationale to provide graded modified materials to L2 learners? As discussed in Chapter 1, some reading researchers claim that reading

large quantities of comprehensible, meaningful texts develop fluency in L2 reading. This factor coming from the understanding of reading process can be one rationale to use graded modified texts in the extensive reading approach. West and Palmer also provide the common theoretical justification of text modification (cited in Tickoo, 1993, p. x, xi, xii, xiii). They claim that modified texts can make the content more comprehensible which might result in pleasure reading, and modified texts can provide the preliminary bridging before learners tackle unmodified texts.

3.3.4 Criticism of modified materials from Communicative Language Teaching

While modified texts gained popularity in practice, “the issue of authenticity reappeared in the 1970s” (Gilmore, 2007, p. 97) as a forerunner to the Communicative Language Teaching (CLT) approach. In this new pedagogical stream, the importance of ‘communicative competence’ was emphasized and it was claimed that learners had to acquire communicative competence in order to convey and understand ‘real messages.’ Promoters of CLT suggested that in order to communicate their messages effectively, learners should be exposed to unmodified texts, so-called ‘authentic texts,’ which presented real language models of how to convey meaning in real-life communications. Consequently, some modified texts of which the focus was to teach particular linguistic properties rather than to demonstrate actual pragmatic language use came under fire.

The “cult of authenticity” (Day & Bamford, 1998, p. 53) created from CLT, i.e., a belief that supports superiority of original input over specially designed material, was later critiqued when some scholars started emphasizing situational/contextual authenticity and task authenticity (Roberts & Cooke, 2009). For example, Chavez (1998) suggests that so-called ‘authentic texts’ become ‘inauthentic texts’ once they are taken away from their originally intended contexts

and readership. It is, therefore, unreasonable to support the definite superiority of original input without taking into consideration situational/contextual factors.

The aforementioned brief historical review provided by Tickoo (1993) and Gilmore (2007) presents some of the main theoretical foundations of each side of the authenticity debate. Let us now examine in greater detail the theoretical claims proposed by each side.

3.4 Proponents of modified texts and proponents of unmodified texts

3.4.1 General claims of both sides

The main rationales, in support of unmodified texts, are:

- the language contained in unmodified texts is a real language model (e.g., Berardo, 2006; Cowan 1974; Graesser, McNamara & Louwerse 2003; Honeyfield 1977; Johnson 1981; Swaffer 1985)
- unmodified texts can be easier than modified texts due to their inherent linguistic characteristics such as redundancy and cohesiveness (e.g., Blau, 1982; Cowan 1974; Graesser, McNamara & Louwerse 2003; Honeyfield 1977; Johnson 1981; Long & Ross, 1993; Lotherington-Woloszyn 1993; Swaffer 1985)
- unmodified texts are more motivating and interesting than modified texts (e.g., Allen, Bernhardt, Berry & Demel, 1988; Bacon & Finnemann, 1990; Berardo 2006; Nutall 1996; Peacock 1997; Swaffer, 1985)
- unmodified texts often, though not always, present cultural information about the learners' target cultures (e.g., Honeyghan, 2000; Kilickaya, 2004; Mikado, 1995; Moeller, 1997)

In contrast, proponents of modified texts put forward the following points:

- modified texts are more comprehensible, which makes L2 reading more accessible for learners (e.g., Crow, 1986; Everson & Kuriya, 1998; Gardner & Hansen, 2007; Lucas, 1991; Nation & Deweerdt, 2001; Richards, 2006; Salaberry, 1996; Schulz, 1981; Wallace, 1992)
- modified texts reduce cognitive processing burden, which enables learners to use their attentional resources more effectively (e.g., Long, 2007; McLaughlin, 1987; McLaughlin, Rossman & McLeod, 1983; Salaberry, 1996)
- modified texts provide more ideal vocabulary learning opportunity and more useful fluency development input (e.g., Beglar, Hunt & Kite, 2011; Claridge, 2005; Nation & Deweerdt, 2001; Nation & Ming-Tzu, 1999; Taguchi, Takayasu-Maass & Gorsuch, 2004; Wodinsky & Nation, 1988)
- modified texts can also be motivating (e.g., Bamford, 1984; Day, 2003; Day & Bamford, 1998; Hedge, 1985; Richards, 2006; West, 1950)

In sections 3.4.2, 3.4.3 and 3.4.4 below, some of the aforementioned points are reviewed in detail.

3.4.2 The language in unmodified/modified texts

The language contained in unmodified texts is indeed a real language model (e.g., Berardo, 2006; Cowan 1974; Graesser, McNamara & Louwerse 2003; Honeyfield 1977; Johnson 1981; Kilickaya, 2004; Swaffer 1985). However, does this imply that the language used in modified texts is not a real language model? To answer this question, I first refer to Honeyfield (1977, p. 431) who suggests that the English used in simplified teaching materials is significantly different from “normal English” in the following three aspects:

1. The information system in simplified passages is homogenized. (p. 434)
2. Reduction of syntax in simplified passages creates reduced cohesion. (p. 435)
3. In simplified passages “communicative structure” becomes obscure since simplifiers fail to notice and maintain discourse items which mark communicative structure within the discourse. (p. 435, 436)

Secondly, Swaffer (1985) also makes a clear distinction between an authentic text and a non-authentic text. She claims that an authentic text has “an authentic communicative objective in mind” (p. 17). That is, in an authentic text the writer intends to communicate meaning with the reader. She argues, on the other hand, that the goal of a non-authentic text “is a pseudo intent to teach language per se rather than to communicate information” (p.17). This discourse nature of a non-authentic text is linguistically manifested as a lack of “repetition, redundancy, and discourse markers which confirm and elaborate on a particular authorial style or cultural pattern” (p.17). In summary, both Honeyfield and Swaffer claim that the language used in modified texts is an inherently inferior language example which lacks many important useful linguistic characteristics contained in unmodified texts.

Against this claim, a study by Claridge (2005) provides a different perspective. She suggests that “for a comparison [between modified and unmodified texts] to be a true one, such text characteristics as random distribution of high and low frequency words, repetition and redundancy must be measured, not in absolute terms, but in terms of how they are likely to be perceived by their readers” (p.145). Her “comparison in audience-specific terms” (p. 145) between two novels in their unmodified form and their GR versions proves that “well-written graded readers can offer an authentic reading experience for learners, which will help prepare them for

reading unsimplified texts” (p. 157). In her study, two GRs demonstrate satisfactory word frequency distribution from the learners’ perspective, when analysed using the more L2 learner oriented word lists. In her study, Claridge used the Oxford Bookworm Library lists⁴ to analyse the word frequency distribution of the two GRs. Also, linguistic devices to communicate messages – which include authorial cues, repetition, redundancy, and discourse markers – are detected in the two GR versions. Claridge’s findings are supported by the findings of a study by Allan (2009). Examining a graded corpus, Allan concludes that “graded readers may offer an acceptable balance of accessibility and authenticity” and “useful authentic chunks are present, and obviously learners will be exposed to them by simply reading the texts” (p. 23, 31).

The argument about whether or not the language used in modified texts is a real language model is inconclusive in this line of scholarship. However, this argument has started taking a more objective course with the advancement of computational tools such as Coh-Metrix⁵ used in studies by Crossley, Louwerse, McCarthy and McNamara (2007) and its replication study, Crossley and McNamara (2008). Their study confirms that there are linguistic differences between modified texts and unmodified texts, and the study further demonstrates that there are “unintended consequences to the natural structure of the discourse” caused by text modification measures (p. 426). Such “unintended consequences” detected by the computational tool should be investigated for their pedagogical justification, taking into consideration the learners’ perception proposed by Claridge (2005).

⁴ The Oxford Bookworm Library lists “are based on the headwords used in their readers at Level 1 (400 words), Level 2 (400-700 words), and Level 3 (700-1000 words)” (Claridge, 2005, p. 146).

⁵ “Coh-Metrix calculates the coherence of texts on a wide range of measures. It replaces common readability formulas by applying the latest in computational linguistics and linking this to the latest research in psycholinguistics” (Department of Psychology, University of Memphis, n.d.).

3.4.3 Which are more comprehensible, unmodified texts or modified texts?

Unmodified texts are intuitively and commonly thought to be more difficult in terms of their complex syntax and lexical tendency as well as content, conceptual and cultural maturity (Guariento & Morley, 2001; McLaughlin, 1987; McLaughlin, Rossman & McLeod, 1983; Martinez, 2002; Ommagio, 2003; Richards, 2001; Shook, 1997; Young, 1999). However, scholarly discussions indicate that the reality is not so simplistic.

First, unmodified texts may be more comprehensible compared to modified texts against the intuition of many classroom teachers and despite their relatively high readability scores, because their underlining cohesiveness and natural redundancy ease readers' processing. In contrast, modified passages organized with many simplified short sentences lose original cohesiveness and redundancy which may play an important role for readers in understanding the meaning of the discourse (e.g., Blau 1982; Cowan 1974; Graesser, McNamara & Louwerse 2003; Honeyfield 1977; Johnson 1981; Long & Ross, 1993; Lotherington-Woloszyn 1993; Swaffer 1985). Allen, Bernhardt, Berry and Demel (1988) point out that "lengthier texts may well be more cohesive and, hence, more interesting, for learners" (p.170). It has to be noted, however, that this argument cannot be applied to elaboratively modified texts, since elaborated texts are written in the way that original linguistic features are maintained and they even apply more redundancy to improve learners' reading comprehension (Long, 2007; Long & Ross 1993; Lotherington-Woloszyn 1993; O'Donnell, 2009; Yano, Long, & Ross, 1994). The assertion by Allen et al. (1988) is a valid criticism only of 'simplified texts,' but not of 'elaborated texts.' Supporting modified texts in this respect of discussion, Day (2003, p. 23) claims that

“authentic materials can be poorly written, uninteresting, hard to read, and can lack normal text features such as redundancy and cohesion.”

Secondly, it is pertinent to compare lexical features in both unmodified and modified texts. It is argued that deletion of low frequency words often causes information homogenization (Honeyfield, 1977), which results in decreased comprehensibility of modified texts. On the other hand, Wodinsky and Nation (1988, p. 159), analysing the word frequency data of two GRs and one unmodified story, conclude that to read a GR for pleasure, i.e., with less cognitive and affective demand, requires a much smaller vocabulary load than to do so with an unmodified text. Their study confirms the greater simplicity of GRs in lexical terms in comparison with an unmodified story.

Thirdly, Shook (1997) asserts that cultural assumptions and linguistic conventions employed by native writers render unmodified literary texts more difficult for L2 learners. In the context of JSL, Nakamura (1981) enumerates various variables that make some unmodified texts with culturally specific themes incomprehensible for learners of Japanese. She points out that culturally specific objects, events and concepts appearing in some unmodified texts are hard to understand for learners. Of course, unmodified texts do not always convey culturally specific messages or information. However, when some unmodified texts do so, L2 learners with insufficient background knowledge may be disadvantaged in comprehending such texts.

3.4.4 Are unmodified texts more motivating and interesting than modified texts?

Another widely claimed view of the value of unmodified materials is that they are more interesting and motivating than pedagogically modified materials (e.g.,

Allen, Bernhardt, Berry & Demel, 1988; Bacon & Finnemann, 1990; Berardo, 2006; Kilickaya, 2004; Martinez, 2002; Nutall 1996; Peacock 1997; Swaffer, 1985). The theoretical foundation of such a view is that in unmodified materials authors have genuine communicative motivation to convey their unique message to readers, while in modified texts writers tend to have the pedagogical intention of teaching certain linguistic features. A sense of achievement gained when learners accomplish reading unmodified materials is mentioned as another advantageous affective aspect of using unmodified materials (Berardo, 2006; Martinez, 2002). Bacon and Finneman (1990) report students' positive perceived effect on their comprehension and satisfaction in the case of being exposed to unmodified input.

On the other hand, some authors assert the opposite. West (1950) claims that simplified/abridged reading materials can be very motivating to L2 learners:

Few things are more encouraging to a child who knows some (say) 1, 500 words of English than to pick up a book written within that vocabulary, and find that he is actually able to read it and enjoy a story which is (at least) an enthralling approximation of the original. (p. 48)

Vincent (1986) similarly places a favourable motivational factor as the prime virtue that simplified literature can offer. She portrays the dispiriting effect when L2 learners try to read unmodified literary works before their developmental stage has reached the right level: "a painstaking process far removed from genuine reading with response" (ibid., p. 209). What Vincent illustrates here is very convincing. When the linguistic levels of unmodified texts are too far above those of students, such unmodified texts are unlikely to be regarded as motivating or interesting texts by those students. What Vincent suggests remains generally true despite recent claims about the motivating effects of unmodified *Harry Potter* stories on language learners (Hedstrom, 2005, this issue is discussed below in this section). Similarly,

Day (2003, p. 23) asserts that “the use of authentic materials can hurt student motivation and attitude. Nothing is more discouraging for students than using materials that are much too difficult.”

This leads to the essential issue of whether or not the two attributes, ‘motivating’ and ‘interesting,’ can be discussed together. Importantly, Peacock’s (1997) study draws distinctions between these two attributes:

The finding in this study was that, overall, learners reported authentic materials to be significantly less interesting than artificial materials. This stands in direct contrast to the large number of assertions listed above to the effect that authentic materials are more motivating because they are intrinsically more interesting. These findings are a preliminary indication that this is not the case; learners were more motivated by authentic materials, but not because they were more interesting. (p.152)

What Peacock implies is that texts may possibly motivate L2 learners because they are original, but the contents of such original unmodified texts are not necessarily interesting for those learners.

Gilmore (2007) points out that there is a scarcity of empirical studies which investigate the effects of unmodified texts on learners’ motivation so as to support or disprove the often claimed assertion that unmodified texts are more motivating compared to modified texts. In his paper, only three such studies are mentioned, one of which is the study by Peacock (1997) outlined above. While Peacock’s study shows positive results of the effects of unmodified texts on students’ overall motivation, the other two studies by Kienbaum, Russell and Welty (cited in Gilmore, 2007, p. 108) and González (1990) fail to present convincing empirical findings due to their instrumental shortcomings.

The world-wide phenomenon of the popularity of the *Harry Potter* series may support that some unmodified texts are indeed more motivating and interesting,

compared to modified texts. Hedstrom (2005) demonstrates that a Venezuelan school boy with little experience of ESL learning developed his English proficiency at a remarkable pace by reading the *Harry Potter* series when his then-existing proficiency was below that required to understand it. The boy, Roberto Ortega, read the series simply because he liked the story and the author's style despite its linguistic difficulty.

Nevertheless, the possibility that eased difficulty renders modified texts interesting and motivating cannot be denied. Wade, Buxton & Kelly's (1999, p. 210) study "confirms and helps to explain why ease of comprehension is a critical element of reader-text interaction. Texts that are too difficult and require too much effort are likely to be considered less interesting than ones that are more accessible." They "concluded that ease of comprehension is a necessary condition that tends to be mentioned mostly when it is a problem" (ibid., p. 210). Some L2 learners may find a text more interesting simply because they can understand it. An L2 Japanese learner who participated in an extensive reading project under the guidance of the current researcher experienced a positive feeling while she was reading relatively easy modified and/or specially written texts. She called it "a eureka feeling" or "mental note"-taking (Tabata-Sandom & Macalister, 2009, p. 51). She claimed that this eureka feeling occurred when she came to understand sentence patterns or previously unknown words, and felt like being able to use them herself. She explained that it was not a demanding text but a more comprehensible modified text that created this positive 'eureka feeling.'

3.5 Re-examination of the meaning of ‘authenticity’

3.5.1 Searching for deeper meaning of ‘authenticity’

As has been discussed above, upholders of the exclusive use of unmodified texts and advocates of the inclusion of modified texts seemingly have equally reasonable contentions. Some studies, though insufficient in certain aspects of argument, provide empirical support to the assertions proclaimed by one side or the other. However, such findings are often mixed and inconsistent. So how can one decide confidently which is optimal for one’s students?

Here, I would like to raise the question, “Do we really have to decide the superiority between modified texts and unmodified texts, and choose one or the other accordingly?” Lee (1982, p.13) suggests that “insistence on ‘authenticity’ in any narrow sense is a passing fashion, but one which has lasted too long.” Rather than holding “insistence on ‘authenticity’ in any narrow sense,” I am arguing that we should reconsider the meaning of ‘authenticity’ in order to understand what should be regarded as ‘really authentic materials’ and ‘really authentic reading experience.’ With deeper understanding about what we can call ‘authentic materials’ and ‘authenticity,’ we should be more successful in constructing, selecting and providing ‘really authentic reading materials,’ which would enable us to guide our students to a ‘really authentic reading experience.’ And in that case, we can free ourselves from an inconclusive and therefore shallow meaningless authenticity debate.

3.5.2 Definition of ‘authenticity’ and ‘authentic texts’

Some scholars (e.g., Gilmore, 2007; Roberts & Cooke, 2009; Tatsuki, 2006; Taylor, 1994) suggest that there occurs ambiguity when authenticity is discussed. Gilmore (2007, p. 98) mentions that “there is a considerable range of meanings associated with authenticity, and therefore it is little surprise if the term remains

ambiguous in most teachers' minds." Roberts and Cooke (2009, p. 621) similarly claim that "the debate about authenticity in teaching materials is a longstanding and sometimes contradictory one in English language teaching." Back in 1985, Breen categorized authenticity into four types:

- 1 Authenticity of the texts which we may use as input data for our learners.
- 2 Authenticity of the learners' own interpretations of such texts.
- 3 Authenticity of tasks conducive to language learning.
- 4 Authenticity of the actual social situation of the language classroom. (p. 61)

This thesis addresses the authenticity debate in the context of L2 Japanese reading instruction. In particular, it examines how authenticity is realized when learners of Japanese independently read for meaning in their target language. Therefore, the focus of the current argument is the first two types of authenticity proposed by Breen, i.e., "authenticity of the texts which we may use as input data for our learners" and "authenticity of the learners' own interpretations of such texts." In the L2 Japanese reading pedagogy, Tateoka (2010) proposes 'collaborative learning (in reading),' in which learners understand each other's interpretation in the process of reading the same text in order to deepen their own understanding of the given text. Consideration of Breen's other two types of authenticity, i.e., "authenticity of tasks conducive to language learning" and "authenticity of the actual social situation of the language classroom," hold great importance when we expand the purpose and/or style of reading to the case such as Tateoka's collaborative learning (in reading). However, such discussion is beyond the scope of the current thesis. Hence, this thesis examines Breen's first two types of authenticity.

First, let us marshal the definitions of 'authentic texts' put forward by various authors.

An *authentic text* is a stretch of real language, produced by a real speaker or writer for a real audience and designed to convey a real message of some sort. In other words, it is *not* a made-up text produced by an imaginary speaker or writer for an imaginary audience and designed to practise specific language points rather than to convey real information. (Morrow, 1977, p. 13, italics in the original).

...one whose primary intent is to communicate meaning. In other words, such a text can be one which is written for native speakers of the language to be read by other native speakers (with the intent to inform, persuade, thank, etc.) or it may be a text intended for a language learner group. (Swaffar, 1985, p. 17).

...language samples – both oral and written – that reflect a naturalness of form, and an appropriateness of cultural and situational context that would be found in the language as used by native speakers...neither the initial purpose for which the text was composed nor the original source of the language sample would categorically deny a priori the classification of material as authentic. (Rogers & Medley, 1988, p. 468).

“Authentic Materials: Those materials created and used by native speakers of the target language. These materials are authentic because nothing is glossed or edited since they are not intended for teachers and students of foreign languages” (González, 1990, p. 11).

“an authentic text is a text that was created to fulfil some social purpose in the language community in which it was produced” (Little & Singleton, 1988, cited in Kramsch, 1993, p. 177).

“A rule-of-thumb definition for authentic here is any material which has not been specifically produced for the purpose of language teaching” (Nunan, 1989, p. 54).

Authentic texts are “real-life texts, not written for pedagogic purposes” (Wallace, 1992, p. 145).

Authentic texts are “written for native speakers and contain ‘real’ language” (Berardo, 2006, p. 61).

“authentic texts, that is, texts which have been produced by and/or for expert users of the language for use outside of the classroom” (Roberts & Cooke, 2009, p. 622).

The majority of understandings of authentic texts as defined above designates native writers as the producers of authentic discourse and sometimes limits the receivers to native readers. The designation of native writers as the producers of discourse which is worthy of being called authentic is reasonable. However, if we limit the receiver of such discourse only to native readers as Berardo (2006), González (1990), Little, Singleton and Devitt (1994), and Porter and Roberts (1981) suggest, the definition excludes some L2 learners. In that case, readers of ‘authentic texts’ are very restricted and giving such ‘authentic texts’ to developing L2 learners cannot be justified. Moreover, “the question of creatorship or intended audience is not the only one that determines the conditions for authentication of particular texts” (van Lier, 1996, p. 137). Contemplating “authenticity of the texts which we may use as input data for our learners” (Breen, 1985, p. 61) in isolation within the limited framework of authorship and readership renders the debate fruitless.

3.5.3 Widdowson’s ‘authenticity’

As stated in the previous section, the focus of this thesis is the first and second authenticity of Breen’s (1985, p.61) taxonomy: “authenticity of the texts which we may use as input data for our learners” and “authenticity of the learners’ own interpretations of such texts.” In order to integrate the concepts of these two aspects of authenticity, I intend to elucidate how authenticity can be achieved, and to evaluate what kind of discourse serves better to achieve authenticity, following Widdowson (1979):

I am not sure that it is meaningful to talk about authentic language as such at all. I think that it is probably better to consider authenticity not as a quality residing in instances of language but as a quality which is bestowed upon them, created by the response of the receiver. Authenticity in this view is a function of the interaction between the reader/hearer and the text which incorporates

the intentions of the writer/speaker. We do not recognize authenticity as something there waiting to be noticed, we realize it in the act of interpretation. (p. 165)

He expounds this perspective saying that “authenticity has to do with appropriate response” (p. 165). That is, first a reader has to master certain linguistic and rhetorical conventions to which writer’s works must conform in order to convey his/her intentions. These conventions depend on the different types of discourse. A good writer uses particular conventions effectively to create certain discursal characteristics and convey his/her intentions fully. Then a reader has to recover the writer’s intentions, utilizing the knowledge of such linguistic and rhetorical conventions used by the writer. Furthermore, when authenticity occurs in its ideal form, a reader’s affective response, life experience and background knowledge are activated in the process of recovering the writer’s intentions. Only then can it be said that authenticity has been achieved.

This view proposed by Widdowson is reasserted by Davies (1984). He argues that a text becomes authentic when it is understood by learners, but learners may not understand a text just because the text fits into the restricted definition of ‘authentic texts’ described by some scholars in the previous section. Davies reiterates that in reading instruction, the locus of teachers’ consideration is not authenticity but simplification. He concludes that “it is the teacher who simplifies, the learner who authenticates” (p. 192). Breen (1985) also supports this perspective and exemplifies the case of when the learner ‘un-authenticates’ genuine discourse, “regardless of whatever genuine communicative purposes the writer may have had, the learner may perceive the text in meta-communicative or meta-linguistic terms...The learner will re-define any text against his own priorities, precisely because he is a learner” (p.62). Senior (2005, p. 71) echoes Davies’ and Breen’s

claim and asserts that “when we give out authentic materials, we sometimes notice students engaging with them in ways we hadn’t anticipated...authentic communication involves communicating information that’s personally meaningful – and it doesn’t necessarily happen just because we’re using authentic materials.” In practice, for example, an acclaimed literary piece written by a great native writer with genuine communicative motivation may end up as a pedagogical text if a learner decides to treat it in order to acquire unknown vocabulary items or newly-learnt grammatical usages instead of genuinely interacting with the text to seek the author’s message. Lee (1995, p. 323) takes this discussion one step further and asserts that learners have to have not only “appropriate responses” but also “positive perceptions” toward the materials in order for learner authenticity to occur.

What Widdowson, Davies and Breen suggest is that in related to texts, “there is no such thing as an abstract quality “authenticity” which can be defined once and for all” (Taylor, 1994, p. 4). This claim is applicable to other aspects of authenticity. While the current study focuses on authenticity of texts and authenticity of L2 learners’ interpretation when they read their target texts independently, the importance of contemplating authenticity of task and situation needs to be considered carefully. For example, if we consider authenticity of context, so-called ‘authentic texts’ become ‘inauthentic texts’ once they are moved from the originally intended context into the classroom context (Chavez, 1998). Tatsuki (2006, p.3) claims that “language classrooms are places to learn language and learners (with their teachers) authenticate this social interaction.”

Whichever aspect of authenticity is considered, it is here understood that authenticity is something that is created by interpretation, interaction and/or context.

3.5.4 ‘Genuine text’ and ‘authentic text’

While they elaborate the true meaning of authenticity from a different perspective, the above three authors, Widdowson, Davies and Breen, accept that there exist genuine texts and genuine discourse. Referring to the difference between genuineness and authenticity, Widdowson (1979) posits as follows:

Genuineness is a characteristic of the passage itself and is an absolute quality. Authenticity is a characteristic of the relationship between the passage and the reader and it has to do with appropriate response. (p. 80)

More recently, Long (2007) defines genuine texts as the input “originally spoken or written by and for native speakers, not intended for language teaching” (p. 130).

Widdowson and Long’s clear definition of genuine texts convinces us that discourse which is defined as authentic discourse/text by some other authors mentioned in section 3.5.2 should be categorized as ‘genuine texts.’

3.5.5 Toward a ‘deeper authenticity debate’

With these insights, we start to understand the deeper meaning of authenticity: “Authenticity, then, depends on a congruence of the language producer’s intentions and language receiver’s interpretations, this congruence being effected through a shared knowledge of conventions” (Widdowson, 1979, p. 166). Gilmore (2007, p. 98) warns us that this “learner authentication” view is subjective and it is not easily objectifiable. Gilmore defines authenticity as discourse which is written by a real writer with real language with the purpose being to convey a real message to a real audience, so that we can objectively identify the linguistic characteristics of authentic text and make comparison between authentic text and contrived text (p. 98). His view, however, does not give much thought to the process of learners’ reading experience. Gilmore warns that if we take a learner

authentication view, “any discourse can be called authentic and the term becomes meaningless” (p. 98). Nevertheless, it remains possible to evaluate what types of materials are really authentic from the learner authentication view objectively.

Kuo (1993) emphasizes the importance of seeing authenticity from various variables contributed by the learners involved: “Authenticity of EST (English for Science and Technology) materials should be considered in terms of the EST environment, the learning situation, learner characteristics” (p. 177). What is said here is not limited to the context of EST but is universal. Therefore, without delving into questions such as ‘Can my students handle this text well enough to enjoy it?’ or ‘Do my students really want to know the information conveyed in this text?’, it is meaningless to designate a text as an authentic text only from the criteria of ‘who wrote it,’ ‘to whom it is written,’ ‘whether it has particular original linguistic properties,’ and so forth.

The learner authentication view proposed by Widdowson, Davies and Breen is further deepened by Lee (1995, p. 323), who asserts that “whether the congruence can be attained also depends in part on the learner’s affective and cognitive responses to the materials, his or her perception of their inherent interest and usefulness.” The present study examines whether or not L2 Japanese learners authenticate modified texts. In such an endeavour, how learners view given texts is essential. Therefore, Lee’s perspective is of great relevance to the present study.

In order to elaborate further on this learner authentication view, I shall now address the following two aspects of reading materials which are offered to L2 learners; linguistic difficulty (the question of ‘Can my students handle this text well enough to enjoy it?’) and relevance (the question of ‘Do my students really want to know the information conveyed in this text?’).

3.5.6 Appropriate linguistic difficulty

Kuo (1993, p. 177) asserts that “materials are authentic only if they are selected or designed so that they are suitable to the proficiency level.” Breen (1985, p. 62) also tells us that a text produced by a fluent writer for fluent readers may lose significance when it is approached by a non-fluent reader. Widdowson (1979, p. 166) suggests that “it is clear that if this view is accepted it makes no sense simply to expose learners to genuine language use unless they know the conventions which would enable them to realize it as authentic.” Vincent (1986, p. 209, 210) urges us to ask, are we really giving learners linguistically right level materials which contain comprehensible input instead of providing a linguistically too-demanding book just because it seems to be “worthwhile” and it satisfies “tradition or prestige”? Schulz (1981, p. 44) expounds a “frustrational reading” that texts beyond learners’ linguistic capability sometimes cause:

If the foreign language reader is presented with an insufficient number of familiar concepts and contexts to permit sensible anticipation and testing of linguistic and semantic elements, he reverts to a word by word decoding process which contributes neither to the development of global reading comprehension, enjoyment of the texts, nor to the encouragement of continued reading in the foreign language. (p. 44)

More recently, Guariento and Morley (2001) point out that when an unmodified text is too difficult for developing learners, such a text becomes demotivating. Ommagio (2003) also asserts that unmodified texts can be impractical for lower level learners. What all these authors suggest is that it is important for a text to have the appropriate linguistic difficulty so that L2 learners can interact with the text competently and they can eventually authenticate it.

This issue of linguistic difficulty has to be examined with sensitivity in terms of the factor of L1-L2 pairings, since linguistic difficulty that L2 learners face in L2

reading possibly varies according to this factor. For example, when the syntactic and orthographic distance between L1 and L2 is wide, as in the case of English and Japanese, learners face greater linguistic difficulty due to various factors such as different word recognition processes (Chikamatsu, 1996, 2006; Komori, 2005). The degree to which L2 learners authenticate a given target text can vary depending on the distance between their L1 and L2.

3.5.7 Relevance

Kuo (1993) mentions that materials which are used in L2 reading instruction must have relevance for L2 learners in order to be appropriate representative language use of the particular environment for the particular students. This concept is repeated by Dowling and Mitchell (1993, p. 437) who remark that “ideally the field of discourse of the texts used depends on the interests of the learners.” In the context of JSL/JFL, Fukasawa (1997) considers what type of texts L2 learners of Japanese in the discipline of science and technology should be given in order to experience really meaningful reading. Fukasawa concludes that texts have to contain relevant disciplinary information which is not yet familiar. In such a case, learners are eager to learn the content because it belongs to their speciality field but they have not yet learnt it. Inamura (2001) similarly supports the use of texts which have relevance to the specific fields that learners will eventually enter for such texts have direct effect on motivation, strategy learning and vocabulary acquisition.

It should be noted that this factor of relevance has greater importance in the context of second/foreign language teaching for specific purposes such as ESP (English for Specific Purposes) and JSP (Japanese for Specific Purposes). When L2 learners read for general purposes, the relevance of texts give to them is not a crucial issue in terms of authenticity. Of course, learners do need and want to read

something that they can relate their life to. But in general language teaching contexts, the extent to which relevance of texts influences authentication is probably less, compared to the case in language teaching for specific purposes. Nevertheless, some authors still point out the relative importance of the relevance of texts in general language teaching contexts. A study by Lotherington-Woloszyn (1992) empirically proves that there is a link between students' preference for text versions and relevance of texts.

Supporting the stance of Widdowson who emphasizes the importance of linguistic difficulty and relevance to authentication of texts, Hedge (1985, p. v) claims that "the subject matter should be motivating because it relates to the student's personal interests or knowledge...the level of language difficulty should be appropriate to the student's competence in English." Taking a similar view of authenticity to these scholars, Shomoossi (2008, p. 173) suggests that "authenticity within the EIL [English as an international language] paradigm needs to be considered as the pragmatic appropriateness: appropriateness and relevant materials to be included in courses which meet the needs of the learners, whose proficiency levels and attitudes are taken into account by material developers."

3.6 New perspective – 'genuine text or authenticated text?'

The discussion so far has focused on what we should regard as 'authenticity' and 'authentic text' for L2 learners. Our understanding is that when L2 learners are given a text of which the linguistic features are not too demanding for their current linguistic competence and of which the contents are meaningful to them, they will probably be able to communicate with that text and recover the intentions of the writer successfully, and then we can say that an authentic reading experience has been achieved. Furthermore, they can agree or disagree with what an author says

based on personal experience, and they can respond emotionally to the content of the text, or they can decide to apply the information of the text to their own life or dismiss the information altogether, when a given text is appropriate in the aspects that have been discussed. When an authentic reading experience is achieved, the end product of such experience gains meaning in the reader's life.

Hence, we are now able to broaden our criteria to designate what type of materials we can call 'authentic text,' departing from the way in which the traditional linear approach carries out this categorization procedure, that is, 'authentic text or simplified text?' Instead, we are now free from this "emotionally loaded" (Gilmore, 2007, p. 98) dichotomous perspective and terminology use. It then becomes possible to evaluate a text from the new perspective of 'genuine text or authenticated text?' Even though a text meets all the criteria which some scholars seek as requisites of so-called 'authentic text,' when the text does not get authenticated by a reader, such a text remains as only 'genuine text.' Hence, the current study investigates what renders 'genuine text' 'authenticated text.' In the process of investigation, many aspects that cause authentication are taken into considerations. This is a departure from the "seemingly narrow perspective on authenticity as a binary concept – either authentic or inauthentic" (Shomoossi & Ketabi, 2007, p. 150).

Chapter 4. Three main text modification measures: simplification, elaboration and easification

4.0 Overview of the chapter

This chapter reviews the literature in relation to various text modifications. This thesis categorizes text modification into three types following Nation (2001): simplification, elaboration and easification. Theories and empirical findings of each type are presented in this chapter. Furthermore, the scope of text modification is expanded into modification on digital texts, i.e., computer annotations as a type of easification, reflecting the fast advancement of computer assisted learning in L2 reading pedagogy.

4.1 Modified texts as authentic reading material

On the basis of the foregoing discussion, we can now address the issue of text modification from a positive perspective. Modified texts should be regarded as authentic discourse if real communicative experiences occur when L2 learners interact with such texts. Real communicative experiences mean authentic reading in which learners read for meaning. In other words, if L2 learners treat a certain modified text merely as a means of learning new linguistic target features, that text fails to be authentic reading material and becomes merely structural grammar material or a drill. There are many aspects to be investigated regarding which text modifications can successfully create authentic discourse and which text modifications might turn the end products into grammar drills with loss of the writer's original communicative intentions. In practice, the end product, modified material, also has to meet the four-stage operational requirements suggested by West (1964):

1. introduce the learner to reading for pleasure
2. build habits of reading for pleasure
3. give a foretaste of the original
4. provide a lead-in to unadapted books and writing

West (1950, p. 52) metaphorically warns us that bad “simplification and abridgement...have also murdered not a few whose lives might have been saved.”

4.2 Three text modification measures

4.2.1 Nation’s categorization of text modification measures

In this thesis, I will follow the categorization of text modification measures proposed by Nation (2001). Nation points out four ways of making a reading text better for vocabulary acquisition, more comprehensible, and more accessible: simplification, elaboration, easification, and negotiation. This categorization is useful not only from the perspective of vocabulary acquisition but also from the perspective of text modification research. Since this dissertation does not address classroom interaction, Nation’s fourth category, negotiation, is omitted. Negotiation is not an issue of the text itself but rather an issue of classroom teaching and learning procedures. Therefore, the following section considers the first three methods, simplification, elaboration and easification, as the three main text modification measures.

4.2.2 Simplification

The term ‘simplification’ has been used as the most predominant umbrella term for text modifications, which makes what it means rather ambiguous and elusive. The following will attempt to clarify what simplification means when compared to elaboration. ‘Simplified input’ and ‘simplification’ is defined by Leow (1993, p. 334) as “second language input that has been modified by a speaker/writer

to facilitate second language learners' comprehension. These simplification measures include phonological (on oral input), morphological, syntactic, lexical, and discourse modifications.” Among these simplification methods, syntactic, lexical and content simplification methods have great relevance to written input, the focus of this dissertation.

4.2.2.1 Simplification techniques

The details of three types of simplification methods are as follows, based on mainly Mountford (1976, p. 151), also Kim and Snow (2009), Leow (1997, p. 291) and West (cited in Tickoo, 1993, p. xiii).

Syntactic simplification

- dividing complex sentences into multiple simple or compound sentences
- resolving nominalization into separate sentences
- standardizing tense relationships
- filling in anaphoric links
- reducing the use of reported speech

Lexical simplification

- substituting lower frequency words for higher frequency words
- reducing the type-token⁶ ratio of a text
- paraphrasing
- deleting unnecessary words
- lexicalizing modal meanings
- reducing un-standard usage of words

⁶ The type-token ratio measures the variation of vocabulary within a text. ‘Type’ is used to measure a person’s vocabulary size, the number of words which a dictionary contains, and so forth. ‘Tokens’ mean ‘running words of a text,’ i.e., the number of words appearing in a text. When the type-token ratio is higher, a text is more demanding in terms of lexical difficulty (Nation, 2001).

Content simplification

Other simplification techniques which are called content simplification include shortening of original materials by deleting paragraphs or non-core information and reducing episodes or the number of personae, etc. (Darian, 2001; Shook, 1997; Vincent, 1986).

There are marked differences in linguistic features between Japanese and English. Nevertheless, the main arguments of English text simplification listed above can be also applied to Japanese. For example, complex sentences with long modifying clauses for succeeding nouns cause difficulty in syntactic parsing for L2 Japanese learners. Similarly, lower frequency words in Japanese tend to be written in more difficult *kanji* characters which tend to be unfamiliar to learners. Therefore, in the context of L2 Japanese reading pedagogy, there are some researchers and practitioners who construct Japanese versions of GRs, based on the theories and procedures of simplification used in the construction processes of English GRs (e.g., Harada, Yamagata, Nakano, Sakai, Miyazaki & Mikami, 2008; the Japanese *Tadoku*⁷ Research Group, 2012).

4.2.2.2 Criticism of simplification

Although simplification has been used widely as the main theoretical and procedural backbone of GR construction, doubts and criticisms about the effects of ‘traditional simplification’ have been raised. For example, Shook (1997) warns us that oversimplified texts may not be suitable for adult L2 learners who are already literate in L1 (also, Blau, 1982). Similarly, regarding the effects of syntactic simplification, Coleman (1962, p. 132) detects that “the magnitude of the improvement was small” on learners’ comprehension when sentences are shortened.

⁷ ‘*Tadoku*’ means ‘extensive reading.’

Uljin and Strother (1990) reiterate that syntactic factors do not play a significant role in L2 readers' comprehension, and consequently simplification of syntactic features does not make a significant impact on learners' reading comprehension. This claim is corroborated by the study of Floyd and Carrell (1987).

Vincent (1986, p.211) argues that reduction of content features, vocabulary and structural use causes "loss" in simplified literary works. She further comments that L2 learners are not able to handle unmodified literary works if they are "exposed only to unnaturally restricted language use which we see in simplified materials" (p. 215). Also, as has been discussed above, many authors argue that simplification actually results in increased difficulty because simplified texts lack the cohesiveness which is inherently contained in unmodified texts, and because reduced use of low frequency vocabulary causes information homogenization (e.g., Cowan 1974; Graesser, McNamara & Louwerse 2003; Honeyfield 1977; Johnson 1981; Swaffer 1985). Furthermore, content simplification may inhibit learners from enjoying the true compelling nature of original unmodified texts and "from demonstrating an ability to understand the text abstractly, conceptually, and holistically" (O'Donnell, 2009, p. 514, 515).

Traditional simplification shares its main theoretical foundation with the notion of readability formulae. That is, sentence and word length may indicate text difficulty. However, many more variables are influential in determining text difficulty and, as Kintsch and Vipond (1979) explain and some other theorists suggest (e.g., Allen, Bernhardt, Berry & Demel, 1988; Beck, McKeown, Omanson and Pople, 1984; Blau, 1982; Carrell, 1987b; Davison & Kantor, 1982; Miller & Kintsch, 1980), readability formulae cannot account for how the other variables affect learners' reading comprehension. There are many other variables involved in

reading processes which determine how readable a text is. Those variables include other text characteristics such as content complexity, rhetorical organization, cohesiveness and so on, as well as learner variables including L1 reading proficiency, L2 linguistic competence, cognitive maturity and background knowledge. Just as readability formulae are not an accurate indicator of a text, simplification does not control the difficulty of a text accurately. These limitations of traditional simplification have created vigorous research and pedagogical motivations to seek an alternative text modification measure called elaboration.

4.2.3 Active promoters of elaboration – Yano, Long and Ross

Compared to traditional simplification, elaboration is a more recently acknowledged approach as a way to modify original unmodified texts. Parker and Chaudron (1987) coined the term of elaboration and Long (2007, p. 130) defines elaboration as “an approach to improving the comprehensibility of spoken or written texts that grew out of research findings on “foreigner talk discourse” in the 1970s and 1980s.” Authors such as Yano, Long and Ross (1994) recommend this newer complementary text modification measures from the pedagogical and empirical point of view. They propose elaborative modification from their investigation into research findings of interactive adjustments occurring between non-native speakers and native speakers’ (NNSs & NSs) conversations. They point out that NSs employ conversational adjustments such as repetition, comprehension checks, expansions, question-and answer strings, decomposition (p.192, 193) more frequently than linguistic adjustments such as preference for canonical word order, a lower type-token ratio, fewer idiomatic expressions (p.192) in order to make their conversations more comprehensible to NNSs. However, linguistic modifications (simplification) which are equivalent to linguistic adjustments in NSs & NNSs’ conversations are

more prevalent among commercially published reading material. Yano et al., therefore, propose that elaboration which is equivalent to conversational adjustments should have its own place in written input modification despite the different natures of discourse between spoken input and written input. Pedagogically, they suggest that linguistically simplified written input is not a valid language model but a less realistic target language model which negatively interferes with learners' output and language acquisition (p. 191). They then contend that with the additional elaborative modifications mentioned below, longer elaboratively-modified texts may serve to increase text comprehensibility equally or even more than linguistically simplified texts. That is to say, they argue that unmodified original texts can be modified for possible increased comprehensibility with their syntactic and lexical complexity being maintained if elaboration succeeds in solving potential difficulty in the original texts. Maxwell (2011, p. 6) agrees with these scholars who advocate elaboration over simplification, asserting that "while simplification may increase students' level of comprehension, it may not fully prepare students for eventually being able to read an unmodified text."

Elaboration has attracted more attention in recent scholarship. Researchers such as Li, Xu and Wang (2005), O'Donnell (2009), Rahimi and Rezaei (2011) and Urano (2000) have conducted text modification studies in which they mainly compared the difference in effects created by simplification and elaboration. O'Donnell (2009) claims the superiority of elaboration as a text modification measure when literary texts are used for L2 reading instruction:

...for educators working with L2 reading, textual elaboration may represent a compromise between those who advocate the exclusive use of authentic reading materials and those who suggest that pedagogically modified texts are more appropriate for this level (lower proficiency) student. It is suggested here that elaboration has the potential to increase comprehensibility and

vocabulary recognition while preserving many of the features inherent in authentic texts. (p. 529)

4.2.3.1 Elaboration techniques

Actual techniques of elaboration which are proposed from the perspective argued above include the following, according to Anderson and Davison (1988), Beck, McKeown, Omanson and Pople (1984), Beck, McKeown, Sinatra and Loxterman (1991), Kim and Snow (2009) and Yano, Long and Ross (1994):

- elaborating lower frequency words with higher frequency words
- clarifying unfamiliar concepts
- increasing redundancy by means of repetition and paraphrase
- making connections explicit
- highlighting main concepts

In short, “the goal of elaboration is to improve text coherence through clarification, repetition, and explicit connections” (Kim & Snow, 2009, p. 131).

4.2.3.2 Can elaboration overcome the shortcomings of simplification?

Now we have to consider whether or not this more recent text modification method actually does improve modification procedures. Does it solve the shortcomings which simplification suffers? Does it truly serve to fulfil the aforementioned four-stage operational requirements suggested by West (1964) better than simplification does?

4.2.4 Actual text modification studies

In order to probe for the answers provided in the previous section, this thesis reviews previous relevant studies. In the following sections (from 4.2.4.1 to 4.2.4.5), L1 means participants' native language and L2 means participants' second language.

4.2.4.1 Study 1 of Blau (1982, L1: Spanish, L2 English)

The content and lexical levels are maintained in three text versions used in this study. The text modification measures employed are categorized as elaboration. The main purpose of the study is to challenge the notion of readability formulae. Readability formulae indicate that the longer sentences get, the more difficult they get. Blau argues against such a notion and asserts that learners can benefit from more complex sentence structures when they contain explicit surface clues. Another meaningful finding is that students' perceived judgements were not correspondent with those of teachers, while teachers' judgements matched what readability formulae indicated.

4.2.4.2 Tsang Wai King (1987, L1: Cantonese, L2: English)

Arguing against the study by Blau mentioned above, Tsang Wai King suggests that "there are reasons to believe that readability formulas indicate comprehensibility" (p, 34, 35). The study demonstrates that lower-grade students benefited more from simplification while higher-grade students did so from elaboration. This study further implies that text modification has positive effects only when the readability of a text is higher than the proficiency level of students.

4.2.4.3 Yano, Long and Ross (1994, L1: Japanese, L2: English)

Yano, Long and Ross investigate the relative effects on learners' reading comprehension among original, simplified and elaborated texts. The participants'

reading comprehension scores were highest when they read simplified texts while their performance changed depending on the items tested. In their study, there were three types of test items to assess learners' reading comprehension: replication, synthesis and inference. The participants' performance on replication items was better when they read a simplified version compared to when they read unmodified or elaborated versions. Replication items are those which assess readers' factual understanding which can be derived directly from textual surface linguistic features. On the other hand, their study reports that subjects who read an elaborated version significantly outperformed those who read the simplified/unmodified versions as regards inference items. Inference items require readers to draw their own inferences from what the whole text tries to convey while relating their background knowledge to such inferential representation.

In order to explain the superior performance of the students who read elaborated versions on the inference items in their study, Yano et al. suggest that elaboration techniques such as "parenthetical expansion of key terms and concepts in the original text" (p. 213) lead learners to deepen the linkage between the information of the written input and their own pragmatic background knowledge. That is to say, elaborative modification of the texts facilitated learners' inference ability: elaboration activated higher-order processing more than did simplification. Yano et al. further claim that elaboration should be regarded as a "viable alternative to simplification for both spoken and written discourse to foreign and second language learners" (p. 214). Their claim is strongly corroborated by Kim and Snow (2009), and Oh (2001).

4.2.4.4 Young (1999, L1: English, L2: Spanish)

The modification applied to the four original versions in this study was mainly lexical simplification. In addition to carrying out a written recall task, the participants responded to two Likert scales in regard to their familiarity with the topics and their perceived judgement (PJ) of level of understanding. The study discovered that none of text version, topic, or a version-by-text interaction affected the participants' understanding of the main ideas of texts given. However, it is noteworthy that the participants' PJ and text versions had a significant relationship. The participants tended to accurately perceive their level of understanding of a text when reading simplified versions, but not when reading authentic versions. Also, these findings imply that the increased modifications do not lead to a higher degree of comprehension. Thus, Young doubts the efficacy of simplification and raises the need for looking at elaboration as a more effective text modification measure.

4.2.4.5 Summary of other studies

There are some noteworthy findings from other text modification studies, which are presented here in chronological order.

Johnson (1981, L1: Farsi, L2: English) indicates that the cultural origin of topics was a more influential variable than linguistic complexity to Iranian ESL students. Leow's (1993, L1: English, L2: Spanish) study is one of a few text modification studies which examine whether simplification facilitates not only comprehension but also 'intake.'⁸ The study concludes that simplification does enhance learners' comprehension but it does not facilitate intake. A study by Chung (1995, L1: Korean, L2: English) finds that simplification is more effective than

⁸ "Intake is distinct from input and is usually defined as an intermediate process between the exposure to input and actual language acquisition... Intake... is that part of the input that has been attended to by second language learners while processing the input" (Leow, 1993, p. 334).

elaboration, while they both improve learners' reading comprehension. The study tries to determine what type of elaboration is more effective. However, the differences in effects of various elaboration measures in this study did not reach significance and thus the question remains unanswered. The focus of a study by McNamara, Kintsch, Songer and Kintsch⁹ (1996) is the effect of coherence. They discuss the relation between two factors: modification in the form of explicit coherence of a text on the one hand, and active processing and its consequent learning on the other. The study demonstrates that when learners had high background knowledge, they exerted more active processing on reading a text which lacked explicit coherence in order to compensate the absence of coherence. As a result, high knowledge participants comprehended a text which lacks coherence better than a text which has high coherence. The implication of this study is the importance of a trade-off factor between 'providing comprehension support' and 'activating learners' processing.' Urano (2000, L1: Japanese, L2: English) examines the students' sentence-level comprehension and incidental vocabulary acquisition by means of assessing the reading time and comprehension scores of differently modified sentences. As a result, the participants' sentence-level comprehension was enhanced both by simplification and elaboration. On the other hand, only elaboration facilitated incidental vocabulary acquisition. In his study, high proficient learners benefited from elaboration in terms of vocabulary acquisition. Oh (2001, L1: Korean, L2: English) conducted a study in which comprehension of original, simplified and elaborated texts were compared. While higher-level students comprehended simplified texts best, lower-level students did so with elaborated

⁹ The participants of McNamara et al's study were all native speakers of English. Therefore, their study has different characteristics, compared to the other studies mentioned in this section. However, their study has importance to the current argument because it proved that text modification with coherence may have effects on readers' text processing.

texts, which is contrary to the findings of some previous studies. However, like the study of Yano et al., only elaborated modification improved inference comprehension. The positive effects of elaboration were not supported by Li, Xu and Wang (2005, L1: Tagalog, L2: English). In their study, both levels of Filipino high school students (high and low proficient) presented the best reading comprehension scores when reading simplified texts. In particular, it was evident that low proficient students benefited from simplified texts. Gardner and Hansen (2007, L1: Spanish/Korean/Japanese/Chinese/Portuguese/Mongolian/French/Tagalog/Ukrainian, L2: English) demonstrate that participants at all levels found lexically simplified texts more comprehensible than unmodified original texts (also, Cramer, 2005, participants were ESL students whose native languages were not specified). The results led them to claim that learners benefit from modified texts. Maxwell's (2011, L1: various, L2: English) study, although there was no significance on any statistical analysis, shows that elaborated texts produced the least comprehension scores, compared to simplified and unmodified texts, in two skill levels.

Broadening the research scope, Keshavarz, Atai, and Ahmadi's (2007, L1: Farsi, L2: English) study includes the variable of content familiarity, and its findings demonstrate that content familiarity affected students' comprehension more than text modification. Their study and Johnson's (1981) study imply that interaction between topic related variables needs to be further investigated.

The above review is far from exhaustive but it indicates the inconsistency of empirical findings in this line of scholarship. Tweissi (1998) summarizes this inconsistency:

In summation, to answer the question, "What makes input comprehensible?," one can say that findings of some empirical research have provided substantiation to the assumption that at least certain modifications can be

made in native speech or authentic writing at all linguistic levels to render a message or input more comprehensible to the language learner. (p.193)

The previous empirical findings similarly suggest that we need to see these two text modifications, i.e., simplification and elaboration, in a flexible way. That is to say, they are not exclusive to each other but compensatory for each other's shortcomings. More importantly in the context of the present research, the relative effect of either of these text modifications has yet to be carefully studied when they are applied to text modification procedures for Japanese written input.

4.2.5 Easification

As stated earlier, this thesis categorizes text modification measures into three, following Nation (2001): simplification, elaboration and easification. Nation defines easification as a technique that “involves making a text easy to read, not by changing the wording of the text, but by adding different kinds of support such as diagrams, pictures, charts and tables, text summaries, glossaries, guiding questions and headings” (p.174). Easification is a word originally coined by Bhatia (1983), who explains what this text modification technique can offer:

This alternative, which aims at making a text more accessible to the learner, not by modifying its content or form but by developing in him specific strategies considered essential for that task, I shall call ‘Easification’... Easification attempts to make the text more accessible to the learner by using a variety of what may be called ‘easification devices,’ the purpose of which is to guide him through the text... They do not simplify the text for the reader, but help him to do so on his own. (p. 46)

From this definition, it can be understood that easification is somewhat different from the previous two text modification measures since it does not involve much in-text lexical modification. Instead, some easification techniques include drastic changes in the original text in other forms such as reorganization of “the

retorical structure of the text by putting the highest generalization at the beginning of the text” (Bhatia 1983, p. 48). In short, some easification devices turn an original text into a differently formatted text even if the wording and grammar are maintained. To my knowledge, there have been few studies of easification conducted, except for studies of glosses.

Nevertheless, this text modification measure merits a brief introduction here since it is an attractive alternative to simplification and/or elaboration. In the easification approach, the focus is on the learner and how a learner develops the capability to handle the target discourse in their L2, whereas, as Bhatia implies, simplification and elaboration tend to focus excessively on the text and neglect to develop learners’ independent analytical competence in dealing with the target discourse in their L2. This approach of easification is echoed in an article by Richigels and Hansen (2011, p. 18), in which “gloss notations” were recommended as a way to enhance learners’ ability to apply comprehension strategies during reading.

Whether easification is superior or not in terms of developing related competence of L2 learners is an issue which needs to be considered in an eclectic approach taken by Bhatia (1983) and Kuo (1993). They admit that “no procedure is universally applicable to all situations and to all texts, and that there are alternatives available which are worth a fair trial” (Bhatia, 1983, p. 52).

4.2.5.1 Easification versus simplification/elaboration

The aspect which requires special attention with regard to easification is that the wording of the text is not changed in the process of easification. This aspect actually distinguishes easification from the other two text modification measures of simplification and elaboration. Williams and Dallas (1984, p. 209) argue that

attaching “back-up devices” is more advantageous than altering the wording of a given text. This is because when a text is not simplified, the learner has the opportunity of being exposed to unknown linguistic features contained in the original text, and the later transition from such a text to an unmodified text is smoother than from a drastically simplified text to its unmodified original. Their back-up devices include “a chapter-initial key words section, an end-chapter or end-book glossary or translation of new words, regularly spaced vocabulary revision” (p. 209, 210).

Importantly, Williams and Dallas (1984) point out that their “reason for adding in-text translations was simply that a study of pupils’ books in use showed that this was what the pupils themselves did anyway, and therefore printing the translations of unfamiliar words will reduce their dependence on the dictionary, and so make their reading faster and more pleasurable” (p. 204, also, Holley & King, 1971). Thus, it is important to ascertain what students perceive and what students actually do, because, as some scholars mention (e.g., Breen, 1985; Senior, 2005), what teachers think does not necessarily correspond with how students actually behave and respond. More specifically for the current context, what teachers intuitively simplify or elaborate from an original text is not necessarily a more comprehensible written input from the learners’ point of view. In such a case, easification or the provision of back-up devices deserves more scholarly attention. In this type of text modification measure, the actual wording is maintained, so that at least students are exposed to the original text features and they can decide what to do with back-up devices themselves. Whereas developing students welcome such devices to aid their comprehension processes, more advanced students may decide not to rely on such devices. Bhatia (1983, p. 45) also suggests that “input is

controlled by the writer (through the text), whereas intake is controlled by the reader. The aim of simplification is to manipulate input to bring it close to the reader's level of linguistic competence and thus to help his intake...there can be an alternative route to the same goal, and perhaps a more effective and quicker one" (p. 45). This supports easification as an alternative text modification method.

The concern of the current study as regards easification is exclusively with 'marginal gloss of definitions' among easification devices proposed by Bhatia. Therefore, the following sections critique the research literature and theoretical foundation of gloss use.

4.2.5.2 Glossing – as a technique of easification

Macalister's (2000) taxonomy of glosses gives us a framework before proceeding into marginal glosses in particular. He categorizes glosses into six types: a marginal gloss, an embedded gloss, a tautological gloss, a footnote gloss, an endnote gloss, and a glossary. He explains that "at its simplest, a writer uses a gloss, or an editor appends a glossary, when it is assumed that a word's meaning will not be understood by readers" (p. 75).

Jacobs, Dufon and Hong (1994, p. 21) also present "four reasons for the widespread presence of vocabulary glosses." They are: "enhanced comprehension," "increased vocabulary learning," "student's preference," and "greater use of authentic text which increases students' need for vocabulary assistance." Also, context-free word knowledge provided by marginal glosses helps to increase reading comprehension (Barnett, 1986; Davis, 1989; Spearritt, 1972). This finding challenges the reliability of contextual support as a determinant clue to the meaning of unknown words. It is often said that learners can utilize contextual guessing skills to induce the meaning of unknown words during reading. However, Schatz and

Baldwin (1986, p. 451) report that “in general, context clues do not reveal the meaning of low-frequency words in naturally occurring prose...Context clues probably do not work as often as most reading educators believe.” More recently, Frantzen (2003, p. 186) also uses unmanipulated texts in her study and concludes that “the value of context for deriving word meanings is as variable as the learners’ ability and inclination to use it effectively.” Similarly, Hulstijn (1993) warns that learners run the risk of making wrong inferences from ambiguous context clues and memorising them. This point of view, i.e., unreliability of contextual guessing, is one of the major theoretical foundations toward the provision of marginal glosses.

4.2.5.3 Inconsistent research findings of glossing studies

Table 4.1. Inconsistent research findings of gloss studies

Core discussions	Researchers’ suggestions	
Facilitative for reading comprehension and/or vocabulary learning?	Yes	Davis (1989), Jacobs, Dufon and Hong (1994, only immediate test), Jacobs (1994), Hulstijn, Hollander and Greidanus (1996), Myong (2005), Rott and Williams (2003), Watanabe (1997)
	No	Holley and King (1971), Johnson (1982), Cheng and Good (2009)
Attitude toward glosses	Positive	Otto, White and Camperell (1980 cited in Davis, 1989), Jacobs, Dufon and Hong (1994), Myong (2005)
	Negative	Holley (1970, cited in Holley & King, 1971) → Teachers’ negative attitude
Does research support the use of glosses?	Yes	Holley and King (1971), Davis (1989), Hulstijn, Hollander and Greidanus (1996)
	No	Johnson (1982), Jacobs, Dufon and Hong (1994)
Preference of gloss features	L1	Jacobs, Dufon and Hong (1994) → 47% of the participants Bell and LeBlanc (2000)
	L2	Jacobs, Dufon and Hong (1994) → 52% of the participants if understandable. Myong (2005)
Distracting to reading process?	Yes	Johnson (1982), Cheng and Good (2009)
	No	Davis (1989), Myong (2005)

If L2 learners comprehend unmodified texts with the help of a marginal gloss better than when they read simplified or elaborated texts, glosses may be superior as vital reading aids before learners embark on reading unmodified materials. The

superiority of glosses over simplification and elaboration is, however, far from being established. As can be seen in the Table 4.1 above, the relevant research findings are mixed in the following important respects:

- whether or not glosses are facilitative for reading comprehension and vocabulary learning
- learners' and teachers' attitudes toward glosses
- what types of glosses are welcomed more by learners
- which language is preferred to provide definitions, L1 or L2
- whether or not glosses distract from the reading process

These inconsistent empirical findings are from different L1-L2 pairings, participants' proficiency levels, participants' experience in using glosses, the ratio of glossed words, assessment tasks used, and so forth. Therefore, it is essential to examine how differently learners of Japanese respond to provision of a gloss, compared to embedded text modification such as simplification and elaboration, in terms of cognitive aspects.

4.2.5.4 Affective effects from glosses

It is similarly important to consider the provision of glosses from the perspective of affective domains. If learners are preoccupied with unknown words rather than reading the given text for meaning, they may fail to enjoy reading for pleasure. In such a case, provision of glosses may work positively. Askildson (2011, p. 49) claims that "research on glossing for reading comprehension presents a mixed collection of findings suggesting facilitation...and inhibition..., although affective and attentional benefits of glossing for reading comprehension are widely acknowledged." At the same time, however, the mere look of a text that comes with

a marginal gloss, which differs from that of an unmodified text, may perhaps be counter-productive and demotivating for some learners. Similarly, as stated above, there are issues such as possible distracting factors incurred by the presence of glosses and learners' lack of experience in using glosses. Holley and King (1971) report that participants did not actually use provided glosses actively. This could be one indication that students do not always welcome the provision of marginal glosses. On the other hand, most participants of a study by Jacobs, Dufon and Hong (1994) preferred gloss conditions. These inconsistent findings point to the need to investigate this affective aspect more closely.

4.2.5.5 Affective effects from glosses on L2 Japanese learners

Hu and Nation (2000) point out that more than 98% of running words of a text have to be known for a reader to understand the content of a text without assistance. When there are too many unknown words in a text, such a text not only extracts a cognitive burden but also raises an affective barrier. Learners of Japanese encounter numerous unknown *kanji* in their target language texts. This appears to be one of the biggest obstacles faced by these learners, especially those from non-Chinese-character L1 script backgrounds. Countless unknown *kanji* compound words render Japanese reading material cognitively demanding.

At the same time, encountering an excessive number of unfamiliar *kanji* compound words becomes an extremely demotivating factor when often-intrinsically-motivated learners of Japanese prematurely embark on target language reading. As Saito, Horwitz and Garza (1999) report, the L1 English learners of Japanese in their study were more prepared to master L2 reading despite more challenging orthographic barriers, in comparison to the L1 English learners of Russian and French. However, often such motivated learners of Japanese start

feeling frustrated with their slow progress in reading after many years of studying due to the sheer difficulty and volume of *kanji* characters/compound words which have to be learnt. They often lament that reading material which is easy enough for them to read is too childish and boring, while reading material which seems to be intellectually challenging and interesting is too difficult for them to read because it contains too many unknown *kanji* compound words. This sentiment is echoed by Twaddell (1973) in a different L2 language context.

It is therefore important to investigate whether or not an affective filter of learners of Japanese is lowered when glosses are provided to give definitions of potentially unknown *kanji* compound words.

4.2.5.6 Online glosses

Online glosses are text modification measures of a new age, belonging to a category of easification. With the fast advancement of information technologies, “the union of reading and technology on the Internet is causing educators to take a new look at what it means to be literate in today’s society... New forms of literacy call upon students to know how to read and write not only in the print world but also in the digital world” (Schmar-Dobler, 2003, p. 80, 81). This trend also permeates FL learning and teaching contexts, and an increasing number of L2 learners carry out L2 reading on computer.

Internet resources can satisfy the starvation for direct exposure to the target culture experienced by L2 learners. For example, online articles are valuable first-hand resources for learners of Japanese who reside far away from Japan. Moeller (1997) confirms this advantageous aspect of online reading and emphasizes the efficacy of computer annotation:

Today's on-line technologies afford opportunities for enhancing student access to up-to-date and even up-to-the-minute cultural materials and realia. The use of these on-line authentic materials can help provide students with a level of cultural awareness that is most often acquired by means of experience abroad. (p. 11)

Abraham (2008, p. 210) suggests that “modifications of authentic L2 readings by using computer-mediated text glosses in this accumulated body of CALL [Computer-Aided Language Learning] research seem to be important for enhancing L2 comprehension and incidental vocabulary learning.” Gettys, Imhof, and Kautz (2001, p. 91) also claim that online glosses enable teachers to provide students with opportunities of being exposed to “authentic, unabridged texts” in an effortless way. These scholars emphasize that learners can read original texts with the aid of digital glosses, which is cognitively and affectively beneficial.

However, it has not been well-examined whether or not computerised reading is really beneficial for L2 learners, let alone for L2 Japanese learners. Differing advantages and disadvantages are expected to be incurred due to the difference of modes, i.e., hard copy or computer. Anderson (2003, p. 5) aptly asserts that “we cannot assume a simple transfer of L2 reading skills and strategies from the hardcopy environment to the online environment.” In the context of JSL/JFL, Kubota (1999) illustrates cautious views toward online L2 Japanese reading. Her participants’ “overall reaction on reading Japanese Web pages was “overwhelming” and “difficult” because of a large number of unfamiliar *kanji*, vocabulary and idioms” (p. 213). From these scholars’ observations, it is already easy to anticipate that the differences between hard copy reading and computerised reading can cause new challenges for L2 learners. Hence, the efficacy of online glosses needs to be well investigated.

In the context of JSL/JFL, some learners praise the usefulness of currently available online reading aids, including pop-jisho.com and rikaichan.mozdev.org.¹⁰ On these websites, users simply copy a text found on another website and paste it in. Each word in an instantly processed text then carries hidden pop-up glosses. If L2 learners prefer reading unmodified online L2 texts when supported by these digital reading aids, and understand such texts better, compared to reading modified hard-copy texts, approaches toward text modification and materials construction, selection, and provision may require fundamental paradigm shifts.

However, the findings regarding computerised reading and computerised glosses are inconsistent. Table 4.2 below presents a summary of findings obtained from studies which either examined the differing effects between hard copy and computerised readings, among different digital features, or among different characteristics of computer glosses as well as relevant research interests. Unfortunately, “mode of presentation studies in the non-assessment literature involving L2 readers are scarce” (Sawaki, 2001, p. 38). Thus, only brief discussion in relation to the differing influences incurred by these two different modes is provided here.

¹⁰ pop-jisho.com: http://www.popjisyo.com/WebHint/Portal_e.aspx
rikaichan.mozdev.org: <http://rikaichan.mozdev.org/>

Table 4.2. The findings regarding computerised reading and computer glosses

Core discussions	Researchers' suggestions	
Reading time (efficiency, task completion, etc.) between hard copy and computerised readings	No difference	Askwall (1985), Osborne and Holton (1988)
	Difference	Dillon (1992): computerised reading tends to be slower. $\leftrightarrow$ Aust, Kelly and Roby (1993): hyper-reference users are faster and overall more efficient than paper-reference users. Taylor (2006): looking up words is much easier and more time efficient with computer glossing.
Comprehension and accuracy between hard copy and computerised readings	No difference	Askwall (1985), Osborne and Holton (1988), Aust, et. al. (1993), Roby (1999), Bowles (2004)
	Difference	Taylor (2006): computer-mediated glosses have a statistically significantly higher effect on L2 comprehension than do paper-text glosses.
	Potential difference	Sutherland-Smith (2002): readers of computerised reading tend to make hasty and shallow judgements.
Fatigue from reading	Dillon (1992): learners' task performance may deteriorate after a long time on a computer.	
Preference: hard copy reading or computerised reading?	Difference	Aust, et.al. (1993): hyper-reference users show enthusiastic reactions. Davis and Lyman-Hager (1997): unanimously favoured reading with computerised glossing was detected. $\leftrightarrow$ Ramírez Leyva (2003): university students trust printed texts more, find such texts easier to understand, and thus most of them prefer to read printed texts. Tseng (2008, 2010): students dislike computerised reading because of eye strain, inability to write in a note and ease of skipping lines. Taylor (2006): faster and easier access give L2 learners more confidence.
	Arnold (2009): despite the overall positive findings of online extensive reading, the study reports that "it was surprising that the class did not express a stronger preference for online texts, considering that these students are members of the so-called net generation... Maybe we are overestimating students' comfort level, familiarity with, and preference for technology, especially when it comes to its academic application" (p. 353, 354).	
Manipulation	Dillon (1992): paper is evidently easier to manipulate compared to computer. $\leftrightarrow$ Ramírez Leyva (2003): About 40% of participants relied on Internet for study-related activities because it is easier and faster than printed texts.	
Navigation	Dillon (1992): computerised texts cause great difficulty in navigation. Tseng (2010): it is easier to skip sentences by mistake on a computer screen.	
General negative aspects of computer glossing	Taylor (2006): easy computer glossing may strengthen learners' naïve lexical hypothesis (Bland, Noblitt, Armington & Gay, 1990, see section 5.1.7.8). Since learners do not have to make an effort with easy computer glossing, their processing may stay shallow.	

As can be seen above, the efficacy of computerised reading and online glosses is far from confirmed yet. The data of Kuehner's (1999, p. 168) study implies that believing that students' reading skills are improving thanks to computer programmes is sometimes "a false perception." In contrast, Taylor (2006, p. 309) claims the superiority of computer instruction, reporting that "learners provided with L1 glosses comprehend significantly more text – through the medium of a computer – than learners with traditional, paper-based L1 glossing aids." In more discrete aspects such as types of glosses, while Lomicka (1998, p. 47) presents that "there was a strong preference for the traditional definitional glosses," Nagata (1999) supports multiple-choice glosses because they enhanced students' vocabulary retention and correct understanding of target grammar structure, compared to single definitional glosses.

Future studies need to accumulate empirical proofs in various aspects so that we are able to verify whether or not computerised reading and online glosses offer authentic reading experiences to L2 learners.

4.3 Rationale for the current study – specific research questions

In summary, the present study addresses the authenticity debate in the context of JFL reading pedagogy through examining the effects of text modifications on learners' reading comprehension and affective factors, which has not been explored to date. In other words, the study investigates whether or not learners of Japanese benefit from reading modified texts. In practice, Project One investigates whether or not text modification increases learners' reading comprehension and lowers their affective filter. If so, what is the optimal text modification measure for learners of Japanese? Furthermore, the study addresses which input medium is preferred, hard copy reading or computerised reading. Then

Project Two attempts to confirm the findings of Project One with a larger sample size by means of a questionnaire survey. Project Three, with the aim of deepening the findings obtained from Projects One and Two, examines how learners respond when they read original literary pieces and their graded reader (GR) versions. The texts used in Project One are rather short and with such short texts, only limited changes in learners' response toward differently modified texts can be detected. Therefore, longer, more engaging texts are used in Project Three in order to tap into learners' true responses. Practically, if L2 learners decide to read modified texts, they will most possibly read GRs. Thus, investigating changes of learners' response toward original literary pieces and their GR versions have empirical meaning. Specifically, the answers to the following specific research questions are sought in the three projects in order to discuss the overarching question, 'whether or not, and to what extent, modified texts are efficacious in L2 Japanese reading instruction.'

(Project One)

1. What type of text do learners of Japanese comprehend best? Is it an unmodified text, a simplified text, an elaborated text, a text with a marginal gloss, or a text with pop-ups on a computer screen?
2. Do learners respond differently according to their proficiency levels?
3. How do learners' affective factors change according to the differently modified texts? What type of text do they prefer? What are the reasons of their preference?
4. Which do learners prefer, hard copy reading or computerised reading?

(Project Two)

1. How does a larger sample-size of students perceive an unmodified text, and three differently modified texts, i.e., a simplified text, an elaborated text and an easified text?
2. Which do learners prefer, hard copy reading or computerised reading?

(Project Three)

How do learners respond to two different Japanese texts (unmodified literary texts and their GR versions)?

Many learners of Japanese perceive that reading unmodified Japanese texts is an impossible mission. However, there must be a route to render such an impossible mission possible. The current study probes whether or not modified texts may provide such a route. While being used to develop learners' fluency in reading, modified texts need to present learners an authentic reading experience. The study, therefore, investigates what type of text can serve as good reading materials in which learners of Japanese develop fluency and at the same time such learners experience an 'authentic reading experience.'

Chapter 5. Methodology of the three projects

5.0 Overview of the chapter

Three projects were undertaken in the current study (Table 5.1 below). The study as a whole adopted a cyclical/progressive course of research, evolving at each stage. That is to say, the preceding project motivated the following project and at the same time the succeeding project confirmed its predecessor. The findings of Project One were reconfirmed by Project Two, and both projects motivated Project Three. In short, the current study has “the cyclical nature data collection, analysis, interpretation, followed by further data collection, analysis, interpretation” (Brown, 2003, p. 485). In this chapter, the methodology adopted in the three projects is explained.

Table 5.1. Overview of the current study

Project	Purpose	Orientation and Details
<i>Project One</i>	Investigation of cognitive and affective changes of participants according to unmodified texts and four differently modified texts	Mainly quantitative approach (statistical analysis of the free-recall task/ the comprehension test) Some data was analysed in a qualitative way
<i>Project Two</i>	Confirming parts of the findings of Project One with a larger sample size	A questionnaire survey
<i>Project Three</i>	Deepening the findings of the preceding two projects, using available unmodified texts and modified texts	Qualitative analysis of the think-aloud protocols, the pair-think aloud task, and unstructured interview

5.1 The methodology of Project One

Project One posited the following four research questions:

1. What type of text do learners of Japanese comprehend best? Is it an unmodified text, a simplified text, an elaborated text, a text with a marginal gloss, or a text with pop-ups on a computer screen?

2. Do learners respond differently according to their proficiency levels?
3. How do learners' affective factors change according to the differently modified texts? What type of text do they prefer? What are the reasons for their preference?
4. Which do learners prefer, hard copy reading or computerised reading?

In order to answer these research questions, Project One mainly employed a quantitative approach, but some of the data was qualitatively analysed.

5.1.1 Participants

The participants of Project One were intermediate-level and advanced-level learners of Japanese. The majority of them were university students at one of the national universities in New Zealand. Two participants were graduates who had completed the same university's Japanese majoring programme for a Bachelor of Arts degree. The total number of participants was 31, of which 30 students' data was used for all the quantitative and qualitative analyses. The data from one student who was a near-native-level student was used only for qualitative analyses because she did not complete all the five readings. The data collection for Project One was conducted in two separate periods. Seventeen participants' data were first collected in 2010 and the data of the remaining fourteen participants were collected in 2011.

In Project One, after gaining ethical approval, the participants answered a biodata questionnaire. The biodata questionnaire was constructed following recommendations provided by Mackey and Gass (2005, p. 124 – 128). This biodata questionnaire served to investigate the participants' experience of going to Japan, learning background and perceptions regarding L2 learning in general as well as L2 reading. Of these 31 participants, five had lived in Japan for a little less than one year as exchange students at Japanese universities. One of these five students had

had a few more opportunities to stay in Japan for a few months. The period of the remaining participants' staying in Japan varied from two weeks to four and a half months, with six participants having never been to Japan.

The participants' average period of previous study of Japanese was a little less than seven years. They had either started learning Japanese at senior high school and continued the study at university, or started their study at the time of university entrance. Their L2 proficiency levels differed widely. Four of them had passed the highest level of the former Japanese Language Proficiency Test (JLPT), which is the only officially and internationally recognized Japanese language test. This level is described as “extensive Japanese language ability which has acquired a high standard of grammar/*kanji* (2,000 character level)/vocabulary (10,000 word level), which is necessary for carrying out social life (the level reached after about 900 hours of studying)” (the researcher's translation of a part of the website which gives details of this test).¹¹

The two Japanese language courses in which most of the participants were enrolled at the time of their participation in Project One aimed at mastering Japanese language in all the four skills (reading, writing, listening, and speaking) up to the former JLPT levels two and three. Levels two and three of the former JLPT are described on the aforementioned official website respectively as “ability which has acquired the relatively high grammar/*kanji* (1,000 characters)/vocabulary (6,000 words), and enables users to converse as well as write/read about general topics (the level reached after about 600 hours of studying and/or completing an intermediate level Japanese course)” (level two, the researcher's translation), and “ability which has acquired the basic grammar/*kanji* (300 characters)/vocabulary (1,500 words),

¹¹ The Japanese Language Proficiency Test website: <http://www.jlpt.jp/about/pdf/comparison01.pdf>

and enables users to carry out useful conversations for everyday life as well as write/read easy texts (the level reached after studying 300 hours and/or completing an elementary level Japanese course)” (level three, the researcher’s translation). However, many of the participants had not sat the former JLPT tests and accurate proficiency levels of the majority of the participants were unavailable. Therefore, a level check test (see the next section) was conducted prior to actual data collection sessions.

There were 13 males and 18 females. There were two sub-groups in terms of their native languages: 25 participants were from L1 English background whereas 6 participants were from L1 Chinese background. The participants’ university majors varied, including Japanese, law, humanities, social sciences, and commerce.

The researcher made an announcement about Project One in the above-mentioned two classrooms and the majority of the current participants showed an instant interest in participation. The remaining participants notified the researcher of their willingness to provide support to Project One after they found out about the project through classmates or friends.

The current sample of participants can be regarded as a typical group of JFL university students in various ways. Their experience of staying in Japan was on average very short, they had studied Japanese at high school and university levels, and they did not have much constant direct exposure to the target population/culture. While their learning environments were not ideal due to a lack of opportunity for exposure to the target population/culture and using what they had learnt at school, their motivation was very high. They had been attracted by contemporary Japanese culture at an earlier age and had maintained high initial interest over several years. Understanding the learning environments that these participants were in is of great

importance for interpreting the data they provided, since such aspects surely influence their perceptions toward L2 reading *per se* and resultant L2 reading habits. Day and Bamford (1998, p. 23) claim that factors such as “attitudes toward the second language, culture, and people” and “the second language classroom environment (teacher, classmates, approach to and support for L2 reading, ongoing experiences in L2 reading)” influence the process of forming L2 reading attitudes.

5.1.2 Level check test

In Project One, the proficiency levels of the participants were determined either by a level check test or their former JLPT results. This is because it was relevant to examine how differently the participants responded to different text modification measures according to their proficiency. As some previous studies demonstrate (e.g., McNamara, Kintsch, Songer & Kintsch, 1996; Oh, 2001; Tsang Wai King, 1987), L2 learners’ proficiency levels can influence the effects of text modification. The level check test was constructed by choosing sixteen questions from the reading sections contained in the JLPT 2005. (See Appendix 2 for the level check test.)

The JLPT 2005 report (The Japan Foundation & Japan Educational Exchanges and Services, 2008) demonstrates item difficulty of these sixteen test items from 0.287 to 0.814 and item discrimination power of them from 0.290 to 0.517. The report defines “item difficulty” as “the ratio of correct answers. A lower value indicates that a given test item is difficult...item difficulty below 0.25 could indicate problems in the question itself” (ibid., p. 26). Similarly, “item discrimination power” is explained as “a higher value (of item discrimination power) serves to enhance the reliability of the test score” (ibid., p. 26). In this level check test, all the questions were based on the contents of five short passages (on the

average 636.4 words). The participants were instructed not to guess answers but leave them unanswered when they could not get the gist of the passage.

5.1.3 Ethical issues

The average age of the current participants was 21 years old. It was, therefore, believed that they were “autonomous agents” who were “capable of deliberation about personal goals and of acting under the direction of such deliberation” (The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979, para. 13 & 14, ‘Respect for Persons’ section) and they should be treated as such in the process of research. The Belmont Report by the National Commission further reminds us that the participants’ consent process is to be reviewed as to whether or not it contains “three elements: information, comprehension and voluntariness” (ibid., para. 26, ‘Informed Consent’ section). In all the projects carried out for the present study, the researcher maintained the stance to follow this principle and ensured realization of these three elements in ethical procedures.

In practice, prior to commencing Project One an ethics approval was obtained from the Human Ethics Committee of the university where recruiting participants and data collection were conducted. As stated above, all the participants joined Project One voluntarily (‘voluntariness’). In cases when some of them were in a class which was being taught by the researcher, such participants understood that their participation would not affect their course grades. A shopping voucher was presented to each participant as a reward, at the standard rate which was widely adopted by other researchers at the same university.

At actual sessions, the researcher first explained the purpose and methods of the project orally and gave the participant an information sheet ('information'). When the participant finished reading the information sheet and was satisfied with the content, the researcher signed the form and asked the participant to keep it. Next, the participant read a consent form and if he/she agreed with the content of it, he/she signed and passed it back to the researcher. It was ensured that all the participants, in particular those from L1 Chinese background fully understood the wording and the meaning of the information sheet and the consent form that were written in English ('comprehension'). (See Appendix 3 for the information sheet and the consent form.) Often the participant needed enlightenment regarding the meaning and the importance of ethical procedures, since this process was unfamiliar to most of them. The researcher gave them an explanation regarding the general concepts of ethical issues of research involving human beings. That is, the researcher explicitly explained the participants' right to withdraw from the research, how their identity would be protected, and the fact that only two supervisors and the researcher had access to the participants' data.

In the current study, one third of the participating students in Projects One, Two and Three were in a course coordinated and taught by the researcher. Thus those students had previously had more interaction with her. Although the researcher's discretion in terms of reading instruction was limited due to the rigid course syllabus prescribed by the programme, she was nevertheless able to introduce extensive reading and the possible benefits of modified texts to a small degree during her class hours. Since these issues were unheard of to many of her students, this may have stimulated interest among some of these students. In other words, their possible pre-existing dissatisfaction toward the reading instruction and

materials which they received in their course, mainly through a commercially available textbook, might have been somewhat reinforced, and their desire to experience a different approach might have been kindled by the researcher's input. Consequently, this may have encouraged students' participation in the three projects more than would have been the case for an outsider coming into an institution and randomly recruiting participants.

Regarding the findings obtained from the three projects, there could be some influence caused by this fact, i.e., the researcher being a teacher of a third of the participants. Whereas the statistical findings of reading comprehension and reading speed were free from such influence, qualitative findings such as the participants' comments during interviews might reflect—albeit to a limited extent—that these students were somewhat influenced from classes taught by the researcher .

5.1.4 Assessment tasks and procedures

5.1.4.1 Rationale for the choice of the two assessment tasks

It is difficult to investigate the reading process in general and the often-subtle changes in comprehension. It is, therefore, even more difficult to assess how differently readers interact with unmodified and differently modified texts, and how differently readers comprehend such texts. Sensitive and consistent assessment methods are, therefore, required in order to obtain reliable findings (Myong, 2005).

There are numerous assessment measures used in reading research literature: the cloze procedure, question-answering, verbal recall tasks, translation, reading time measurement, eye fixation investigation, eye movement investigation and so forth. Chang (1983) categorizes these reading measurement methods into two groups: simultaneous methods and successive methods. Simultaneous methods are carried out while a reader is engaged in reading. They are suitable for investigating

“encoding or perceptual processes in reading” and they are “relatively unconfounded by memory processes” (p. 217). On the other hand, successive methods, undertaken after the actual reading act, are better used to examine “the retention and representation of material from a previously read text” (ibid., p. 217). Chang also provides another categorization of reading assessment methods: obtrusive methods or unobtrusive methods. While obtrusive methods are usually easier to apply, unobtrusive methods are less disruptive.

The present study aims to examine the relative effect on learners’ comprehension according to different text modification measures. Therefore, successive methods are employed since such methods are thought to illustrate readers’ mental representation of a given text. Among successive methods, a verbal recall task and a question-answering task were especially selected to detect a possibly-small change in reading comprehension. As Chang (1983) mentions, memory factors may interfere with successive methods. For example, if a given text is short, readers do not need to comprehend it, but instead they can simply memorize it in order to carry out a free recall task well. In Project One, however, each given text was long enough to minimize such interference by memory factors. Also, influence of such interference can be minimized by using two measurement methods, i.e., a free-recall task and a short answer reading comprehension test. That is because, while a free-recall task demands high memory and low comprehension, a short answer reading comprehension test demands high comprehension and low memory (Chang, 1983, p. 224). The combined nature of the two tasks in the current study is “placed somewhere near the middle of the memorization-comprehension task ordering” (ibid., p. 226). Hence, using these two assessment measures did not favour particular participants.

5.1.4.2 The free-recall task

Many scholars support the reliability of the free-recall task as a comprehension assessment measure (e.g., Bernhardt, 1983, 1991, 2011; Lee, 1986; O'Donnell, 2009; Sharp, 2004; Young, 1993, also Everson & Ke, 1997, in the more similar context of Chinese as a foreign language, Everson & Kuriya, 1998, in the context of JFL). O'Donnell (2009, p. 520) asserts that “immediate recall protocols were used to assess text comprehension [in her study], as they provide one of the purest measures of understanding because neither the test questions nor the test developer interfere with the response quality and quantity.” Bernhardt (1983, p. 31, 32) similarly enumerates the advantages of the recall protocol procedure as follows:

- “while on the one hand it does not test for grammar points, it shows where a lack of grammar is interfering with the communication which should be going on between the students and the text”
- the procedure, “unlike traditional tests, in no way influences the students’ understanding of the text”
- “the test stresses the importance of understanding of the material”
- “from the teacher’s point of view, a recall test is easy to construct and administer since there need be no extensive bank of questions and exercises to test the students.”

Also, a free-recall task is advantageous insofar as it is not interfered with by poorly constructed test items, learners are not prompted by test items, it is always text-dependent, it does not induce as much negative affective response as the cloze procedure does, and so forth. Sharp (2004, p. 335) further emphasizes its advantage: “the procedure...is more likely to focus on the communication between text and

reader. The assumption is that recall indicates something about the readers' assimilation and reconstruction of text information and therefore reflects comprehension." The fact that the free-recall procedure "focus[es] on the communication between text and reader" enables the researcher to examine deeply how differently the participants respond to unmodified texts and four types of modified texts. That is because the recall protocols obtained are thought to reflect the outcome of the communication between the participants and the given texts rather than being a mere decoding trace of the graphemic information.

5.1.4.3 Language and mode to carry out a free recall task

Once a free-recall task is chosen as a suitable assessment method, there still remain a few procedural factors to determine. First, the language of recall has to be determined: L1 or L2. Bernhardt (1983) suggests that carrying out the recall procedure in one's native language is good insofar as students' L2 proficiency does not affect their performance (also Yang, 2002). In the context of L2 Japanese, Watanabe (1998) reports that the participants in her study recalled significantly better when they used their native language. She analyses that the participants created mental representation in their L1 and hence recalling in L1 was a smoother procedure for them. Thus, English was chosen as the language for the participants to carry out the free recall task since it was the native language of the majority of the current participants. There were six participants whose native language was Chinese, and while it cannot be denied that having to recall in English was a possible disadvantage for them, all of these L1 Chinese participants' proficiency in English was above upper intermediate (university-level). Therefore, it was judged that the degree of possible disadvantage would be minimal, and would be offset in the project by providing data from an L1 that is substantially different from English.

The second factor to determine is the mode of the task: writing or speaking. Prior to the current study, a Japanese language class of about 30 students, some of whom participated in the current study, cooperated to carry out a practice written free recall task. Among the collected responses of the students' recall protocols were some comments which indicated their reluctance to write even in their L1. This negative reaction toward the written recall task prompted the researcher to try the oral free-recall task with one L1 English learner of L2 Japanese. Although the learner was initially hesitant about speaking in front of the researcher and into the microphone, she got used to the procedure quickly and found it less troublesome than writing. Thus, for the current study, the oral free-recall task in English was chosen as one of the assessment methods. Additionally, the reduction in time resulting from the choice of the oral free-recall task was welcomed because each participant had to carry out the same task five times due to the design of the project.

5.1.4.4 The short answer reading comprehension test

As for a question-answering task, the short answer reading comprehension test was chosen. As mentioned above, this demands less memory but more comprehension compared to the oral free-recall task. Therefore, the results of some participants with less memory ability might be compensated by this task. The reasons that a short answer reading comprehension test was chosen are:

- It avoids students' guessing. True/false questions and multiple choice questions give opportunities for students simply to guess the right answer.
- It reduces item construction burdens. As is well known, creating suitable distractors for a multiple-choice test is no easy task.

- It is not influenced by the test maker's subjective understanding of a given text. Although a test maker may believe one statement to be true, it is not necessarily accepted as true by some test takers.

Despite these advantageous aspects, there are some shortcomings to short answer reading comprehension tests. It is not the easiest test to mark. Some items can be answered by memorizing the surface component of a text without full comprehension. Nevertheless, in conjunction with the oral free-recall task in L1, it is expected that the short answer reading comprehension test can serve well to illuminate how the participants comprehended an unmodified text and differently modified texts in the current study.

5.1.4.5 Reading time

Additionally, the participants' reading time was recorded in Project One. Since speed and comprehension tend to be in a 'trade-off,' one of them alone does not indicate a true picture of either learners' comprehension or the difficulty of a given text. When learners read slowly, their comprehension tends to be higher, and conversely when learners complete the reading in a short space of time, their comprehension is not necessarily good. Therefore, reading comprehension is best analysed to factor in reading time spent to complete the text. Miller and Kintsch (1980) provide a convincing explanation for this:

Comprehension difficulties may express themselves in two ways. First, a difficult text may require additional processing to maintain coherence, and so should require extra time for reading. Second, if these necessary additional processes are not performed, the representation of the text will be deficient, and recall should suffer. We suggest, therefore, that the best index of readability is a measure that takes both factors into account, that is, reading time per unit recalled. (p. 336)

Hence, in Project One, reading time per correctly recalled idea unit is recorded to deepen the analysis. In the text modification study field, Urano (2000) employed a mean reading time to measure his participants' L2 reading comprehension in order to avoid using a measurement with a nominal scale.

5.1.4.6 Latin square design

A review of the literature demonstrated that most of the relevant text modification studies, mainly in the contexts of ESL/EFL, employed a comparison group or control group design (e.g., Blau, 1982; Brewer, 2008; Brown, 1987; Kim, 2006; Maxwell, 2011; Oh, 2001; Yano, Long & Ross, 1994; Young, 1999). They compared comprehension results among multiple groups which were controlled in terms of linguistic proficiency. That is, participants of each group which was equal in terms of proficiency were assigned to read a different text: an unmodified text, or a differently modified text. Then the average reading comprehension scores of each group were compared. For example, Yano et al. (1994, p. 206) mention that “the quasi-random text distribution procedure had been successful in producing groups that were of comparable FL proficiency.” Having the three comparable groups in terms of FL proficiency enabled the researchers to detect the relative effects of three text modification measures, i.e., no modification, simplification and elaboration, which were not confounded by the possible effects of the difference in learners' proficiency.

In the current project, however, a Latin square design was adopted and Generalized Estimating Equations (GEEs) were used to analyse the data obtained (refer to Hanley, Negassa, Edwardes & Forrester, 2003; Liang & Zeger, 1986; Zeger

& Liang, 1986, for GEEs).¹² The main reason for this decision was a practical one: the small population of learners of Japanese. Japanese is taught less than English. Also, the number of learners of Japanese has declined in New Zealand (The Japan Foundation, 2010), which makes recruitment of learners of Japanese for research purposes more challenging. Thus, the present researcher and the consulted reading specialist decided to employ a Latin square design: one participant reads five differently modified texts in five different topics (Table 5.2 below).

**Table 5.2. How participants were assigned texts
(an example from five students)**

Each participant read one unmodified text and four differently modified texts in five different topics. In Table 5.2 below, each capital letter indicates a topic. ‘→’ sign demonstrates the task from which each student started reading.

	Unmodified text	Simplified text	Elaborated text	Text with a glossary	Text with pop-ups
Participant 1	A	→ B	C	D	E
2	B	C	→ D	E	A
3	C	D	E	→ A	B
4	D	E	A	B	→ C
5	→ E	A	B	C	D

The advantages of this research decision were that:

- It was possible to obtain an adequate volume of data from a small sample of participants. There were 150 readings (30 participants x five readings) available for quantitative analyses.
- The employment of an oral free-recall became possible, since the researcher carried out all the sessions with each participant individually. This was a significant advantage because other assessment methods such as a multiple-

¹² Also, refer to O'Donnell (2009) for another text modification study that used GEEs although the design of her study and that of the current project differ.

choice written test adopted in relevant text modification studies can only detect limited aspects of students' reading comprehension.

On the other hand, there were some perceived disadvantages involved in this research decision:

- It was not possible to carry out a within-subject comparison because each participant read a differently modified text on a different topic and there was some effect deriving from the topic difference.
- Reading five texts was a burden to each participant. Many of the participants were developing readers in L2 Japanese. Therefore, they could not read Japanese texts fast, which resulted in each session being quite long. The researcher was aware of this and offered a long break when necessary. However, the participants held good attentiveness and they usually turned down the offer of a break.

5.1.5 Actual procedures

5.1.5.1 Preliminary Sessions

After the aforementioned ethical procedures, the participants carried out the level check test (See section 5.1.2 for the level check test). Some of the participants had already achieved a higher level of the former JPLT and those participants did not take the level check test. Also, all the participants answered the biodata questionnaire so that their characteristics such as learning history and self-judged proficiency levels could be obtained (See section 5.1.7.2 for the biodata questionnaire).

5.1.5.2 Assessment Sessions

As the first task in Project One, after the participants had read one of the five texts, they carried out an oral free-recall task in English which was the first language for the majority of the participants. After a second brief reading and a short-answer reading comprehension test, the participants answered a previous-vocabulary-knowledge test (See Appendix 4). In this test each participant simply answered whether they knew the original words or phrases which were the target of modification due to their difficulty (these were called target words, TWs, hereafter). Since it was not possible to determine how much vocabulary knowledge each participant had acquired prior to the present project, this previous-vocabulary-knowledge test was given so that the results could be used for later analyses instead.

Also, at the end of all the tasks, three five-scale questions asked the participants how interesting they found the topic (level of interest); how familiar the content was to them (familiarity); how much they think that they understood the topic (self-perceived understanding). Asking students these four aspects was inspired by previous text modification studies (e.g., Blau, 1982; Brewer, 2008; Cramer, 2005; Gardner & Hansen, 2007; Li, Xu, & Wang, 2005; Lotherington-Woloszyn, 1992; Oh, 2001; Young, 1999).

As stated above, Project One employed a Latin square design: the participants read five texts (one is an unmodified text and four are differently modified texts) in five different topics, such that the order of texts was counter-balanced.

The participant repeated this procedure five times (reading → free-recall → short answer reading comprehension test [See section 5.1.7.11] → previous-vocabulary-knowledge test [See Appendix 4] → answer three five-scale questions

[See section 5.1.5.2]), with five different texts. No time limit was set for any of the tasks. Each participant's reading time was, however, recorded for later analyses for the reason mentioned above.

5.1.5.3 Exit Interview

At the end of the second session, a semi-structured exit interview was given to each participant. The basic questions included:

- Do you find any one of these modification types easier to read? Which one do you find easiest to understand? Which is the most difficult?
- Do you find any one of them difficult to concentrate on?
- Which one is the most comfortable to see?
- Which do you prefer? – embedded modifications such as simplification and elaboration, or out-of-text modifications such as a gloss and pop-ups?
- Which do you prefer? – hard copy or computer screen?
- Are words written in *katakana*¹³ such as アメリカ, ヨーロッパ, オフィス, ビル easier or more difficult than the same-meaning word written in *kanji* such as 米国, 欧州, 事務所, 建物?

[アメリカ=米国, America; ヨーロッパ=欧州, Europe; オフィス=事務所, Office; ビル=建物, Building]

- Are key words at the beginning of each modified text helpful?
- Do you like *furigana*¹⁴ attached to some *kanji* words in modified texts?

¹³ *Katakana* is one of the two syllabaries used in Japanese. It is mainly used to write loan words (see Appendix 1 for a sample Japanese text with *katakana*.)

¹⁴ *Furigana* is ruby annotation which is added next to, above or under *kanji* characters in order to indicate the reading of them. It is usually written in *hiragana*, one of the two syllabaries used in Japanese (see Appendix 1 for a sample Japanese text with *furigana* and *hiragana*).

There was no time limit for the exit interview. The interview was carried out mainly in English. But some more-advanced students often talked in Japanese during their interviews and the researcher ensured that speaking in Japanese did not restrict their conveying thoughts fully. The whole session was recorded and transcribed for analysis.

5.1.6 Rapport between the participants and the researcher

The session for each participant was rather long in Project One (on average two and a half hours). This factor can cause participants' fatigue and its by-product, "participant inattention," which can compromise internal validity of research (Mackey & Gass, 2005, p.109). Similarly, carrying out oral tasks and an interview are not generally easy for research participants. Some non-vocal students can feel uncomfortable. However, the majority of the current participants had been taught by the researcher for at least one academic trimester and there was mutual trust between such participants and the researcher. Also, when the researcher initially met each participant for the ethical procedures, efforts were made to get to know him/her better so as to make the following research session as comfortable as possible. It is believed that such efforts on the part of the researcher bore fruit and there was overall a great rapport between the participants and the researcher. What Lawlor and Mattingly (2001, p. 148) claim, albeit in the context of ethnography, is also true in the current research circumstances: "rapport with informant determines...the quality of the data." It is believed that such rapport was successfully created in all the three projects conducted in the current study.

5.1.7 Materials

Due to space limitations, not all of the materials can be presented. However, indicative parts of materials used in the three projects are provided in the Appendix section.

5.1.7.1 Level check test

The details of the level check test used in Project One is presented in section 5.1.2. The test was constructed using 16 questions contained in the reading section of the JLPT 2005. It was a four multiple-choice reading comprehension test in which the participants chose an appropriate answer among four options after reading short passages.

5.1.7.2 Biodata questionnaire

The biodata questionnaire constructed based on recommendations provided by Mackey and Gass (2005, p. 124 – 128) had questions which asked the participants' experience of staying in Japan, learning background and perceptions regarding L2 learning in general as well as L2 reading and so forth (See Appendix 5 for the questionnaire used).

Perceived difficulty of texts (See Appendix 5.2 for this section)

The biodata questionnaire included questions which specifically asked the participants' opinions related to factors which make Japanese texts difficult. The following is the actual question and the first factor for the participants to rate:

The following questions are about factors that may affect the difficulty of reading a Japanese text. Please rate each factor below from 1~4 to indicate the degree to which you think each factor contributes to the difficulty of a text.

(1) Type of text, e.g., a novel, diary, newspaper article, an academic article, encyclopaedia entry.

1. very little

2. somewhat

3. quite a lot

4. a lot

Table 5.3. Eight factors for the participants to rate in the questionnaire

1	Type of text, e.g., a novel, diary, newspaper article, an academic article, encyclopaedia entry
2	Coherence (whether a text is written in a logical sequence or not)
3	Abstractness (whether it refers to abstract ideas or concrete things/events)
4	Sentence length (whether a text tends to have many long sentences or many short sentences)
5	Proportion of <i>kanji</i> in a text
6	Text length (whether the length of the text is long or short)
7	Familiarity with the content (whether you know much about the topic of the text or not)
8	Personal interest in the content (whether the content of a text is interesting to you or not)

Rationale of eight variables

The afore-mentioned four-scale rating question was used again in Project Two which had the aim of verifying the results of Project One with a larger sample size. The factors chosen in this four-scale rating question are recognized as determiners of text difficulty in the relevant literature.

The rationale of including question one ‘type of text’ stated in Table 5.3 above is gained from some findings in the context of Japanese linguistic analysis studies (e.g., Kizaka, 1989; Takasaki, 1989; Yamamoto, 1989). These studies distinguish linguistic characteristics recognized in different types of texts. Grabe (2009, p. 11) also mentions that “research has shown that expository and narrative texts impose different types of demands on readers.” If L2 learners of Japanese are capable of recognizing such differences depending on types of texts they read, they probably find some types of texts more difficult than other types. Regarding question two ‘coherence,’ scholars including Blau, (1982), Kim and Snow (2009), McNamara, Kintsch, Songer & Kintsch (1996), Pearson (1974), and so forth, emphasize the influence of text coherence in readability. Question three, the issue of ‘abstractness,’ or conversely, ‘concreteness,’ is investigated by Sadoski, Goetz and

Rodriguez (2000) and Akita (1991). They argue that concreteness and degree of description have effects on comprehension. ‘Sentence length’ in question four is one of the two most used variables in traditional readability formulae.¹⁵ Despite strong criticism against readability formulae, Harrison (1980) remarks that more complex thoughts tend to be explained in longer sentences and lower frequency words. That is, he suggests that sentence length is one indication of the complexity of messages in a text. Similarly, in the context of Japanese pedagogy, ‘sentence length’ is recognized as a determiner of text readability. Specifically, Takagi (1990, p. 75, the researcher’s translation) asserts that “in Japanese language pedagogy, how many *kanji* is [in a text], i.e., the proportion of *kanji* [in a text], and how long a sentence is, i.e., the length of a sentence, can be significant factors in terms of readability.” Thus, question five ‘proportion of *kanji*’ is included in this section. ‘Sentence length’ and ‘proportion of *kanji*’ are also included in Japanese readability formulae proposed by Shibazaki and Hara (2010), and Shibazaki and Tamaoka (2010). Related to question six ‘text length,’ Kembo (1993) observes that L2 learners are incapable of handling long texts. Leow (1997, p. 160) also found “a significant main effect for text length [on learners’ reading comprehension].” Therefore, it is of pedagogic interest to seek whether or not the current participants perceive ‘text length’ as a contributor to text difficulty. Lastly, Schulz (1981, p. 47) criticises traditional readability formulae for failing “to take into account the interaction between text and reader (i.e., prior experience with the topic being discussed, reader interest in topic, etc.).” Hence, questions seven ‘familiarity with the content’ and eight ‘personal interest in the content’ are designed to include such reader-text interaction factors.

¹⁵ Readability formulae are thought by some researchers to indicate how comprehensible a text is. There are numerous formulae have been developed including Flesch Kincaid, Gunning Fog, Fry Graph and so forth. Most such formulae commonly use the two variables of sentence length and word length, whereas other variables used vary depending on the formula.

Nevertheless, the factors adopted in the present four-scale rating question are not totally exhaustive. Williams and Dallas (1984) include factors such as “mode of information presentation, sentence and paragraph organization, typographical grouping of syntactic constituents, text simplification, surface structures with alternative interpretations, and vocabulary” (p. 201) as factors which can cause readability problems. Harrison’s (1980) framework to review readability includes six factors: vocabulary, syntax, conceptual difficulty, organisation, legibility, and illustration. The current four-scale rating question contains factors which ask about the first four factors of Harrison’s framework. However, it does not include the last two factors. Whereas the researcher asked the participants about legibility in the exit interview, no attention was paid to illustrations in the current question. Taking into consideration that many L2 Japanese learners read *manga*, i.e., Japanese animation comic books, the current question may be insufficient in this regard. Hill (2008) asserts that illustrations are one of the significant reading supports in GRs even for adult L2 learners. The workshop of writers of Japanese GRs which the current researcher briefly observed indicated their serious attention toward illustrations. Future investigation of this matter with L2 Japanese learners, in particular mature learners of Japanese, will be empirically beneficial.

5.1.7.3 Texts used

Five different versions of texts were prepared for Project One in terms of text modification: unmodified texts (no modification), simplified texts (simplification), elaborated texts (elaboration), texts with a marginal gloss (easification – glossing) and texts with pop-ups on a computer screen (easification – computer annotation). (see Appendix 6 for samples of the texts used in Project One.)

Table 5.4. The five different types of texts used in Project One

Category	Specific type		
<i>Unmodified text</i>	Unmodified text		
<i>Modified text</i>	<i>Embedded modification</i>	Simplified text	
		Elaborated text	
	<i>Out-of-text modification</i>	Easified text	Text with a marginal gloss
			Text with pop-ups on a computer screen

All the base original texts were obtained online. Due to the need to activate a Latin square design, five topics were required. “In order to minimize the potential effects of content schemata on the reading task” (Chung, 1995, p. 38), five topics were selected which were relatively different from each other and did not require any specialized knowledge. Yano, Long and Ross (1994) took a similar approach in choosing topics. They “minimized the potential effects of content schemata on the reading task by using 13 passages of various lengths. The passages were selected from a wide range of thematic areas” (p. 201).

The following two tables (Tables 5.5 and 5.6) present the average of linguistic features of the five texts used and a brief summary of the five topics.

Table 5.5 below indicates that the simplified and elaborated texts are longer than unmodified texts in general. Dividing lengthy sentences into multiple shorter sentences in simplification and adding redundancy in elaboration made these two modified texts longer than the unmodified texts. Regarding the average sentence length, that of the simplified texts is shortest. The unmodified texts’ *kanji* proportion is higher than that of simplified and elaborated texts. The proportion of *hiragana* shows the opposite pattern. The unmodified texts tended to have less *hiragana*, compared to the simplified and elaborated texts.

Table 5.5. The average of linguistic features of texts used in Project One

	Original	Simplified	Elaborated
Number of characters/letters	555.8	874.8	1490.6
Number of words	220.4	273.6	427.2
Number of sentences	14.4	31.4	41.4
Number of paragraphs	4.4	7.6	7
Average number of sentences per passage	3.48	4.26	6.8
Average number of characters per sentence	42.2	27.84	36.14
Proportion of <i>kanji</i> characters (%)	29.2	20.8	21.2
Proportion of <i>hiragana</i> syllabary (%)	62.2	70.2	71
Proportion of <i>katakana</i> syllabary (%)	7	6.8	6
Proportion of alphabet letters (%)	0.2	0.4	0.2

The linguistic features of texts with a marginal gloss and texts with pop-ups on a computer screen were the same as those of original texts because the wordings of the two types of texts were not changed.

Table 5.6. Topics used in Project One

Title of a topic	Summary
<i>Good rivals</i>	Memoir of an author about one of his/her high school friends. The friend had the same goal in life and always encouraged the author. The author is expressing his/her gratitude.
<i>Hibakusha An atomic-bomb survivor</i>	Memoir of an author about her horrific experience as an atomic bomb survivor. She lost her left leg, fiancé and hope for living, but inspiration from an atomic-bombed tree restored her will to live.
<i>Give me advice</i>	Agony aunt, an advice column. A person seeks for advice for her problem: her friends think that she sometimes pretends to be innocent in order to look cute. The respondent gives her advice.
<i>Mini-skirts</i>	An online newspaper article reporting a Korean blogger's comments regarding Japanese high school students' extremely short skirts.
<i>Good tourists</i>	Extract from a famous newspaper column titled 天声人語 (e.g., <i>Vox populi Vox dei</i>) which has been published continuously for more than 100 years. This particular passage is about the author's comments related to a survey conducted by an American online tour company.

In Project One, parts of each original text were omitted in order to create a suitably short passage for a time-constrained research session. The end products which were used as the unmodified texts, however, still had complete intact content, so that any competent reader should be able to understand the content without confusion. It

should be noted that strictly speaking, shortening the text length is a type of simplification measure. Nevertheless, these texts were used as the unmodified texts because their lexical items and syntactic items were not altered.

The other four texts (simplified texts, elaborated texts, texts with a marginal gloss and texts with pop-ups on a computer screen) can be all categorized into one group as modified texts.

5.1.7.4 Two uniform modification techniques

Two common reading aids were applied uniformly to all of the four modified texts.

Key word provision

First, key words were provided at the beginning of each modified text. In order to determine which words have high ‘keyness’ within each of the five topics, AntConc 3.2.1w (Anthony, 2007) was used. AntConc 3.2.1w is a corpus analysis tool. Using this analysis tool, it is possible to determine which word in a specific text has high ‘keyness.’ Here, “keyness means domain-specificity which represents how specific a word is in the target domain (or text) to another domain” (T. Matsushita, personal communication, 7, May 2012). For this procedure, a reference corpus was required as the index of another domain and the BCCWJ 2009 monitor edition (The National Institute of Japanese Language, 2009) was used. The BCCWJ 2009 monitor edition is a carefully sampled set of contemporary Japanese texts such as books and internet forum texts. This procedure presented a list of a few dozen ‘words with high keyness’ for each topic. Among these ‘words with high keyness,’ those which were above the difficulty of the former JLPT Level Two, which did not have suitable higher frequency synonyms in Japanese, and which were difficult to be

guessed from contextual cues, were chosen as key words for the current five topics and were presented with English definitions at the beginning of all the modified versions.

The reason why the difficulty of the former JLPT Level Two was used as the criterion is that the majority of the participants' proficiency levels varied from Level Two to Level Three as their available course grades indicated, and as the results of the level check test supported. Therefore, it was surmised that most of the participants probably knew many words which were below Level Three difficulty while they might not know many words which were higher than Level Two difficulty. (In the former JLPT, Level Two is more advanced than Level Three.)

The rationale of providing key words is partly gained from Charrow's (1988) study. Investigating the linguistic characteristics of comprehensible recall letters, she finds that provision of a boxed notice at the top in their experimentally prepared recall letter "helps provide a context" (p. 97) for readers. In the current project, the boxed key words at the top of the four modified texts probably did not "provide a context" for readers directly because unlike the boxed notice in Charrow's experimental texts, these key word sections simply presented meanings of words with high keyness. Nevertheless, these key words were believed to work as a "roadmap" (ibid., p. 97) for the participants. That is to say, the participants probably constructed the framework of the story that they were going to read, using these key words. Williams and Dallas (1984) similarly give endorsement for provision of initial key words. They urge us to take "back-up devices" (vocabulary learning aids) sufficiently into consideration, including "a chapter-initial key words section" (p. 209).

Furigana provision (see Appendix 1 for a sample Japanese text with *furigana*.)

The other common adaptation added uniformly to all the modified texts was provision of ruby annotation in the form of *furigana* to *kanji* characters and *kanji* compound words. *Furigana* refers to Japanese phonetic syllabic script added beside, above or below Chinese characters to indicate their pronunciation in the given context. *Furigana* was attached to all the *kanji* characters and compound words which were above the difficulty of the former JLPT Level Three. The reason for using Level Two as the criterion to determine key words was explained above. The reason why Level Three was used as the criterion instead of Level Two for provision of *furigana* is that decoding *kanji* phonologically cannot always be achieved compositionally. That is, while guessing unknown words might be achieved with the help of contextual cues or general discursal understanding support, *kanji* characters and *kanji* compound words cannot be decoded phonologically in a similar way. Being able to decode *kanji* characters and *kanji* compound words phonologically predominantly depends on learners' previous *kanji* knowledge. Therefore, *furigana* were attached to words which were categorized as above the level of difficulty of the former JLPT Level Three rather than Level Two.

The rationale that provision of *furigana* can positively influence learners' cognitive process is given by Ogawa (1991). He maintains that "a word which a reader cannot phonologically recode is difficult to be integrated as a memory in information processing during a reading act (p. 81)...even if a reader does not sound out a *kanji* word, knowing its reading partially renders recognition of the *kanji* word more smoothly in the case of silent reading" (p. 84, the researcher's translation). Hulme, Snowling, Caravolas and Carroll (2005) similarly claim that phonological activation is an important factor for a word to be processed.

It has to be noted that these two modification measures which were uniformly presented in the four modified texts in Project One facilitated the participants' understanding of the texts to some extent. Therefore, the changes on the participants' comprehension were not created by the strict definition of each text modification measure, i.e., simplification, elaboration, easification (marginal glosses and computer annotation).

5.1.7.5 Text modification processes

Before undertaking actual modification procedures, an experienced linguist who was a native speaker of English and had acquired a native-like fluency in Japanese reading was asked to carry out a think-aloud dialogue using several Japanese texts with the researcher so as for the latter to be more aware of the possible difficulty which learners of Japanese might encounter. Having a think-aloud dialogue for such a purpose was motivated by a study of Beck, McKeown, Omanson and Pople (1984):

Our approach to identifying and solving problem candidates [they labelled potentially problematic text features as such] took the form of a group thinking-aloud process in which we developed revised texts and, even more importantly, worked to understand what was driving the revisions. The procedure began with silent reading of a short text segment, usually a paragraph. Then each sentence was examined and evaluated as to whether it presented potential obstacles to comprehension. (p. 265)

This think-aloud dialogue was beneficial because it vivified potentially difficult text features, i.e., problem candidates in Beck et al.'s words, which could be missed by the researcher who was a native Japanese speaker. As Williams and Dallas (1984, p. 212) recommend, it is an important editorial arrangement to "help the writer become aware of the likely difficulties to be encountered by the readership, so that he can either avoid them or cope with them in some other way."

In the process of modification, special consideration was given to the possibility that Japanese texts would need different modifications to some extent due to the different linguistic features from those of English.

5.1.7.6 Simplification process

Simplified texts were constructed by means of some of the traditional simplification measures:

Syntactic simplification

- shortening lengthy sentences, in particular, sentences with a long modifying clause in front of a noun, and sentences which have a complex structure (a main clause and at least one subordinate clause).

Example:

(unmodified) 日本の教育当局は、短いスカートが犯罪の助長や防寒性、健康にも悪いことを理由に、スカートを長くはくように指導している。
(The Japanese educational authorities are instructing [female students] to wear long skirts, giving as the reason that mini-skirts instigate crimes, provide little warmth, and are bad for the health.)

(simplified) 日本の^{きょういくとうきょく}教育当局は、『犯罪^{はんざい}をおこしやすくする。寒い^{さむい}。身体^{からだ}にもよくない。だから^{みじか}短いスカートは悪い^{わる}』、^いと言う。そして、長いスカートをはきなさいと女子高生^{じょしこうせい}に言っている。
(The Japanese educational authorities are telling high school girls to wear long skirts, saying, “mini-skirts are bad because they cause crimes more easily, they make [you] cold, and they are not good for your health.”)

In this example, the underlined section of the unmodified text contains three propositions and describes the succeeding noun ‘理由(*riyuu* = reason).’ In the simplified text, those three propositions have been divided into three short phrases.

When long complex sentences are divided into more than two short sentences, the resulting multiple short sentences often lack cohesiveness. Therefore, when some of the complex and compound sentences had clear cohesion which was easy to follow, the basic sentence structures of those sentences were maintained so that the overall flow of the text was retained. McKeown (1993, p. 18) notes that Collins COBUILD English dictionary “strives to present meanings in ordinary English that sounds natural when read aloud.” In Project One, the researcher also strove to present a discourse which sounded natural when read aloud. An attempt was made to avoid creating simplified texts which would sound ‘choppy’ due to a lack of smooth cohesive flow. Whether or not a text sounds ‘natural’ is recognized as one of the most important factors by some Japanese writers as well (e.g., Takemata, 1979; writers from the Japanese *Tadoku* Research Group, personal communication, August, 2011).

Also, Kabashima and Jugaku (1979) point out that there are two types of long sentences. While one of them is difficult to process due to its length, the other is not necessarily. They provide an example set of such types as follows (p. 181):

A. あれはアナウンサーをしている私の教え子です。

(That is my former student who is a radio announcer.)

B. あれは私の教え子で、アナウンサーをしています。

(That is my former student, and he/she is an announcer.)

While Sentence A is a complex sentence which poses a bigger processing burden on the reader, Sentence B is a compound sentence and its processing burden is not more than that required to process two shorter simple sentences. When a

long sentence is a compound sentence, dividing such a sentence into multiple shorter sentences does not guarantee less processing burden. Coleman (1962) similarly finds that to segment a clause is more effective than to segment a sentence.

This flexible approach in terms of syntactic simplification corresponds with the approach taken by Harada, Yamagata, Sakai, Miyazaki and Mikami (2008). They experimentally constructed Japanese graded readers (GRs). While they placed the vocabulary criteria precisely for each level, their syntactic control was flexible. Noun modifying relative clauses, if not too lengthy, were allowed even for lower level GRs.

Lexical simplification

- replacing low frequency words with higher frequency words or phrases consisting of higher frequency words. Care was taken to replace words designated for Level Two of the former JLPT and above with words which were prescribed for the lower levels of the test. This does not mean that modified texts contained no words which belonged to the former JLPT Level Two and above. The researcher employed the holistic intuitive approach in modification processes as proposed by Day and Bamford (1998, Chapter 7). After a text was completed, its level of vocabulary difficulty was assessed by the online ‘reading tutor tool box’ (Kawamura, Kitamura & Hobara, 1997), with the aim of ensuring that the difficulty of the vocabulary in the modified texts was lower than that of their unmodified versions. The intuitive approach may draw criticism when it is employed arbitrarily. However, Gardner and Hansen (2007) assert that flexible human intervention is necessary in lexical simplification:

While computers may be able to assist in establishing high-frequency word lists and in identifying words that are not on those lists, they are still largely incapable of making the complex decisions of when and how to replace lexical items in written materials. In our view, this role will remain with experienced teachers, materials developers, and researchers for quite some time. The key is for such individuals to decide whether the suggested lexical changes should be made in the first place, and then to determine which of the several modification types would be best for the given situation – flexibility, being the key component of effective lexical simplification. (p. 42, 43)

Brewer (2008, p.1) also emphasizes the difficulty of the simplification process, claiming that “given the complexity of both reading and language acquisition, it is no surprise that the process of text simplification is (somewhat ironically) an incredibly complex proposition.”

Due to the change of linguistic properties pertinent to lexical simplification, a modified text may be different in terms of sentence structure (Gardner & Hansen, 2007). Mountford (1976, p. 151) suggests that “nominalizations are resolved in separate sentences.” One of the common techniques in terms of lexical simplification in the context of Japanese language – nominalization into *kanji* compound words – can be resolved into easier verb-phrases or adjective-phrases.

Examples:

犯罪の助長: instigation of crimes (nominalization)

→^{はんざい}犯罪をおこしやすくする: makes crimes happen more easily (into a verb phrase)

As can be seen above, this technique can be categorized into both lexical and syntactic simplification techniques when its resultant effect is considered.

Content simplification

- deleting non-essential episodes when information density seemed overloaded.

The bilingual linguist mentioned above and the present researcher reached consensus about what the main messages were of each of the five selected texts. When deviations from the main messages were co-determined, some were deleted so as to make the author's main message clearer and the length of the text shorter. This measure has been recognized by scholars such as Darian (2001), Shook (1997) and Vincent (1986).

According to Shibazaki and Hara (2010), findings of cognitive psychology illustrate that higher information density causes slower reading speed. This is one indicator that a text with high information load is more demanding for learner-readers to process, so reducing information load is thought to ease the difficulty of a text. Garner, Gillingham and White (1989) empirically prove that not only young but also mature readers suffer from inefficient processing when expository texts contain too much unimportant information. They label side-track episodes which are interesting but not important as “seductive details.” “Seductive details” may have both positive and negative influence for they are thought to be engaging to some learners but burdensome to others.

5.1.7.7 Elaboration process

Elaborated texts were prepared by means of the following procedures.

Lexical elaboration

- inserting appositive elaborated explanation for low frequency words after the word itself with the marker ‘つまり’ (*tsumari*, i.e., that is). Watanabe (1997) demonstrates that appositive lexical elaboration is not as effective as glosses

since learners fail to recognize and benefit from it. Also, if this marker appears in a text too often, such a text loses naturalness; thus the researcher tried not to use the marker excessively. The type of lexical elaboration employed in this project is the same as one of six text modification types used by Kim (2006): explicit lexical elaboration without typographical enhancement.

Example.

あなたは、^{ほんとう}本当に^{じかく}自覚がない、つまり、^{じぶん}自分では^き気がついていないので
しょう。

(You probably aren't aware of it, that is, you do not notice it yourself.)

Cultural/conceptual /contextual elaboration

- adding stimulating questions. In elaborated texts, question sentences were added when effective and necessary to stimulate the readers' engagement with the text. For example, the question was added in the elaborated text for the topic "Good rivals" :

^{かんごし}看護師になろうと思ったきっかけは、あなたも、私もそれぞれちがいます。
でも、こうしてまた^{おな}同じ^{もくひょう}目標^{めざ}を目指すことになったのは、すごくふ
しぎだとは思いませんか？ 私だけでしょうか、このすごい^{ぐうぜん}偶然にちょっ
と^て照れているのは。 私はひとりでも、^{かんごし}看護師になれたでしょうか？

(You and I had different reasons for wanting to be a nurse. But don't you think it's amazing that we both aimed at the same goal once again like this? Is it only I who feels a bit coy about this amazing coincidence? Could I have made it to be a nurse all by myself?)

– The underlined parts are added as stimulating questions.

- providing a clear background setting for the content at the beginning of the text.

A brief explanation of the topic was given at the beginning of each elaborated text. This sometimes set the scene and sometimes clarified the conventional wisdom assumed by the author, and constitutes a very short precise summary of

the context. For example, two sentences were inserted at the top of the elaborated text for the topic titled “Mini-skirts” :

日本の女子高生は、とても短いスカート、ミニスカ、をはいていることで有名です。これは、韓国のあるブログの話を紹介しています。

(Japanese high school girls are notorious for wearing extremely short skirts, ‘mini-suka.’ This text is a blog comment from Korea.)

This short summary at the beginning of an elaborated text can be regarded as a type of advance organizer, of which the theoretical foundations are provided by Ausubel (1960). Ausubel explains that “cognitive structure is hierarchically organized in terms of highly inclusive concepts under which are subsumed less inclusive subconcepts and informational data” (p. 267). From this assumption, he hypothesizes that the provision of subsumers, i.e., advance organizers in his terminology, should help readers to incorporate the contents of the main article itself into their pre-existing knowledge structures and also help them to retain the newly learnt knowledge better. These advance organizers are much more abstractive, general and inclusive than the contents of main articles (ibid., p. 268). (Regarding advance organizers, see also, Glynn & Britton, 1984). Omura (2001, p.6) confirms the positive effects created by the two-sentence long advance organizer in the context of L1 Japanese reading. Similarly, Crain and Shankweiler (1988) assert that appropriate contextual aids render complex content more comprehensible.

5.1.7.8 Target Words (TWs)

For texts with a marginal gloss and texts with pop-ups on a computer screen, the same words/phrases were used to explain target words (TWs). These were the words/phrases used in simplified texts and those inserted after TWs in elaborated texts. In short, the words/phrases used for lexical modification in the four modified

texts were controlled. The proportion of TWs for the whole running words in modified texts was 11% on the average.

Some of these words/phrases are not exactly the same as definitions which are found in Japanese dictionaries. In many cases dictionary definitions were more difficult than TWs, and some TWs did not have precise replacement candidates, i.e., higher-frequency synonyms. Regarding the inefficiency of dictionaries, McKeown (1993, p. 17) asserts with reference to English that “evidence suggests that current dictionary definitions are not effective even in initiating the process of understanding word meaning.” Williams and Dallas (1984) demonstrate an example of a textbook’s word list which used such ineffective dictionary definitions and ended up obfuscating the word meaning rather than clarifying it, e.g.:

“cancer = a malignant disease which is usually fatal” (ibid., p. 203).

It was indeed challenging to find an easier synonym for a more difficult original word during the modification processes. This experience is shared by Nakamura (1981) and Gardner and Hansen (2007). Many difficult words in the texts used did not have easier synonyms. Thus, following a proposal by McKeown (1993, p. 22), i.e., “making meaning accessible means developing a more straightforward way to communicate a concept,” the researcher often created explanatory phrases which carried the same concept, using lower frequency words. The value of this approach is also reinforced by another of McKeown’s comments:

Teachers might promote their students’ learning by transforming definitions into explanations that characterize a word’s prototypical use in readily comprehensible language. There could be much value for a language learner in a restatement of a definition by an experienced language user. (p. 29)

Since some of the given expressions were not exactly synonyms of TWs, the researcher explained to the participants after the task the reason and rationale for using such definitions.

To reiterate, these explanatory words/phrases are context-specific definitions. They are thought to be better options than L1 dictionary definitions partly because they may serve “to change their [learner-readers’] expectations of isomorphism” (Bland, Noblitt, Armington & Gay, 1990, p. 447). Bland et al. propose “the naïve lexical hypothesis” (p. 440), in which they claim that L2 learners often expect that there is one-to-one matching between L1 and L2 words. Providing L2 context-specific unique explanatory words/phrases rather than giving a L1 dictionary definition urges learners to explore the concept of a given L2 unfamiliar word in L2. However, this approach may prohibit learner-readers from probing for a stem meaning of an unfamiliar word since learners do not see a need to do so, being given contextually suitable explanations. Bernhardt (2011, p. 78) asserts that “the gloss does not include an alternative meaning...a perfectly plausible ‘meaning’ yet irrelevant in the context...a risk on the part of the nonnative is not knowing alternative meanings and getting ‘stuck’ with encoding an appropriate meaning in an inappropriate context.” Widdowson (1978) similarly criticises glossaries which give contextually suitable definitions because such glossaries make learner-readers stop developing an interpreting strategy, i.e., to derive meaning from a given context.

5.1.7.9 Easification process

As mentioned in an earlier section, the current study examined the effects of one type of easification measure, a marginal gloss. Thus, texts with a marginal gloss were prepared for Project One. Glosses were placed on the right-hand side and glossed words were in bold-type. To distinguish the main body from the gloss, the

main body was accorded a larger space on the page, in larger font size (10.5pt~12pt) while the gloss was given smaller marginal space on the page in smaller font size (10 pt~10.5pt). Care was taken to ensure that definitions were placed on the same level horizontally so that the reader's eyes did not have to travel far. As has been mentioned above, since glosses in the current project contain contextually suitable definitions and explanatory phrases, they are categorized as value glosses which provide "the value which the lexical items take on in this particular context" (Widdowson, 1978, p. 84). Their advantages and disadvantages were explained in the previous section.

As mentioned above, lexical elaboration of TWs were sometimes marked with the marker 'つまり' (*tsumari*, i.e., that is). Also, pop-ups were attached immediately to the right above TWs. In contrast, there was normally some distance between the main body and the gloss in texts with a marginal gloss. Therefore, to compensate for the potential disadvantages of a gloss format, TWs were bold-faced in order to make them more noticeable. The theoretical rationale of this technique comes from Schmidt's (1990) hypothesis. He proposes "that subliminal language learning is impossible, and that noticing is the necessary and sufficient condition for converting input to intake" (p. 129). Schmidt further points out that "perceptual saliency of the target" will influence L2 students' noticing (p. 130). He further claims that "since many features of L2 input are likely to be infrequent, non-salient, and communicatively redundant, intentionally focused attention may be a practical (though not theoretical) necessity for successful language learning" (Schmidt, 2001, p. 30). Thus, TWs were bold-faced for the participants to notice them more easily. Actually, "boldface type" is categorized as one "textual enhancement through

alterations” (Gascoigne, 2006, p. 552) which come under the more general category of input enhancement techniques.

5.1.7.10 Another easification method - computer annotation

As a material for computer annotation, texts with pop-ups were prepared as pdf files. Words/phrases which were simplified replacements in simplified texts, elaborated additions in elaborated texts, and glossed words in texts with a marginal gloss, were inserted in pop-ups. On the computer, the text was set with the standard presentation (100% size image with Times New Roman 12 pt font). The following is an example image reduced.

Figure 5.1. Reduced image of a text with pop-ups on a computer screen

(Actual pop-ups differ slightly. Due to technical difficulties, actual pop-ups cannot be provided.)

Before they read texts with pop-ups, instruction was provided to the participants about how to use them, in order to ensure that they were confident in using this reading aid on the computer screen. Exit interviews and observations by the researcher confirmed that no participant had any technical difficulties in reading texts with pop-ups.

It should be noted that pop-ups in the current project provided contextually suitable L2 synonyms/explanatory phrases, whereas available online pop-up features for Japanese texts provide different features. The following is an example of a pop-up obtained from an online pop-up dictionary website.

Figure 5.2. An example of a pop-up from Pop-jisyo for the word, ‘最多’ (*saita*: most)

最多 さいた					
n the most					
P					
Char	Stroke	Mandarin	Cantonese	Jp On	Jp Kun
Definition					
最	12	zui4	jeui3	サイ	もっとも、も
most, extremely, exceedingly					
多	6	duo1	do1	タ	おい、まさる、まさに
much, many; more than, over					

As can be seen above, compared to pop-ups used in Project One, pop-up features presently available online from one website¹⁶ are more ambitious, for they provide fuller linguistic information about a word. In the example presented above, the word, 最多 (*saita*, i.e., most), four factors are presented: (1) the readings of the whole word and individual *kanji* character (both in *on*-reading and *kun*-reading¹⁷), (2) the number of strokes in the individual character, (3) L1 translation of the whole word and individual *kanji* character, and (4) the Mandarin as well as Cantonese readings of the individual *kanji* character.

¹⁶ Popjisho.com: http://www.popjisyo.com/WebHint/Portal_e.aspx

¹⁷ In Japanese, *kanji* characters are read in two ways: *on*-reading and *kun*-reading. *On*-readings derive from the imported Chinese pronunciation, whereas *kun*-readings derive from the original Japanese pronunciation. The majority of *kanji* characters in Japanese have both readings. Some have several possible readings, depending on the context.

Conducting meta-analysis of relevant studies on hyper-glossing, Askildson (2011, p. 55, italics in the original) summarizes that “disproportionate directives of attention towards bottom-up decoding [caused by hyper-glossing] often produce a *short-circuit* in top-down processes of interpretation of meaning for comprehension as a result of excessive loads on working memory.” The pop-up features used in the current project avoid such “disproportionate directives of attention towards bottom-up decoding” for they presented only contextually suitable word definitions or phrases.

5.1.7.11 The short answer reading comprehension test

The researcher constructed a short answer reading comprehension test for each topic. (See Appendix 7 for a sample of the short answer reading comprehension tests used.) Then the aforementioned bilingual linguist was consulted for each test item’s appropriateness. The question items were written in English so that the participants’ L2 linguistic proficiency to understand the test items would not interfere with their performance. Wolf (1993, p. 476) concludes from meta-analysis of relevant studies that “even at the very advanced levels of target language experience, learners’ ability to demonstrate what they understand suffers when assessed in the target language.” Several participants were from L1 Chinese background. However, as stated above, their English proficiency was sufficiently advanced for them to understand test instructions and items. (The researcher could not understand Chinese, which made it impossible to use Chinese for assessment tasks.)

Simplified texts were used to construct questions, since they contained minimum propositions. That is, some of the propositions available in the other three modified texts are not included in simplified texts due to the type of simplification

technique: deleting fringe episodes to reduce information density. The number of test items varied from ten to fifteen among the five topics. Efforts were made to create different types of test items such as those of Yano, Long and Ross (1994): replication items, synthesis items, inference items.

Examples:

From the topic titled 世界中に平和の種まきたい-証言通じ被爆の実相後世へ *sekaijuuni heiwa no tane makitai – shoogentsuujii hibaku no jissoo koosei e* (I want to plant seeds of peace – a testimony of the real experience of being exposed to an atomic bomb for later generations)

Replication: Question 1. Where was the author born?

– Surface factual understanding leads the participant to the right answer.

Synthesis: Question 9. The author said that she spent every day thinking of suicide. Write down the possible reasons which you think made her feel thus.
– The participants connect multiple reasons given in the text to provide a convincing answer.

Inference: Question 10. In what way did the laurel tree ‘アオギリ’ [*aogiri*] save the author?

– The participant needs to infer what meaning the sudden appearance of the atomic-bombed tree signified in the author’s life.

5.1.8 Approach taken in the exit interview

The exit interview played “an ancillary role” (McDonough & McDonough, 1997, p. 181) in Project One. Nevertheless, its role had significance since interviews can reveal learners’ perceptions that cannot be revealed by quantitative data. Therefore, the participants’ comments collected during the exit interview would not only triangulate the quantitative data but also deepen the overall analysis.

There are three different types of interviews: structured, semi-structured and unstructured. Structured interviews are the most rigid of the three and resemble questionnaire surveys (Mackey & Gass, 2005; McDonough & McDonough, 1997). The interviewer has a pre-specified set of questions to ask the interviewee. These are suitable for gaining data from a large sample size, and their advantages when

compared to the other two and written questionnaire surveys are that ‘the interviewer can clarify the meaning of a question when necessary,’ ‘the potential interviewee cannot easily dismiss the interviewer whereas it is easier for the potential respondent to easily ignore a given questionnaire,’ ‘the interviewer does not have to be highly skilled,’ and ‘the obtained results are also suitable for quantitative analysis.’ Semi-structured interviews are situated between the other two, being closer to unstructured interviews since these also enable the interviewer to interact with the interviewee in a richer and a more personalized manner (McDonough & McDonough, 1997). They have a specified framework but at the same time allow the interviewer to take a flexible approach when interacting with the interviewee. For example, the interviewer can change the order of questions to follow the flow of the on-going interaction with the interviewee. And the interviewer can add and/or reduce prescribed questions depending on the course of interaction taking place. Unstructured interviews are used in the qualitative research paradigm. They start without a rigid framework. Instead, the interview revolves around what the interviewee responds. The aim of unstructured interviews is to open up the interviewee’s inner perceptual world and explore it more deeply. To conduct unstructured interviews well and induce meaningful responses from the interviewee, the interviewer has to be very skilled and experienced.

In Project One, a semi-structured interview was employed. That is because the researcher had an overall framework of questions to ask (see section 5.1.5.3 for the set of questions asked), being guided by quantitative aspects of the research design. On the other hand, the researcher wished to probe for qualitative explanations about how the participants perceived and reacted to variables investigated. In short, the researcher was standing in the middle of the two situations

described by Lincoln and Guba (1985): the current researcher “knows what he or she does not know” and “does not know what he or she doesn’t know” (p. 269). That is to say, the researcher knew what had to be asked to answer the research questions while still expecting to induce phenomena which had not been prescribed. Moreover, the researcher had advantages in conducting a less structured interview as McDonough and McDonough (1997) explain: “a well-developed feeling for context and some understanding of the concerns of interviewees as a starting point” (p. 184). Having been teaching in the university where all the participants were either studying at the time of this project or had recently graduated, the researcher was well aware what learning situations surrounded the current participants and what concerns they held towards their L2 Japanese learning.

As for the language used in the exit interview, both the participant and the researcher took a flexible attitude between English and Japanese. English was used in most of the interviews. However, some participants wanted to talk in Japanese during the whole interview and others sporadically mixed English with Japanese. It was anticipated that flexibility in language and time, together with the researcher’s effort in building up good rapport prior to the actual interview would make the participant comfortable enough to respond honestly to the questions and freely present opinions that had not been envisaged by the researcher.

5.1.9 Scoring procedures for quantitative analyses

5.1.9.1 Two stages of data collection, scoring and quantitative analyses

As stated previously, the data collection and scoring for Project One was carried out in two separate periods. In 2010, data were collected from the first seventeen participants. As a result of the quantitative analysis, statistically significant differences of reading comprehension scores were gained according to

different text modification measures. However, as advised by a statistician, a second round of data collection was conducted in 2011 in order to make the results more reliable with a larger sample size.

5.1.9.2 Scoring of the level check test

In Project One, questions which appeared in the JLPT 2005 reading section were used as the level check test. As explained in section 5.1.2, the JLPT 2005 report demonstrates item difficulty of these sixteen test items from 0.287 to 0.814 and the item discrimination power of them from 0.290 to 0.517. The average score gained by the participants who took this level check test was 8.4 out of 16.

5.1.9.3 Scoring of the free-recall protocols

The participants' oral free-recall protocols were transcribed and scored by counting the correctly recalled idea units. All of the texts used in this study were first translated into English and then analysed into idea units. The criteria for determining an idea unit employed in a study by Carrell (1985) were adopted. Carrell defines 'idea unit' as follows:

Basically, each idea unit consisted of a single clause (main or subordinate, including adverbial and relative clauses). Each infinitival construction, gerundive, nominalised verb phrase, and conjunct was also identified as a separate idea unit. In addition, optional and/or heavy prepositional phrases were also designated as separate idea units. (p. 737)

The researcher translated all of the texts used and the linguist mentioned above proofread the translation. The researcher and the linguist matched respective trials of five unmodified versions in order to determine the idea units of the texts used, and when there was a disagreement, consensus was sought (See Appendix 8 for a sample of unit idea segmentation of the original texts). The researcher segmented the rest of the texts into idea units, using the idea unit segmentations of

the unmodified texts as a reference. Simple counting of correctly recalled idea units was used in quantitative analyses after conversion into a percentage. Scores were given for partial (0.5) and total (1.0) recall of each idea unit. At one session, another experienced academic who had acquired a near-native-level of fluency in Japanese was given explanations by the researcher regarding the criteria of how to determine incorrect, partially correct and totally correct idea units. After the session, to determine reliability, 25% of the whole free-recall protocols were scored by this academic. An interrater reliability of .978 (Cronbach's Alpha) agreement was obtained. The whole of the free-recall protocols were scored by the researcher with more than one month between the two scorings and an intrarater reliability of .993 (Cronbach's Alpha) was obtained. (A more detailed inter-/intra-rater reliability is presented in Appendix 9).

5.1.9.4 Scoring of the short-answer reading comprehension test

Likewise, simple counting of correctly answered question items was used in quantitative analyses after conversion into a percentage. Partially correct answers were given 0.5 points while totally correct answers gained 1.0 points. At one session, the aforementioned academic who has acquired near-native-fluency in Japanese and the researcher established model answers to all the five topics through discussion. Then each of them individually marked 10% of the whole short-answer reading comprehension test data, referring to the mutually agreed model answers. From this procedure, an interrater reliability of .959 (Cronbach's Alpha) was obtained. After clarifying the discord between each other's scoring, the two polished the previously established model answers. Then the researcher scored the whole data, referring to the polished model answer.

5.2 The methodology of Project Two

As can be seen above, Project One employed a quantitative method in order to answer its primary research question. While there were 150 readings available for statistical analysis, the sample size was relatively small ($N=30$ for the quantitative analysis). Thus, a questionnaire survey, Project Two, was undertaken in order to investigate whether or not the partial results of Project One would be confirmed with a larger sample size (See Appendix 10 for a part of the questionnaire used in Project Two). The survey investigated the following research questions which were some of the focal points of Project One:

1. How does a larger sample-size of students perceive an unmodified text and three differently modified versions, i.e., a simplified text, an elaborated text and an easified text?
2. Which do learners prefer, hard copy reading or computerised reading?

Also, the same question that was answered by the participants in Project One was used in the questionnaire to investigate what factors the current respondents find to be more influential determiners of text difficulty.

5.2.1 Respondents of Project Two

The number of students who answered the questionnaire was 51.¹⁸ They were from second ($N=28$) and third year level ($N=23$) Japanese language courses from the same university at which the participants were recruited for Project One. Therefore, the respondents' L2 linguistic proficiency and learning experiences were similar to those of the participants of Project One. The average L2 learning duration of the respondents was 4.43 years for the second year class (hereafter, Class 2) and

¹⁸ Eleven students participated in both of Projects One and Two.

5.63 years for the third year class (hereafter, Class 3). As previously explained, the goals of the two classes were to reach the former JLPT Level Three (Class 2) and Level Two (Class 3). The detailed descriptions of these two levels are previously provided in section 5.1.1.

5.2.2 Ethical issues

The survey was carried out in three classroom sessions at the university in August, 2011. The university's Human Ethics Policy (Victoria University of Wellington, 2003, p.6) does not ask researchers to obtain ethics approval when participants only complete written questionnaires without a possibility of their identities being disclosed, and when such research meets certain criteria including complete anonymity, no inclusion of sensitive questions, guarantee of disposal of the completed questionnaire forms, and so forth. The conducting of the questionnaire survey was reported to the Head of the School and the Human Ethics Committee was informed by email.

5.2.3 Actual administration of the questionnaire

The researcher visited the two second year classes and carried out the survey, giving an oral explanation of the survey's purpose, total anonymity and voluntariness although the potential respondents could find all such information on the questionnaire form. The researcher was an instructor of the third year class at the time of the survey. Therefore, she clarified that the present students in class would have the right not to respond to the questionnaire, which would not affect their course grades.

The questionnaire survey took approximately 20 minutes. This time allocation was judged as appropriate from the pilot testing by a learner of Japanese as described in the next section. Since the researcher was present for all three of the

survey sessions, the respondents could ask her to disambiguate the meanings of instructions/questions when necessary.

5.2.4 The questionnaire used in Project Two

The questionnaire used in Project Two is provided in Appendix 10. One intermediate learner of Japanese went through all the questions so that the researcher could detect possible problems. Since the researcher is not a native speaker of English, this learner's input into the wording of the questionnaire was of importance. Also, this process was important in terms of the issue of face validity of the questionnaire. Brown (2001, p. 176) mentions that "typically, the face validity of a survey instrument is assessed by asking a group (similar to those who will eventually be the respondents) to look at the instrument or go through the process of answering the questions, and then make a judgment about the degree to which the instrument seems valid."

Prior to this test run with this learner, two academics (the aforementioned linguist and another scholar of Japanese who has acquired near-native-level accuracy and fluency in Japanese and have also been in Japanese language teaching fields for more than a couple of decades) were consulted for the appropriateness of its content. It was believed that this process enhanced the construct validity of the questionnaire. Brown (2001, p. 177) recommends researchers "to use experts, who are by definition people who know a lot about whatever area of psychology, education, linguistics, or language teaching your construct belongs to" in order to study the construct validity of survey instruments. Similarly, the content of Section B is thoroughly based on theoretical foundations as argued in section 5.1.7.2. Basing on theoretical foundations is also proposed by Brown (2001, p.177) for the construct validity.

5.2.4.1 Section A

The questionnaire consisted of four parts. Section A asked the respondents' learning history, reading habits, desire for mastery of L2 reading and preference between hard copy reading and computerised reading. This section was limited to only five questions due to time constraints. This was unavoidable since it was anticipated that the following sections would require much time to respond. Nevertheless, more than half of the questions in Section A had an open-ended option, which would encourage the respondents to report detailed responses if time allowed.

5.2.4.2 Section B

Section B asked the respondents to rate eight factors in terms of the influence on text difficulty. This is the four-scale rating question used in the biodata questionnaire in Project One. And the rationale for the eight factors is explained in section 5.1.7.2.

5.2.4.3 Section C

Section C asked the respondents to read a short Japanese passage (unmodified) and circle parts which were difficult for them to understand. It also asked them to provide comments about what caused the difficulties in the passage. An example of how to respond to the question was presented in section C (Figure 5.3 below) because this question may be unfamiliar to some respondents and as a result incur ambiguity. This example was made by the learner of Japanese who pilot-tested the questionnaire. For this example, a different passage was used in order to avoid implicitly guiding the respondents' reaction possibly caused by the use of the same passage.

Figure 5.3. Example of response in Section C

Section C was motivated by Harrison (1980). He was inspired by one researcher who asked children to mark easy parts in a text with a blue pen and difficult parts with a red pen. Then Harrison advises that teachers and researchers ask learners to underline difficult parts of a text and accumulate such underlined parts as important signals which indicate problematic textual features. Harrison claims that such features are candidates for re-writing. Cramer (2005) took a similar method in her text modification research. She asked her participants to “mark any words that they had never seen before” and used the obtained result to examine her participants’ different vocabulary knowledge between original texts and lexically simplified texts.

The respondents are not guided to respond in any particular way with this method. They have total discretion regarding what they choose as causes of text difficulty and what they comment about the chosen items. Since the example (Figure 5.3) mentioned *kanji* factors, the researcher orally clarified that comments did not have to be *kanji* factors but could be about anything. However, the researcher refrained from exemplifying any further in order to avoid implicitly guiding respondents’ answers.

5.2.4.4 Section D

Section D asked the respondents to read three short passages which were three differently modified versions of the original text read by them in Section C. They were a simplified version, an elaborated version and a version with a marginal gloss. These names were not used in the questionnaire since the names *per se* might be misleading. Therefore, the three texts were simply called ‘version 1,’ ‘version 2,’ and ‘version 3.’ The respondents answered which was the easiest/most difficult version and why it was so. The texts were modified in a similar way to the modified texts in Project One. That is, each had a key word section at the top of the text, and a gloss was provided in Japanese, which had the same word/phrases used in simplification and elaboration.

The original topic of the text used in sections C and D was a story about a new type of homeless people in Japan nicknamed ‘internet refugees.’ It was assumed that this story did not require any expert knowledge. Therefore, the respondents’ differing background knowledge was unlikely to affect their reading comprehension.

5.2.5 Coding of the respondents’ motivational factors

Question four contained in Section A (Figure 5.4) presented below involved subjectivity in the process of interpretation.

Figure 5.4. Question (4) of Section A on the questionnaire used in Project Two

(4) Do you want to master or improve your Japanese reading abilities? Why?

☐

Yes, I do want to improve them.

→ Why? _____

☐

No, I don’t want improve them.

→ Why? _____

The respondents' answer either demonstrated some motivational sources or reasons for the absence of motivation. In order to minimize the researcher's subjectivity/bias, the aforementioned academic who acquired near-native-fluency in Japanese and an accomplished linguist also categorized the respondents' answers. Then the categorizations presented by three of them were matched.

5.3 Motivation for Project Three

Projects One and Two indicated that cognitive and affective changes were observed when the participating learners of Japanese read unmodified and modified texts. Project Three was conducted in order to deepen insights into effects caused by text modification, using unmodified and modified texts which were actually available on the market. That is, Project Three examined learners' responses toward two Japanese literary originals and their graded reader (GR) versions.

If the efficacy of modified texts is proved in L2 reading instruction, such texts will find their main arena of contribution as GRs in extensive reading. Therefore, it was pertinent to investigate whether or not similar phenomena to those observed in the preceding two projects would emerge when L2 Japanese learners read unmodified literary pieces and their GR versions. The following research question was investigated in Project Three.

How do learners of Japanese respond to unmodified Japanese literary pieces and their GR versions?

5.3.1 Aims of Project Three

The aims of Project Three are two-fold. First, it was hoped that the project would provide answers to the authenticity debate in the context of JFL. While Projects One and Two showed that the majority of the participating students comprehended

modified texts better than unmodified texts and preferred them, whether or not these students truly engaged with modified texts better than unmodified texts was not demystified. In other words, the two preceding projects had not yet fully answered what type of text these learners of Japanese would authenticate.

Secondly, it was hoped that the data presented by fourteen learners of Japanese would make context-specific contributions to discussions of the efficacy of modified texts such as GRs, extensive reading, and language learner literature in the context of JFL (see section 3.2 for language learner literature). “Language learner literature” is a concept that was promoted by Day and Bamford (1998). They assert that a literature of which intended audience is language learners is a genre of literature in its own right and such a literature hold “the integrity that marks all genuine writing: that is not a lesser version of something else but a fully realized, complete-in-itself act of communication between author and audience” (p. 64).

In the undeveloped JSL/JFL pedagogy, there has been little discussion concerning text modification, extensive reading, and language learner literature. The historical arguments in this line of scholarly discourse are predominantly based on what has been discussed in the context of ESL/EFL. Therefore, the findings of the current project are of importance in that they are context-specific in JFL.

5.3.2 A mixed methods study

Project Three took a more qualitative approach compared to Projects One and Two, since it examined affective aspects which could not be well examined by purely quantitative methods. However, this simplistic dichotomous explanation regarding the nature of research does not have much meaning. Overall, the current study consists of multiple projects and has the nature of mixed methods research:

research in which both quantitative and qualitative stances are employed. Miles and Huberman (1994) remark in relation to mixed methods research as follows:

Entertain mixed models. We have sought to make a virtue of avoiding polarization, polemics, and life at the extremes. Quantitative and qualitative inquiry can support and inform each other. Narratives and variable-driven analyses need to interpenetrate and inform each other. Realists, idealists, and critical theorists can do better by incorporating other ideas than by remaining pure. Think of it as hybrid vigour. (p. 310, italics in the original)

Dörnyei (2007, p. 44) mentions that “a straightforward way of describing mixed methods research is to define it as some sort of a combination of qualitative and quantitative methods within a single research project.” Following this description, each project in this study holds the nature of mixed methods research. Furthermore, if the overall study is seen as one research project, the current study is in the nature of mixed methods research. Having such mixed-approach characteristics allows the current study to explore the authenticity debate and text modification issues in the context of JFL.

5.3.3 Participants

Fourteen learners of Japanese participated in Project Three. They were either university students of or graduates from a New Zealand university. The majority of them were either enrolled on Japanese language courses or completed the same courses where the participants of Projects One and Two were enrolled. Their proficiency levels range from lower intermediate to very-advanced. Two of them had passed level 1 of the former JLPT, one had passed level 2 and three had passed level 3. However, some of these students had taken the test a long time ago. The remaining students had not sat for the JLPT. Therefore, more than half of the participants' current proficiency was unknown. The average age of the participants was 21 years old and their average length of Japanese studying was 6.6 years. The

participants seemed to receive a limited L2 reading instruction. About half of the participants referred to their university lessons as the only reading instruction that they had received. In those lessons, they read passages contained in their course textbooks in class under the guidance of a teacher and reviewed passages at home. Two advanced participants answered that they had not received much reading instruction previously. Only one participant mentioned that she had received a type of strategy instruction how to read L2 texts: reading to get the gist of each paragraph. The participants read for fun in Japanese on average 1 to 2 hours per week with one participant did so for 5 to 6 hours per week. The majority of the participants said that they preferred speaking/listening learning to reading/writing learning. The two advanced participants who mentioned that they had not received reading instruction at school said that they liked speaking/listening learning and reading/writing learning equally. One participant who was still developing said that he preferred reading/writing learning because he thought that he was better at it than at speaking/listening. *Kanji* was viewed as the biggest obstacle in L2 Japanese by most of the participants, except for only one L1 Chinese participant. She said that vocabulary was her biggest obstacle in L2 Japanese reading.

5.3.4 Actual procedures

Ethical and pre-task procedures

At the beginning of a research session, the researcher made an effort to create good rapport with each participant, which was an attitude consistently taken throughout the whole study (Projects One and Two) in order to ensure that a participant would feel at ease. A participant was first given a written information sheet which explained the current project. The researcher orally explained the purpose of the project in detail. After gaining full understanding from the participant,

the researcher asked him/her to read a consent form (See Appendix 11 for the information sheet and the consent form used in this project). Only after ensuring that a participant accepted the content of the consent form, he/she signed it. As in the preceding projects, the ethical procedures were carefully conducted in order to guarantee that the participants' autonomy would be totally maintained (The National Commission, 1979, See section 5.1.3 for detailed discussion about this issue). That is because the current researcher believes that the participants deserve respect for their significant contributions to the research literature and for their independence in terms of decision making.

Next, the participants answered a biodata questionnaire and took a level check test. (See section 5.1.2 for the level check test. Also, see Appendix 2 & 5 for the level check test and the biodata questionnaire used in this project. These are the same as those used in Project One. Therefore, a detailed explanation of them is not repeated here.) Some participants' levels were known because they had sat the former JLPT. In that case, those participants did not take the level check test.

Actual tasks

In this project, the think-aloud procedure was employed, which is explained in section 5.3.5 in detail. Due to the unfamiliarity of this task, the participant was given a practice session. The instructions for the think-aloud task were similar to those found in the literature. Lomicka (1998, p. 46) instructed her participants "to 'think aloud' in English while working through the text...to think aloud whatever came to mind during their reading of the text." Similarly, participants in the current project were asked to say whatever thoughts came up when they were reading a text. They were asked to read aloud the text so that the researcher later could trace which part they were reading.

Unlike, Lomicka's and some other studies, the researcher did not ask participants to refer to anything in particular. In Lomicka's study, the participants were instructed "to vocalize which glosses they were using and justify their choice...and finally to voice their understanding of each line" (ibid., p.46). Oster (2001) also guided what the students were supposed to think-aloud by modelling the procedure. In contrast, the current project attempted to induce how the participants would react to a given text without giving them a pre-moulded framework. Therefore, no particular implications regarding what the content of think-aloud protocols should be were given. This factor probably enhanced the validity of the project. That is to say, not guided in any way, their think-aloud protocols would reflect genuine spontaneous reader response which was what the current project was investigating.

After a practice think-aloud session, participants first conducted the think-aloud procedure, using the GR version of one of the two stories chosen: '*Chuumon no ooi ryooriten.*' (Its English title is 'Restaurant with Many Orders.') When the participants stopped talking during the think-aloud procedure, the researcher encouraged them to continue 'thinking-aloud' in an unobtrusive way. Next, the participants summarized the content of the text and wrote a short commentary which indicated their understanding of and their impressions toward the text. Then they carried out the think-aloud procedure, using the original text of the same story.

On completion of the think-aloud procedure, the participants were asked to compare the two texts carefully. Two small segments from the two texts which describe the same scene/episode were placed next to each other on the sheet so that the participants could easily compare them. Due to time constraints, the whole part used for the think-aloud procedure could not be examined by the participants. The

comparison procedures were not recorded during the sessions with the first couple of students. Instead, the first couple of students wrote down their comments. However, the researcher noticed that what the participants were saying but not writing down was rather informative. Thus, during the sessions with the later participants, the whole of all comparison procedures were recorded and transcribed afterwards.

As stated above, two stories were chosen for Part Two of Project Three. The second story is '*Hashire Merosu*' (Its English title is 'Run, Melos!') by Osamu Dazai. The original and its GR version of '*Hashire Merosu*' were used only in the sessions with higher-level participants. That is because the level of this GR version is one level higher than that of the other GR version used in the current project ('*Chuumon no ooi ryooriten*'). At the same time, the content of the original of '*Hashire Merosu*' is more demanding than that of the original of '*Chuumon no ooi ryooriten*' as the linguistic analyses of the four texts indicate in Table 5.7 (see section 5.3.10). It was considered instructive to examine whether or not such higher-level participants would react to the two pairs of texts differently. The think-aloud task and the comparison procedure using '*Hashire Merosu*' were not conducted as extensively as in the case of using '*Chuumon no ooi ryooriten*' since the participants had conducted such procedures once with the first story by the time the second story was introduced, and it was anticipated that conducting another extensive procedure using a pair of seemingly more difficult texts would be too demanding for the participants. Therefore, these higher-level students were asked either to conduct a think-aloud task briefly, using the two texts of '*Hashire Merosu*,' or simply to compare the two texts with the help of the researcher. (The details of the two stories and the four texts used in the current project are presented in sections 5.3.9 & 5.3.10.)

Figure 5.5 How all the participants conducted the tasks in Project Three

Exit Interview

At the end of an individual research session, an exit interview was conducted. The exit interview took the orientation of semi- to unstructured. This semi- to unstructured exit interview played a significant role as a data gathering method in Project Three because of the exploratory nature of the project and its research questions. Comparing the two data gathering methods – questionnaires and interviews, Brown (2001) points out as follows:

The flexibility of interviews allows the interviewer to explore new avenues of opinion in ways that a questionnaire does not; thus interviews seem better suited to exploratory tasks. The personal nature of interviews may encourage interviewees to be more open and willing to express tentative or exploratory opinions, ideas, and speculation that would not come out on a questionnaire. The richness of interview data also leads to more possibilities in terms of exploring the issues involved. (p. 78)

This choice of the interview orientation, i.e., semi- to unstructured orientation, also came from the practical advantages which the current researcher had, namely “a well-developed feeling for context and some understanding of the concerns of interviewees as a starting point” (McDonough & McDonough, 1997, p. 184), since the researcher had been in the educational institution where the current study was undertaken for over a decade.

Although the typical unstructured interview does not have a strictly-written interview schedule, the researcher had several questions that needed to be asked to find out the participants' reactions after their reading tasks. Those questions included:

- Do you find the original literary text demanding or manageable? Why?
- Do you find the original literary text fascinating or boring? Why?
- Do you find the GR version more interesting or boring compared to its original and/or reading materials which you see in your language textbooks?
If so, in what way do you find so?
- Do you understand the GR version better than the original?
- Which version do you prefer, the original or the GR version? Why?

This “some kind of agenda” (McDonough & McDonough, 1997, p. 184) with which the researcher started the exit interview did not constrain the course of the dialogue between the participant and the researcher. Moreover, as the researcher conducted the exit interview with more participants, some significant questions were emerging, which guided the later interview sessions. Such emergent questions also deepened the researcher's interpretation of data obtained from the two previous projects. Those emergent questions included:

- Do you believe that you will master Japanese reading?
- Do you believe that reading modified texts will lead you to the mastery of Japanese reading?
- Describe your image of ‘my goal as a good reader of Japanese.’

The qualitative oriented direction that the current project took served to “provide rich insight into human behavior” (Lincoln & Guba, 1985, p. 106) and into human perception.

5.3.5 The think-aloud task

Project One employed an oral free-recall task which was suitable to examine the participants’ comprehension of texts. Project Three investigated the participants’ concurrent response to differently modified texts. In other words, Project Three examined how the participants reacted to the texts when they were reading them, rather than asking them to give information retrospectively. The think-aloud task was thought to be suitable for this purpose.

The think-aloud task, a type of verbal report, has been widely used in reading research literature since a few decades ago. As a popular method to elicit learners’ introspective data, this method “has had a chequered history” (McDonough & McDonough, 1997, p. 192). Nisbett and Wilson (1977) criticize this method for the following reasons:

- it interferes with the actual task such as silent reading
- it requires an experimenter’s presence which can influence a participant’s performance
- human beings are not necessarily capable of producing reliable reports about their own thoughts.

On the other hand, this task is valued as one of only a few methods which can illuminate what is actually happening inside learners’ minds. Ericsson and Simon (1987) are those who have supported the value of this method from its earliest days in the relevant literature. They assert that “subjects’ verbal reports on their thinking

would appear to be a major source of information about detailed steps of thought processes” (p. 24). Also, they confirm that “the verbal report procedures preserve the sequences of states, and hence the cognitive processes should not change as a result of the additional instruction to verbalize” (ibid., p. 32).

Similarly, Afflerback and Johnston (1984, p. 320) emphasize the value of verbal reports: “Used appropriately, verbal reports offer a unique, if sometimes less than transparent, window for viewing cognitive processes.” They enumerate advantages of verbal reports:

- “under certain circumstances they provide veridical descriptions of cognitive processes which otherwise could only be investigated indirectly” (p. 308).
- “they allow access to the reasoning processes underlying higher level cognitive activity” (p. 308).
- “verbal reports allow an analysis of the affective components of reading processes” (p. 308).

These advantages of verbal reports suit the aim of Project Three. In particular, the last point suggested by Afflerback and Johnston (1984) above is of great relevance. If obtained verbal report data successfully indicate how learners’ affective factors change by text modification, such findings will have important pedagogical implications.

Among various types of verbal reports, the think-aloud task was specifically chosen in order to investigate how the participants responded to the two texts in the current project. Most importantly, the data provided by the think-aloud task demonstrate the participants’ appreciation, understanding or lack of it, and rejection

of actual text features. Such data, when rich in nature, may illustrate a function of the text-reader interaction suggested by Widdowson (1979).

5.3.6 The summary and commentary task

After the participants finished the think-aloud task with the GR version of *Chuumon no ooi ryooriten*, they carried out the summary task in English which would demonstrate what type of mental representation they had created from the GR version. Initially, it was planned that half of the participants would summarize the original text. However, the first few students' think-aloud procedures indicated that the content of the original text would be too demanding for the majority of the current participants to carry out the task. As later sections report, the content of the original of *Chuumon no ooi ryooriten* is beyond what the current participants comprehended without external help such as a dictionary and/or a teacher's guidance. Therefore, the initial plan was dropped and instead all the participants summarized what they understood from the GR version.

Also, a few participants wrote a short commentary in English to describe how they felt towards the text that they had read. As with the think-aloud procedure, the researcher did not exemplify what kind of things the participants had to write in the commentary because such specific guidance might unduly influence. Therefore, the researcher instructed these participants to write anything that they felt and/or thought after reading a GR version.

5.3.7 The text comparison procedure

After participants finished the think-aloud task and the summary/commentary task, they engaged in the text comparison procedure with the researcher. The aim of this task was to investigate what participants thought about

the differences in text characteristics between the two versions and which they found more engaging: the original text or the GR version.

As has been repeated in many sections of this thesis, it has not been established whether or not L2 Japanese developing-learners can allocate their cognitive resources sufficiently to syntactic features of a text when they are reading. The findings of Projects One and Two revealed that the participating students' attention leaned disproportionately towards lexical items of a text. Thus, it was anticipated that the participants' think-aloud protocols would mainly provide their reactions towards lexical items of the texts. Therefore, it was necessary to employ a task which explicated the participants' reactions towards the whole text characteristics of the two versions.

In order to achieve this aim, each participant and the researcher compared the textual features of the two versions in segments. In this way, participants could focus on a small part of a text and as a result were able to make a critical comparison.

This task took the form of a pair think-aloud between the participant and the researcher. They first read a small segment of a text together. The short segment was smaller than a paragraph and it was usually a few sentences long. During or immediately after reading, the participant and the researcher carried out the pair think-aloud procedure. The participant was encouraged to comment on whatever came to mind, comparing the two short segments which were placed next to each other. The researcher ensured that the participant would comment first without being guided. However, when the participant came to a pause, the researcher raised questions regarding text modification features contained in the small segment which they were both reading, e.g., 'This episode in the original text is deleted in the GR version. What do you think about it?'

This pair think-aloud procedure used in the current project was just like a real-life discussion except that participants were encouraged to reveal things coming to mind without holding back when they were reading the two different texts. In this aspect, the pair think-aloud procedure has a high face validity.

While the researcher sometimes prompted the participants to talk about what they were thinking by asking some questions, the researcher refrained from asking leading questions, giving any judgemental comments/opinions, or asking questions about the parts which the participants were not reading. It was hoped that this participants' simultaneous think-aloud dialogue with the researcher would demonstrate more spontaneous reactions to the two texts in comparison to the exit interviews.

A similar method has been employed in some earlier studies. Haastrup (1987, p. 202) explained the benefits of the pair think-aloud procedure: "one stimulates informants to verbalize all their conscious thought processes because they need to explain and justify their hypotheses about word meaning to their fellow informants." Furthermore, Morrison (1996, p. 45) claims that "pairs thinking aloud can thus provide more information on learners' inferencing procedures than if they were seated singly in front of a tape recorder and asked to verbalize alone. The interaction and negotiation that invariably occur when two people discuss enriches the wealth of information that introspective methods already offer." Haastrup and Morrison both investigate L2 learners' inferencing procedures and they both conclude that the pair think-aloud provides rich data. Although the current project investigated a different factor of the reading process, the pair think-aloud dialogue probably served to encourage the participants to carry out a demanding task: comparing the linguistic features of the two texts.

It should be noted that in the pair think-aloud procedure, the researcher took a passive role in order to maximise learners' own spontaneous responses and in order not to guide them in a particular direction. As did Morrison's study, the current project conducted an exit interview in order to confirm, clarify and fill any gaps in the content of the preceding think-aloud dialogue.

5.3.8 The rationale for asking learners' opinions

How learners perceive modified texts is the focus of data collection in the current study. The present researcher views learners' perceptions as one of the most significant factors in educational research such as this. As reiterated throughout this thesis, relevant theoretical debates and empirical endeavours have been vigorous mainly in the contexts of ESL/EFL. As one such empirical endeavour, Lotherington-Woloszyn (1992) carried out a study with the same motivation as that of the current project:

This study looked at the comparative comprehensibility of unsimplified vs. variously simplified texts. It included the ESL learners' evaluations of these materials. Their viewpoint is the most important and the least considered in the production of simplified reading materials. (p. 453)

The question of how learners view unmodified texts and modified texts needs to be placed at the centre of our considerations. It should be noted that viewpoints of learners and other involved parties (namely, teachers) toward differently modified texts differ, as Blau's (1982) classic study indicates (See section 4.2.4.1). Thus, it is always pedagogically meaningful to obtain learners' points of view. Six writers of Japanese GRs to whom the researcher obtained access also mentioned that they welcomed learners' opinions and feedback in order to improve their products (personal communication, August, 2011).

Gardner and Hansen (2007) conducted another relevant study. In order to justify employing the participants' perceived comprehension, they claim as follows:

From the standpoint of motivation to continue reading, we would further argue that ELLs' [English Language Learners'] impressions about their ability to comprehend may be as important as their actual abilities to comprehend. In other words, if they feel that simplified or unsimplified presentations help them comprehend better, they are more likely to continue reading those particular kinds of materials. (p. 32)

Gardner and Hansen did not indicate to the participants which paragraph they read, original paragraph or simplified paragraph. Their participants read a text comprising two types of paragraphs mixed. Nevertheless, the rating results of the participants revealed that they found simplified versions more comprehensible. The two researchers claim that "these finding [sic] become even more meaningful when one considers that there was no indication which passages had been simplified, nor any mention that a simplification process was even involved" (p. 38).

In contrast, the present researcher explained what the present participants were going to read and the reference of the text was indicated. Therefore, the participants knew that they were reading first a GR and then its original. One may ponder that their knowing the nature of the given text will influence their preference, judgement and engagement. It will probably do so to a certain extent. Such a face value often influences language learners' perceptions. However, that is the reality. When learners pick up a book written in their target language, they are normally aware of whether it is an original or a modified version. They decide what to read according to such aspects as well as personal interests, content difficulty, and topic familiarity. After they read the book of their choice, they acquire judgement about it: "this original novel was far too difficult for me," "this GR was a bit short, maybe something is missing. I should read the original" and "this GR was too easy. I

should have read the original.” This is what the present researcher aspired to investigate. In short, the aspect of ‘face value’ carried by the cover of a book was not avoided because the fact that a learner may be affected by such factors is an important variable.

5.3.9 Texts used

Two literary works were selected for the current project. That is because both had GR versions available (the Japanese *Tadoku* Reading Research Group, 2006) and the researcher had access to the creator of them, which was instructive for investigation of ‘writer-reader interaction.’

One of the stories was ‘*Hashire Merosu*,’ (‘Run, Melos!’), written by a well-known novelist, Osamu Dazai, and first published in 1940. It is based on a German author’s original. Since the original German work is further based on a Greek myth, the concept of the story is probably not unfamiliar to L1 English learners of L2 Japanese. The main theme is a strong friendship between two men. While the content is a common literary theme, the linguistic features of this story are original. Osamu Dazai, was one of the finest authors of his age and his style is intellectually very engaging. Numerous low frequency *kanji* compound words originating from Chinese classics and highly skilled stylistic techniques are employed in his work. The original text of this story and its GR version were, therefore, used only for the participants with advanced proficiency. The GR version of this story is designated as Level 4 according to the criteria of the publisher’s framework, which targets learners with proficiency levels of intermediate and above.

The other story used was ‘*Chuumon no ooi ryooriten*.’ This was written by Kenji Miyazawa and published in 1924. It belongs to a genre of children’s literature. This story is a type of fantasy. Two amateur hunters get lost in a deep forest and by

chance find a restaurant which claims, 'we are a restaurant with many orders.' Tired and hungry, the two men decide to enter the restaurant without knowing that a spooky experience awaits them. Despite its comparatively unusual plot, the original has easy lexical and syntactic features. Thus, this story was chosen to use for all the participants.

The selection of the aforementioned two stories is thought to be appropriate for the following reasons. It is instructive to see whether or not the participants benefit from reading the GR of the first story. This literary work is one of the most-used stories in officially endorsed school textbooks for Japanese native children around the age of 15 although the work is often too difficult for such a readership. The Japanese educational authorities expect Japanese with normal educational achievements to share the greatness of this literary masterpiece. Ikeda (2006) claims that it is meaningful for learners of Japanese to get to know representative Japanese literary works in order to understand Japanese people and culture. But can learners of Japanese as a second language understand and successfully interact with this original masterpiece in order to integrate themselves with the target culture? Or, if learners cannot handle the original, can a GR play a bridging role?

Similarly, the uniqueness of the second story provides an opportunity to investigate meaningful issues. Although the original was written almost a century ago, it has retained its fascination and still attracts a large readership. Can intermediate learners of Japanese enjoy its fascinating plot when they read the original work? Or do they get confused due to their limited linguistic capabilities? Does a GR version serve to render this tale more comprehensible while maintaining its uniqueness?

5.3.10 Investigation of the four text excerpts

Unfortunately, due to time constraints, the participants were able to read only the prelude of the two stories. That is, there were four text excerpts used in the current project: two pairs (original and GR version) of two stories. The linguistic characteristics of these texts were investigated in a numerical method.

The first step of this investigation was examining the vocabulary level of the texts, using Vocabulary Level Checker contained in Reading Tutorial Toolbox, Reading Tutor (Kawamura, Kitamura & Hobara, 1997). This level checker indicates the degree of difficulty of the vocabulary level of a text according to the former JPLT levels. This indication is of great relevance to learners and teachers of Japanese, because Japanese language pedagogy is influenced by the content of this internationally recognized proficiency test. Anecdotally, the content of widely used Japanese textbooks corresponds with those of JPLT at each level. The second step of the numerical investigation was gaining the linguistic information about the texts using Microsoft Office Word 2007's readability statistics. As has been presented for analyses of other texts in this thesis, this feature is beneficial in terms of examining the linguistic features of a text such as the number of words contained, the average word number per sentence, the proportion of different characters/letters (*kanji*, *hiragana*, *katakana*, and alphabets) and so forth. (The results of this analysis are presented below in Table 5.7)

Table 5.7. Linguistic features of the four text excerpts used in Project Three

	<i>Hashire Merosu</i> Original	<i>Hashire Merosu</i> Graded Reader	<i>Chuumon no ooi ryooriten</i> Original	<i>Chuumon no ooi ryooriten</i> Graded Reader
Vocabulary level by Reading Tutor's Vocabulary Level Checker	A little difficult	Very easy	Average	Very easy
Numbers of characters/letters	973	1245	540	1452
Numbers of words	425	368	210	591
Numbers of sentences	53	72	16	60
Numbers of paragraphs	23	27	11	33
Average sentence numbers per passage	2.3	2.6	1.4	1.8
Average character numbers per sentence	18.3	17.2	33.7	24.2
Proportion of <i>kanji</i> characters (%)	27	24	18	18
Proportion of <i>hiragana</i> syllabary (%)	66	66	79	79
Proportion of <i>katakana</i> syllabary (%)	6	8	1	1
Proportion of alphabet letters (%)	0	0	0	1

Note: the texts used in the current project are only the prelude of the two stories. The figures in the table relate to only the sections presented to the participants in Project Three.

5.4 The integration of the three projects

The methodology used in Projects One, Two and Three have been presented in this chapter. The three projects methodologically triangulated each other.

Specifically, while Project One quantitatively investigated the relative effects of text modification on the participants' reading comprehension, Project Two examined the participants' spontaneous reactions toward differently modified texts with a larger sample size by means of a questionnaire survey. In terms of the participating students' affective responses towards differently modified texts, the findings obtained from exit interviews conducted in Project One were triangulated by the respondents' remarks to the questions contained in the questionnaire used in Project Two. Then the think-aloud task employed in Project Three further examined more

deeply how differently the participating students processed and reacted to unmodified and modified texts (original Japanese literary works and their GR versions). The obtained think-aloud protocols demonstrated that the participants' comprehension and engagement were enhanced by the GR versions, which is a confirmation of the findings from the preceding two Projects. Furthermore, the text comparison procedure and exit interviews conducted in Project Three revealed the possible reasons why some text modification measures were welcomed while others were less so.

The overall approach employed in these three projects was a mixed methods approach, in which quantitative and qualitative measures were used in a complementary way to maximize each other's strength. Such an approach was deemed best to examine the research questions of the current study, because this research examines both the cognitive and affective aspects of L2 Japanese learners when they engage in their target reading. In the next chapter, the findings obtained from each project will be analysed and ensuing discussion will integrate those findings.

Chapter 6. Analysis and discussion of the three projects

6.0 Overview of the chapter

This chapter presents the analysis and discussion of Projects One, Two and Three. The results of Project One were analysed by both quantitative and qualitative approaches. In contrast, the results of Projects Two and Three were analysed in a more qualitative way. The chapter provides discussions for each project before they are integrated in the next chapter.

6.1 Project One

6.1.1 The quantitative analysis of the free-recall protocol data

6.1.1.1 Main effects created by four variables

Generalized Estimating Equations (GEEs) were used to fit a linear regression model for the participants' free-recall scores (refer to Hanley, Negassa, Edwardes & Forrester, 2003; Liang & Zeger, 1986; Zeger & Liang, 1986 for GEEs). In this model, modification measure and topic were repeated within each participant. There were five modification measures: no-modification (unmodified texts), simplification (simplified texts), elaboration (elaborated texts), glossing (texts with a marginal gloss) and computer annotation (texts with pop-ups on a computer screen). There were five topics: Good rivals, *Hibakusha* (i.e., Atomic bomb survivor), Give me advice, Mini-skirts and Good tourists. For all regression analysis, students' native language (English or Chinese) as well as proficiency level (high, middle and low) were also used as factors in order to control for native language and proficiency level. (See sections 5.1.7.5 to 5.1.7.10 for different modification measures and Table 5.6 for topics used in Project One.)

Overall, the participants' free-recall scores were significantly different by modification measure, topic, native language and proficiency level (Wald Chi-

Square, $p < .005$ in all the four cases). The following table indicates each variable's p -value and QICC on the basic model.

Table 6.1. Each variable's p -value and QICC on the basic model (for free-recall scores)

Variables	p -value	QICC
modification measure	$p < .0005$	49237.841
topic	$p < .0005$	
native language	$p = .005$	
proficiency level	$p < .0005$	

6.1.1.2 Effects by modification measure

The β coefficients of modification measure in the final model including modification measure, topic, native language and proficiency level are presented in Table 6.2 below, along with its Wald χ^2 and p -value.

Table 6.2. β coefficients, Wald χ^2 and p -value of modification measure

Modification measure	β coefficients	Wald χ^2	p -value
no-modification (unmodified texts)	-10.015	29.898	$p < .0005$
computer annotation (texts with pop-ups on a computer screen)	0	-	-
glossing (texts with a marginal gloss)	1.867	.798	$p = .372$
elaboration (elaborated texts)	6.034	3.563	$p = .59$
simplification (simplified texts)	6.721	4.166	$p = .41$

These measure the different effects of each modification on the participants' free-recall scores when computer annotation is used as the baseline modification measure. For example, if the modification is simplification instead of computer annotation, the model predicts a rise in the free-recall scores of 6.721 on average. The model, then, predicts that controlling for topic, native language and proficiency level, the highest free-recall scores were for simplified texts and lowest for unmodified texts.

Post hoc tests on modification measure indicate that the free-recall scores of unmodified texts were significantly lower than those of all the modified texts, $p<.0005$. Among the four differently modified texts, there was no statistically significant difference. The decreasing rank of modification measures regarding the free-recall scores is: simplification (simplified texts) → elaboration (elaborated texts) → glossing (texts with a marginal gloss) → computer annotation (texts with pop-ups on a computer screen) → no-modification (unmodified texts).

6.1.1.3 Effects by topic

The β coefficients of topic in the final model are presented in Table 6.3 below, along with its Wald χ^2 and p -value. These measure the different effects of each topic on the participants' free-recall scores when the topic GT (Good tourists) is used as the baseline topic. For example, if the topic is AD (Give me advice) instead of GT, the model predicts a drop in the free-recall scores of 6.348 on average.

Table 6.3. β coefficients, Wald χ^2 and p -value of topic

Topic	β coefficients	Wald χ^2	p -value
Give me advice (AD)	-6.348	7.175	$p=.007$
Good tourists (GT)	0	-	-
Mini-skirts (MS)	.018	.000	$p=.993$
<i>Hibakusha</i> , Atomic -bomb survivor (AS)	9.098	11.473	$p=.001$
Good rivals (GR)	10.272	12.613	$p<.0005$

The model predicts that Topic GR gained the highest free-recall scores and Topic AD had the lowest when modification measure, native language and proficiency level were controlled for.

Post hoc tests on topic suggest that the mean scores of Topic AD were significantly lower than those of all the other topics ($p<.022$). There were three subgroups in the five topics in terms of the free-recall scores. Topics GR and AS

scored significantly higher free-recall scores than Topics AD, MS and GT. Topics MS and GT scored significantly higher free-recall scores than Topic AD which produced significantly lower free-recall scores than any other topic.

6.1.1.4 Effects by native language

The participants' native language was significantly predictive of their free-recall scores, $p=.005$. Students whose native language was Chinese obtained significantly higher free-recall scores than students whose native language was English. The β coefficients of native language in the final model are presented in Table 6.4 below, along with its Wald χ^2 and p -value.

Table 6.4. β coefficients, Wald χ^2 and p -value of native language

Native language	β coefficients	Wald χ^2	p -value
English	-39.331	8.010	$p=.005$
Chinese	0	-	-

6.1.1.5 Effects by proficiency level

The participants' proficiency in Japanese was also significantly predictive of their free-recall scores, $p<.0005$. The β coefficients of proficiency in the final model are presented in Table 6.5 below, along with its Wald χ^2 and p -value.

Table 6.5. β coefficients, Wald χ^2 and p -value of proficiency level

Proficiency level	β coefficients	Wald χ^2	p -value
High	12.034	8.199	$p=.004$
Middle	13.326	6.184	$p=.013$
Low	0	-	-

In the current study, the participants were divided into three proficiency levels from their level check test results: high, middle and low. The ratio of the participants of each group was 46.7% (high), 23.3% (middle) and 30.0% (low). Each

group's estimated marginal means of the free-recall scores were 43.38 (high), 44.67 (middle) and 31.34 (low). Pairwise comparisons using the sequential Bonferroni method indicated that the high and middle groups were not significantly different with regard to the mean free-recall scores ($p=.863$), while the low group had significantly lower mean free-recall scores than the high ($p=.013$) and middle ($p=.026$) groups. The reason that the estimated marginal means of the middle group slightly exceeded that of the high group probably came from the much bigger size of the high group sample.

6.1.2 The quantitative analysis of the short answer reading comprehension test results

6.1.2.1 Main effects created by four variables

GEEs were used to fit a linear regression model for the participants' scores of a short answer reading comprehension test (hereafter, comprehension scores) as well (See section 5.1.7.11 for short answer reading comprehension tests). In this model, modification measure and topic were repeated within each participant. There were five modification measures (no-modification, simplification, elaboration, glossing and computer annotation) and five topics (GR, AS, AD, MS and GT). For all regression analysis, the participants' native language (English or Chinese) and proficiency level (high, middle and low) were also used in order to control for native language and proficiency.

Overall, modification measure, topic and proficiency level had statistically significant effects on comprehension scores (Wald Chi-Square, $p<.0005$ in these three cases) while native language was not significantly predictive of comprehension scores ($p=.657$). Table 6.6 below indicates each variable's p -value and QICC for comprehension scores.

Table 6.6. Each variable's p -value and QICC on the basic model (for comprehension scores)

Variables	p -value	QICC
modification measure	$p < .0005$	47624.598
topic	$p < .0005$	
native language	$p = .657$	
proficiency level	$p < .0005$	

6.1.2.2 Effects by modification measure

The β coefficients of modification measure in the final model including modification measure, topic, native language and proficiency level are presented in Table 6.7 below, along with its Wald χ^2 and p -value.

Table 6.7. β coefficients, Wald χ^2 and p -value of modification measure (for comprehension scores)

Modification measure	β coefficients	Wald χ^2	p -value
no-modification (unmodified texts)	-15.967	15.224	$p < .0005$
glossing (texts with a marginal gloss)	-3.767	.737	$p = .391$
computer annotation (texts with pop-ups on a computer screen)	0	-	-
elaboration (elaborated texts)	9.867	5.395	$p = .020$
simplification (simplified texts)	20.767	30.902	$p < .0005$

The model, therefore, predicts that controlling for topic, native language and proficiency level, the highest comprehension scores were for simplified texts and lowest for unmodified texts.

Post hoc tests on modification measure indicate that the comprehension scores of simplified texts were statistically significantly higher than those of unmodified texts, texts with pop-ups on a computer screen and texts with a marginal gloss, $p < .0005$. However, when compared to those of elaborated texts there was no significant difference ($p = .111$). On the other hand, unmodified texts produced significantly lower comprehension scores compared to simplified texts, elaborated

texts ($p<.0005$), texts with a marginal gloss ($p=.028$) and texts with pop-ups on a computer screen ($p=.001$). The comprehension scores of elaborated texts were significantly higher than those of texts with a marginal gloss ($p=.015$) but they were not so with those of texts with pop-ups on a computer screen ($p=.202$). There was no significance on the comprehension scores of the two texts which had the lowest scores among the four modified texts, texts with pop-ups on a computer screen and texts with a marginal gloss. The decreasing rank of modification measure with regard to the participants' comprehension scores is: simplification (simplified texts) → elaboration (elaborated texts) → computer annotation (texts with pop-ups on a computer screen) → glossing (texts with a marginal gloss) → no-modification (unmodified texts). Compared to the result obtained from the participants' free-recall scores, this result differs only in the point that computer annotation produced higher scores than glossing.

6.1.2.3 Effects by topic

The β coefficients of topic in the final model are presented in Table 6.8 below, along with its Wald χ^2 and p -value. These measure the different effects of each topic on the comprehension scores compared to the baseline topic, GT. For example, if the topic is AD instead of GT, the model predicts a drop in comprehension scores of 13.267 on average.

Table 6.8. β coefficients, Wald χ^2 and p -value of topics (for comprehension scores)

Topic	β coefficients	Wald χ^2	p -value
Give me advice (AD)	-13.267	9.227	$p=.002$
Good tourists (GT)	0	-	-
Mini-skirts (MS)	4.633	1.377	$p=.241$
Good rivals (GR)	15.067	12.198	$p<.0005$
<i>Hibakusha</i> , Atomic-bomb survivor (AS)	15.800	16.972	$p<.0005$

The model predicts that Topic AS gained the highest comprehension scores and Topic AD had the lowest when modification, native language and proficiency level were controlled for.

Post hoc tests on topic suggest that the mean scores of Topic AS were significantly higher than those of Topics AD, MS and GT, $p < .01$. They were, however, not significantly higher than those of Topic GR. In contrast, Topic AD had significantly lower comprehension scores than those of all the other four topics. The decreasing order of the mean comprehension scores of the five topics is: AS $\rightarrow$ GR $\rightarrow$ MS $\rightarrow$ GT $\rightarrow$ AD. Compared to the result obtained from the participants' free-recall scores, this result differs only in the point that AS, i.e., Atomic-bomb survivor, produced higher scores than GR, i.e., Good rival.

6.1.2.4 Effects by native language

L1 Chinese participants had higher comprehension scores than L1 English participants. However, students' native language was not significantly predictive of their comprehension scores. This result differed from what was obtained from the participants' free-recall scores. There were not many Chinese participants in the current study: only six L1 Chinese participants in the whole sample ($N=31$). A larger sample size is required to investigate the validity of this variable in terms of whether or not this variable predicts reading comprehension scores.

Table 6.9. β coefficients, Wald χ^2 and p -value of native language (for comprehension scores)

Native language	β coefficients	Wald χ^2	p -value
English	-2.977	.197	$p=.657$
Chinese	0	-	-

6.1.2.5 Effects by proficiency level

The participants' proficiency level was significantly predictive of their comprehension scores, $p < .0005$. Unlike the pattern demonstrated by the free-recall scores, the high group had statistically significantly higher comprehension scores than did the middle and low groups ($p < .001$). There was no significant difference on the comprehension scores between the middle and low groups. The β coefficients of proficiency in the final model are presented in Table 6.10 below, along with its Wald χ^2 and p -value.

Table 6.10. β coefficients, Wald χ^2 and p -value of proficiency (for comprehension scores)

Proficiency level	β coefficients	Wald χ^2	p -value
High	31.779	66.565	$p < .0005$
Middle	10.795	3.699	$p = .054$
Low	0	-	-

6.1.3 From the 5-scale questionnaire answers

In Project One, each participant rated the three factors, i.e., familiarity, self-perceived understanding and level of interest, on a 5-scale after completing two reading tasks. A linear regression model was fitted for these three factors. (See section 5.1.5.2 for the 5-scale questionnaire.)

6.1.3.1 Familiarity of the texts

Table 6.11. Each variable's p -value and QICC (for familiarity)

Variables	p -value	QICC
modification measure	$p = .029$	164.779
topic	$p < .0005$	
native language	$p = .161$	
proficiency level	$p = .104$	

First, regarding familiarity, there was a moderately significant relationship between familiarity and modification measure ($p=.029$), whereas there was a statistically significant relationship between familiarity and topic ($p<.0005$). Neither the participants' native language nor proficiency level was significantly predictive of familiarity ($p=.161$ and $p=.104$ respectively).

Post hoc tests on modification measure indicate that the participants found the content of texts significantly less familiar when they read unmodified texts compared to when they read simplified texts ($p=.015$). However, there was no significant difference on reported familiarity among the four differently modified texts. Similarly, there was no significant difference on reported familiarity between unmodified texts and elaborated texts, texts with a marginal gloss and texts with pop-ups on a computer screen. That means that the participants viewed the content of simplified texts as significantly familiar only compared to that of unmodified texts.

Post hoc tests on topic reveal that familiarity differed statistically significantly between topic AS and the other four texts (GR, AD, MS and GT). The participants generally found topic AS much more familiar than the other four topics ($p<.009$).

The participants' native language and proficiency level were not significantly predictive of the familiarity that they reported.

6.1.3.2 Self-perceived understanding of the texts

Table 6.12. Each variable's p -value and QICC (self-perceived understanding)

Variables	p -value	QICC
modification measure	$p<.0005$	112.658
topic	$p<.0005$	
native language	$p=.052$	
proficiency level	$p<.0005$	

Reported self-perceived understanding was significantly different by modification measure, topic and proficiency ($p < .0005$ in all the three cases). Also, there was a trend that the participants' native language was significantly predictive of self-perceived understanding ($p = .052$).

Post hoc tests on modification measure indicate that the participants perceived their understanding of unmodified texts as significantly lower than their understanding of the four modified texts. On the other hand, the participants' self-perceived understanding of simplified texts was significantly higher than that of unmodified texts and the other three modified texts. The decreasing order of the participants' self-perceived understanding depending on modification measure is: simplification $\rightarrow$ computer annotation $\rightarrow$ glossing $\rightarrow$ elaboration. This is not correspondent either with the actual free-recall scores or the comprehension scores. It should be noted that participants perceived their understanding of elaborated texts rather low, compared to their perceived understanding of the other modified texts.

The participants' self-perceived understanding was significantly different only between Topics GR/AS, and Topic AD. They perceived their understanding of Topic AD to be significantly lower than their understanding of Topics GR and AS.

The variable of the participants' native language was not significantly predictive of their self-perceived understanding. The participants whose native language was Chinese tended to perceive their understanding as higher than did those whose native language was English.

The effects of the participants' proficiency level on their self-perceived understanding were significant. Post hoc tests on proficiency level indicated that there was a statistically significant difference in their self-perceived understanding

among the high group and the low group ($p<.0005$). The high group participants viewed their understanding significantly higher than did the low group participants.

6.1.3.3 Level of interest of the texts

Table 6.13. Each variable's p -value and QICC (interest)

Variables	p -value	QICC
modification measure	$p=.236$	131.740
topic	$p<.0005$	
native language	$p=.415$	
proficiency level	$p=.097$	

Level of interest of texts reported by the participants differed significantly only by topic. Modification measure, native language and proficiency level did not influence interest level felt by the participants. Post hoc tests on topic showed that the current participants found Topic AS, i.e., Atomic bomb survivor, *Hibakusha*, significantly more interesting than any other topic ($p<.004$).

6.1.4 The results of the previous-vocabulary-knowledge test

When there are not many unknown words in a text, the effect of lexical modification is thought to be small, because learners do not need such aids when they know most of the words. In the present study, the vocabulary level of participants was not available, so participants were asked whether or not they knew the words which were simplified, elaborated, or glossed (in margins or as pop-ups) in the previous-vocabulary-knowledge test (See Appendix 4). These simplified, elaborated, or glossed words are target words (TWs), as explained in section 5.1.7.8. The proportion of TWs in texts was 11% on average.

The previous-vocabulary-knowledge test indicated that the participants with English native background knew only 31.4% of TWs. To put it another way, this means that they did not know 68.6% of TWs. On the other hand, participants with

Chinese native background knew 68.8% of TWs. Hu and Nation (2000) suggest that readers need to know more than 98% of the running words to comfortably and independently read a text. As a result, we can claim that even the participants with Chinese native background probably benefited from lexical modification to some extent, and the benefits of lexical modification played an important role in enhanced reading comprehension gained from the four differently modified texts. Gardener and Hansen (2007, p. 39) demonstrate a similar phenomenon and claim that the “advantage for lexically simplified materials held true regardless of skill level.”

However, the participants’ responses to the previous-vocabulary-knowledge test and their performance in reading tasks present a rather complex relationship. For example, Stacy¹⁹ (L1 Chinese) claimed that she had known 91.8% of TWs, which was the second highest among the whole participant sample. Nevertheless, her average free recall results were unsatisfactory at 22.25%, which was only the average for all participants. Also, Sharon and Peter (L1 English) claimed that they had known 41.8% and 41.6 % of TWs respectively, which were higher than the average of L1 English participants. However, their free recall scores were much lower than those of the other L1 English participants whose self-claimed previous-vocabulary-knowledge was much lower than these two participants. This can be interpreted at least in two ways: (1) participants’ self-claimed vocabulary knowledge in this study may not have been reliable, (2) vocabulary knowledge cannot solely determine learners’ reading comprehension because reading comprehension is achieved by the interaction of various factors.

¹⁹ Throughout this thesis, participating students are referred to with pseudonyms. See section 6.1.6.3 for pseudonyms which are used for explanation of Project One findings.

6.1.5 The results from reading time per correctly-recalled idea unit

The average time to recall one idea unit was calculated according to differently modified texts. As Table 6.14 below demonstrates, the participants spent most time and second most time to recall one idea unit correctly when they read the texts with pop-ups on a computer screen and a marginal gloss respectively whereas they spent least time during reading the simplified texts.²⁰ Therefore, the reading fluency of the current participants was best with the simplified texts and worst with the texts with pop-ups on a computer screen. This result can be seen as a reflection of the distracting nature of out-of-text modification complained of by the majority of the participants during the exit interviews. Askildson (2011, p. 55) claims that “lower-level readers may not make judicious use of annotations, but rather access all annotations (even for words they already know) out of interest in the annotation itself and not as an aid to comprehension of the text.”

When teachers use texts with out-of-text modification such as glosses and/or computer annotation, careful consideration is required. The ambitious nature of the currently available online pop-up aids is presented in section 5.1.7.10. If developing L2 Japanese learners are distracted by the novelty of such features and over-rely on them, such digital reading aids can be counter-productive and time-consuming.

Table 6.14. Time taken to recall one idea unit (seconds)

Unmodified texts	Simplified texts	Elaborated texts	Texts with a marginal gloss	Texts with pop-ups on a computer screen
70.8	48.3	84.9	121.9	123.0

Note that there was a wide variance in time taken to recall one idea unit by each participant.

²⁰ Although the average time taken to recall one idea unit with the unmodified texts is shorter than that of the elaborated/easified texts, that does not mean that the participants understood the unmodified texts more easily. Some students could not recall any idea unit with the unmodified texts, which were not included in calculation.

6.1.6 The qualitative analysis of Project One

6.1.6.1 The free-recall protocol data

The data obtained from the participants' free-recall protocols was also analysed in a qualitative way. In practice, metacognitive remarks given during the task were examined. Due to the nature of the free-recall task, there were not many metacognitive remarks. Nevertheless, when the participants encountered something extraordinary, e.g., extraordinarily difficult texts, an extraordinarily strange topic, they tended to make metacognitive remarks.

Furthermore, as Bernhardt (1983, 1991, 2011) asserts, the free-recall task is beneficial insofar as it illustrates how and where learners make mistakes due to a lack of grammar knowledge. Therefore, taking advantage of this characteristic of the free-recall task and investigating participants' mistakes is of great importance for detecting difficult textual features in general and more importantly detrimental factors of text modification. Similarly, O'Donnell (2005, p. 75, 76) argues that "recall protocols demand that readers understand a text well enough to be able to recall it in a more or less coherent and logical manner, thus allowing misunderstanding and gaps in comprehension to surface."

6.1.6.2 The exit-interview comments

All the comments given by the participants during the semi-structured exit-interviews were transcribed and qualitatively analysed by the researcher.²¹

6.1.6.3 The findings from the free-recall protocol data

Pseudonyms are used when necessary in this thesis to refer to each of the participants. Those pseudonyms are Jackie, Sharon, Julia, Laura, Jeremy, Stacy,

²¹ The researcher was not a native speaker of English and thus experienced difficulty in transcribing numerous parts. In such cases, the above-mentioned L1-English academic with near-native fluency in Japanese who was allowed access to data by ethical approval provided assistance.

Peter, Derek, Bruce, Abby, Albert, Caitlin, Vanessa, Olivia, Chloe, Caleb, Nicky, Gabe, Pip, Tania, Dylan, Tom, Kim, Mabel, Ashley, Paul, Rachel, Tabitha, Nadine, Edith and Andrew.

6.1.6.3.1 Remarks which indicate the participants' frustration when reading unmodified texts

Some participants expressed their frustration at not being able to understand the contents of unmodified texts at all. Such apologetic metacognitive remarks were not seen in the protocols obtained from the modified texts. This fact indicates that the unmodified texts influenced these participants' affective aspects negatively. The following are examples of such metacognitive remarks:

And then, something about a war (laugh). And after that, I think something about not knowing anyone at some place. And I don't understand anything of the rest of it. (Sharon).

There are lots of *kanji* which I didn't understand... Um, and there were lots of *kanji*. (Albert)

Lots of *kanji*! (sigh and laugh)... And, then, I really didn't understand much after that. (Caitlin)

Um...(laugh), um... Something about, thinking, if other guys don't say... (pause). That's all I can remember...(chuckles) (Vanessa)

Yeah, some of the *kanji* are really long and troublesome. I don't know, is it about a med school? I remember *kanji* for a doctor, or from a part of it. It's about a med-school, but I'm not sure. Um, and something about counsellor, but I don't know ...(pause) *kanji*. I think after 7 years graduated or something like that. I got at least half of it. [referring to one of the two *kanji* characters forming the word '*sotsu-gyoo*, 卒業=graduation'] There is not much I can talk about it. Lots of it just ...my head. But I think it's about a med-school. And I think ...(pause), if you get sick, you should get in ...(pause), but you don't want to see a counsellor for that. Yeah, no, I don't know the majority of that. (Caleb)

These comments illustrate the participants' struggle to read unmodified texts which contain many unknown *kanji* compound words. Due to their incapability of decoding unfamiliar *kanji* words, their reading processes became laborious when tackling unmodified texts, which negatively influenced their affective aspects.

Also regarding reading unmodified texts, many participants gave up rather quickly on their trial of reading. Without *furigana* support for *kanji* characters/compound words, key word presentation, and with no aid to find unknown word meanings, they simply gave up reading unmodified texts after only one brief scanning. The following is an example of such surrender. (This is the whole recall protocol of Derek's trial to read an unmodified text.)

It's advice between two friends.
He didn't understand girls.
She was giving advice on how to act naturally with women and just be himself.
That's all I can understand.
[Researcher: Do you want to add more?]
No. There are some critical vocabularies, which I couldn't understand.
(Derek)

6.1.6.3.2 Failure to grasp Japanese characteristic rhetorical organization

The current participants made critical mistakes or failed to connect paragraphs when they could not follow typical Japanese rhetorical organization. Many of the participants were misguided or fooled by either unexpected or obscure development of the story, which is characteristic of Japanese traditional rhetorical organization. Jackie verbally mentioned his inability to detect subtle cohesion in one text: "I'm not sure how the first part links, but they're talking about, um... (pause)." This is his free-recall of Topic GT. For the same text, Gabe explained his loss of attention after the text showed an ambiguous textual development. He said, "Um, I

don't remember much after that... I couldn't pay much attention after that, unfortunately."

6.1.6.3.3 Confusion caused by unavailability of singularity/plurality of nouns and gender of characters (personae)

Not being able to infer the gender and number of personae appeared to be an inhibiting factor in the reading comprehension of the current participants. Albert verbally asked the researcher, "How do you know if they are girls or boys?" Asked whether not knowing the gender disturbed his understanding or not, he said that it did not disturb his reading but knowing the gender would help his engagement with the text. Similarly, many participants made critical mistakes, being unable to determine the number of personae due to the nature of the Japanese noun system.

6.1.6.3.4 Misunderstanding caused by insufficient background knowledge

As the aforementioned quantitative analyses of the participants' free-recall and comprehension scores indicated, Topic AD was the least understood topic. This is probably because the theme has deep cultural connotations. In order to understand the theme of this topic readers have to know a particular word '*burikko*' which was included in the key word section, i.e., a girl who pretends to be innocent and cute, as well as the Japanese concepts of femininity which this word connotes. Although this word was well-known and thus the researcher assumed that the participants would know it, many of the current participants were very puzzled, and Caleb provided a good example that elaborated supports did not decrease the cultural difficulty of this topic:

So, what I remember is that I don't know if she was asking about opinion?
Ah...asking, people's opinions about trying to appear cute or something. *It's a strange topic.*
A lot of people, oh, one person was saying, "she should stop doing it because it doesn't sound serious" or, um, I don't say "unprofessional" because the

word wasn't in the text. But, just I don't know. I think, he, the first person was a male. And he said she should really fix her way of acting like that. *Um, I don't know, strange topic, it's not hitting into my head actually.* Ah, the other person, I don't know, I don't know if she had a problem with that. But, um, um, I don't really understand it enough to talk about it. (Caleb, emphasis added.)

Interestingly Caleb demonstrated positive engagement with another topic, MS. It can be seen that his engagement and understanding was supported by his background knowledge that Japanese girls wore ultra-short skirts.

I know the article talked about skirts and mini-skirts.
Whether or not it should be worn.
I am assuming at school, but it didn't really specify.
But I think that it's a crime to have them too short to be honest, I've seen them a lot in *Anime* and [they are] kind of derogatory, I guess. But it's off-topic. (Caleb)

6.1.6.4 The findings from the participants' exit interviews

6.1.6.4.1 Question: Do you find any one (i.e., any modification type) of them easier to read? Which one do you find easiest to understand?

In respect to this question, about half of the participants answered that 'simplified texts' were the easiest or the one they liked best. The reasons for their strong support for simplified texts included, "simplified texts are closer to those I am used to in my textbook," "in simplified texts, there weren't many words I didn't know," "because I knew most of the words in simplified texts, it was easier," and so on. While these comments were focused on vocabulary aspects of simplified texts, the following comments of two participants give us insight into other advantageous aspects of simplified texts.

Um, it's... I quite like that (referring to a simplified text he read). Just, I could feel like I could almost skim read and for my confidence, probably a good one to start with for me...simplified one ...is good for me. I feel like reading naturally. Instead of looking at words, I can read sentences. (Albert)

I like the short sentences... Because, if there are lots of...sentences and a comma, and another bit. I get to the end, and I forgot what it's about at the start. Or I don't know how to put (them) together... And also, because Japanese is written with verb bits in the end, instead of the place we put it. I don't know which end to go to and if it is, like, complicated sentences. So, when it's get shortened, I can get to grab a bit of information and get to the next bit. (Olivia)

These two participants valued simplified texts from the aspect of their syntactic simplicity and easier cognitive burden. Albert preferred a simplified text as one which can give him a natural, fluent reading process rather than laborious decoding. He also regarded a simplified text as one which can boost his confidence and as a good text to start with. Olivia's comment also has great importance. Shorter sentences probably make her still-developing syntactic parsing process more efficient. From extracting meanings of sentences, Paul also mentioned as follows:

When you've got Japanese at my level, you really want to know just key information. That's what I think. I thought that breaking up sentences let you do that really well. (Paul)

Some of the participants who preferred simplified texts expressed their feelings that they did not feel achievement from reading a simplified text and they should not just read simplified texts because such texts would not expand their ability. Pip said that "it [a simplified text] wasn't very challenging."

Only a small number of the participants verbally supported elaborated texts although reading comprehension obtained from elaborated texts was better than those of texts with both a marginal gloss and pop-ups on a computer screen. Among participants who supported elaboration were Julia, Jeremy and Kim. They said they preferred elaborated texts compared to the other modified texts. They are from the upper-level class and their overall linguistic levels estimated on the basis of their course grades are above the second level of the former JLPT. This means that they

are three of the most capable among the present participants. They commented as follows:

I think the elaborated one is the easiest to understand. Although it is longer, the difficult words were expressed in a more simplified way... The elaborated one was the most comfortable to see. The difficult words/sentences were extended into long, yet easier words, so I did not have to look at the glossary list each time I encountered a word/phrase that I do not understand... The elaborated one would be my preference. (Julia, This comment was obtained through personal communication.)

Elaborated text is easy to understand because my understanding is supported by lots of fringe detailed information. (Jeremy)

I somehow thought it was the easiest to read among the five texts. Straightaway... I think background information is very useful. And long sentences, how shall I say...
[Researcher: Do they support your understanding?]
Yes. They may maintain my memory [of the text]. (Kim, the researcher's translation from her response given in Japanese)

From their comments, we can extrapolate that when learners are advanced, they might have sufficient competence to benefit from long detailed elaboration without suffering from cognitive overload caused by the length of sentences. The contents of their free-recall protocols reveal that these participants successfully induced subtle nuances in the given discourse, using added stimulating questions effectively to enhance their engagement.

The participants who chose texts with pop-ups on a computer screen as their most preferred texts unanimously pointed out the choice involved in popping-up, or more precisely “a choice of learning particular words or not” (Laura) as the advantage of texts with pop-ups on a computer screen. That is to say, whereas a marginal gloss is already visible and it does not give learners a choice, pop-ups are initially closed and learners have control over whether to use the aid or not. This

factor also meets one of the benefits of glossing of hard copy texts suggested by Nation (1983). That is, pop-up “individualizes attention to vocabulary” (p. 97). Participant Ashley confirms this, saying that “obviously different people know different things. So, a pop-up one is good because you can just choose the one which works for you.” Also, the adjacency of pop-ups to the actual text attracted some participants. Abby said, “pop-up is good because I can get information so close to the part which I am actually reading.”

While some participants gave negative comments towards glosses, Vanessa praised glosses, saying “when I have a gloss and meaning in simpler Japanese, I like that one. I guess that is probably the best, because I can still see difficult words.” From the perspective of vocabulary learning, marginal glosses are similar to other learning tools such as flash cards, and Vanessa might have welcomed glosses because they gave her the clearest environment for vocabulary learning. This preference of Vanessa was supported by one of the most advanced participants, Andrew. He maintained that he would like to get exposure to unmodified texts in order to acquire native-level fluency in reading. Thus, he said that he preferred a text with a marginal gloss best for he could still see the original text unmodified. He also pointed out that the contents of the gloss prepared by the researcher were more helpful than a mere definitional gloss since they were contextually suitable expressions and avoided the extra burden of contemplating appropriate definitions for the particular context of a given text. The current gloss was a success in the way that it “supplies readers with instant knowledge about meanings of particular words of particular texts” (Nation, cited in Jacobs, 1994, p. 116).

Four participants chose the unmodified text as their preferred one. All of them are advanced learners with two of them having passed Level One of the former

JLPT. Nadine and Edith pointed out the good flow of the unmodified text as the reason for their preference. Rachel raised an affective factor to choose the unmodified text. She said that she felt very good because she found the unmodified text a challenge and she actually understood much of the content. Mabel gave analytical feedback about the unmodified and elaborated texts, her two preferred texts:

I liked the original text. The elaboration text is a bit too long and it has a potential to dwindle readers' interest. If you don't understand, it [elaboration] is very useful. But if you get explanation many times with words you know, you feel like, "yeah, I know"... (Mabel, the researcher's translation of her comment given in Japanese)

This comment is an echo of Ragan (2006) who says that texts which are made too explicit due to over-elaboration deprive learners of the challenge of solving ambiguity. McNamara, Kintsch, Songer and Kintsch (1996) says that when a text lacks coherence, learners with high background knowledge try hard to fill a gap in coherence, which activates their processing and creates better learning. Therefore, some advanced learners such as Mabel may engage with a text better when she has to find missing information or connections among episodes.

6.1.6.4.2 Question: Which type of text is your least preferred or the most difficult one?

It is noteworthy that the two advanced-level participants who selected elaborated texts as the most preferred, chose unmodified texts as the most difficult:

The unmodified one was hard to concentrate on as I did not know many words. I sort of lost track at some point trying to figure out the meaning of the unknown words while trying to continue reading it. (Julia)

Unmodified text is very difficult because it has no help such as *furigana*. (Jeremy)

It is understandable that Jeremy complained about not getting *furigana* support for *kanji* characters and compound words in an unmodified text, because decoding *kanji* characters and compound words for L1 English learners of Japanese is a difficult task. However, the fact that an advanced L1 Chinese learner of Japanese such as Julia still found the number of unknown words in an unmodified text overwhelming is instructive. Length of sentences in an elaborated text did not inhibit these two learners' comprehension. The number of unfamiliar words in an unmodified text, however, apparently did so.

Unmodified texts, of course, were beyond the capabilities of struggling participants. The aforementioned remarks given during free recall tasks vividly showed feelings of helplessness and defeat which such less proficient participants encountered. In the exit interviews, some less proficient participants made similar remarks. Ashley said that "the whole sentence [in the unmodified text] is a write-off... With heaps of *kanji*, I can't understand any." Paul said, "I couldn't try to even guess what it [the unmodified text] meant."

Less proficient participants also found elaborated texts demanding. Stacy said that "elaboration gives too much detail. So, I think that in it the points get lost... If explanation comes in (the text), it gets '*jama*' [i.e., in the way]. I don't mind simplified text but elaborated text is too confusing." Also, Jackie simply remarked that "elaboration is too long." While three advanced participants enjoyed such elaborated extra information as mentioned above, it was counter-productive and burdensome to less proficient learners. It can be deduced that longer elaborated sentences are cognitively more demanding for less proficient learners.

Although they did not dislike the elaborated text, two advanced participants noticed the unnaturalness of the text straight away. Nicky thought that there were

too many '*tsumari*,' i.e., 'that is,' in the text and found it strange. This word was used as a marker for the succeeding lexical elaboration. If repetitive usage of this word appears to be unnatural for some learners, this can be a crucial shortcoming of elaborated texts.

When some participants chose texts with glosses or pop-ups on a computer screen, their reason for disliking them was mainly that looking at word definitions in either glosses or pop-ups disturbs the flow of reading. Laura observed that "if a gloss is written in L1, it will not disturb my reading so much," while Vanessa said that she preferred L2 glosses. One particularly instructive comment given by Jeremy was that "using pop-ups is actually another thing that I have to concentrate on." Similarly, Tom said that "the icon [of pop-ups] sort of breaks up your concentration a little bit." As stated previously, no participant seemed to have any technical difficulty in using pop-ups on a computer screen. But the participants' reaction towards texts with pop-ups on a computer screen varied.

The issue of distraction caused by glosses and pop-ups is of great significance. This is probably one of the reasons that the current participants' comprehension stayed low with the easified texts. The following three participants aptly explained why such distraction occurs:

I found it [the text with a marginal gloss] really distracting, having all the things on the side. And, like, quite often, 'oh, what does that mean...ok...where was I?!' (Gabe)

Glossary. Stopping reading, checking out, then going back to continue [reading], things do not get connected, it makes reading difficult. I think the flow is important... I cannot concentrate [with a gloss]. (Kim)

Basically, they [the main body and a gloss] are like two different reading texts and they are not connected, so, they are difficult to read. (Andrew)

6.1.6.4.3 Question: Which do you prefer, embedded modifications (such as simplification and elaboration) or out-of-text modifications (such as glosses and pop-ups)?

In exit interviews the participants' answers to all the questions clearly reflected their personal and learning traits. This question especially did so. Some learners whom I shall call 'flow emotional readers' tend to like embedded modifications in narrative texts since such modifications with such a genre gave them better engagement with the text without disturbing the flow of reading.

On the other hand, other learners whom I shall call 'analytical descriptive readers' enjoy getting new information using glosses or pop-ups. For them, reading is more or less a tool to acquire new knowledge, and obtaining correct novel information is their ultimate target in L2 Japanese reading.

The following comment given by Albert is a succinct illustration of 'flow emotional readers':

...it feels like studying [when using a gloss] because of flicking and trying to remember words. I know with simplified, I don't learn much because difficult words are taken out. But with my current level to improve gradually, it's important to build up confidence. And when I can read a text quickly, I can understand it all, and enjoy it too. In my opinion, it's very important to enjoy it. Reading a difficult text with glossary trying to learn many words is not good for me. (Albert)

This comment prompts us to contemplate a few significant factors: affective factors of L2 reading such as learners' confidence and enjoyment of the reading process, interest of a text, and the importance of reading speed.

On the other hand, 'analytical descriptive readers' also have convincing suggestions:

I don't like embedded modifications. I like the choice of whether I use the pop-up or not to extract meaning I don't know... With pop-up, the next time I read the same article, I have to force myself to remember, while with marginal glossary and embedded modifications I will not have to do so or I will not be given such a choice. Embedded doesn't make you remember. (Derek)

For Derek, one of the purposes of reading in Japanese is definitely to learn new words. Therefore, he sees reading Japanese texts as learning opportunities rather than as pleasure experiences. From that perspective, texts with pop-ups on a computer screen have higher efficacy for him.

It is difficult to generalize students' responses to this question because it reflects their differing learning tendency, preferences, personal traits, even perceptions toward reading in general. However, overall, participants who prefer embedded modifications praise such modification measures as preserving the flow of reading whereas out-of-text modifications disturb their reading processes. Peter asserts that "gloss breaks the reading but embedded doesn't." On the other hand, participants who prefer out-of-text modifications mention that in texts with such modifications meanings of unknown words are easier to see and they claim that embedded modifications make sentences too long for them to be able to understand easily.

One very advanced participant, Andrew, suggested that he would prefer to read the original text always. He said that that was why he preferred out-of-text modifications. Another capable learner, Tabitha, remarked that out-of-text modifications are better for her ego because she could tell herself that she had read the original text, one which was not modified to make it easier. This affective aspect similarly emerged among the findings of Project Three. That is to say, when learners become proficient, they have a strong urge to read unmodified texts because they believe that reading only accessible modified texts will not expand their existing

abilities. This urge strongly controls affective aspects of some learners even if they are not yet ready to read unmodified texts.

6.1.6.4.4 Question: Which do you prefer, reading a hard-copy text or reading a text on a computer screen?

Many more than half of the participants from both upper- and lower- levels chose reading a hard-copy text as their preferred reading, while only a small number of participants preferred a text on a computer screen. The remaining participants had no preference or did not specifically answer this question.

The common reasons for preferring to read a hard-copy text is ‘mobility of the hard-copy texts,’ ‘difficulty of scrolling and keeping the right location of reading on computer,’ ‘nice feeling of paper,’ ‘familiarity with hard-copy reading,’ ‘scribbling on paper,’ and ‘pleasure coming from turning pages and holding a book.’ Looking at these reasons, we can say that these participants maintain traditional attitudes toward reading materials despite Waller’s prediction of a decade ago. After pointing out temporary problems of electronic text, Waller (1996, p. 370) claims that “new communication techniques often require a transitional period in which they imitate the old, and in which new expressive and interpretive techniques can gradually develop.” Although this new communication technique seems to have passed a successful transitional period and has made a remarkable improvement, a majority of the current participants still preferred paper-reading to reading on a computer screen. Garland’s (1982) remark summarizes such nostalgic preference held by these participants:

Whenever I rhapsodize about the opportunities presented by the electronic media, at the back of my mind I find myself thinking, “Yes, but a book is a book is a book. A reassuring, feel-the-weight, take-your-own-time kind of thing” (cited in Waller, 1996, p. 370)

In contrast, there were a few participants who clearly supported reading texts on a computer. They cited the usefulness of online dictionary aids as the biggest reason for their preference. They said that online dictionary tools such as pop-up dictionaries and multimedia were easy to use and great for them to find out meanings and readings of unknown *kanji* characters and compound words. Cull (2011) reports that although students still prefer paper reading to computerised reading, they appreciate online digital texts due to their convenience.

Regarding the often-claimed benefits of computer reading aids, Peter's comment is noteworthy:

No difference [between paper and computerised readings]. Hard copy for reading every time... Looking at computer screens gets annoying after a while. But looking for something, searching for assignments, it's better on PC. It's easy to find meaning of words. PC is a useful tool but not an enjoyable tool... [Referring to an online tool assisted reading] It's not reading but it's referencing. [If I have to choose, I will choose] Hard copy. Hard copy text forces you to use your own skill while computers do it all for you. (Peter)

Peter is one of the least proficient and least experienced learners among the present participants. Nevertheless, he can see not only easy returns from using computer tools but also its downsides which fail to nurture necessary reading skills. Bhatia (1983, p. 46) claims that easification measures "do not simplify the text for the reader, but help him to do so on his own." In other words, Bhatia suggests that easification enhances learners' autonomy in terms of getting target texts accessible. Peter's comment, however, warns us that there is a possibility that L2 learners can end up being lazy, unskilled readers if they over-rely on computer annotations (i.e., a new type of easification devices).

6.1.6.4.5 Question: Did key words help your comprehension?

Key words at the beginning of each modified text were welcomed by all the participants. They did not think that having key words at the beginning of texts detracted from the narrative's unwrapped excitement. They did not think that having key words at the beginning of the text made them feel that they were going to study rather than read, while a few participants mentioned that reading with glosses did so. Three participants' comments vividly illustrate the efficacy of key words:

Having keywords in English is good when you are reading something above your level. If I can understand the whole content, English key words might be annoying. But even if I understand the majority of the text but there are a few difficult words, *kanji* or a few strange vocabulary, I don't feel comfortable in reading. If I'm reading an academic article which is above my current level, key words become quite useful. (Albert)

Yeah. It helped you to know what it's gonna be about before you start reading it if you look at it. And when you are going through it, it definitely helps with hard words. (Vanessa)

I like having some key words to start with because already I know what it's gonna be about. So when I'm reading it, I know I'm on the right track... Keywords are really good for knowing what the topic is about. And also more for me, like, if I think something, confirming it. So, I don't have to do the whole time, "Oh, I wonder if I'm right or not." (Olivia)

After reading an unmodified text, Derek remarked that he really needed key word support for one word which seemed to be the most essential word. He said that he could not understand anything without the knowledge of this particular key word of this particular topic. This example confirmed that key word provision was beneficial.

6.1.6.4.6 Question: Was the replacement of low frequency *kanji* words with *katakana* synonyms useful?

Regarding this question, most of the participants answered that whether or not *katakana* word replacement is useful depends on the situation. When they don't

know a *kanji* compound word and do know a *katakana* replacement, of course it is useful. However, when they don't know a *katakana* replacement, more negativity will occur than does positivity. Examples of negative effects are 'reading speed decreases because it is troublesome to decode *katakana* words,' 'there is a danger to muddle up a *katakana* replacement word given with a similar-pronunciation but totally-different-meaning *katakana* word,' and 'a *katakana* replacement sometimes gives less clues than *kanji* characters.' Edith raises an important point, by saying, "you have to go on to *katakana*-mind-set and sort of speak up a bit more, so, that might disrupt reading a little bit." Nadine echoed this remark and mentioned that "If there are many *katakana* words in a text, my reading gets slower. Sometimes, I cannot even pronounce those *katakana* words properly" (the researcher's translation of her comment given in Japanese). Nadine also claimed that if an original Japanese word is relatively easy, it is easier to decode the word as it is, rather than to decode a *katakana* replacement.

Although the current sample did not include many L1 Chinese learners of Japanese, a tendency was detected among them related to this issue. They mentioned that it was harder to read a text when there were fewer *kanji* characters/compound words. One of the reasons for this is that they lose one major advantage for them as a learner of Japanese from a cognate language. That is, they sometimes benefit semantically from *kanji* characters/compound words contained in Japanese texts since many (but by no means all) Chinese words and Japanese words written in the same characters share nuances. Another reason is that when a text is written with numerous *hiragana/katakana* letters, L1 Chinese learners of Japanese suffer from the same problem as Nadine mentioned above, i.e., slower reading due to difficulty in segmenting words. Koda (1993) notices that Korean has similarities to Japanese

in syntactic patterns more than English and Chinese do. Therefore, while L1 Korean learners are capable in terms of decoding L2 Japanese sentence structures, L1 Chinese learners of Japanese are not necessarily efficient in decoding Japanese sentence structures. Therefore, L1 Chinese learners of Japanese among the current participants generally did not welcome *katakana* replacement.

6.1.6.4.7 Question: Did you like *furigana*? Did you find them useful?

Many students' responses to this question were similar to their answers to the question about the replacement of lower frequency words with *katakana* words. That is to say, the participants said that whether or not *furigana* is useful depends on whether or not they know words by sound. If learners know many words by sound, provision of *furigana* solves their problems of not being able to recognize the relevant *kanji* characters. Thus, they can retrieve vocabulary knowledge from their memory, using *furigana* as a phonological cue. Paul aptly said that with *furigana*, "it is your vocabulary skill, not *kanji*" problem.

Some participants, of course, appreciated provision of *furigana* even though it did not necessarily lead to understanding of unknown *kanji* words. Ashley pointed out as follows:

But at least I can still read it and make a sound [with *furigana*]. And even if I don't know the word, if I can read the whole sentence naturally, it almost makes sense a little bit. But with a *kanji* word...you can't even sound it. And it's quite disconcerting as well. Keep reading and keep finding you don't know, you get unmotivated. "Oh, I don't know anything!"

Likewise, Edith suggested that if she knows the readings of unknown *kanji* words thanks to *furigana*, she does not have to abstract such words. What she means here is that knowing readings of unknown *kanji* words enables readers to process those words in a less abstractive way because such words at least have phonological

information in specific contexts given and such words do not have to be delivered as abstractive visual input to readers' memory.

L1 Chinese learner of Japanese, Dylan, said that he preferred to be given *furigana* for words that he did not know because he would keep reading unknown words in the Chinese way and would not learn Japanese readings otherwise.

Overall, more than half of the participants said that they liked *furigana*. However, some advanced participants recognized that relying on *furigana* was not good in terms of their learning.

6.1.6.4.8 Other findings from the exit interviews

There were many other insightful comments provided during the exit interviews. Two such factors, i.e., 'participants' general preference for shorter texts,' and 'unknown superiority of language for glosses, L1 or L2?' are addressed in the following discussion.

6.1.7 Discussions of Project One

Project One poses four research questions as presented in section 4.3. In this section, the findings related to each research question are discussed.

6.1.7.1 Question 1: What type of text do learners of Japanese comprehend best?

Quantitative analysis of the participants' free-recall protocol data and their short-answer reading comprehension test results revealed that the current participants comprehended the simplified texts better than the other texts, and there was statistically significant difference in the participants' comprehension scores between those of the simplified texts, and those of the texts with a marginal gloss and the texts with pop-ups on a computer screen. The participants' comprehension scores on the elaborated texts, the texts with pop-ups on a computer screen and the

texts with a marginal gloss followed those of the simplified texts. The participants' comprehension scores on the unmodified texts were significantly lower than those of the modified texts in all the cases. (See sections 6.1.1 & 6.1.2 for the quantitative results of Project One.) This finding, a clear statistical difference in reading comprehension between the unmodified texts and the modified texts, differs from findings obtained in relevant text modification studies in the other L1-L2 pairing contexts. (e.g., Blau, 1982; Brown, 1987; Keshavarz, Atai, & Ahmadi, 2007; Leow, 1993; Lotherington-Woloszyn, 1992, 1993; Oh, 2001; Parker & Chaudron, 1987; Tsang Wai King, 1987; Tweissi, 1998; Yano, Long, & Ross, 1994; Young, 1999). Furthermore, the participants' inability to read the unmodified texts observed during Project One is the reverse of what Allen, Bernhardt, Berry and Demel (1988) and Maxim (2002) report. Both studies examine learners' competence to read unmodified texts in a context where an L1 and an L2 are cognates. They report that participating learners showed satisfactory comprehension of unmodified target texts. Thus, Allen et. al. and Maxim both raise a warning that FL reading teachers should not "underestimate and spoon-feed learners" (Allen et. al., 1998, p. 168) but actively consider the pedagogical potential of unmodified texts at earlier stages of learners' development. However, the current finding suggests otherwise. The extent that L2 English learners of Japanese benefit from modified texts seems to be greater than how much learners who learn a cognate language gain from such texts. This finding demonstrates that there is a need to examine the efficacy of modified texts in the specific context of JFL.

The comments given during the exit interviews and some metacognitive remarks that occurred during the free-recall task indicated that the main reason that the participants' comprehension was enhanced was the easing of vocabulary

difficulty. (See section 6.1.6.3 for the findings from free-recall protocol data.) The fact that vocabulary knowledge influences learners' reading comprehension is well supported by empirical findings (e.g, Chall, 1987; Davis & Bistodeau, 1993; Graves, 2006; Komori, Mikuni & Kondoh, 2004; Laufer & Sim, 1985; Nation, 2001; Nation & Coady, 1988; Uljin & Strother, 1990; Yorio, 1971). Laufer and Sim (1985) emphasize that "the threshold of reading comprehension competence – the absolutely necessary repertoire for reading academic texts – is probably lexical-conceptual more than structural" (p. 409). More recently in the context of JSL, Komori et. al. (2004) demonstrate that the predictability of vocabulary knowledge for reading comprehension is approximately 50%.

While only a few participants mentioned that simpler syntax in the simplified texts helped them to understand its content better, how positively syntactic simplification influences reading comprehension of L2 learners of Japanese is yet to be established. Many of the current participants did not notice that sentences in the simplified texts were shorter than those of the other texts. However, the fact that readers do not notice syntactic features as much as they do so lexical features does not mean that syntactic complexity does not influence their reading process. Regarding this issue, researchers such as Blau (1982) and Shook (1997) deny that shortened sentences facilitate comprehension. Other scholars in the relevant academic discourse, however, suggest that lexical factors may be the strongest determiner of reading comprehension but syntactic aspects play an important role as well. Myong (1995, p. 50) suggests that "learners tend to depend on the meaning of words first, and content and syntax second and third." Myong (2005, p. 135) mentions that "there are other variables in addition to difficult vocabulary that can

obstruct reading comprehension.” Nilagupta (1977) emphasizes the importance of syntax to readability for ESL students:

The rules of syntax are not just the rules that the writer applies to organize his statements – they are the rules he assumes the receiver knows in order to be able to extract the meaning from statements. For the reader, grammar and syntax are the key to comprehending language. (p. 585)

Examining the influence of syntax on Thai ESL students, Nilagupta concludes that “syntax does to some extent affect Thai students’ comprehension of English passages” (p. 594). Grabe and Stoller (2001, p. 43) also assert that “arguments that L2 readers do not need knowledge of grammar, occasionally voiced in the L2 literature, are clearly wrong.” These scholars support the recent theoretical perspectives of reading research. Klauda and Guthrie (2008), and van Gelderen et al. (2004) emphasize the importance of syntactic parsing in reading comprehension.

In the context of JSL/JFL, such academic contemplations and empirical findings are lacking. However, one of the findings of Project One, i.e., the significantly higher comprehension scores of the simplified texts, is suggestive. The shortened sentences may not be as evidently an influential variable as the eased vocabulary items to enhance the participants’ reading comprehension. Nevertheless, it cannot be denied that the participants may have benefited by such syntactic simplification, as some of them explicitly welcomed it because parsing sentences of syntactically simplified sentences were easier than that of original sentences. Hence, employment of lexical simplification can be encouraged for learners of Japanese, and the efficacy of syntactic simplification, though with reservations, merits attention. Oversimplification in syntax, however, brings more problems than benefits even if appropriately-applied syntactic simplification is probably beneficial

for developing learners of Japanese who have not yet acquired automaticity in syntactic parsing.

6.1.7.2 Question 2: Do learners respond differently according to their proficiency levels?

The comments given during the exit interviews demonstrated that there were differences in reactions towards different text modification measures according to the participants' proficiency levels. (See section 6.1.6.4 for the findings from the participants' exit interview comments.)

First, whereas the simplified texts attracted favourable reaction from many of the participants, some of the very-advanced learners had reservations toward their increased performance with the simplified texts. They pointed out that they needed to read more demanding texts in order to expand their existing ability, ideally unmodified texts. Tabitha said that “the simplified one was very casual [she used ‘casual’ to mean ‘easy to understand, less demanding.’]...it might be a bit too easy if you try, and actually learn, and study.”

These very-advanced participants had reservations about some discrete modification measurements. Regarding *furigana*, Kim remarked, “I think no-*furigana* is probably better for learning, because with *furigana*, I tend to read *furigana* straight-away without reading *kanji*” (the researcher's translation of her comment given in Japanese). The third most capable participant, Andrew, asserted that he did not need modification support such as pop-ups. He assumed that he would learn new words more easily if he made an effort himself even though it was more time consuming. Two other very-advanced participants mentioned that they did not use key words much. These very-advanced participants tended to prefer to read original unmodified texts due to their belief that they had to read unmodified

texts to improve their ability. Therefore, they could neither welcome text modification unconditionally nor enjoy their good performance when they could see that a text was made easier. What Leow (1993) posits may support these very-advanced participants' views:

...simplifying written authentic material may not facilitate adult second language learners' intake of linguistic items in the input made available to them...It can be strongly argued that the use of authentic texts provides a more practical alternative to simplified texts. (p. 344)

Leow then claims that in the process of selecting authentic materials, careful consideration is needed in order to provide authentic materials in a duly developmental sequence. Examining and appropriately sequencing unmodified texts is no less hard work than creating well-written modified texts. Moreover, even if these learners are very-advanced, they are still not fully ready to read unmodified texts due to the additional difficulty incurred by the adverse difference of L1-L2 (English-Japanese) orthographies. As discussed in the previous section, the degree that learners of Japanese may benefit from modified texts should not be treated lightly because of this factor. Hence, it is more practical to seek a way to utilize modified texts even with very-advanced learners in the context of L2 Japanese reading instruction while taking into consideration some participants' wish to read unmodified texts.

Elaboration may give a solution to the urge of very-advanced learners of Japanese who are not ready to read unmodified texts. One of the strongest theoretical foundations proposed by advocates of elaboration is that elaboration tries to maintain the original linguistic properties so that learners do not miss an opportunity to get exposed to the unmodified language model. Pioneering

advocators of elaboration, Yano, Long and Ross (1994), criticise simplification because it deprives learners of learning opportunities:

Worse, removal of possibly unknown linguistic items from a text may facilitate comprehension but will simultaneously deny learners access to the items they need to learn. Linguistic simplification can be self-defeating to the extent that the purpose of a reading lesson is not the comprehension of a particular text, which learners are unlikely ever to encounter again outside the classroom, but the learning of the language in which the text is written and/or the development of transferable, non-text-specific, reading skills. (p. 191)

O'Donnell (2009, p. 512) similarly supports elaborative modifications as “pedagogic modifications that increase comprehensibility and vocabulary acquisition while preserving authentic text features.” Kim and Snow (2009, p. 133) imply a possible justification that elaboration may satisfy advanced learners, asserting that “both simplified and elaborative texts help students extract surface factual information, while elaborative text is more effective in promoting higher levels of understanding.”

There were many levels among the current participants in the way that they accepted the elaborated texts. Developing participants simply could not benefit from such texts because the lengthier sentences and longer text length gave them more cognitive burden. Such participants welcomed the simplified texts unconditionally. Relatively advanced participants managed to enjoy elaboration and engage with the content better. However, a few of the participants who had reached a higher level found elaboration somewhat redundant. Only if learners are advanced enough not to be disadvantaged by lengthier sentences and longer text length of elaborated texts, and only if learners are not too advanced to find elaborated texts unnatural or too wordy, “elaborative modification represents a feasible alternative to simplification” (Oh, 2001).

The differing reactions toward simplified and elaborated texts are one example of the participants' various reactions to different text modification measures. There were other participants who reacted otherwise. Albert was one of the highest advanced learners among the current participants. However, he showed a positive reaction toward the elaborated text and even the simplified text that was seemingly too easy for him. He cherished the flow of reading more than the other factors of reading. Thus, for him, the continuous reading process that these two modified texts provided was more important than exposure to the genuine language model. Albert knew that with his existing reading ability he was unable to read unmodified texts in an authentic way. How the participants reacted to the differently modified texts did not only depend on their proficiency levels but also depended on their perceptions of L2 reading.

While many of the participants showed different responses toward the simplified and elaborated texts according to their proficiency level, they presented a common tendency toward out-of-text modification measurements. Most of the participants found reading glosses distracting, and to a smaller extent pop-ups. Many of them described this with expressions such as 'breaking the flow of reading.' Rachel mentioned that she "really didn't like the gloss on the side. It was too hard to keep flipping backward and forward between the texts." Albert also claimed that he "didn't like the pop-up, because having to pop-up disrupts the flow." Quantitative findings obtained showed that the participants' comprehension scores of texts with a marginal gloss were significantly lower than those of simplified and elaborated texts.

Crow (1986) demonstrates concerns that interruptions caused by fix-up activities such as dictionary or glossary consultation to make up for comprehension failure can distort interaction between readers and texts. When reader-text

interaction is disrupted, there is not much likelihood of learners comprehending and enjoying a text. Although Nation (1983) mentions that the gloss “allows the reader to follow the text without too much interruption” (p. 97), many of the current participants found a marginal gloss distracting. Dee-Lucas and Larkin (1992) assert that “comprehension is a continuous process, and interruptions can be harmful” (cited in Rouet & Levonen, 1996, p. 15). Askildson (2011) also reports that lower-level learners use annotations more than they actually need and fail to use them as a useful aid to support comprehension. Hence, the fact that the majority of the current participants found the provision of glosses rather distracting casts a doubt in the efficacy of glosses when learners read for meaning.

The current findings have implications for future academic considerations regarding this issue. It is worthwhile examining further whether or not the language used in a gloss influences the degree of disruption caused by the provision of a gloss. Since this issue was not extensively investigated in the current project, nothing can be claimed here. Nevertheless, the following two participants’ comments confirm the need for seeking an answer to this issue.

Gloss in L2 hinders my reading processing. If a gloss is written in L1, it will not disturb my reading process so much. (Laura)

I think it’s good if it’s in Japanese. Because you keep thinking in Japanese, I guess... But if it’s a difficult word, it’s better to be explained in English than in Japanese. (Vanessa)

One of the pioneering studies in the field of glosses, Jacobs, Dufon and Hong (1994), examine the participants’ preference according to the language used in a gloss. They report that 47 % of their participants preferred English glosses (glosses written in an L1) whereas 52% did so Spanish (glosses written in an L2) if the definitions were comprehensible. Only 1% chose the Spanish gloss (L2 gloss) unconditionally. It is

of empirical interest to investigate whether or not such preference has relation with the degree of disruption. (See Table 4.1 for inconsistent research findings of previous gloss studies.)

6.1.7.3 Question 3: How do learners' affective factors change according to the differently modified texts?

To answer this question, the argument in the previous section can be reinterpreted. The majority of the participants, in particular the less proficient participants, seemed to prefer the texts that they could comprehend better, whereas the minority group, i.e., the very-advanced participants, seemed to hold reservations towards their increased comprehension facilitated by the modified texts. In other words, affective factors of the less proficient participants were more straightforward. It seems that when the less proficient participants could understand a text, their affective filters tended to be lowered. But the very-advanced participants' affective factors revealed their complexity. Even if they had understood a modified text very well, they did not necessarily appreciate it wholeheartedly as has been reported. They often mentioned that 'it would not be good for learning.' Thus, with very-advanced learners, higher comprehension does not unconditionally mean a lower affective filter. Lotherington-Woloszyn (1992, p. 464) confirms that "what is considered to be easy to read is, evidently, not necessarily preferable." One of her participants commented that "if you understand right away, you know, you're going to be, you need more challenging." This is an echo of what the very-advanced participants in the current project said. When reading the simplified text, Andrew said as follows:

There weren't many *kanji* words and it was sort of fun to be able to read it in under two minutes. But, I found out that this was not natural Japanese, so, somewhat, I couldn't feel I tried hard. It made me feel a bit mortified

because it made me realize that I am good at Japanese for a foreigner but not yet very good compared to native Japanese. (Andrew, the researcher's translation of his comment given in Japanese)

This complex affective structure held by some of the very-advanced participants is a significant issue to JSL/JFL reading pedagogues. Nevertheless, a few common changes in affective factors among the majority of the participants created by the modified texts merit our attention. Many of the participants expressed their feelings of defeat when reading the unmodified texts. Even capable Julia lamented:

The unmodified one was hard to concentrate on as I did not know many words. I sort of lost track at some points trying to figure out the meaning of the unknown words while trying to continue reading it. (Julia)

It is needless to say that the less proficient participants felt very demotivated when reading the unmodified texts. For example, one of the least capable learners, Caleb, made apologetic remarks such as “some of the *kanji* are really long” and “there is not much I can talk about it” during reading the unmodified text. He apparently lacked automaticity of lower processing skills with the unmodified text due to its lexical and syntactic difficulty. However, he expressed regained confidence and enjoyment of reading with the simplified text. His free-recall protocol of the simplified text was full of comments which indicated deep engagement with the content. It is safe to conclude that the modified texts can reduce developing L2 Japanese learners' reading anxiety and boost their confidence.

The length of a text affected the current participants to some degrees. Peter said that “longer ones are harder to remember. I lose motivation when text (sic) is too long.” Vanessa similarly said, “I lose concentration or interest if it's long.” Related to this issue, Leow (1997, p. 160) found “a significant main effect for text

length [on L2 learners' comprehension], no significant main effect for input enhancement, and no significant interaction between input enhancement and text length." The findings of his study are inconsistent with those of Project One in the respect that they do not corroborate the effects of input enhancement on readers' comprehension. Nevertheless, the fact that the length of a text affects learners' comprehension is of great relevance to the current context. As mentioned above, the developing participants' responses in cognitive and affective aspects tended to be straightforward. When they comprehended a text better, their affective reaction was more positive. Thus, we can extrapolate that if a shorter text enhances readers' comprehension, such a text is likely to lower the affective filters of some developing learners. We can assume that some participants' affective factors were negatively affected by the lengthier elaborated texts while they were positively influenced by the shorter simplified texts.

Question three is related to the participants' affective changes when they read different texts in terms of text modification. For this question, the 5-scale questionnaire answers about familiarity, self-perceived understanding and level of interest of the texts provide some meaningful findings.

First, the participants found the content of the texts significantly less familiar when reading the unmodified texts, compared to when reading the simplified texts ($p=.015$). The topics of the texts were of course more influential on this factor. Nevertheless, regardless of the topic, the current participants thought that they were more familiar with the content when they read the simplified texts. Thus, the simplified texts may have appeared more accessible to these participants.

Secondly, the participants' self-perceived understanding was significantly lower when they read the unmodified texts compared to when they read the modified

texts, whereas it was significantly higher when they read the simplified texts compared to when they read either the unmodified or the other modified texts. This result indicates that the simplified texts surely boosted the participants' confidence, as Albert expressed during the exit interview. This result is consistent with what practitioners of Japanese extensive reading have reported (the Japanese *Tadoku* Research Group, 2012): the reduced difficulty of easy reading materials enhances learners' confidence and motivation. In contrast, the participants' self-perceived understanding was rather low with the elaborated texts (see section 6.1.3.2) even though their actual free-recall and comprehension scores of these texts were the second best following those of the simplified texts. This is one implication that elaborated texts need to be used with caution since such texts are not necessarily perceived easy by learners of Japanese unanimously.

Thirdly, the level of interest reported by the participants differed significantly only by topic. As argued in section 3.4.4, interestingness and motivation are not always in tandem. While text modification may provide motivating texts, attractive topics are indispensable to make such texts interesting as well. In the current study, Topics AS and GR were perceived to be more familiar than the other three topics and they produced better scores in the two reading tasks. These two topics are memoirs whereas the other three topics are more information-oriented. There may be generally accessible and attractive topics for beginning L2 learners. If accumulative reading records about what beginning L2 learners tend to read and enjoy can be obtained from existing extensive reading projects in future, that will be valuable information for scholars, practitioners and writers of GRs in terms of their future topic selection.

6.1.7.4 Question 4: Which do learners prefer, hard copy reading or computerised reading?

Regardless of proficiency levels, the overwhelming majority of the participants responded more favourably to paper reading than they did to computerised reading. This difference does not come from either the participants' proficiency levels or the difference of text modification measures, but mainly comes from the fact that the current participants maintain traditional attitudes and perceptions toward reading media. Many of the participants said that they preferred hard copy reading to computerised reading because 'they could scribble on paper,' 'they liked the feel of paper,' 'they could locate a particular content better on paper,' and 'paper was more gentle on their eyes.' This phenomenon is correspondent with the findings of Project Two (See sections 6.1.6.4.4. & 6.2.3.2).

An inherent shortcoming of the texts with pop-ups on a computer screen, and more generally, the online annotated texts has to be considered carefully. Roby (1999) warns that learners' excessive looking-up of online annotations should be discouraged. He terms such a learner's behaviour as "click happy behavior" (p. 98). Due to the easy access of online annotations including pop-up definitions, some learners tend to over-use or over-rely on those reading aids. As analysed above in section 6.1.5, the participants were not efficient when reading the text with pop-ups on a computer screen, compared to when reading the other modified texts. Bruce said, "pop-up is enjoyable." It is important for learners to find L2 reading enjoyable. However, if Bruce was excessively attracted by the easy access and novelty of pop-ups, the provision of pop-ups may have been counterproductive. A few participants, who probably indulged in click happy behaviour, mentioned that they opened all pop-ups even though they knew some of the words thus annotated. Bowles (2004, p.

541) states that “there was no significant difference between the computer and paper-and-pen groups on any of the three measures” of “(1) amount of reported noticing of targeted vocabulary, (2) text comprehension, and (3) acquisition of the targeted vocabulary.” Taking into consideration the possible inefficiency claimed by Project One, and the not-higher benefits of computerised reading proven by Bowles, as well as the general preference for paper reading shown by the current participants, the pedagogical validity of computerised reading with online annotations requires thorough testing in future.

6.1.8 Overall discussions of the findings obtained from Project One

The findings of Project One overall endorse the efficacy of text modification in the context of tertiary level JFL reading instruction. Among the three text modification measures categorized in this study, i.e., simplification, elaboration and easification, simplification seems to play a big role for developing learners of Japanese. In Project One, simplification enhanced the elementary-to-intermediate-level participants’ comprehension and lowered their affective filters. It should be noted that some of the similar studies in the L1-L2 cognate contexts have not shown such a clear superiority of comprehension from the modified texts as Project One did (e.g., Blau, 1982; Brown, 1987; Keshavarz, Atai, & Ahmadi, 2007; Leow, 1993; Lotherington-Woloszyn, 1992, 1993; Oh, 2001; Parker & Chaudron, 1987; Tsang Wai King, 1987; Tweissi, 1998; Yano, Long, & Ross, 1994; Young, 1999). Therefore, the current findings imply that when learners’ L1 and L2 are not cognate and they use different orthographic systems, the positive effects of simplification may be greater than those in a context where learners’ L1 and L2 are cognate and share orthographic systems. In short, the findings obtained prove that what Cramer (2005, p. 11) asserts is true with developing participants at least: “simplification

cannot be generalized as being mind-numbingly easy texts. Simplified materials can be cognitively demanding depending on the difficulty of the text and the language skills of the reader.”

Nevertheless, writers of L2 Japanese reading texts should remind themselves of Lotherington-Woloszyn’s (1992) warning:

A lack of contextual redundancy, created through the simplification strategy of cutting redundant information, in fact exacerbated students’ comprehension problems. Less text, it was found, did not necessarily mean easier reading. (p. 465)

The qualitative data obtained from Project One (sections 6.1.6.3 & 6.1.6.4) shed light on elaboration as a vital alternative for more capable learners. Learners do not miss opportunities to get exposed to genuine language models with elaboration, which may satisfy an urge held by very-advanced learners who feel that they should read challenging texts, ideally unmodified texts. Because it normally takes many years for learners of Japanese to be capable of reading unmodified texts unassisted, elaborated texts can provide a vital contribution in the higher level of JSL/JFL reading instruction.

Due to its relatively small sample size and its experimental design (See section 5.1.4.6 for Latin Square design), Project One could not investigate quantitatively the difference in response toward different text modification measures according to learners’ proficiency level. Tsang Wai King’s (1987) study, in the context of L1 Cantonese-L2 English, quantitatively demonstrates that different text modification affects learners’ reading comprehension differently according to the proficiency level of students. In the context of JSL/JFL, similar quantitative studies such as that of Tsang Wai King are required in future.

Common reactions were exhibited by the current participants irrespective of their proficiency levels. They were ‘overwhelming preference for paper reading,’ ‘disapproval of glosses due to its disrupting nature,’ ‘re-discovered difficulty of unmodified Japanese texts,’ and ‘less efficiency of reading on a computer screen.’ Another common reaction detected among almost all of the participants was ‘favourable response toward the provision of key words at the beginning of a text.’ (See section 5.1.7.4 for key word provision in the texts used in Project One.) The participants commented that they did not ruin the excitement of an unwrapped story, but gave them a “roadmap” (Charrow, 1988, p. 97) for the direction of reading. Even if a couple of the very-advanced participants did not use this reading aid, they did not mind it. That is probably because these key words were not distracting like a marginal gloss placed right next to the main body of a text. Participants who did not feel the need to use the key words simply ignored them and embarked on reading.

It has to be noted that this key word provision may have contributed to gaining clearly higher comprehension scores for the modified texts in the current project. Thus, the key word provision at the beginning of a text merits attention. The concept of this key word provision is supported by Charrow (1988) and Williams and Dallas (1984). Charrow finds that provision of a boxed notice at the top in an experimentally prepared recall letter “helps provide a context” (p. 97) for readers. Williams and Dallas recommend such a reading aid as a good tool to enhance learners’ vocabulary learning. More recently, Hill (2008, p. 192) implies the need to provide L2 learners with reading aids, by criticizing editors of English GRs for doing “very little to help learners understand the texts.” He further comments that “whether they [editors] feel it is unnecessary, patronizing, or off-putting is not clear,

but given the unfavourable cultural and educational environment, their policy seems rash, even suicidal” (ibid., p. 192).

In the current project, the participants mentioned that key word provision, a type of reading aid, gave them assurance that they were on the right track while reading. Future studies in the context of JSL/JFL may determine the effect of the provision of key words on vocabulary learning and reading comprehension in a quantitative approach. If its validity is ensured empirically, it should be treated as an important support device in modified reading materials for L2 Japanese learners. It does not disturb the continuous flow of reading and probably gives a selective vocabulary learning opportunity. That is to say, if a limited number of unknown words are successfully provided as crucial key words, readers may be able to acquire such words without too much cognitive burden. “Essentially, vocabulary learning from extensive reading is fragile” (Nation, 1997, p. 15) and learning through extensive reading requires long-term commitment (also, Waring & Takaki, 2003, for fragility of vocabulary learning through extensive reading). When learners know this fact, they probably do not seek to learn many new words instantly from extensive reading in which they read large quantities of modified and/or specially written texts over a long period of time. However, it is a norm that L2 learners usually wish to learn something new when they engage in L2 reading. Therefore, if the provision of key words at the beginning of a modified text can give such a small but satisfactory vocabulary learning opportunity while maintaining the natural reading process, as well as presenting a framework of the content to guide less proficient learners, the device deserves consideration.

In addition to the aforementioned issues, there are other findings which need to be accounted for: influence of rhetorical organization knowledge and background

knowledge, effects of ambiguity of noun plurality and absence of pronoun gender, efficacy of *furigana* provision and *katakana* synonym replacements. It is beyond the scope of the current thesis to address all these issues in detail. However, these issues still merit brief attention here because they all impact on reading comprehension.

A lack of background knowledge and rhetorical organization knowledge negatively affected the current participants' understanding of some texts. Texts with Topics AS and GT caused increased difficulty since the two texts had traditional Japanese rhetorical organization, which implies that more drastic text modification such as re-organizing text structures is necessary when Japanese texts follow its traditional rhetorical organization. As Jensen (1987) observes, traditionally there are differences between the Western and Eastern rhetoric (also, Maynard, 1998). Tateoka's (1996) study demonstrates that L2 Japanese learners experienced difficulty in comprehension when reading a text with traditional Japanese rhetorical organization. Along with drastic text modification measures, explicit guidance in rhetorical organization is necessary for L2 learners not to be misguided by unexpected text developments. However, such guidance has to be updated, since the rhetorical organization of some contemporary Japanese texts appears to be closer to that of Western texts (Sasaki, 2001).

Background knowledge has great importance for reading comprehension. However, this issue needs extensive consideration and is far beyond the scope of this thesis. Tentatively, taking into consideration that Pulido (2004) and Lee (2007) empirically claim that background knowledge and topic familiarity enhance learners' comprehension, it can be suggested that careful selection of the topic eases difficulty of texts. If texts with universally common topics are given to L2 learners, they are likely to be understood better than texts with culturally and/or disciplinary specific

topics. In terms of how much text modification reduces the disadvantages faced by learners who lack necessary background knowledge, the current findings indicate that key words managed to provide some background information whereas the facilitative roles of content elaboration (a few sentences placed at the beginning of elaborated texts) was not clear.

In order to solve the ambiguity caused by the absence of singularity/plurality in nouns as well as the absence of gender specification in pronouns, advance organizers (Ausubel, 1960, in the context of Japanese reading, Omura, 2001) which specify the gender of a narrator and/or personae and the number of personae in a story when necessary can be used. (See section 5.1.7.7 for advance organizers.) One of the participants, Kim, welcomed a few-sentence-long advance organizer in elaborated texts. The investigation how much this device can reduce such ambiguity as well as the disadvantages caused by lack of cultural/ background knowledge is of empirical interest in future.

The current findings indicate that not-well-selected *furigana* provision and *katakana* synonym replacement are neither effective nor motivating. The criteria based on the levels of the JLPT were employed to determine when *furigana* was attached and what type of words were targets of *katakana* synonym replacement. However, this selection process was not fine-tuned due to a lack of precise vocabulary-level assessment procedures. A more systematic approach is required for these methods to create beneficial effects. That is to say, publishers and writers of Japanese GRs need to set the criteria of *kanji* which are supported by *furigana* and the criteria of *katakana* vocabulary which replace lower-frequency *kanji* words along with reliable vocabulary-level assessment methods. In the context of JSL/JFL, assessment methods to determine learners' vocabulary levels are yet to be

established. Therefore, it is even more difficult to determine which *kanji* learners can correctly read and what *katakana* words they know. Hence, vocabulary studies of this aspect would be beneficial.

As has been seen above, the findings of Project One provide implications regarding L2 Japanese learners' cognitive and affective aspects towards text modification. Although there are 150 readings conducted in the project, its sample size for quantitative analysis is relatively small (N=30). Hence, Project Two aims to confirm some of the findings obtained by Project One with a larger sample size using a questionnaire survey.

6.2 Project Two

6.2.1 The content of Project Two

Project Two is a questionnaire survey consisting of four sections. Its aim was to examine whether or not a similar tendency to that examined among the participants of Project One could be detected with a larger sample-size (N=51²²). Section A asked the respondents' learning history, reading habits, desire for mastery of L2 reading and preference between hard copy reading and computerised reading. Section B asked the respondents to rate eight factors in terms of the influence on text difficulty. Section C asked the respondents to read a short Japanese passage (unmodified) and circle parts which were difficult for them to understand. Section C also asked them to provide comments about what caused the difficulties in the passage. Section D asked the respondents to read three short passages which were three differently modified versions of the original text read by them in Section C. These were a simplified version, an elaborated version and an easified version (a version with a marginal gloss). Then the respondents answered which was the

²² Eleven students participated in both of Projects One and Two.

easiest/most difficult version and why it was so. (See sections 5.2.4.1 to 5.2.4.4 for the details of each section. Also, see Appendix 10 for the actual questionnaire used.)

The research questions of Project Two are as follows:

1. How does a larger sample-size of students perceive an unmodified text and its three differently modified versions, i.e., a simplified text, an elaborated text and an easified?
2. Do they display a preference between hard copy reading and computerised reading?

6.2.2 Overall results of Project Two

Overall results of the questionnaire survey are presented in Tables 6.15, 6.16, 6.17, 6.18 and 6.19 for sections A, B, C and D respectively below. In order to make a comparison between the two classes which joined this survey, the results of each class are provided separately. Class 2 is a second year class and its target level is lower intermediate whereas Class 3 is a third year class and its target level is upper intermediate.

The results of this questionnaire survey largely confirm the findings obtained by Project One. Furthermore, an emergent picture of students' perceptions toward Japanese reading and their reading habits clarifies the ways in which modified texts may enhance comprehensibility of Japanese texts for these learners and increase their L2 reading motivation.

In general, differences between the students in the two classes can be found in the respects such as the students from Class 3 have studied longer, they self-rate their proficiency level higher, and they read more outside of the class time. At the same time, the students from both classes are similar in the following aspects: their

eagerness to improve their reading abilities, their preference for hard copy reading over computerised reading, their high valuation of simplification, and failure to notice appositive lexical elaboration.

Table 6.15. General results of Section A of Project Two

Section A: General questions	Second Year Class (Class 2, N=28)	Third Year Class (Class 3, N=23)
(1) Average study length (years)	4.43	5.63
(2) Average self-rated proficiency level	Majority response : lower intermediate	Majority response : lower or upper intermediate
(3) Do you read Japanese texts outside of the class time?	Yes 21% / No 79%	Yes 59% / No 41 %
(4) Do you want to improve Japanese reading abilities? If so, why?	Yes 100% (Reasons' category) 61% → intrinsic or integrative motivation 39% → extrinsic motivation	Yes 100% (Reason's category) 60% → intrinsic or integrative motivation 40% → extrinsic motivation
(5) Preference of reading – Hard copy or PC?	Hard copy 79% / PC 21%	Hard copy 82% / PC 18 %

6.2.3 Answers to specific questions

In the following sections, the results of analysis of some questions in the questionnaire are provided in detail.

6.2.3.1 Section A: Questions 3 and 4

Do you read Japanese texts outside of the class time?’ and ‘Do you want to improve Japanese reading abilities?’

While slightly more than half of the students in Class 3 (59%) read outside of the classroom time, the students from the current two classes did not spend much time on reading in Japanese in their own free time: only 21% students of Class 2 said that they read in Japanese outside of the classroom time. One student who reported that he/she had passed Level 2 of the former JLPT said that he/she read

materials about Japanese culture for two hours per week. A few students mentioned that they read short novels. However, the contents of the other students' reading materials were in general very limited to texts such as website blogs, children's books, emails, Facebook chats, food magazines and subtitles in video games. Many of the students who carried out reading in their own free time read '*manga*,' i.e., Japanese comic books.

Despite their low engagement rate in voluntary reading outside the classroom, all of the students who participated in this survey expressed their wish to improve their reading abilities in Japanese. It was anticipated that some students would only value improvement of their spoken Japanese. However, only one student responded in such a way and the overwhelming majority of the participating students appeared to value the importance of reading capability. Some of the reasons they gave for wanting to enhance their reading abilities are extrinsic-oriented:

- better grades, and better able to work in Japan.
- I would like to pursue a career related to Japanese.
- to sit for JLPT Level One.
- Because I want to teach Japanese, I want to be able to read a Japanese newspaper.

On the other hand, a larger proportion of the responses demonstrated the respondents' intrinsic motivation, many of which were rather vague.

- may be useful one day.
- to be fluent.
- because it is an important part of language.
- It is good to learn more languages.

At the same time, fewer students provided purely integrative motivation for their desire to master L2 Japanese reading:

- I can go to Japan and understand Japanese culture better.

- so that I can communicate with my Japanese friends in their language and will be able to when I go to Japan in future.

The general tendency of these respondents can be drawn from questions three and four, i.e., *‘Do you read Japanese texts outside of the class time?’* and *‘Do you want to improve Japanese reading abilities?’* That is, the respondents want to improve L2 Japanese reading skills. Nevertheless, they do not spend much time on reading in Japanese outside classroom hours. When they do, they tend to engage in mainly “light reading” (Krashen, 1988, p. 288) such as comic reading, or “lighter reading” (ibid. p.288) such as reading of emails and online chats.

6.2.3.2 Section A: Question 5

‘Which do you prefer, reading a hard-copy Japanese text or a Japanese text on a computer screen?’

Another potential cause for the current respondents not to read much outside class may be their lack of free time. Robb (2002, p. 146) suggests that “the priorities of the students favour extracurricular activities, such as, part-time jobs, clubs and social life, over learning” in Asian countries. Although the current context is not Asia but New Zealand, the life of university students in New Zealand is not less busy than that of Asian university students. The typical university student in New Zealand similarly takes part in numerous extracurricular activities such as working part-time.

Anecdotally, one of the things chosen as their preferred free time activities is ‘staying online.’ In the previous section, a few respondents commented that they read Japanese blogs, emails and Facebook chats. But why has such computerised reading not become more prevalent as a form of more meaningful L2 Japanese

reading? An answer to this emerging question can be found in responses to Question 5.

Responses to this question from both classes are in perfect accord, and they also agree with what the participants of Project One suggested. That is, the overwhelming majority of the respondents preferred hard-copy reading to reading on a computer screen. The respondents' reasons included:

- It's easier to read from paper.
- I can write notes on hard copy.
- nicer feelings such as following fingers, an authentic feel, preference of books, etc.
- Hard copy is more gentle (sic) on the eyes.
- I can't concentrate well on computer texts.

Computer technology has made remarkable progress in recent years and the current respondents have available to them advanced technology such as e-books. Nevertheless, the aforementioned responses by the current respondents indicate that some problems mentioned in the earlier literature remain. For example, many of the current respondents pointed out that reading on a computer screen hurt their eyes. This was echoed by many of the participants in Project One. Among the earlier literature, Dillon (1992) comments regarding fatigue caused by computerised reading as follows:

The proliferation of information technology has traditionally brought with it fears of harmful or negative side-effects for users who spend a lot of time in front of a VDU [visual display unit]... In the area of screen reading this has manifested itself in speculation of increased visual fatigue and/or eyestrain when reading from screens as opposed to paper. (p. 1302)

In his conclusion, however, Dillon predicts that "as screen standards increase over time this problem should be minimized" (p. 1302). It does seem that such a problem has not yet been minimized. The current learners experience the same problems,

notwithstanding developments in screen standards over the last two decades. Furthermore, what Dillon reports as reasons for students' preferences for paper reading are still shared by the participants and respondents of Projects One and Two (See section 6.1.6.4.4 for the findings of Project One for this issue). Dillon claims that those reasons are "common-sense variables" including portability, cheapness, naturalness, and ease of usage which paper reading can offer (p. 1304). More recently, the findings of Tseng's (2010, p. 96) study support this argument: "students disliked reading from computer screens... The major difficulties included eyestrain, inability to take notes or underline text, and skipping lines when reading hypertext on computer screens". Ramírez Leyva's (2003) study also finds that much more than half of the participants find printed texts easier to understand and thus almost 80% of participants prefer to read printed texts.

A minority of the respondents chose a computer screen as their preferred reading medium. The dominant reason for their choice is the availability of online reading aids. In particular, reading supports for unknown vocabulary and *kanji* characters are welcomed. A couple of the respondents mentioned that being able to copy and paste unfamiliar *kanji* onto an online dictionary was useful. One respondent pointed out that it was easy to search reading materials fast and another mentioned that it was easier to find interesting articles online. In short, when students prefer computerised reading to paper reading, the main reason for their preference is to benefit from online digital reading aids. This result is also correspondent with those of Project One.

6.2.3.3 Section B – The differing influence of text variables

Section B of the questionnaire asked the respondents' opinions about what factors affected the difficulty of reading a Japanese text. The results are provided in

Table 6.16 below. (See section 5.1.7.2's 'Perceived difficulty of texts' & 'Rationale of eight variables' as well as Appendix 5-2 for the eight variables discussed in this section.)

Table 6.16. The variables which affect the difficulty of texts

Section B: Factors that affect the difficulty of reading	Mean of the 31 participants of Project One	Mean of Class 2	Mean of Class 3	Mean of the three groups indicated left
Type of text	3.2*	2.9	3.0	3.03
Coherence	2.96	2.96	3.08	3.0
Abstractness	2.48	2.5	2.6	2.52
Sentence length	2.26	2.6	2.59	2.48
Proportion of <i>kanji</i>	3.17	3.28	2.91	3.12
Text length	1.92	2.07	2.0	1.99
Content familiarity	2.76	2.78	2.91	2.81
Interest	2.78	2.28	3.04	2.7

*Note: In this section, the respondents ranked each factor's degree of influence on the difficulty of Japanese texts on a four-scale Likert scale: 1. very little, 2. somewhat, 3. quite a lot, 4. a lot.

The degree of influence of the eight factors affecting difficulty of a text was as follows:

Proportion of *kanji* > Type of text > Coherence > Content familiarity >
Interest > Abstractness > Sentence length > Text length

The particularly distinctive finding related to section B was that there was a large disparity in the answers of Class 2 and Class 3 on 'proportion of *kanji*' and 'interest.' Regarding 'proportion of *kanji*,' the respondents from Class 2 rated it much higher as a factor that made a text difficult than did those from Class 3. On the other hand, the result was reversed for the factor of 'interest.' Lower class respondents, i.e., less proficient readers, rated 'interest' much less than higher class respondents, i.e., more proficient readers.

This result can be understood from learners' developmental stages. The respondents from Class 2 had probably not yet gained fluency in bottom-up processing. On the other hand, the respondents from Class 3 may be able to allocate their cognitive capacity more to higher order processing such as inferencing implicit messages and integrating textual content with their background knowledge. Investigating how university-level students of Japanese read target texts, Everson and Kuriya (1998) similarly reported that the activation of higher-order strategies was detected only among the advanced-level participants, not among lower-level participants who still struggled in lower-level processing. Probably Everson and Kuriya's findings explain the fact that the more-advanced students in the current questionnaire survey more clearly evaluated textual factors such as 'interest' and 'type of text' as more influential determinant factors of text difficulty than less proficient students.

Overall, the respondents did not rate sentence length as a factor influencing the difficulty of text processing, while they often mentioned that the shorter sentences in a simplified text provided in Section D were easier to understand than the original lengthier sentences and/or elaborated sentences. The same phenomenon was observed in Project One. 'Sentence length' may be a hidden influential factor compared to the most distinctive factor, 'proportion of *kanji*.' The comment by the learner of Japanese who pilot-tested the questionnaire succinctly illustrated this issue, and two of the respondents circled this example comment to indicate that they completely agreed with it. The comment states that "[I] could not understand what the article was about AT ALL because I couldn't read the crucial *kanji* –characters. The level of grammar had no effect because I could not understand what it was saying anyway." (Uppercase emphasis is in the original.) This can be one indication

that when students are predominantly occupied with processing unknown *kanji*, such students cannot evaluate syntactic difficulty/simplicity. However, when a text provides them with easier lexical items and simpler syntactic structures, they can appreciate that not only ease of lexical items but also syntactic simplicity serve to decrease the cognitive burden of reading processes. That L2 learners perceive ‘vocabulary problems’ as the biggest obstacle in L2 reading has been reported by some researchers (e.g, Chall, 1987; Graves, 2006; Uljin & Strother, 1990; Yorio, 1971). Thus, the question of whether or not L2 learners can accurately detect not only vocabulary difficulty but also syntactic difficulty of a given text merits discussion and contemplation in the context of JFL reading.

To summarise, the respondents’ responses for Section B indicated that *kanji* factors were the most influential in determining the difficulty of Japanese texts from learners’ perspectives.

6.2.3.4 Section C – Students’ reactions regarding an unmodified short Japanese text

In Section C, the questionnaire asked the respondents to read a short unmodified Japanese text, circle any part which they found difficult to understand, and provide comments (See Appendix 10.2 for the actual question). The overwhelming majority of comments concerned *kanji* in the text. Twenty-six out of 28 comments in Class 2 and 18 out of 20 comments in Class 3 were about *kanji*.

Examples are:

- Not knowing *kanji* breaks the flow in reading.
- Too many unfamiliar *kanji* which distracts from the meaning of the text. I do not understand it.
- Most of the *kanji* were foreign to me, which made the rest of the text unreadable.

Whereas almost all the respondents mentioned that *kanji* made the given text difficult, there were a few respondents who pointed out syntactic aspects of the text:

- Too long and complex, 2 (sic) find long sentences hard to follow
- Had difficulty with a lot of the *kanji* and some sentence structures

Table 6.17. The respondents' reactions toward the unmodified text

Section C: Reading an unmodified short Japanese text.		
	Class 2	Class 3
Average number of circled words/phrases as 'difficult to understand.'	11 out of 47 content words (23%)	7.4 out of 47 content words (16%)
<ul style="list-style-type: none"> • The largest number of items circled by one respondent is 20, almost half of the words in the text. • A few respondents circled one phrase: “体を伸ばして眠りたい.” (I want to stretch out [my body] and sleep.) 		

The text used in Section C, i.e., an unmodified online newspaper article, was apparently too demanding for most of the current respondents in terms of lexical aspects. There were a couple of students in Class 3 who said that they could get the gist of the story even though numerous unfamiliar *kanji* rendered the reading process difficult. Thus, it can be seen that these few advanced students have probably developed reading skills such as guessing from contextual cues over several years of their L2 studying. However, the number of such students was very low and the majority of the same Class 3 still claimed that there were too many unfamiliar *kanji* in this text so that they could not get the gist of it. The linguistic features of the text used in Section C and its three versions modified for Section D are provided in Table 6.18 below. There are patterns among these texts that are in common with those detected among other unmodified and simplified/elaborated texts: simplified texts have the shortest sentences, elaborated texts have the longest sentences, unmodified texts have the biggest proportion of *kanji* characters whereas simplified

and elaborated texts have fewer *kanji* characters, and the proportion of *hiragana* is opposite.

Table 6.18. Linguistic features of the text used in Section C and its three modified versions used in Section D

(Notice that only the first paragraph of the text used in Section C was used in Section D. Therefore, the linguistic features of the original text contain only the equivalent part.)

	Original (SectionC) + Marginal gloss (SectionD)	Simplified (SectionD)	Elaborated (SectionD)
Numbers of characters/letters	139	211	233
Numbers of words	57	80	99
Numbers of sentences	4	7	6
Numbers of paragraphs	1	1	1
Average sentence numbers per passage	4	7	6
Average character numbers per sentence	34.7	30.1	38.8
Proportion of <i>kanji</i> characters (%)	31	22	23
Proportion of <i>hiragana</i> syllabary (%)	45	52	51
Proportion of <i>katakana</i> syllabary (%)	20	24	23
Proportion of alphabet letters (%)	2	1	1

6.2.3.5 Section D – Students’ judgements of the three differently modified texts

Section D of the questionnaire asked the respondents to read three modified versions of the text given in Section C. Only the first paragraph of the original text was used to construct the three versions in order to keep the questionnaire administering time manageable. The three versions were a simplified version, an elaborated version and an easified version (a version with a marginal gloss). The respondents selected the easiest one and the most difficult one. They also gave the reasons for their selection. The results are presented in Table 6.19 below.

Table 6.19. The respondents’ judgements of the three modified versions

Section D: What is the easiest/most difficult text?				
	Class 2		Class 3	
Easiest modified text	Simplification	→ 66%	Simplification	→ 61%
	Elaboration	→ 9%	Elaboration	→ 9%
	Marginal gloss	→ 25%	Marginal gloss	→ 30%
Most difficult modified text	Simplification	→ 11%	Simplification	→ 13%
	Elaboration	→ 63%	Elaboration	→ 61%
	Marginal gloss	→ 26%	Marginal gloss	→ 26%

6.2.3.6 Section D – Students’ choice of the easiest text

The responses to this question from the two classes agree well. The respondents from both classes chose a simplified text as the easiest one (more than 60% of the students of both classes). The reasons for their choice of a simplified version include:

- shorter, less complicated, easy to read the format
- Japanese grammar was simplest.
- I was familiar with the grammar structures and vocabulary, wasn’t a lot of difficult *kanji*
- easier vocab and language, less unknown *kanji*.

Although the current respondents gave a low ranking to ‘Sentence length’ in Section B as an influential determiner for text difficulty, they noticed/welcomed shorter sentences and simpler sentence structures in the simplified version in Section D. In addition to the respondents’ showing recognition of simpler sentence structures, a few students welcomed a shorter passage length: “this is the most concise, still flowed well...,” “the whole paragraph looks shorter...”

Only four respondents out of the total of 51 supported an elaborated version as the easiest. It is noteworthy that these four respondents were first able to recognize ‘appositive lexical elaboration’ in order to welcome and utilize it to better interact with the given elaborated text (see section 5.1.7.7 for appositive lexical

elaboration). On the other hand, the majority of the current respondents failed to recognize ‘appositive lexical elaboration.’ Thus, elaborated sentences to them appeared to be merely lengthy complex sentences. Two of the four respondents who succeeded in detecting appositive lexical elaboration, on the other hand, commented as follows:

“It has short explanations of words that describe what it means straight after, which is easy to read and understand.”

“Ideas are re-stated and made very clear. ‘*tsu-ma-ri*’ is helpful.” [‘*tsu-ma-ri*’ means ‘that is.’ This signal word was also used in appositive lexical elaboration in Project One.]

The fact that these two respondents managed to recognize lexical elaboration starting with the signal ‘*tsumari*’ is noteworthy. While the meaning of ‘*tsumari*’ was given in the key word section in the elaborated texts used in Project One, there was no such clear indication regarding the use of this signal in the short elaborated passage in Section D of Project Two. Therefore, there was nothing that drew the attention of the respondents to this signal. Investigating their learning experiences revealed that the respondent who provided the first comment above had been studying Japanese for three years and he/she self-judged his/her proficiency level as lower intermediate. On the other hand, the respondent who presented the second comment had been studying Japanese for nine years and he/she did not comment about his/her proficiency level. It can be guessed that the second learner had probably nurtured advanced reading skills which enabled him/her to notice an opaque text modification technique. However, taking into consideration that the other much more experienced learners in the current project failed to detect such a subtle text modification, the not-so-experienced first respondent’s appreciation of appositive lexical elaboration surprised the researcher.

The other two respondents' reasons for their choice of the elaborated text were:

“It flowed and I could infer meaning from context. I probably understood Version 3 [a text with a marginal glossary] the best, but it was disjointed.”

“[an elaborated version] has a sequence to follow.”

For these two respondents, the elaborated text constructed by the researcher was successful in terms of textual flow.

A quarter to one-third of the respondents found a version with a marginal gloss the easiest. The reason for their judgement was that difficult words were explicitly explained.

- It has the difficult vocab underlined and the meanings next to the text.
- The definition for words I didn't understand was present.
- has explanation for words/phrases

It should be noted that three respondents mentioned that the sentence structure of the text with a marginal gloss was simple. Given this response, the comments regarding the original version were re-examined, since the wordings and sentence structures were the same in both the version with a marginal gloss and the original version. There was only one comment which indicated that the respondent had difficulty with the grammar structure of the original version. From this it can be inferred that the original text was not beyond the level of the current respondents in terms of syntactic characteristics, or that the sheer difficulty of *kanji* contained in the original text made potential problematic issues of syntactic structures less noticeable.

6.2.3.7 Section D – Students’ choice of the most difficult text

In the end, the two classes demonstrated identical patterns in response to the last question on the questionnaire, i.e., ‘*What is the most difficult version among the three texts?*’

More than 60% of the respondents from both classes judged that an elaborated version was the most difficult one. The reasons for their choice include:

- long, complex structure
- had grammar structures I was not familiar with
- still a lot of difficult *kanji*. Writing *hiragana* on top doesn’t help to understand them.
- *kanji*/vocab were not explained

One respondent said, “too many words squashed into a sentence.” It is noteworthy that many respondents provided comments about syntactic structures. This result illustrates that elaborated sentences were beyond the current proficiency level of these respondents. On the other hand, syntactic characteristics in the original version appear to have been within the ability of the majority of the current respondents.

Among the other comments are many indications about ‘no explanation of the meaning of word.’ From this it is clear that these respondents failed to recognize that difficult lexical items were elaborated.

A quarter of the respondents found marginal gloss disruptive. They claimed that having to refer to a gloss and then return to the main text disturbed their reading flow and processes. Some respondents’ comments include:

“Having words to the right I find it really distracting, also having to look for *kanji* meanings means I have to read the text twice to understand it properly.”

“...I could understand probably version 3 [a version with a marginal gloss] the best, but it was disjointed.”

These comments were echoed by many of the participants in Project One. They similarly mentioned that reading a marginal gloss was distracting. As can be seen from the obtained reading time of the participants in Project One, they did not efficiently read texts with a marginal gloss. This is a reconfirmation that the provision of a gloss distracts students' flow in the reading process. The following comment by one respondent is a precise summary of this phenomenon:

“Version 3's [a glossed version] definitions were handy, but constantly referring to the key words list disrupted the flow of the text.”

The respondents' reactions toward Sections C and D answered the first research question of Project Two, *‘How does a larger sample-size of students perceive an unmodified short Japanese text and its three differently modified texts, i.e., a simplified text, an elaborated text and an easified text?’* First, similarly to the participants of Project One, the respondents of Project Two found the unmodified text demanding, mainly because of its lexical difficulty. Secondly, the majority of the respondents supported the simplified text as their most preferred one, as did many of the participants of Project One. On the other hand, the respondents of Project Two supported the text with a marginal gloss more than did the participants of Project One, although a quarter of them equally complained of the distracting nature of a marginal gloss. This result may have come from the difference in their engagement with the different texts used in both projects. While the participants of Project One actually had to interact with the texts, the respondents of Project Two did not have to do so.

Therefore, the latter participants could not precisely tell the degree to which a marginal gloss would or would not affect their reading process. Thirdly, in both of the projects, the elaborated text failed to gain support. The two projects imply that learners have to be proficient enough not to be overwhelmed by lengthier elaborated sentences, and to appreciate appositive lexical elaboration.

6.2.4 Discussions of Project Two

In general, the results of the current questionnaire survey correspond with those of Project One. In the following, some noteworthy findings are discussed in detail.

A portrait of L2 Japanese learners at a New Zealand university

While there is insufficient detailed information regarding the respondents' reading perceptions and their reading behaviours gained from a short questionnaire such as the current one, collating their responses to all the four sections enables us to draw a rough portrait of learners of Japanese at a New Zealand university in 2011.

These respondents had spent a long time in Japanese learning. Their average learning period was 5.03 years. Although they were eager to improve their L2 reading abilities, some factors kept them from engaging in “free reading” (Krashen, 1988, p. 269) outside the classroom. One of the factors which may prevent these learners from engaging more free reading is the vague source of their motivation. Yamashita (2004, p.1) suggests that “merely thinking that reading is beneficial to oneself does not represent a strong enough motivation.” These learners probably need more specific reasons in order to conduct free reading actively.

Free reading is known as pleasure reading or voluntary reading and it is thought to be one of the most important parts in L2 reading acquisition. Krashen argues that “free reading consistently relates to success in reading comprehension” (ibid., p.

269). Whether free reading or assigned reading, reading can be learnt only by reading. Ideally, “reading is caught, not taught” (Nuttall, 1996, p. 229). This theory is well supported by current reading researchers. Grabe (2009) summarizes it as follows:

Automaticity is important to fluent reading abilities and to most contemporary models of reading... Automaticity arises through continual practice of a routine procedure...to the point where the individual no longer needs to attend to the task itself... Automatic processes in reading, such as fluent word recognition, are the outcome of thousands of hours of meaningful input. (p. 28)

However, this well-accepted reading perception is probably owned by only academics and a very limited number of teachers and learners. Because classroom teachers are restricted by “constraints of the syllabus, emphasis on oral skills, and limits of class hours,” they may leave reading as “a silent activity completed outside the classroom” (Brantmeier, Callender & McDaniel, 2011, p. 188) at the discretion of the individual student. Thus, the concept of ‘reading can be learnt only by reading’ may not penetrate into the current respondents’ minds. That is, these L2 learners may not know that they have to read more in order to achieve their goal, i.e., to improve L2 reading skills.

The assumption that they do indeed have awareness that they have to learn to read by reading raises the question: why don’t they read, then? There are some potential reasons. First, they may not have enough time. As mentioned above, university students’ lives are busy with extra-curricular activities (Robb, 2002). The current respondents were by no means exceptional in that respect. Most of them were studying for double majors and held part-time jobs on top of other engagements. This factor, i.e., lack of time, was also reported among high school students of Japanese in New Zealand by de Burgh-Hirabe (2011). Secondly, even if these learners pursue their commitments in L2 reading acquisition despite their busy

lives, they encounter a lack of availability of accessible reading materials. As Section A demonstrates, the minority of the respondents who carried out free reading enjoyed very limited types of materials. Krashen (1988, p. 287) claims that “more reading takes place when readers have more access to reading material.” Crawford Camiciottoli (2001, p. 138) implied that “lack of access to reading materials” negatively affects attitude to reading in L2. Day and Bamford (1998) also claim that such situational factors affect L2 learners’ reading motivation. When learners live far away from their target country and they cannot obtain reading matter with ease, their reading volume and engagement are bound to be meagre. Their motivation to read can be discouraged by such circumstances.

One might think, ‘So, why don’t these learners utilize abundant online resources?’ Surprisingly, perhaps, as question five indicates, the majority of them prefer hard copy reading. However, taking into consideration that there are not abundant Japanese reading material obtainable in New Zealand, these respondents need to view computerised reading as a viable option despite their preference for paper reading. There are countless updated Japanese texts available online. In computerised reading they also benefit from useful digital online reading supports which were welcomed by some of the respondents who preferred reading on a computer screen.

There is a further obstacle for this option as well, however. That is, many of the texts available online are probably too difficult for learners of Japanese such as the current participants. Cobb (2005, p. 82) claims that “the Internet is lacking in very few types of texts, but one of the few is simplified materials for language learners.” He further asserts that “the amount of new vocabulary in natural texts is likely to be severely at odds with both the lexical level and learning capacity of intermediate

learners...the rate of new-word introduction in a text designed for native speakers is far more than these learners are able to cope with” (ibid., p. 83). In the current context also, Section C demonstrates that the participants’ vocabulary level in order to read an original online text was far below the desirable level for unassisted pleasure reading suggested by Hu and Nation (2000): knowledge of more than 98% of running words of the text. In the context of L2 Japanese reading pedagogy, Komori, Mikuni and Kondoh (2004) prove that knowledge of more than 96% of running words in a text facilitates L2 Japanese readers’ reading comprehension. The proportion of words circled by the current respondents as difficult demonstrates that their vocabulary knowledge is far below the desirable level for unassisted reading. The current respondents’ processing of the original online text would be intermittent decoding rather than fluent reading with frequent consultation of definitions contained in pop-ups. As has been shown, while currently available online Japanese dictionaries tend to be rather ambitious and provide numerous features, they do not provide contextually suitable definitions. Therefore, when these learners decide to read on a computer screen, using available online tools, they have to extrapolate contextually suitable meanings for numerous unknown words while being exposed to various features. In relation to this issue, Laufer and Hill (2000) report that more information in glosses (L1 definition, L2 synonym, other extra information such as pronunciation) facilitates better word retention. Rott (2005) also claims that multiple-choice glosses do not interfere with comprehension but deepen learners’ reading process. Furthermore, Arnold’s (2009) study is a convincing empirical proof that some L2 learners learn to be strategic about using online dictionaries.²³ However, it is not known whether or not using this type of multi-featured glosses

²³ The participants of Arnold’s study were L1 English advanced-learners of L2 German.

promotes pleasure reading among developing L2 Japanese learners such as the current respondents.

This questionnaire gives us a rough portrait of learners of Japanese at a New Zealand university in terms of reading acquisition. They are L2 learner-readers:

- who have not been enlightened about the importance of the amount of reading to improve L2 reading capability
- who do not have good access to suitable reading materials
- who lack linguistic proficiency in reading online texts without excessive consultation of definitions contained in pop-ups
- who have motivation to improve their L2 reading skills despite many obstacles

In short, these initially-dedicated learners are surrounded by numerous ‘less than optimal’ circumstances.

This portrait of New Zealand university students of Japanese is similar to that of university students in Ikeda’s (2003) study who learn Japanese in their target country. In her study, no respondent answered that they would read Japanese texts including newspapers, novels, magazines and comics every day. And the majority of the respondents answered that they did not read such Japanese texts much at all. At the same time, half of the respondents opted for a class of non-fiction reading, which indicated their motivation to read in Japanese. Their further responses were very complex. While more than half of them responded that they found reading in Japanese was fun, they claimed that it was very difficult and they did not actually try to read in Japanese of their own accord.

The participants in Ikeda's study were exposed to their target language every day. Nevertheless, they failed to nurture a habit of reading in L2. Their environments were far more optimal than those of the current respondents. When considering the disadvantageous environment surrounding the current respondents, it is evident that careful strategies are needed to break the stagnant L2 reading pedagogy in the context of JFL.

Preferred text modification measures – improving unfavourable environments

Teachers first have to be enlightened in order to solve one of the aforementioned problems, i.e., students' lack of awareness toward the importance of volume of reading. Teachers need to fully understand that reading fluency, and ultimately enjoyment, is acquired only by means of reading vast amounts of text. Claridge (2011) addresses the issues of ESOL (English for speakers of other languages) teachers' perceptions regarding GRs. The following was what she found through multiple focus group discussions:

In looking at GRs, they [the participating teachers] were placing the level of language and the extent to which it could be used as a teaching tool, above the importance of content, and of fascination and enthrallment with the text. This seemed to show that they perceive GRs more as a fund of classroom texts for intensive work, rather than an extensive, extra-classroom mode of actually providing enjoyment and incidentally, developing fluency. (p. 92)

If ESOL teachers fail to see the importance of reading large quantities of modified texts such as GRs, it is not surprising that ESOL learners are not aware that they have to read extensively in order to learn reading and to enjoy reading outside of the classroom, let alone learners in the incipient context of JFL.

When it comes to considering possible solutions for the second problem mentioned above, the results of Project Two can contribute to the debate about how to improve the availability of suitable reading materials. Since there is a marked

shortage of L2 Japanese reading materials and online reading is not necessarily the option most welcomed by everybody, it is practical to consider producing modified materials in hard copy for learners of Japanese. The findings about what text modification measures were more welcome as obtained from Projects One and Two can propel such thoughts into practice.

First, the responses from the two classes underscored the increased comprehensibility of simplified texts in the current survey. Secondly, the present study demonstrates that we have to be careful of using elaboration because this method can aggravate text difficulty for some learners. Thirdly, the fact that a marginal gloss can disturb natural reading flow has to be kept in mind. Given that the majority of the respondents preferred paper reading to computerised reading as did the participants in Project One, flexible usage of hard copy modified texts hold appeal to L2 Japanese reading instruction. Of course, we cannot necessarily satisfy all of the aforementioned requirements in producing modified texts. Nevertheless, if we know when a particular modification measure is preferred and by whom, and how we can provide it, we can maximize the efficacy of modified materials.

6.2.5 Similarities of the findings between Projects One and Two

As reiterated above, the overall findings of Projects One and Two matched. In particular, they showed similarities in the following aspects:

- learners' inability to read unmodified texts independently (See sections 6.1.1.2, 6.1.2.2., 6.1.6.3.1 & 6.2.3.4.)
- learners' preference for hard copy reading (See sections 6.1.6.4.4 & 6.2.3.2.)
- disproportionate weight of learners' concern on vocabulary difficulty compared to their attention to syntactic difficulty (See sections 6.2.3.3.)

- failure in detection of appositive lexical elaboration (See sections 6.1.6.4.2 & 6.2.3.7.)
- selection of simplified text as the easiest (See sections 6.1.6.4.1 & 6.2.3.6.)
- distracting nature of marginal glosses sensed by many learners (See sections 6.1.6.4.3 & 6.2.3.7.)

Despite the different nature of the assessment methods between Project One and Project Two, the general tendency of the participants' perceptions towards text modification appears to be similar. The findings from both projects imply a stronger preference for hard copy reading, undoubted need for lexical modification, reservations toward out-of-text modification measures such as marginal glosses and pop-ups, and a need for a flexible approach in terms of using simplification and elaboration. This general tendency shows a way forward for Japanese reading pedagogy.

6.2.6 Bridging to a deeper perspective

Projects One and Two confirmed that the participating learners' comprehension and affective factors were enhanced by modified texts, in particular, simplified texts. These findings presented a good starting point for Project Three. Project Three investigated how learners of Japanese would respond to two pairs of Japanese texts, i.e., unmodified literary texts and their GR versions. Although Project One delved into learners' affective changes caused by differently modified texts, the degree that was detected by the project was relatively superficial. This is partly because the texts used in Project One were short and experimentally constructed, and two of them were expository texts, which may not stimulate readers' emotional engagement. It is difficult to investigate learners' affective aspects when

they do not find the given texts engaging. In such a case, learners may be able to express their preference and slight motivational changes created by different text modification. However, how deeply reader-text interaction and readers' affective aspects change depending on differing text modification measures is not well explicated when readers are not fully engaged. And questions such as "Which do you want for reading this story, an original version or a simplified version?" can only tap into surface affective aspects when short experimental texts are used.

Hence, the succeeding Project Three aimed at deepening the research perspectives, and investigated learners' response to more engaging texts: famous literary pieces and their GR versions. In order to achieve this aim, Project Three took a more qualitative approach so that it could delve more deeply into the perceptions toward different types of texts held by learners of Japanese.

6.3 Project Three

The fourteen learners of Japanese read unmodified Japanese literary texts and their GR versions in Project Three which aimed to answer the following question:

How do learners of Japanese respond to two pairs of Japanese texts, unmodified literary texts and their GR versions?

The participants then conducted a think-aloud task, a summary/commentary task and compared the original texts to their GR versions. Semi- to unstructured exit interviews were conducted to examine the participants' responses towards the two different types of text. It was hoped that answers to these questions would delve into interaction between text and reader, and deeper learner perceptions towards

modified texts. Moreover, findings obtained in this project were thought to answer a further question, ‘do learners authenticate the two Japanese GRs?’

The two texts of *Chuumon no ooi ryooriten* are linguistically easier than those of *Hashire Merosu*. In the following section, the analysis of think-aloud protocols and summary/commentary writing are conducted mainly using the two texts of *Chuumon no ooi ryooriten* (see sections 5.3.9 and 5.3.10 for the details of the texts used in Project Three). When the analyses of the data based on *Hashire Merosu* are presented, it is clearly stated so because the two texts of *Hashire Merosu* were used only for the advanced-level participants in a supplemental way.

6.3.1 Data coding of the think-aloud protocols

Reflecting the fact that this project was exploratory, determining the coding system was not straightforward. As a whole, the process took a typically qualitative course as described by Mackey and Gass (2005):

...the schemes for qualitative coding generally emerge from the data rather than being decided on and preimposed prior to the data being collected or coded. This process, in which initial categories are based on a first pass through the data, is sometimes known as open coding...one way of coding qualitative data can involve examining the data for emergent patterns and themes, by looking for anything pertinent to the research question or problem... The data, rather than the theory or framework, should drive the coding. (p. 241).

The researcher followed this advice and initially examined the think-aloud protocols independently, searching for “emergent patterns and themes.” During the time that the researcher was going through the think-aloud data, an open coding approach dominated the process. At the same time, the researcher’s knowledge of the coding systems used in some studies conducted in the context of JSL/JFL (e.g., Everson & Kuriya, 1998; Horiba, 1990; Nishigori & Suzuki, 1994; Tateoka, 1996) also positively influenced this process. That is because students who learn the same

target language, i.e., Japanese, tend to respond to their target texts in a similar way regardless of minor contextual differences.

The researcher, then, provided the aforementioned academic who had acquired a near native fluency in Japanese with the tentative data coding scheme as well as actual students' remarks. The academic coded the given data independently. When matching the two coding results, disagreements were clarified. The following Table 6.20 shows the final coding results with the number of actual comments, the number of the participants who made comments in parentheses, and example comments.

Table 6.20. Coded comments of the participants' think-aloud protocols

Note the underlined sentences/phrases are the participants' reading actual text sentences which are not translated into English.

Coding categorization	Think-aloud protocols of GR excerpts	Think-aloud protocols of original excerpts
Comments about the textual features		
Positive comments about <i>furigana</i>	3(2) Yeah, for that one, obviously I know 強い風 (strong wind), I know ふいています (blowing) but I didn't recognize the <i>kanji</i> for ふいています (blowing). So, in this case, to have <i>furigana</i> is fine.	n.a.
Negative comments about <i>furigana</i>	13 (5) It feels like, "Oh, I studied it before, but [it] comes up [with <i>furigana</i>], so no point of studying it." And it doesn't reward me.	n.a.
Neutral comments about <i>furigana</i>	1(1) <u>誰にもはいってください。どうぞ。</u> なんか (somehow): I don't know why, but suddenly I started looking at the words instead of <i>furigana</i> first, some of them, I may look at <i>kanji</i> after, no, I mean, before... before I look at <i>furigana</i> . I don't know why, I am getting used to it maybe,..., I don't know. So, [laugh]. Um, <u>二人は喜んで言いました。よかったなあ、今日は一日たいへんだったけれど、</u> Ok, when there is, um, a few <i>kanji</i> in a row, I might look at <i>furigana</i> instead. So, if it's, just like, you know, or <i>iimashita</i> , I look at <i>kanji</i> . Whereas, before, I was just looking	n.a.

	at <i>hiragana</i> the whole time. [laugh]	
Comments about syntactic features	1(1) しかも文章、ちっちゃいですね…短いですね。(Also, the sentence is small, short.)	0
Negative comments about <i>kanji</i> usage	0	8(4) <u>もうも、ど、ろう、と思う。</u> 漢字が少ない、読めない！ (There are not many <i>kanji</i> . I cannot read the text!)
Comments about character/letter usage	1(1) ここはひらがなで、[こっちは]かんじ。(This is written in <i>hiragana</i> but this one in <i>kanji</i> .)	0
Positive comments about expressions	2(2) <u>草が「ざわざわざわ」、きのはが「かさかさかさ」、木が「ことん！ことん！」</u> [started laughing.] ああ、おもしろいこれ！ (Yes! This is fun!)	0
Negative comments about expressions	9(4) <u>撃ちたい、うちたい？うちたいなあ、早く、う、うちたいなあ。</u> えー、Repeat なの？(Oh, no, is it repeated?)	7(4) <u>まご？、まごついて、これほんとの日本語じゃないよね。</u> (Don't tell me this is real Japanese.)
Neutral comments about expressions	0	1(1) おりました、っていうのは、[Researcher, 「いました」の古い言い方] うん、何か方言でもできますね [Researcher, おじさんとかおじいちゃん言う] うん、うん、うん、ああ、これは、何となく、古い文章？、の雰囲気があるんですね。 (<i>orimashita</i> means? [Researcher: it's an old form of <i>imashita</i> .] Do some dialects use this word? [Researcher: Old men use this word.] I see, I see, I see. So, this text has a somewhat old feel to it.)
Comments that indicate comprehension failure/success, or guessing		
Comprehension failure/difficulty	47(11) 鉄砲ってわからない。(I don't know the word 鉄砲.)	30(11) <u>けしからんね。</u> OK, it's probably a different dialect. But I've never seen. Is it <i>Kansai-ben</i> (Kansai dialect) by chance? No? Maybe not.
Comprehension success/confirmation	32(12) <u>一時間前まで、案内の人も、一緒にある、歩いていたのですが、どこかへ行ってしまいました。</u> うん。(YES.)	27(10) <u>ここは山の中です。</u> So, here is the middle of the mountains.
Guessing the reading of <i>kanji</i>	n.a.	25(8)

Guessing the meaning of a word	4(4) あー、鉄砲って、銃かなあ (Well, I wonder whether 鉄砲 means rifle...)	初めのなんか(something) は、 Are they like monks? All I can think of, これ、東方神起のあれ？ (This character is used in the word 東方神起?)
Comments about their own behaviours		
Comments about their own behaviours	1(1) ちょっと標準語になってしまっている (I speak in the intonation of standard Japanese without knowing it.)	1(1) <u>そのなんか(something)のよう</u> <u>な犬がにひき、目まい、めまい、おこした、しばらくう、</u> <u>なって、Aha,これ普通の所ま</u> <u>で読めない！ (I cannot read</u> <u>parts I could usually read!)</u>
Comments about the content of the story that indicate their own opinions/feelings		
Comments about the content	41(8) これ、こわいじゃない？ どうして、レストランって、廊下があったの？で、誰もいないね、ここ。うん。 (Isn't this scary? Does a restaurant have a hallway? Nobody is here. Yes.)	9(5) いや、男の、しゃべ、あの、話し方[Researcher:そうそう。そしてこの人が生きてた時代だからもう 100 年ぐらい前？]古いですねえ。 (This man's way of speaking [Researcher: Yes. The author was around about 100 years ago.] It's old-fashioned, isn't it?)
Comments that indicate utilization of strategies		
Comments that indicate utilization of strategies	7(2) ぼくの Yes, so, ぼく So, I can tell it's a male, it's not a female. And also quite casual kind of thing, so that makes sense again in quotations.	2(2) <u>何とかは、あ、おなか</u> <u>は、OK, I got that because of</u> <u>すいて、I wouldn't have got</u> <u>that otherwise. おなかはすいて</u> <u>きたし</u>
Comments that indicate disheartening situations caused by the difficulty of a text		
Comments indicating demotivation		19(9) ああ(I see)、Deer <u>しかの、</u> <u>茶色？ [Researcher:きいろ]き</u> <u>いろ、い、Something,</u> <u>Something なんぞに、に、さ</u> <u>ん、Somethingを I am very</u> <u>bad at kanji.</u>
Comments that explain their reading processes		
Reading process explanation		2(2) I just say, that, I think when I can't read <i>kanji</i> , it slows down the proceeding reading, like, I can't read one <i>kanji</i> , that following <i>hiragana</i> will be a lot slower, because I'm still thinking about <i>kanji</i> then, thinking about that breaks up my flow.
General comments		
General comments	3(1) 少し、混乱するんですけどね、なんか、この二人の意見？、が、あんまりわからないんです。感情なんて伝わってこない	6(4) Even though I find this [the original] a bit harder to understand because of <i>kanji</i> , it's already, the writing style, is far

	<p> んですね。ただ、「～と言いました」と言ったら、なんか感情とかがないみたいです。(I am a bit confused. I cannot understand these two men's opinions. I mean that their feelings are not reaching my heart. If the author says, ～と言いました(They said...), real feelings cannot be conveyed.) </p>	<p>more appealing to me.</p>
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6.3.2 Analysis of the think-aloud protocols of the GR text of *Chuumon no ooi ryooriten*

In the following sections, pseudonyms are used to refer to the fourteen participants of Project Three. The pseudonyms used include Robyn, Kate, Johnny, Naomi, Bill, Kirsten, Mike, Tony, Lynn, Daniel, Lily, Jake, Diane and Debbie.

6.3.2.1 Comments about *furigana* (ruby annotation)

As can be seen in Table 6.20 in the previous section, provision of *furigana* for all the *kanji* and *katakana* in a text was not welcomed unanimously. Among fourteen participants, two provided positive comments while five gave negative comments. Two positive comments supported the benefit of *furigana* in terms of eased difficulty. The content of negative comments included: “Even though I know *kanji*, if *furigana* is there, my eyes go automatically to *furigana*,” “it’s so much quicker not to read *furigana*,” “when *furigana* is in a text, I cannot try hard.” These comments reflect that the participants do not want to rely on *furigana* all the time, and that it is more difficult to process a text speedily when *furigana* is attached. In other words, many learners are ready to take a learning opportunity, using a text without much *furigana* rather than to be spoon-fed with *furigana* for every single *kanji*. There needs to be an appropriate balance between how much of a challenge and how much support L2 Japanese learners should be given in this regard.

Furigana may be attached enough to be helpful but should not be attached to the

extent that it becomes annoying or discourages learners from trying to read *kanji* themselves.

6.3.2.2 Comments about expressions

It is noteworthy that two polar opposite comments regarding the usage of onomatopoeia emerged. Japanese is rich in onomatopoeia and mimesis which describe sounds, situations and people's feelings. The appearance of onomatopoeia generally makes discourse more vivid. Two participants with higher proficiency levels showed their liking for a passage full of onomatopoeia. Robyn expresses emotion when reading the passage with a series of onomatopoeia and said, "Yes, this is so much fun." In contrast, some other participants found the same passage difficult to understand, and at the same time, many participants slowed down when they came to this passage. These students were not necessarily incapable learners. Unfamiliar onomatopoeia gave them processing difficulty rather than deeper engagement.

Two participants commented negatively on repetition of some expressions. Kate mentioned that she found the repeated phrase 'the other [man] said' annoying. In the GR text used, phrases such as 'the two said,' 'the other said,' and 'one [of them] said' are used between speeches. In contrast, Johnny pointed out in the exit interview that he found these phrases good markers to follow.

Two advanced participants suggested that the insertion of a situational setting sentence, i.e., 'these two came from Tokyo,' was "somewhat random" (Naomi) and "too simplistic" (Bill). They both found the insertion of this sentence unnatural.

6.3.2.3 Comments about syntactic features

Bill pointed out that sentences were short in the GR text. This is one of the few explicitly stated comments obtained regarding the syntactic features of both the GR text and the original. However, it should be noted that some of the other participants described the GR version of *Chuumon no ooi ryooriten* disjointed and choppy, whereas they did not mention discrete syntactic features of the text explicitly. As has been mentioned throughout this thesis, this is an indication of a possibility that L2 learners may not be able to evaluate both lexical and syntactic features simultaneously in their target text. To put this another way, L2 Japanese learners may sense the difference in syntactic characteristics of different texts to a lesser degree compare to that they recognize the difficulty of vocabulary acutely.

6.3.2.4 Comments about their own comprehension

Even though all the *kanji* are presented with *furigana* in the GR text, forty-seven comments by eleven participants indicated their comprehension difficulty in terms of lexical items. In short, the participants remarked that they did not know quite a few words. The words detected as unfamiliar by several participants were ‘teppoo (rifles),’ ‘uchitai (want to shoot),’ ‘rooka (hallway),’ and ‘konoha (leaves [of the trees]).’

One might think that these participants failed to understand the content of this GR text. However, their written summary demonstrated their successful understanding of it. Therefore, the reading experience which the current GR provided the participants seems meaningful in terms of cognitive aspects. These participants definitely understood the gist of the text despite numerous unfamiliar words. Even though there were only four reports of word-guessing in the whole of

the protocol data, these participants may have guessed more unfamiliar words successfully enough to extract the meaning from the text.

6.3.2.5 Comments about the content

In general, think-aloud protocol data can contain two types of comments: cognitive related comments and affective related comments. The comments that have been analysed in the previous sections belong to the former, whereas comments about the content can be treated as those indicating readers' affective aspects. The fact that forty-one comments obtained from eleven participants were related to the content is an indication that the GR text was at least understood well enough for the participants to report numerous comments about its content.

One example, Kate's lengthy think-aloud comment, demonstrates her disappointment with the content of the GR text coming from its setting:

...it's boring. Because this was a Japanese story, I expected that Japanese type of things, something that wasn't in NZ, would come up in it. But I can find something like that around here, can't I? [The content seems] too familiar. (The researcher's translation of her comment given in Japanese.)

Unlike Kate, Kirsten's protocol data showed her enjoyment of a passage with a lot of onomatopoeia:

どうどうどう、大きな音です。草がざわざわざわ、このほ[sic]がかさかさかさ、木が[Pause]ゴトンゴトン、山が大きな音を出しています。(brrrrr, a loud sound. Grasses wave, leaves rustle, trees rattle. The whole mountain is making noises.) **I like that part.** [saying with a very nice happy tone]... ああ、レストランだ。山の中にレストラン？おかしいなあ。でも、何かたべることができるぞ。もちろんできるさ。二人はとてもおなかすいていました。(Oh, it's a restaurant! Restaurant in the middle of a mountain? It's strange. But, we can eat something. Of course, we can. The two were very hungry.) **That's interesting.** [Laugh]

(Bold-faced parts are her own comments and the other parts are her reading-aloud of the text, with the translation in parentheses.)

Kirsten asked if she could borrow the GR because she wished to read the whole story. Later in the exit interview, she supported the efficacy of GRs as a good way to improve her reading ability. More importantly she mentioned that reading the GR text was enjoyable.

6.3.2.6 Protocols with very few vocalized thoughts

The contents of some participants' think-aloud protocols of the GR text were somehow disappointing as a source of actual comments. They did not report many thoughts during the think-aloud task of the GR text. In particular, three learners (Kirsten, Mike and Tony) reported only four to five thoughts. When Kirsten's strong interest in the story is taken into consideration, this phenomenon requires explanation. Why did she not comment much even though she was well engaged in the story?

This phenomenon can be interpreted as stemming from several reasons. First, it has to be noted that when some perceptual processes are automated and not a "part of the content of immediate awareness," such processes "although obviously occurring, would probably not be reported in Think Aloud protocols" (Davis & Bistodeau, 1993, p. 460). This makes those seemingly disappointing think-aloud protocols of some participants become meaningful data. That is because the small number of comments in the protocol data sometimes indicates that the GR text was comprehensible enough for some of these participants to process automatically, without pausing much for thought. This hypothesis is probably applied to the cases of Learners Kirsten and Tony. Their summary tasks revealed that they comprehended the GR text with ease (see section 6.3.4 for the results of the summary task). As stated above, Kirsten engaged in the text successfully and she showed a strong liking for it.

In contrast, Mike's case has to be explained in a different way. His reading was a very slow, laborious process. He made numerous mistakes in segmentation and in reading functional words. It cannot be thought that he did not pause often because his reading process was automatized, but it has to be understood that he probably had other reasons not to provide many comments. In this case, it can be surmised that some learners are capable of conducting a think-aloud task naturally whereas others fail to do so. In other words, depending on learners' characteristics, the results of a think-aloud task vary to a certain extent. The lack of engagement in the content of the story could be another reason that Mike did not present many comments on his thoughts. However, he mentioned that he gained a meaningful interaction with the GR text because the text was very comprehensible. It is more reasonable to estimate that his reserved personality may have stopped him from commenting on more of his thoughts or that his cognitive resources were dominated by following the textual features and the content of the story. This last estimate is more likely since his summary indicated that he misunderstood more episodes than any other participant. Therefore, he did not comprehend as much as he himself believed. His summary lacked coherence, which was an indication of his inefficient, struggling, bottom-up processing. When readers struggle in bottom-up processing, additional tasks such as think-aloud may not be conducted easily.

6.3.2.7 Bottom-up and Top-down processing related comments

Studies by Everson and Kuriya (1998), Horiba (1990), and Minaminosono (1997) demonstrate that L2 Japanese learners with lower proficiency suffer from a laborious reading process due to a lack of automaticity in bottom-up processing such as word recognition. When readers are consciously occupied with text-driven processing, their top-down processing such as inferencing and utilizing background

knowledge cannot be activated well. This phenomenon is universal among L2 readers regardless of the difference of target languages (e.g., Davis & Bistodeau, 1993). When orthographies differ between L1 and L2 such as in the case of English and Japanese, this phenomenon is even more evident. Hence, it is of importance to compare the ratio of how much the current participants report bottom-up and top-down processing related comments according to the two different texts. If more top-down processing related comments are detected from the GR text, that means that the participant was able to read the GR text as a fluent reader without much conscious attention to the textual features.

In order to examine this factor, the researcher first re-coded all the comments in the think-aloud protocols independently. Then the coding done by the aforementioned academic with a near-native fluency in Japanese was consulted for the justification of re-coding the data. The end product of re-coding is presented below as Table 6.21. Following the triadic categorization of Everson and Kuriya (1998), the data was divided into three categories: bottom-up processing related comments, top-down processing related comments and metacognitive comments.

Table 6.21. The triadic categorization of the think-aloud protocol data of the GR text

Categorization of reported comments	Bottom-up processing related comments	Top-down processing related comments	Metacognitive comments
Example comments	I don't know what うちたいなあ(want to shoot) means. / Um, sort of young men, two young men, not sure about <i>teboo</i> .	二人は東京から来たのです。(The two were from Tokyo.) Oh, of course, because they are speaking standard Japanese.	てっぼう? I have no idea what <i>teppo</i> means. And the <i>kanji</i> doesn't look familiar either. So, I will try to understand it from the context, I guess.
Proportion%(the number of actual comments)	36%(32)	40%(36)	24%(21)

Table 6.21 shows that when the current participants read the GR text of ‘*Chuumon no ooi ryooriten*,’ they vocalized bottom-up and top-down processing related comments rather equally with a smaller ratio of metacognitive comments reported. This result is distinctly different from what Everson and Kuriya (1998) found, which indicates that the GR text provided the current participants with a different reading experience from what the participants in Everson and Kuriya’s study experienced. In their study, the participants vocalized predominantly bottom-up processing related comments and a higher ratio of metacognitive comments when they read an unmodified newspaper excerpt. The proportion of their participants’ comments based on their triadic categorizations was: 37.4% (bottom-up processing related comments), 8.1% (top-down processing related comments) and 54.5% (metacognitive comments).

In this triadic categorization, bottom-up processing related comments and metacognitive comments can be thought to be an indication of inefficiency and difficulties faced by less proficient learners. Conversely, top-down processing related comments are an indication of activation of higher order cognition, which advanced readers can exert more than less proficient readers. Compared to Everson and Kuriya’s study, the current participants provided much more top-down processing related comments and much fewer metacognitive comments. Thus, it is reasonable to claim that the current GR text may have created a more vigorous interaction in which some of the participants experienced a more effortless processing.

6.3.3 Analysis of the think-aloud protocols of the original text of *Chuumon no ooi ryooriten*

6.3.3.1 Bottom-up and Top-down processing related comments

It is instructive to place this aspect of the analysis gained from the original text immediately after the equivalent analysis obtained from the GR text for the purpose of comparison. Table 6.22 below demonstrates the ratio of the three types of comments vocalized when the participants read the original text of *Chuumon no ooi ryooriten*.

Table 6.22. The triadic categorization of the think-aloud protocol data of the original text

Categorization of reported comments	Bottom-up processing related comments	Top-down processing related comments	Metacognitive comments
Example comments	Is that a treasure or something?/ Counters for dogs? ...	二匹一緒にめまいをおこして...これのほうがなんか、グロテスクです ね。(The two [dogs] felt dizzy...this text is, somehow, more grotesque, isn't it?)	Ok, it doesn't make sense to me because I couldn't read <i>kanji</i> ...I didn't understand most of that because of <i>kanji</i> , I guess.
Ratio % (the number of actual comments)	72% (108)	8% (12)	20% (30)

As can be seen from Table 6.22, the ratio of the triadic comments gained from the original text protocols was very different from that obtained from the GR text. It is more similar to that of Everson and Kuriya (1998). Summing up the relevant studies, Everson and Kuriya conclude that this predominantly bottom-up processing protocol data is “perhaps testifying to the processing demands made of students learning to read in languages using non-Roman orthographies” (p. 12). In short, for L1 alphabetical language learners of L2 logographic language, reading unmodified logographic texts is not fluent, effortless pleasure reading but a laborious, demanding cognitive activity which is intermittently interrupted by numerous unfamiliar logographic words. The current participants’ bottom-up processing oriented comments also corroborate their interpretation of the phenomena:

鳥も、この漢字わからないですね[Laugh] (*torimo*, i.e., birds as well, I don't know this *kanji*.). (Lynn)

まご？まごついて(*magō? magotsuite?*) Don't tell me this is real Japanese. (Kate)

I know the meaning but I can't remember how to pronounce it [a *kanji* compound word]. (Kirsten)

The participants' metacognitive comments include:

... I have learnt it [a *kanji* compound word] but I don't remember it at all. (Bill)

I should know what it means too, but I can't remember [sarcastically saying to himself]. (Daniel)

These few example comments are enough to illustrate how the current participants dealt with the original text. That is, these students struggled in word recognition and blamed themselves for their lack of linguistic capability.

6.3.3.2 Comments indicating their demotivation

In the last section, it was reported that there was a relatively high ratio of metacognitive comments in the think-aloud protocols based on the original text of *Chuumon no ooi ryooriten*. More than half of such comments expressed demotivation caused by the difficulty of the original text of *Chuumon no ooi ryooriten*. Some metacognitive comments were gained from one particular sentence. It is in the following sentence that all of the participants could not understand the majority of the *kanji* characters/words and many of them had difficulty in onomatopoeia usage. (Problem candidates of the sentence are indicated by underlining below.)

鹿の黄色い横っ腹なんぞに、二、三発お見舞いもうしたら、ずいぶん痛快だろうねえ。くるくるまわって、それからどだっとたおれるだろうねえ。 (It will be hilarious if we shoot two or three bullets into a

deer's yellow flank. The deer will spin around and then thump onto the ground.)

Many participants found this sentence very demotivating since unfamiliar words came up in such a succession. Their metacognitive comments vividly indicate this disheartening situation.

なんかの、なんかをなんか、なんぞに、2, 3 なんかを、お見、お見舞い？もうしたら、ずいぶん、いた、なんかだろうね。くるくる回って、それから、だどっと[pronunciation mistake]...難しい！
(Something, something, something, for example, 2, 3 something, is that visiting? if we did, so, pain, something, spinning around, then thump [pronunciation mistake] ...Difficult!) (Kate)

ああ、deer しかの、茶色？[Researcher: きいろ]きいろ、い、something, something なんぞに、に、さん、something を...I am very bad at *kanji*.
(Aah, deer, brown? [Researcher: yellow] yellow, ish, something, something, two, three, something...I am very bad at *kanji*.) (Lily)

[After reading the same sentence] This is very difficult. (Jake)

[After reading the same sentence] Ok, it doesn't make sense to me because I couldn't read the *kanji*...I didn't understand most of that because of *kanji*, I guess...And ...くるくる (*kurukuru*, i.e., spinning around) thing, I thought that was too much shooting, I don't know how something round is having to do with it. [laugh] Probably lost now. (Naomi)

It is difficult to translate the parts which were vocalized in Japanese while maintaining their original nuances. Most participants used the word 'something' or 'なんか' (*nanka*, meaning 'something') when they could not read *kanji* characters/words. Their protocols of the original of *Chuumon no ooi ryooriten* were filled with 'something' or 'なんか.' And some participants verbally expressed their demotivation while or after reading the original text. Kirsten said that the original was much more difficult because it had much more detail. Kate and Daniel also

compared the GR version to the original and emphasized that the original was much more difficult.

If you had given me this text [the original] first, I wouldn't have understood anything. (Kate)

Definitely simplified in the other one [the GR version]. [laugh](Daniel)

6.3.3.3 General negativity indicated by the participants' protocols

In addition to the processing difficulty and the demotivating situation illustrated by many vocalized comments, more negative comments were given to a few particular stylistic aspects appearing in the original text. One of them was that many words were written in *hiragana* rather than in *kanji* in the original. Many participants claimed that when they knew *kanji* characters, they preferred to see a word written in *kanji* rather than in *hiragana*. That is partly because it is easier to segment words when enough *kanji* are used and partly because they are used to seeing some words written in *kanji*.

Normally, ぼく (I) is in *kanji*, isn't it? (Naomi)

But, there is not enough *kanji* in a part that somebody is saying something, that is difficult to read. (Bill)

もうひとりが (the other man), why is this in *hiragana*? (Jake)

This is an aspect of which simplifiers of Japanese language have to be reminded. A text with less *kanji* is not necessarily easier to process or welcomed by learners. Once they are familiar with a word in *kanji*, they can process that word faster in *kanji* than in *hiragana*. A text with too much *hiragana* is difficult to segment, as the following comment reports.

あるいておりました。 (*aruiteorimashita*, 'were walking') It's kind of strange that, あるいて (*aruite*) isn't in *kanji*. Because I would read it faster if it was in *kanji*...like, It's faster to read *kanji*, you know, instead of reading it

in *hiragana* because with *hiragana* you don't know really when a word is cut off... That was a bit confusing to me and I got to the end, and thought ああ、あるいて ! (*aa, aruite!*, 'I see, walking!') But why wasn't it in *kanji*? (Naomi)

Grading *kanji* usage of a text is a very difficult job for writers of Japanese GRs. If a text has too many unknown *kanji*, developing learners' reading process becomes a laborious decoding, and such learners fail to read for meaning. On the other hand, if a text does not have enough known *kanji* words and uses too much *hiragana*, learners cannot process this text well due to segmentation difficulty. In this aspect, Kirsten supported the GR text. She said, "I think that they have *kanji* in there more [in the GR, compared to the original]. It's like simple *kanji* that you'll be able to read, that makes it easier without having all the *hiragana* there [in the original]."

The second stylistic problem in the original text was old-fashioned expressions, in particular in the conversational parts. Some of the participants were developing students of Japanese with very limited experience in modern Japanese conversational styles. Therefore, they found conversational parts that were described in old Japanese rather difficult to read.

全体、ここらの山はけしき、かん、からね？ What? きれいね、って言うてんのかなあ...いやんがらん？ 何、これ本気？ [Laugh] (Kate)

(As a whole, mountains around here, *keshiki*, *kan*, *karane*? What? Are they saying it is beautiful? *Iyangaran*? What is this? Is this serious? [she totally failed to understand the last three words and could not pronounce them properly. She is guessing 'scenery' from three-letter '*keshiki*' because this word segment sounds the same as 'scenery' in Japanese, a word she apparently recognises]) (Kate)

Whereas the participants' comments during the think-aloud task tended to show general negativity toward the original text, some of their exit interview comments claimed that they preferred reading the original text to reading the GR

text. The participants' complex affective factors will be addressed to interpret this contradictory phenomenon in the discussion section.

6.3.4 Scoring the participants' summary/commentary

Nine participants wrote a summary in English after the think-aloud procedure of the GR excerpt of *Chuumon no ooi ryooriten*, while three participants wrote a commentary in English how they felt toward the text (one wrote both and two participants did not write either due to time constraints). When they requested, they were allowed to read the text briefly again. The purpose of the summary task was to investigate how much of the main content of the story the participants gained, which probably indicated their engagement with the text.

The researcher first identified 17 general episodes of the story. Among those 17 general episodes, six were designated as the core episodes:

1. there were two men in the story,
2. the scene was a mountain,
3. the two men were from Tokyo,
4. their dogs died,
5. the mountain was spooky,
6. the two men found a restaurant.

If the participants got these six core episodes, their comprehension of the story was satisfactory. For example, the very essential part of the story can be condensed as 'the two men from Tokyo were in a spooky mountain and their dogs died there. On their way home, they found a restaurant on this spooky mountain.'

Then the number of the correctly described episodes in the 9 participants' summary was counted.

Table 6.23. How much the participants comprehended the GR version of ‘*Chuumon no ooi ryooriten*’

General episodes (17)	14/17 (Lynn), 14/17 (Diane), 12/17 (Naomi), 12/17 (Tony), 11/17 (Kirsten), 11/17 (Johnny), 9/17 (Kate), 7/17 (Daniel), 9/17 (Mike)
Core episodes (6)	5/6 (Lynn), 4/6 (Diane), 5/6 (Naomi), 5/6 (Tony), 6/6 (Kirsten), 6/6 (Johnny), 4/6 (Kate), 3/6 (Daniel), 4/6 (Mike)

Note: The first number is an episode which each participant correctly included in the summary.

As Table 6.23 above indicates, most of the participants grasped more than half of the core episodes. Daniel grasped less than half of the general episodes. He also misunderstood one episode. There were only a few misunderstandings detected in the participants’ summary. The other two participants who misunderstood some episodes were Tony and Mike. Although Tony demonstrated a good understanding of the general episodes (12 out of 17 general episodes, 5 out of 6 core episodes), he made the same misunderstanding as Daniel. Both of them incorrectly thought that the dead dogs belonged to the third man (the guide). The other participant who presented a misunderstanding was Mike. He failed to understand that the two dogs belonged to the two men. In three more parts in which he demonstrated misunderstanding, his summary was “nothing more than haphazard guesses as to what the text was about” (Everson & Kuriya, 1998, p. 12). Except for Daniel and Mike’s summaries, the participants’ summaries had good coherence, which indicates that the participants gained a successful understanding from the GR version.

Two of the three participants who wrote a commentary on their opinions toward the GR excerpt gave positive reactions. Lily wrote that “over all I kind of liked it. It was suspenseful, kind of, but funny at the end.” Robyn also wrote as follows:

I found this story very interesting. When I was reading, I thought that spiritual stuff like ghosts and racoons may appear. The story was easy to comprehend (the researcher’s translation of her original Japanese text)... Because I only read the beginning of the story. I can’t really get a good grasp of the whole story line. But the fact that the two hunters/tourists found a

restaurant in the middle of a mountain with lots of doors makes me want to read on and find out what happens next.

In contrast, Jake's commentary exhibited his mixed reactions toward this GR version:

With *furigana*, the text was easier to understand because it compensated for my *kanji* weakness. The vocabulary used was not overly complicated. The story, while interesting and reminiscent of thriller/horror, failed to catch my attention because of the style it was written in. It felt like a children's book because of the short and simple sentences...[I] could likely be more attracted to a slightly more challenging and complex writing style, as I tend to enjoy a feeling of accomplishment when reading difficult texts in Japanese.

Jake had a flexible attitude toward L2 reading. He quickly noticed the charms and benefits of reading more maturely-written GR texts such as *Hashire Merosu* (see section 6.3.6). Even with his flexible attitudes, the GR version of *Chuumon no ooi ryooriten* appeared too simple. This finding is suggestive in that learners have to be given GRs which are at appropriate level so that they can enjoy both increased comprehensibility and satisfying challenges.

6.3.5 Findings from the comparison procedures

It is commonly said that 'you cannot please everyone' in everyday life situations. This is also the case with reading materials for L2 Japanese learners. The current participants' reactions towards the two texts of *Chuumon no ooi ryooriten* differed widely. It is, however, noteworthy that their differences do not only come from their proficiency levels but also come from their beliefs about language learning and affective aspects.

Such different reactions of the participants to the two texts which occurred during the comparison procedures are presented in the following section. 'H' in brackets indicates that the participant is a student with high-proficiency while 'L' refers to a student with low-proficiency. This proficiency level was obtained from

the level check test. As mentioned in section 5.3.4, a few of the participants' comments were not recorded since they wrote down their comments. Therefore, not all the quotations presented below are transcriptions from recording. When comments given were originally written texts, such comments do not have speech quotation marks, whereas actual transcription and their translation are indicated by speech quotation marks.

6.3.5.1 The difference of richness of descriptions

Support of the rich descriptions of the original text

The original is better in the sense that although more difficult to read, it has more description, therefore, more interesting to read, whereas the GR has sentences too short to develop much imagination. (Naomi, H)

I would read the original as the GR version looks like something I would write – less detail. (Daniel, L)

Support of the reduced descriptions of the GR text

Removal of metaphor seems helpful, because when trying to read in a different language you take it at what it says. (Mike, L)

“[after getting the explanation of ぴかぴかする, (*pikapika suru*, shining) from the researcher] OK. I can see why it's left out. That's good it was left out. It would confuse me.” (Tony, L)

Some participants liked the rich description of the original text because they found it more engaging while other participants preferred the reduced description of the GR text since that was easier to understand. The numbers of participants in the two groups were about equal.

6.3.5.2 The difference of the syntactic structures

Welcome the simpler syntactic structures in the GR text

“The original is just one whole long sentence. It is difficult to understand. On the other hand, the graded reader version’s shorter sentences are better.” (Kirsten, H)

“In the original version, the fact that it is one long sentence makes it very difficult to understand.” (Johnny, L)

The syntactic structures do not matter

Grammar difficulty didn’t bother me. As for the length of the first sentence of the original, commas helped. (Daniel, L)

[Talking about the length of the original text’s first long sentence] “But it’s good, it has like a lot of comma, comma, comma...but if it, the whole sentence, has only two commas, then I will be like, WOW!” (Robyn, H)

While a few participants welcomed the simpler syntactic structures in the GR text, some remarked that such a series of short sentences makes the GR text a little “disjointed” (Tony), or “jumpy” (Naomi).

The average number of characters per sentence of the original and the GR texts were 33.7 and 24.2 respectively. Nevertheless, some of the longer sentences of the original were not perceived as an obstacle to comprehension. One possible reason that such sentences do not cause extra processing burden is that they are not complex sentences. The first sentence of the original text is especially long and it is divided into five shorter sentences in the GR text. However, some participants noticed that the first sentence of the original was easy to follow because it was a compound sentence and nicely segmented by several commas.

6.3.5.3 Provision of the framework of settings

The current GR text presents the framework of settings. One of them is its very first sentence which says “This is the middle of a mountain.” Then there is the

beginning sentence of the third paragraph saying that “The two men are from Tokyo.”

Such indications are not presented in the original excerpt. To this aspect again, the current participants’ reactions were divided equally.

Welcome the provision of the framework of the settings

The GRV [graded reader version] sets the scene by saying where it takes place at the start. The setting of a mountain also sets up expectations for language (e.g., *kanji* for “bear”). (Mike, L)

The graded reader’s 二人は東京から来たのです(*futari wa Tokyo kara kita no desu*, The two men are from Tokyo.) has a positive effect because it is easier to relate to it. (Kate, H)

Negativity against the provision of the framework

Writing about the sentence 二人は東京から来たのです(*futari wa Tokyo kara kita no desu*, The two men are from Tokyo.) Why? It interrupts the flow of the story. (Lynn, H)

Bill also showed a negative response to the framework provision although his reaction was a little softer than that of Lynn. The following excerpt demonstrated his attitude:

Regarding the first sentence: this is the middle of a mountain.

Researcher: “So, the setting of the scene. ‘This is in the middle of a mountain.’ The author tried to tell the reader clearly. What do you think about this?”

Bill: “They can do that, I don’t mind. But, if they write in this way, I somehow feel, “they targeted at my level, they gave me an answer so that I could understand everything in this story. Um, it’s more, it’s hard to explain.”

Regarding the sentence: the two men are from Tokyo.

Bill: “Original には、出身地でこないけど、何となく、出身地なんていない。” (In the original, where they are from is not mentioned...hard to explain but, I don’t need to know where they are from.)

6.3.5.4 Opinions about content simplification – deletion of seductive details

Seductive details are explained by Wade, Buxton and Kelly (1999, p. 200) as “highly interesting but unimportant information.” Traditionally, such seductive details are sometimes deleted as a method of simplification in order to accentuate the story line and also to keep the length of a text short for developing L2 learners. In the current GR text, one such seductive detail was deleted. The researcher asked the participants about whether or not they wished to read such a fringe episode. Some participants agreed that deleting seductive details was a good idea since it did not affect the general understanding of the story. The other participants also showed a favourable reaction toward this tactic, suggesting that it might have been more inviting to have such seductive details but it depends on how importantly such a small episode intertwines with the rest of the storyline.

No, I do not want to read seductive details.

Didn't think I missed anything crucial from it not being in the simplified [text]. どうせわからん(Anyway, I would not understand it.) (Kate, H)

Either way will be fine.

“... it depends, if, if the text is going too long, then probably not, but if it's short, then might be better cause then you can understand characters a bit more.” (Tony, L)

Deletion of seductive details is theoretically supported by cognitive perspectives. Brantmeier, Callender and McDaniel (2011, p. 190) explain that “a critical task during the construction of the situation model is to determine which information is relevant, and should be included in the representation, and which information is irrelevant, and should be removed from the representation.” For

developing L2 learners, prior deletion of seductive details probably reduces the cognitive burden during the construction process of the situation model.

6.3.5.5 Coherence loss in the text structures caused by modification

As Blau's (1982) classic study proved, the importance of coherence has been emphasized in text modification research. Kim and Snow (2009) support the superiority of elaboration over simplification by claiming that elaboration enhances coherence of texts and thus renders L2 texts more comprehensible. The lack of coherence in so-called simplified texts is one of the strongest arguments among scholars who oppose the use of simplified texts in reading instruction. That is to say, when a long complex sentence is divided into multiple shorter sentences, the original inherent coherence may be lost. In the current GR text, one such example was observed. The sentences in the fourth and fifth paragraphs were written as follows:

木がだんだん多くなってきました。木の葉がたくさん落ちています。
白い大きな二匹の犬が、急にバタンと倒れました。二人はびっくりし
て、犬のそばに行きました。犬は死んでいました。

The forest was getting thicker. Many leaves fell onto the ground. The two
big white dogs suddenly thumped onto the ground. The two men were
surprised and went to [the side of] the dogs. The dogs were dead.

The equivalent part of the original is written as below:

それに、あんまり山がものすごいので、その白熊のような犬が、二匹
いっしょにめまいを起こして、しばらくうなって、それからあわをは
いて死んでしまいました。

Also, because the mountain was so bizarre, those two polar-bear-looking
dogs went dizzy, snarled for some time, frothed at the mouth and died.

Reading the GR text, some participants found the development of the story was a little hasty since they could not connect the spookiness of the deep mountain with the dogs' sudden death.

“なんか、本当に急。「木の葉がおちていて、犬しんじやった！」え？” (Somehow, it's really sudden. 'There were lots of fallen leaves and then the dogs died.' What?) (Diane, H)

This [the original text's sentence] was very well set up, whereas the equivalent [of the GR text] was so sudden it was almost unbelievable.
(Lynn, H)

This reminds us that writers of GRs and/or modified texts have to take great caution in the process of simplifying sentence structures in order to avoid losing the original coherence.

As has been seen, the results of the comparison procedures show that the current participants responded differently to many of the modification methods employed in the GR version (e.g., *furigana* provision, provision of the framework of settings, simplified syntax). It is important to investigate what type of modification methods work best for whom in future studies in the context of JSL/JFL.

6.3.6 Findings from advanced learners' reading of *Hashire Merosu*

Five advanced-level participants read the original and the GR text of *Hashire Merosu*. As mentioned above, the original of this story is much more demanding than that of *Chuumon no ooi ryooriten* in terms of linguistic characteristics. Similarly, the GR of this text is one rank higher than that of *Chuumon no ooi ryooriten* (Table 5.7 in section 5.3.10 presents the linguistic details of the four texts used in the current project).

Due to time constraints, these five advanced-level participants read only a short passage of the two texts of *Hashire Merosu*. Nevertheless, being exposed to a

pair of more demanding Japanese texts stimulated them to think about their beliefs and perceptions towards L2 texts and methodology which leads them to a mastery of Japanese reading.

Recognition of benefits of GRs

The think-aloud protocols and the exit interview comments indicate that when these five participants read the two texts of *Chuumon no ooi ryooriten*, they thought that their reading ability was high enough to read the original. This fact rendered their reaction towards the GR text of *Chuumon no ooi ryooriten* somewhat negative. However, when they tried to read the original of *Hashire Merosu*, they realized that the text was so demanding that their current linguistic levels were not good enough to handle it. At the same time, they found the linguistic content of the GR version of *Hashire Merosu* more sophisticated and closer to the original, compared to that of the GR version of *Chuumon no ooi ryooriten*. These factors made them realize the benefits of GRs as a useful bridging tool. Figure 6 below schematizes this phenomenon.

Figure 6. Five advanced learners' change of perceptions towards GRs

One of these five participants, Jake, expressed the change of his perceptions toward GRs during the exit interview.

Talking about how he felt toward the GR version of Chuumon no ooi ryooriten

“But, yeah, I feel like er, by reading it, I can understand it [the GR text]...but ... It makes me feel like, really unconfident of my Japanese ability. When I read an original, I think my Japanese is definitely good enough for that. When I can read this [the GR text], I can understand it, there is not any sense of satisfaction because I don’t feel it’s a challenge anyway. I feel like, ‘ah, my Japanese is only good enough to read children’s level.’ I know you have to start somewhere and you have to get better at learning languages, but it is a kind of disheartening to know my Japanese is such a low level.”

Dealing with the pair of Hashire Merosu

“[judging the GR text] Yeah, I think that this is a lot more appealing, better style [compared to the GR text of *Chuumon no ooi ryooriten*].

Researcher: Do you think that you will read the *Hashire Merosu*’s original straight away?

Jake: In my current level of Japanese, probably not. Because, er, after a while of reading Japanese, if I am going for quite a while, like, a half of a page or something, and I don’t understand it, I get really frustrated. So, something, I think that I can read something like this level [higher level GR] and probably understand most of it, but, I think it will still probably be challenging enough to stay interesting.

Researcher: So, there is some benefit of having graded readers?

Jake: [Very strong convincing voice] Definitely. Definitely. I think, this, this was...a lot more, it was more genuine than the previous graded reader about boys and Mountain. It felt really really condensed to me.”

Another learner among these five participants, Bill, was one of two who were the most sceptical about reading modified texts, along with Lynn. He experienced the same change of perceptions toward GRs. Unfortunately, Lynn did not read the two texts of *Hashire Merosu*. Therefore, it is not known whether or not she may see GRs and extensive reading from another angle after reading these more demanding pairs of texts. Instead, after inspecting only the two texts of the less

demanding *Chuumon no ooi ryooriten*, Lynn maintained that she really had to read only unmodified texts to become a reader of native-like fluency. On the other hand, Bill, being the second most capable reader among the current participants, found benefit in specially modified texts such as GRs after being defeated by the overwhelming difficulty of the original text of *Hashire Merosu*.

6.3.7 Findings from the exit interviews

Similar to what the comparison procedures revealed, the comments obtained from the exit interviews demonstrated that the participants' perceptions varied towards modified texts (in the current context, GRs), extensive reading, and L2 reading. They can be divided roughly equally into those who were in favour and those who were opposed to reading modified texts and taking an extensive reading approach, with a slight majority in favour.

The participants' answers for each question are now examined in detail. Unless specified as reactions gained from the two texts of *Hashire Merosu* (the more demanding pair), all the comments are based on their opinions of the two texts of *Chuumon no ooi ryooriten* (the easier pair).

Did you find the original demanding?

The participants who found the original text frustrating pointed out lexical problems as the biggest reason.

“Yes. It's hard. [laugh] Lots of words I don't understand. Vocabulary and *kanji*.” (Kirsten)

“Yeah, there's a lot more *kanji*, which broke the flow of my reading.” (Mike)

“Probably the vocab, vocabulary. Yeah, um, it was the stuff that I hadn't learnt. And *kanji*, *kanji* that I hadn't learnt, and so, missing out on those important features and many sentences...I couldn't understand.” (Tony)

On the other hand, some participants found the original text more fascinating although they similarly struggled with the difficult vocabulary contained in it. Such participants remarked that they would rather read the original and enjoy its rich descriptions.

“Original の魅力。やっぱり時間をゆっくりかけて読みたいから、どうせ時間をかけて読むんだったら、難しい方というか、その Original の作家の気持ちをこめられた方を読んで理解したい”

(The charm of the original. I want to take time to read it. If I'm going to take time to read something anyway, I might as well read a more difficult one, or I should say, I want to read and understand the one that the original author puts feelings into.) (Diane)

Which do you prefer to read?

The difficult vocabulary in the original was the biggest reason for many participants to find the original text demanding. Conversely, the eased difficulty of vocabulary was one of the main reasons for some participants to prefer to read the GR text. However, the following comment given by Johnny demonstrates many other reasons for his preferring the GR version:

“...sentences are a lot longer [in the original]... And, um, especially, in Japanese grammar, where, you have to wait till the very end, sometimes, before, to find out, you know, what they are talking about. If it's a very long sentence, it makes it very very difficult to understand. Because by the time you get to the end of the sentence, um, you've forgotten the first half of the sentence... Whereas the graded reader version, it's kind of concise sentences, easy, easy structures as well. So, like, subject, you know, subject, object, verb, nice and easy, so, it makes it easier to read. Also, the original version seems to have a lot more conversation, um, which, when you're reading a story, purely to, kind of, understand the narrative, understand the, the important point, you, it's sometimes, harder, to get the information out of conversations because people, it will take a couple of back and forth to, um, they are discussing a topic, it's not, kind of, explicitly stated, whereas the graded reader version had more of the, yeah, you already mentioned background, [Researcher: yeah, base], base, kind of narrative, you know, so, it would state, this happens, these are the people, this is what they did, rather than two people discussing that kind of thing vaguely, so that's another reason, I found the graded reader is much easier to follow.”

While eased linguistic features are apparently the most welcomed factor of the GR text, Kirsten and Mike genuinely enjoyed the content.

“Researcher: do you have other reasons why you like it [the GR text] except for its easiness?”

Kirsten: The story itself, how it is written. I think it’s still kept some description, even with simpler vocabulary, it’s still kept description, that’s good.”

“Yeah, It’s [the GR version] more meaningful. If you can understand it, or it’s more relevant to the situation. And it keeps your interest more, probably, which is important.” (Mike)

Mike further recognized that the GR text has a real communicative intent unlike textbook reading passages.

“Um, maybe textbooks, the, language is usually, specific about lessons, and usually emphasizes something in particular. I can’t think of examples, but, you know, sort of, usually textbook lessons are very forced, or unnatural situations, just, which is created specifically so that language can be used in those situations. Which is why authentic text transformed from graded readers seems more engaging.”

With linguistic reasons or engagement offered, some participants view the GR text as easy, beneficial and interesting. On the other hand, other participants took a negative stance towards reading modified texts and an extensive reading approach. Lynn was the most adamant student in this respect. Even after witnessing the original text’s difficulty, she claimed as below:

Researcher [R]: Do you find the original still fascinating?

Lynn [L]: Yes. It [the original] is not the one written for students who study Japanese, but what Japanese people read. That’s why I would like to read it.

R: So, for an advanced level student like you, is the desire to read the exactly same thing as what Japanese people read very strong?

L: Yes, it’s strong, actually.

R: That means, if you know that graded readers are the texts which have been rewritten, do you have negative feelings to read them?

L: Yes.

R: Can you clarify the reasons?

L: I feel like that I was looked down on. I can read more difficult things. If I always read easy things, nothing will go ahead. I want to take more challenges.

Naomi agreed with this, saying “a dry story when it’s that simplified, and then at the same time, if it’s easy, you feel like, why am I reading this? You know, it’s not helping me improve.”

This desire to read exactly the same thing as Japanese people was also observed among the other advanced-level participants and one lower-level participant. These students seemingly believe that they need to read exactly the same texts as native Japanese speakers, if they want to improve their reading ability to the level of native-like fluency although their reading of the original text was a painstaking laborious process.

Do you welcome *furigana* attachment in the GR text?

As has been revealed by the other assessment tasks in this project, *furigana* provision in the GR text was not wholeheartedly approved. Many participants, even struggling students, suggested that *furigana* provision should be more selective.

Johnny gave a precise explanation for this:

“...as soon as I see *kanji* having *furigana* above it, I automatically read *furigana*. Because I assume that I don’t know the word. And it really, it actually makes [my reading] a lot slower. And also makes it not good for *kanji* practice.”

And Robyn explained why their reading process tended to be slowed down.

“But one downside of that is you get confused. You have to read the *kanji* at the same time with *hiragana* next to it, you have to read the *hiragana* at the same time, so, you have to go like, going up and down, that’s why you get a pause.”

Some participants supported textbook reading passages which are criticised by Mike and scholars of relevant research (e.g., Hedge, 1985; Widdowson, 1978, 1979) for their lack of communicative intent. These participants placed textbook passages higher than GR texts because textbook passages have selective *furigana* usage and are more useful in terms of *kanji* learning.

Implications from the participants

The participants in the current project were all university students, of whom the majority were in their final year. They chose to study Japanese of their own will and they were dedicated autonomous learners. In Japanese learning, most of them have reached the stage of “*Chuukyuu no kabe*.” *Chuukyuu no kabe* is literally translated as ‘the wall of the intermediate level’ and often mentioned by scholars of Japanese (e.g., Kijima, Yanashima, Kusumoto, Sho & Fukuya, 1994; Matsushita, 2012). It is a high wall to climb and it seems that many learners cannot get over to the other side in regard to reading proficiency. These dedicated learners think deeply about how to climb such a high wall and improve their reading ability. During the exit interviews, such insightful thoughts emerged as implications for the future construction of Japanese GRs. The following lists such implications.

- Sentences can be longer in GRs to avoid being disjointed but vocabulary should stay simplified. (Tony)
- *Furigana* should be attached to only difficult *kanji*. A vocabulary level check test will be feasible because what learners think is difficult is very personal. (Kate)

- *Furigana* may be added only right in the beginning or a glossary can be added so that learners do not have to see it all the time. (Naomi)

6.3.8 Discussions of Project Three

6.3.8.1 Overall findings

Project Three was a project that investigated the participants' response to the two different texts, the original text and its GR version, of the two Japanese literary works. The stories chosen were *Chuumon no ooi ryooriten* and *Hashire Merosu*. The two texts from the former story are less demanding in terms of linguistic features, compared to those from the latter story. The majority of data was based on the former story. (See section 5.3.9 for the texts used in Project Three.)

Overall, the participants' reactions towards the GR texts were initially divided equally between support and opposition. There were participants who welcomed the increased comprehensibility of the GR, participants who could see the benefits of the GR text as a bridging, participants who genuinely enjoyed the GR text, participants who preferred the GR text compared to its original because they could relate more easily to it, participants who adamantly advocated reading the original text just because it was written for native readers, and participants who admitted the benefits of GRs even though they wished they could read original texts straight away. (See sections 6.3.2.1, 6.3.2.2, 6.3.2.5, 6.3.4, 6.3.5.1, 6.3.5.2, 6.3.6 and 6.3.7.)

This initial, divided reaction is rather different from what Young (1993) found in a similar study. In her study, 98% of the participants found the authentic text easier. 75.5% of the participants said that the edited text was more frustrating, while only 4% found the authentic text frustrating. Choosing a more interesting text, 67.3% chose the authentic and only 18% chose the edited. The students who chose

the edited text for future reading numbered only half of those who chose the authentic text (ibid., p. 458).

One of the factors which created this distinct difference between Young's study and the current study is probably the difference of L1-L2 pairings. The context of her study was L1 English – L2 Spanish. Her participants may not have felt their L2 was so distant from their L1 since the two languages were cognates. In contrast, the current participants may have struggled more with a different orthographic L2, and therefore they may have welcomed GR texts more easily. It is fair to say that compared to the edited texts used in Young's study, the current GR texts captured more favourable responses. Including the advanced-level participants who initially opposed the GR text of *Chuumon no ooi ryooriten* and then changed their attitudes after being exposed to the more mature lexical and syntactic GR text of *Hashire Merosu*, the majority of the current participants agreed that they would read GRs as an bridging material.

Needless to say, there are many other variables that affect learners' preference, enjoyment and engagement when they read L2 texts (Young, 1999). The reaction may have been different if a different genre, a more familiar story, or a GR written by another writer had been used in the current project. These factors render the task of investigating how learners interact with a text quite challenging. Nevertheless, significant findings obtained in the current project give us a good starting point for this seemingly challenging task. In the following parts, some of the findings are discussed.

6.3.8.2 Necessity for guidance about the justifications for using modified texts

A roughly equal number of the participants initially supported and opposed reading modified texts such as GRs. This difference seems to arise from the difference in learners' beliefs towards L2 language learning and L2 reading learning.

Analyses of the think-aloud protocols and the summary task indicated that the current participants comprehended and engaged well with the GR text of *Chuumon no ooi ryooriten*. Their laborious, plodding reading-aloud of the original text is a vivid demonstration of their poor understanding of, and engagement with, the unmodified text. There were countless 'somethings' vocalized in their think-aloud protocols for the original text. This 'something' signals that the participants did not know or could not remember the reading of *kanji* compound words. The researcher calculated the proportion of such unknown vocabulary to the total number of words in the original passage they read. The average ratio of unknown *kanji* compound words in the passage was 7.5%, with the lowest being 1.4% (the only L1 Chinese participant's ratio) and the highest being 12%. Hu and Nation (2000) assert that readers have to know more than 98% of the running words in a text for satisfactory comprehension in the case of unassisted reading. Thus, the current participants, excluding the sole L1 Chinese participant, were not able to comprehend the original text of *Chuumon no ooi ryooriten* independently.

When a reader does not understand more than 10% of the words in a text, such an act cannot be called fluent reading but can be more appropriately called intermittent sporadic decoding. The process that the current participants experienced during the reading of the original text of *Chuumon no ooi ryooriten* is probably similar to what Everson and Kuriya (1998, p.12) describe: "nothing more than haphazard guesses as to what the text was about, combined with vague conjecture as

to how the vocabulary that they did know fit into these erroneously generated discourse structures.” Nevertheless, some learners initially suggested that they would prefer reading originals. For example, Daniel, while he could not understand 11.4% of words in the original text, maintained that he would rather read the original text with the help of a dictionary. Although he acknowledged that the GR text was something designed for developing learners like himself, he could not see the benefits of reading it. The more advanced learner, Lynn, with 9% unknown vocabulary, firmly asserted that she did not see any point in reading modified texts. Why do they think this way? It is not easy to understand why these learners prefer plodding decoding to fluent reading.

These learners seem to have established a certain belief toward L2 Japanese reading. The researcher made an enquiry at five high schools and found out that L2 Japanese curriculum at New Zealand high school instruction was largely determined by National Certificates of Educational Achievement (NCEA)²⁴ guidelines. In practice, 25% of the whole curriculum is supposed to be allocated for reading instruction, but it seems that the content of reading instruction is tuned for what students are tested on NCEA assessments/examinations. Reflecting the characteristics of NCEA assessments/examinations, the approach taken in high school Japanese reading instruction tends to be fragmental and intensive-reading-oriented. This tendency continues into the participants’ tertiary classes. A structural syllabus is applied at the university’s Japanese courses where the majority of the current participants study. Under such a syllabus, reading is not the centre of

²⁴ National Certificates of Educational Achievement (NCEA) are New Zealand’s “national qualifications for senior secondary school students” (<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/understanding-ncea/>). There are three levels for each subject and students are assessed both by internal assessments and external examinations.

instruction and reading fluency development is forgotten. When these students conduct reading, they read short difficult passages contained in textbooks, using a dictionary. That is, these learners have rarely received guidance about how to develop abilities which enable them to read their target texts for meaning without using dictionary.

Some of them probably initially detested such an intensive reading approach: looking up the meaning of many unknown words in a dictionary and connecting not-fully-sinking-in meaning to make a reasonable sentence, only to find out that they still could not understand what the sentence tries to convey. Still, without knowing, some of them have come to believe that Japanese reading is a difficult thing and they have to suffer to master it. Diane remarks “わからなくても、頑張ったほうが、最終的には、あ、なんか、成長したな、とか” (even if I cannot understand, when I try harder [with a difficult unmodified text], in the end, I feel, sort of, having improved, or something.) Their previous learning experiences appear to have firmly planted a concept of ‘no pain, no gain’ in their minds.

Some of the current participants cannot see the justification for reading modified texts such as GRs under an extensive reading approach because they have simply not been given a chance to learn the benefits of such an alternative approach. Without explicit guidance from teachers, these students fail to see the benefits of reading large amounts of easier texts for meaning without using a dictionary and without worrying about discrete features. Naomi’s remarks summarize this aspect well:

“...Agh, this [the GR text] is too, it wasn’t completely easy easy, but it was a bit not challenging enough. It seems pointless without it [a dictionary]. Like, a dry story when it’s that simplified...you feel like ‘why am I reading this?’ You know, it’s not helping me improve.”

To summarise, the findings of the current project inform us that learners have to be given guidance about the benefits of reading modified texts since they seem to have grown the “cult of authenticity” (Day and Bamford, 1998, p. 53, see section 3.3.4) from their previous experiences.

Many extensive reading studies claim that learners’ affective factors are positively influenced after they experience extensive reading (e.g., Asraf & Ahmad, 2003; Cho & Kim, 2004; Cho & Krashen, 1994). Those studies may imply that learners just have to do it to find out that reading a large amount of easier, modified material does them good, without worrying about the benefits of such materials initially. The present study, contrary to what extensive reading research often claims, found that some advanced-level participants mentioned that reading modified texts created ‘stigma’ or ‘demotivation.’ Providing modified texts without enough justification appears to dishearten and demotivate such learners. Thus learners such as the current participants, being mature, autonomous and dedicated learners, need to have the rationale explained initially, and to be shown what the empirical findings demonstrate. This approach presupposes that teachers themselves understand its benefits.

However, Macalister (2010) reports that classroom teachers examined in his study have rather limited knowledge of empirical findings regarding the benefits of extensive reading, and despite the well-established reputation of extensive reading in relevant scholarship, not every teacher employs it. Reflecting this, it is not surprising that learners who have been instructed with an intensive reading approach hold strong antipathy towards modified texts and an extensive reading approach. This is important and relevant, because when learners harbour negative feelings against the text that they are about to read, such a reading act cannot easily become authentic

(Lee, 1995). The current findings indicate that learners do not necessarily authenticate modified texts, precisely because they do not know the benefits of reading such texts and regard them negatively to start with.

There are not many studies that emphasize the provision of initial reasoning for extensive reading to learners, but Dupuy, Tse and Cook (1996) do not slight the importance of this aspect:

It is important to convince students of the value of extensive reading because they may not see the benefits of pleasure reading in a second language... The typical student's idea of reading in English [English is an L2 in their context]...is often quite different from what is offered in an extensive reading course. Therefore, we find it important to inform students of the rationale behind this approach and share with them some of the research...documenting the benefits of pleasure reading in increasing language and literacy development. This information, which often comes as a surprise to many of our students, gives them a sense of understanding and confidence that the kind of reading they are about to do will be helpful for their language learning. (p. 10)

In the current project, two of the participants had been given the rationale for extensive reading and GRs through their second major study, i.e., second language education. These participants exhibited that such initial priming had indeed given them “a sense of understanding and confidence” which led them to accept the GR texts used in the project positively. On the other hand, the participants who hardly knew anything about an extensive reading approach tended to choose the original texts no matter how poorly they interacted with such unmodified texts. Even if they admitted the benefits of the GR texts later in the project, their acceptance was somewhat reluctant.

6.3.8.3 Importance of level appropriateness

The five advanced-level participants' experience shows us that it is of great importance for learners to read a GR at an appropriate level. The five participants

read a more demanding pair of texts from *Hashire Merosu*. Then they changed their initially negative views towards GRs which had arisen from their reading of an easier pair of texts from *Chuumon no ooi ryooriten* (See section 6.3.6). This indicates that it is of great importance for learners to read a GR at an appropriate level. It also implies that learners first have to see the point in reading a GR. In the current project, some learners found their level was good enough to read the original of *Chuumon no ooi ryooriten* straightaway although their reading of the original would not be fluent, pleasurable reading.

When learners read an easy GR, they understand the content more easily and enjoy it. However, for L2 learners, reading their target language texts is a “real-world reading but for a pedagogical purpose” (Day & Bamford, 1998, p. 5). Therefore, enjoyment can be overruled by their dissatisfaction at feeling insufficiently challenged by a too-easy GR. If 98% of running word vocabulary knowledge is required for unassisted reading as Hu and Nation (2000) claim, learners should be provided with a GR in which only 2% of the words are unknown, for them to exercise a word guessing strategy. Even if scholars who promote pleasure reading advocate that reading should be done for pure enjoyment, it is natural that L2 learners will nevertheless seek some degree of learning outcome from L2 reading besides pure enjoyment. It cannot be denied that a sense of having learnt something new in itself brings L2 learners enjoyment.

Similarly, syntactic control needs to be carefully reviewed to provide appropriate-level GRs to learners. Some of the current participants claimed that the GR text of *Chuumon no ooi ryooriten* sounded childish. Three learners found it a little repetitive. Shortening sentences inherently contains the risk of making discourse disjointed, immature and incoherent (e.g., Byrd, 2000; Gardner & Hansen,

2007; Pearson, 1974; Tweissi, 1998). Therefore, a series of short simple sentences may make the GR text sound disjointed. The results of the present study emphasize that the length and complexity of the sentence needs to be matched to learners' proficiency.

Providing a learner with a too-difficult GR is similarly demotivating. Leung (2002) conducted a diary study in which she experienced self-monitored extensive reading in Japanese. She reported that picking up a too-difficult book and finding that her Japanese was still not good enough to read it destroyed her newly built confidence during the self-monitored extensive reading scheme.

For learners, reading an appropriate-level GR is one very important aspect. Only with appropriate-level GRs will learners appreciate reading modified texts, enjoy L2 reading and authenticate such GRs. Day and Bamford (2002) emphasize the importance of learners' autonomy of choosing what to read. However, the findings of the present study demonstrate that it is crucial for teachers to ascertain that learners are reading appropriate-level books.

6.3.9 Writer-reader interaction in Japanese GRs

The current researcher had access to the author of the two GRs used in Project Three. The writer used various text modification measures in order to rewrite the original texts into good GRs. One of the best writers of English GRs, Basset (2005), describes good GRs as “unputdownable”: GRs which learners cannot put down because they want to keep reading. This section examines how measures employed by the writer of the two GRs were responded by the fourteen participants.

6.3.9.1 *Furigana* provision

As the participants' comments during the exit interviews revealed, *furigana* provision was not welcomed unconditionally (See section 6.3.7). Many of the

participants mentioned that having *furigana* for all the *kanji* was not good for learning. Some participants placed textbook reading material higher than the GR excerpts simply because the textbook reading material used *furigana* selectively and gave them better reinforcement for learning *kanji* characters.

To this perception, the GR writer argued as follows:

As the ability of reading *kanji* depends on the learner, I added *furigana* to all the *kanji* up to level four so that learners would not stop and think at a *kanji* character for which they don't know the reading. Non-logographic native language learners tend to think that the ability to read *kanji* is the ability to read Japanese. They tend to worry about *kanji* too much. There are many students who complain about *furigana* provision to all *kanji*. With dissatisfaction they say, 'I know an easy *kanji* something like this...' when they see *furigana* added to *kanji* that they have mastered. But if learners' *kanji* ability goes up, they do not see the *furigana* but just see the *kanji*, and they keep reading. They stop worrying about *furigana*... I strongly hope that learners keep on reading for the content without worrying about grammar, vocabulary or *kanji* too much. (M. Awano, personal communication, May, 2012, the researcher's translation)

This writer wants L2 Japanese learners to enjoy reading in Japanese. Therefore, she adds *furigana* to all the *kanji* in order to stop unfamiliar *kanji* from being an obstacle. However, some of the current participants try to seek learning opportunities from texts. If learners fail to think that reading on its own can be their goal, it is unlikely that they will understand this author's intention regarding this aspect.

6.3.9.2 Elaborative modification measures

One of the elaborative modification measures used by the GR writer is insertion of a sentence to clarify who is saying a remark. She often inserts sentences such as 'one of them said' and 'another man said' in order to prevent learners from getting confused about who is actually speaking. This technique was welcomed by some of the participants. They mentioned that those sentences successfully clarified who was the speaker (See section 6.3.2.2).

Another elaborative method taken by the writer received positive responses. The original text of *Hashire Merosu* starts with a drastic change in the story development. The GR writer made this difficult beginning easier with elaboration. In the GR version, the occupation and personality of Melos (the protagonist) is explained, and the story development is more sequential. Two advanced participants who read this text praised the GR version, saying that with the GR version, “you can sort of guess what is going on” (Robyn) and “you can paint an accurate picture of *Merosu*” (Debbie). For this drastic rewriting, the GR writer explained as follows:

Rewriting for extensive reading is not a precise literal translation. In the rewriting process, I simply followed my thought about how I could make [the first sentence of] ‘that evil vicious...’ comprehensible for target learners of this level. Learners of this level cannot understand [the sentence] with ease. I ‘translated’ maintaining the fast speed of the story development even though I knew I would ruin the rhythm and stylistics presented by Dazai [the original author]. I believe that the beginning of a story has to be easy. Our experience of reading foreign stories supports [this belief]. If you don’t easily understand personae and backgrounds, you cannot keep reading. I try to keep sentences short and comprehensible at the beginning of a story in order to intrigue the readership. (M. Awano, personal communication, May, 2012, the researcher’s translation)

The writer has a firm stance about what she has to do for the purpose of drawing learners quickly into the enjoyment of reading. In general, many of her elaborative techniques derived her wish to draw learners into the intriguing world of Japanese stories, and were welcomed positively by the participants.

6.3.9.3 The writer’s flexible attitude

Day and Bamford (1998) claim that L2 reading is a real-world reading with a pedagogical purpose. Writing GRs, then, can be thought to be one such real-world writing with a pedagogical purpose. Writers of GRs are different from authors of other genres in some aspects due to this pedagogical purpose. The most distinguished factor related to this is the aforementioned GR writer’s responsiveness

to learners' and researchers' feedback, and readiness for possible changes and improvements. In her email sent to the researcher, she remarked that if learners found some of her modification techniques annoying she would have to reconsider. She also pointed out that "syntactic simplification may be unnecessary actually because Japanese grammar is not so complex originally" (M. Awano, personal communication, May, 2012, the researcher's translation). She then commented that she welcomed theoretical and empirical reasoning which explain why syntactic simplification is not necessary in some cases.

Some of the current participants mentioned that the GR excerpt of *Chuumon no ooi ryooriten* was a little disjointed due to its succession of short sentences (See section 6.3.5.2). Linguistic analysis of the text revealed that the average sentence length of this GR version was rather short compared to other unmodified and modified texts (See Table 5.2 for linguistic analysis of this text). Nevertheless, some developing participants welcomed such short sentences. No text and no text modification can satisfy all learners. As long as the writer has a flexible reader-oriented approach, there will be a better writer-reader interaction and their common goal, i.e., mastery of L2 Japanese reading, will be fulfilled. This flexibility demonstrated by the GR writer in question is one example of the characteristics that distinguish writers of GRs from authors of other genres.

6.3.10 The participants' endorsement for the benefits of GRs

What the current project can claim is that many of the participants at least managed to appreciate the benefits of reading modified texts such as the current GR texts. Those participants said that they welcomed GRs as lead-in before they tried to read originals. Thus, the GR writer's pedagogical intentions were met positively.

The following comments by three participants are examples of such positive responses:

...if we just read a graded reader version, it's *omoshiroi* (interesting).
(Robyn)

But if I hadn't read that one [the graded reader text], the easy one first, I wouldn't have understood [the original text]... Um, um, yeah. I didn't understand what was going on in this one [the original text]. Cause I didn't know 'deer' and I didn't know 'yellow,' I didn't know, yeah, counters for bullets, and yeah, and I didn't know that at all. (Tony)

(original in Japanese, the researcher's translation)

Researcher: Even if you have a graded reader, you still read an original as you usually do? Or is having a graded reader version useful?

Diane: Yes, it is useful. I may read a graded reader first and then read an original.

Researcher: So, a graded reader has benefits as a lead-in when an original piece is very difficult?

Diane: Of course, it has. I forget the story if I look up a word in a dictionary when reading, so... whereas I have to use a dictionary with an original, this graded reader is useful.

These comments imply that the two GR excerpts used met two of the four-stage operational requirements proposed by West (1964): to give a foretaste of the original, and to provide a lead-in to unadapted books and writing. Future studies may examine whether or not Japanese GRs are capable of meeting the other two requirements, i.e., to introduce the learner to reading for pleasure, and to build habits of reading for pleasure (see section 4.1 for West's four-stage operational requirements).

6.3.11 Implications for modified texts

In the current project, the participants' detailed reactions toward features of the GR texts were obtained especially through the comparison procedures in which the researcher conducted a pair think-aloud with each participant. There are

significant implications regarding the process of modifying Japanese texts for learners (See section 6.3.5 for the comparison procedures).

First of all, the current participants did not welcome *furigana* for all the *kanji* in the GR texts. The failure in phonological decoding seems to affect both cognitive and affective aspects negatively during reading. A participant in a study by Wade, Buxton and Kelly (1999, p. 204) testified: “I totally did not understand [this paragraph]. I’m unfamiliar with these words and they come up so often, and I don’t know the pronunciation, so it makes it harder...I’m reading a line and skipping those. So, no comprehension.” Encountering numerous unfamiliar *kanji* compounds surely demotivates learners and decreases their comprehension. However, the participants apparently want more challenges for them to force themselves to remember the reading of easy *kanji* compound words. Hence, more selective *furigana* provision may be explored in tandem with developing assessment measures to examine learners’ *kanji* proficiency.

Another implication from this study is the possibility of maturing syntactic features. As has been argued, sentence structures do not always hinder L2 Japanese learners’ understanding of a text. A few of the syntactically simplified parts of the GR version of *Chuumon no ooi ryooriten* appeared disjointed and childish to some of the participants. Regarding this issue, Naomi commented as follows:

Researcher [R]: Is it [the graded reader text of *Chuumon no ooi ryooriten*] childish?

Naomi [N]: Yeah. I don’t know, it might be just me, but I just feel like it’s pointless to read such, easy and short, you know, it’s like reading a kid’s book. Kids might find it really fun. But, you know, picture books which say things like, ‘this is a duck, this is a horse,’ you know, like, kids might find it fun but I wouldn’t.

R: So, you found the original text more fascinating.

N: うん ! (un, yes)

The writer of this particular GR text remarked that adult learners did not enthusiastically read their GRs (M. Awano, personal communication, August, 2011). Taking a bolder attitude in sentence structures may hold the key to attracting adult learners. Unlike lexical control, syntactic control may not have to be so strict when learners are capable. Contemplating this issue, Nation (2001, p. 171) mentions that “research is needed to determine how much grammatical control is needed to make readers accessible for second language learners. It may be that rough control of sentence length and complex sentences is sufficient.”

Bassett (2005, n.p.) asserts that “writing in a reduced code does not mean you have to have an episodic plot which moves through each event, one by one, in real-time sequence. The language equivalent to this might be strings of simple SVO (subject/verb/object) sentences, a kind of writing which ignores all features of natural discourse, and which is, in fact, quite difficult to process.” The same thing can be applied to Japanese language. The canonical word order in a Japanese sentence is SOV. Strings of short simple sentences with this SOV canonical order, albeit that it does not have to be called “writing which ignores all features of natural discourse,” tend to sound ‘disjointed’ and ‘choppy’ as some participants pointed out (e.g., Naomi, Tony and Robyn). Such discourse may fail to attract adult learners. The most advanced learner with a near-native-fluency, Debbie, was the only participant who compared each segment of the more demanding pair of texts from *Hashire Merosu* in detail. She presents a comment related to this issue:

At this point [the third paragraph of both the original and the GR version of *Hashire Merosu*], both stories have a very similar feel in the way they are written, though, of course the graded reader version’s use of simplified language makes it sound a little more juvenile directed.

In contrast to a relatively unwelcoming response to ‘simplified language’ and ‘*furigana* provision,’ discursial, elaborative modifications employed in the GR texts were welcomed, as discussed in section 6.3.9. Robyn praised the GR version of *Hashire Merosu* for its reader-friendly beginning passage:

...the first three lines [of the original text]... ‘he was angry, he has to kill the king, but he doesn’t understand politics, that’s because he is a farmer’...sometimes sharp turns go into his background... With this sort of...you have this, you have that, how those are related. And whereas the graded reader version...you can follow, you can sort of guess what is going on.

The aforementioned most advanced learner, Debbie, also favoured the GR text in this passage, saying that “the graded reader version paints a picture of the main character and his occupation. Though the tone is much lighter and because of this, and much less information, there is, er, enough that you can paint an accurate picture of *Merosu*.”

Similarly participants positively responded to elaborated parts in the GR texts. Debbie claimed that “the trip *Merosu* makes is explained in greater detail in the graded reader version – therefore focussing on this part, which gives it more bearing to the storyline.”

When this aspect is considered along with the fact that some participants criticised the reduced descriptions in the GR text of *Chuumon no ooi ryooriten*, the current participants generally welcomed elaborative modifications so long as lexical aspects reduced comprehension difficulty, rather than over-simplification. Additionally, elaborating sentences makes the discourse more mature for adult learners.

These trends concur with a study by Wade, Buxton and Kelly (1999). Their participants similarly “confirmed the role of comprehensibility in creating interest

and recommended that authors provide more background information and explanations, descriptive detail” (p. 211).

There are various modification techniques observed in the two GRs used in the current project. Supporting such a text modification approach, Long (1997, p. 162) claims that “global text modification following either approach [simplification or elaboration is] generally insufficient to improve comprehensibility of whole lecturettes or reading passages.” Thus, the writer of the two GRs used in Project Three was successful insofar as she employed an eclectic approach between simplification and elaboration.

6.3.12 Teachers’ role – to free learners from ‘the cult of authenticity’

Speaking about autonomy, van Lier (1996) suggests as follows:

It is a truism that learning has to be done by the learner. This means that teaching cannot cause or force learning, at best it can encourage and guide learning. (p. 12)

Similarly, Widdowson (1990, p. 163) confirms that “the whole point of pedagogy is that it is a way of short-circuiting the slow process of natural discovery and can make arrangements for learning to happen more easily and more efficiently than it does in natural surroundings.”

What do teachers need to do in order to guide learning and short-circuit the slow process in the case such as the current context?

The findings of Project Three demonstrate that some advanced learners had grown negative perceptions toward reading modified texts. A few of them had the cult of authenticity. They believed that unmodified texts were superior to modified texts, and that they needed to read unmodified texts in order to reach native-like fluency (See section 6.3.7’s ‘which do you prefer to read?’). However, reading unmodified texts is their ends and cannot be always effective means. Bamford and

Day (1997) confirm that “the insistence that students read authentic (i.e., real-life) texts is, in fact, based on both a confusion of means and ends, and a misunderstanding of what “authentic” means” (para. 13, ‘Reading Materials: Simplified vs. Authentic?’ section). When learners hold negative perceptions toward reading modified texts and are confused means with ends, they will fail to engage with and authenticate modified texts.

It is, thus, the teacher’s role to free these learners from the cult of authenticity. Specifically, the teacher can clarify what benefits reading modified texts brings to their reading development.

So, what are the beneficial factors of reading modified texts? Nation (2007) proposes that a well-balanced language course should have four strands; meaning-focused input, meaning-focused output, language-focused learning and fluency development. He claims that each strand should form a roughly equal proportion, i.e., 25% of the whole curriculum. With these four strands placed and balanced, learners can acquire fluent control of their target language and accurate knowledge of discrete linguistic items, which gives learners global L2 competence.²⁵ Regarding L2 reading, Pichette’s (2005) study implies that mere reading-related activities may not efficiently develop lower level learners’ reading ability. It is thus desirable that a language course contains these four strands equally.

After such an essential component of a language course is secured, modified texts make contributions especially in the two strands of meaning-focused input and fluency development. Comprehensible modified texts enable learners to read for meaning without struggling with difficult linguistic features (Ragan, 2006). Very

²⁵ Fluency and accuracy are not acquired at each other’s expense. Wolf and Katzir-Cohen (2001, p. 233) “argue strongly for a definition of fluency that is developmental- and component-based, where rate and speed are the characteristics of the components and subskills of reading, and where accuracy and automaticity are assessable outcome stages of reading and reading fluency.”

easy modified texts present opportunities for fluency development such as word recognition and reading speed enhancement training. This type of learning is not possible with unmodified texts in which linguistic and discourse features are beyond learners' capability. Nation (2001, p. 172) asserts that "without simplification, the strands of meaning-focused input, meaning-focused output, and fluency development become impossible for all except advanced learners." If learners understand these benefits coming from modified texts after sound enlightenment, they are more likely to engage with such specially written texts in a meaningful manner.

The teacher's role is to remove students' doubts regarding reading modified texts and to convince them that reading modified texts is an important part on the way to a mastery of L2 Japanese reading.

6.4 Integrating the findings of the three projects

As argued in section 6.2.5, the findings of Projects One and Two concurred in some aspects and served to portray how the participating learners processed their target texts, what type of texts and reading styles they preferred as well as how they felt about reading in Japanese in general. The obtained portrayal is as follows.

The participating learners are L2 learners who:

- had learned their target language for many years but had received limited reading skill instruction
- were eager to master reading in their target language
- were still unable to get a gist of unmodified texts independently
- preferred hard copy reading to computerised reading

- disproportionately allocated their attention to vocabulary difficulty, compared to syntactic difficulty
- were not generally able to benefit from elaborative modification
- welcomed simplification
- preferred embedded modification to out-of-text modification and found easification such as glosses and pop-ups on a computer screen distracting

This portrayal implies that these learners will benefit from reading hard copy texts with embedded modification, initially simplified texts, for a purpose of fluency development and reading habit/enjoyment nurturing. That is, with such modified texts, they will learn to read for meaning with maintaining the flow of reading process, without struggling with difficult vocabulary and/or lengthy syntax.

The findings of Project Three in which a type of hard copy modified text, i.e., GR (graded reader) texts, was used supported and deepened these implications. The participants in the last project experienced an effortless reading experience with the GR text of *Chuumon no ooi ryooriten* (See section 6.3.2.7). However, some of the advanced participants showed negative perceptions toward reading modified texts such as the GR text used (See section 6.3.7's 'which do you prefer to read?').

This more in-depth finding obtained from Project Three in addition to the findings of the two preceding projects together demonstrated that learners such as the current participants will need to be given the explicit guidance regarding L2 reading in general and the rationale for reading modified texts. If learners have enough knowledge of what type of reading they want to master and what they have to do for their goal, they can have positive perceptions about reading modified texts and thus authenticate such texts. In practice, if they know that they are able to read their target texts for meaning without using a dictionary after developing fluency by

means of reading large quantities of easy modified texts, the efficacy of modified texts will be maximized.

In the next chapter, noteworthy findings of the present study will be revisited and conclusions and recommendations will be presented.

Chapter 7. Conclusions and recommendations

7.0 Overview of the chapter

The final chapter first presents the overall findings of the present study and then specific important findings. It concludes with recommendations for L2 Japanese reading instruction and suggestions for future research.

7.1 Overall important findings of the study

The present study is an endeavour to further the authenticity debate in the JFL context by answering the overarching question, ‘whether or not, and to what extent, modified texts are efficacious in L2 Japanese reading instruction.’ To my knowledge, this is the first study of its kind relating to JSL/JFL.

First, the study proposes that the traditional view of texts given to L2 learners needs to be re-examined. In the ‘traditional’ authenticity debate, texts tend to be categorized into two contrasting types: ‘authentic texts’ and ‘simplified texts.’ Some scholars assert that an authentic text must be a text which is written by a native writer for a native reader (see section 3.5.2). The current study, however, argues that authorship and intended readership of texts are not the sole determiners of authenticity of texts. Thus, the stance adopted by Widdowson (1979) and Davies (1984) is supported in this thesis: a text is authenticated when a reader experiences authentic reading. When learners read a text relevant to their purpose, know conventions used in it, understand the meaning of it, and successfully interact with an author’s intent, such a text becomes authenticated. In short, the current study discusses the authenticity debate beyond the traditional dichotomous framework of ‘authentic texts versus simplified texts.’ Instead, it seeks an answer to the question of what makes texts ‘authenticated’ in L2 Japanese reading.

Which type of reading text learners of Japanese authenticate was examined through three projects. In each project, learners' cognitive and affective responses towards unmodified texts and modified texts were compared. Unmodified texts used were original texts written by native writers for native readers, whereas modified texts were re-written with the aim of reducing the difficulty of the original.

Thirty-one participants read one unmodified text and four differently modified texts in Project One. The most noteworthy finding of this exercise is that the degree to which the participants benefited from modified texts was greater than that experienced by participants in similar studies conducted in the context of L1-L2 cognate languages (see section 6.1.7.1). A questionnaire survey, Project Two, confirmed the findings obtained by Project One. The two projects demonstrated that the simplified text was accepted as the easiest by the participating students, that many of them failed to notice lexical elaboration, and that easification, i.e., marginal gloss and computer annotation, may be distracting. Both projects found that the participating students preferred hard copy reading to computerised reading, despite rapidly advancing digital technology (see sections 6.1.7.4 & 6.2.3.2). Project Three deepened the findings of the preceding two projects. The last project revealed the complexity of the seemingly straightforward relationship between learners' cognitive and affective aspects portrayed by the results of the first and second projects.

The majority of the participants of the first two projects better comprehended and preferred modified texts. However, when longer literary pieces and their graded reader (GR) equivalent texts were used in Project Three, the participants' intertwined cognitive and affective factors were detected. Some of the participants in Project Three suggested that they would attempt to read original Japanese texts even

though they could not comprehend such texts satisfactorily. The qualitative approach employed in Project Three enabled the researcher to interpret this complex phenomenon and provide some conclusive answers to the authenticity debate in the context of JFL: (1) modified texts must be appropriately pitched to the learner's level of proficiency (see section 6.3.6); (2) learners benefit by being taught the rationale for reading modified texts in order to authenticate such texts (see section 6.3.8.2).

7.2 Specific findings

L2 Japanese learners' difficulty in reading unmodified texts

Unlike previous studies in the context of other second languages (Allen, Bernhardt, Berry and Demel, 1988; Maxim, 2002; Young, 1993), the participants in Project One, albeit being more experienced language learners than their counterparts in those three studies, were far from capable of reading unmodified texts. Their scores of the free-recall task and the short answer reading comprehension test of the unmodified texts were statistically significantly lower than those of all the modified texts (see sections 6.1.1.2 & 6.1.2.2). Such a marked difference in participants' ability to comprehend unmodified texts was deemed to have arisen from the difference between L1-L2 pairings as argued in section 3.5.6. The qualitative analyses of the participants' protocol data in Project One also showed the participants' dismay at not understanding the unmodified texts: they stated many metacognitive remarks which demonstrated their disheartened reaction toward reading the unmodified texts (see section 6.1.6.3.1). The fact that the respondents' vocabulary level in Project Two was well below the required level proposed by Hu and Nation (2000) to read an unmodified text supports this finding (see section 6.2.3.4, also section 6.3.8.2). The participants in Project Three made many

metacognitive remarks during the think-aloud procedure using the original literary text which demonstrated their demotivation caused by the difficulty of the unmodified text (see section 6.3.3.2). These findings affirm that because even upper-intermediate and advanced L2 Japanese learners often do not have sufficient linguistic abilities to read unmodified texts, provision of unmodified texts to L2 Japanese learners should be considered carefully. Modified texts clearly play a more important role in this Japanese-specific context, compared to contexts in which learners learn cognate target languages.

Simplification or elaboration?

Project One demonstrated that there was no statistical difference in the participants' free recall scores between the simplified and the elaborated texts, whereas the participants' scores for the short answer reading comprehension test of the simplified texts was statistically significantly higher than those of the elaborated texts. This implies that simplification may not always be more facilitative than elaboration, which concurs with findings from some previous studies (Oh, 2001; Urano, 2000; Yano, Long & Ross, 1994, see sections 4.2.4.3 & 4.2.4.5).

However, the finding that the participants in Project One rated their self-perceived understanding of the simplified texts significantly higher than that of the elaborated texts provides evidence that they at least felt more confident of their comprehension with the simplified texts. Their self-perceived understanding of the elaborated texts was lower than those of texts with a marginal gloss and pop-ups on a computer screen, although their reading assessments' scores of the elaborated texts were higher than those of the other two texts. Actually, the participants' comprehension test scores of the elaborated texts were significantly higher than those of the texts with a marginal gloss (see section 6.1.2.2). This implies that the

participants failed to perceive that they comprehended the elaborated texts well (see section 6.1.3.2). Therefore, the elaborated texts did not necessarily boost participants' confidence and the fact that only three participants chose the elaborated texts as their preferred option supports this interpretation (see section 6.1.6.4.1). Moreover, because learners tend to read particular texts more when they perceive their comprehension of the texts as higher (Gardner & Hansen, 2007, see section 5.3.8), it can be extrapolated that some L2 Japanese learners may not actively read elaborated texts.

While the relevant studies predominantly employed a quantitative approach, the current study employed a mixed methods approach (see section 5.3.2) which provided the participants' affective aspects toward these two text modification measures. Such findings included: (1) lexical simplification was welcomed by the majority of the participants of Projects One, Two and Three (see sections 6.1.6.4.1, 6.2.3.6 & 6.3.7's 'Which do you prefer to read?'); (2) more participants supported simplification than elaboration (see sections 6.1.6.4 & 6.2.3.6); (3) elaborated sentences were difficult to process for some developing learners (see sections 6.1.6.4 & 6.2.3.7). These findings cast doubt on a recent trend in support of elaboration as a more vital text modification measure than simplification, as proposed by scholars such as Li, Xu and Wang (2005), Maxwell (2011), O'Donnell (2009) and Urano (2000). (see section 4.2.3 for discussions of elaboration.)

On the other hand, Project Three provided findings supportive to elaboration: some participants found the GR version disjointed due to oversimplification in terms of syntax (see section 6.3.5.2), and elaborative measures employed in the GRs used in Project Three such as detailed description of protagonists and episodes were welcomed (see section 6.3.9.2).

The above findings indicate that it is more effective to take an eclectic text modification approach as recommended by Long (2007) rather than to assume the superiority of either simplification or elaboration.

Finely-tuned gradation of text modification

The current study verifies that text modification is most effective when conducted with gradation in accordance with learners' proficiency levels. The most noteworthy finding in this regard was the advanced participants' attitudinal changes detected in Project Three (see section 6.3.6). Five very-advanced participants discovered the benefits of GRs only after they read the GR version which was written appropriately to their proficiency level. Furthermore, the three projects showed that modified texts need to give L2 Japanese learners, in particular advanced learners, sufficient challenges (unless very easy modified texts are used for specific purposes such as speed reading training). The study, however, affirms that even for such specific purposes learners' positive feelings toward seemingly 'too easy' modified texts are a pre-requisite for using such texts in order for learners to authenticate such texts (see section 6.3.8.2).

Specifically, the study revealed that advanced learners may feel discouraged with reading 'too easy' modified texts since such texts make them feel that they can only read easy, specially-written texts for L2 learners. The remarks of some participants vividly demonstrated that they felt a kind of 'stigma' when reading 'too easy' modified texts (see sections 6.1.7.3 & 6.3.6).

Paper reading versus computerised reading

Projects One and Two investigated whether the participating learners preferred paper reading or computerised reading. The two projects found that the overwhelming majority of the participants preferred paper reading, and the projects

explored the participants' reasons for preference for paper reading in the specific context of JFL (see sections 6.1.7.4 & 6.2.3.2). The findings that the participants preferred paper reading for pleasure reading corroborate studies such as those of Ramírez Leyva (2003) and Tseng (2010), whereas they counter what Aust, Kelly and Roby (1993), and Davis and Lyman-Hager (1997) claim (see section 6.2.3.2 for this discussion).

It is particularly noteworthy that Project One also showed that the participants' efficiency in reading texts with pop-ups on a computer screen was lower than that compared to all other modified texts (see section 6.1.5). Collating these findings, the current study claims that the benefits of computerised reading should not be assumed simply because of the fast advancement of digital technology.

Intertwined cognitive and affective aspects of advanced learners of Japanese

As reported in sections from 4.2.4.1 to 4.2.4.5, the majority of relevant studies in the context of ESL/EFL and other second languages mainly examined learners' cognitive changes caused by text modification. In contrast, being the first text modification investigation in the context of JFL, the current study also shed light on learners' affective changes created by text modification.

As a consequence, the study provided evidence that complex affective aspects of advanced learners of Japanese may interfere with the text authentication process. Project Three demonstrated that some advanced participants seemed to have the 'cult of authenticity' as held by some scholars (see sections 6.3.8.2 & 6.3.12), which prevented such learners from enjoying their higher performance with the GR text completely and prevented them from authenticating modified texts. This finding endorses Lee's (1995) claim: learners' positive feeling toward texts is necessary for

learner authenticity to be achieved. Thus, the study argues that teachers need to give learners the rationale for reading modified texts.

7.3 Pedagogical implications

Teachers of Japanese may benefit from the following recommendations proposed by the current findings:

- Some learners, in particular advanced learners, need explicit guidance about the rationale for reading modified texts in order for them to dispell the cult of authenticity.
- Gradation of text modification needs to be finely-tuned according to learners' proficiency.
- Types of modified texts, i.e., simplification, elaboration and easification (gloss or computer annotation), need to be chosen flexibly in accordance with learners' learning purposes and personal traits.
- Overestimation of the efficacy of computer assisted L2 Japanese reading instruction needs caution.

Furthermore, recommendations for writers of reading materials for JSL/JFL learners, based on the present study, include:

- Lexical simplification is beneficial across different proficiency levels.
- Provision of key words provides learners with a compass which guides them during L2 reading.
- Shortening sentences sometimes causes syntactic oversimplification, which renders modified texts disjointed. If a long sentence is a compound sentence, it may not necessarily need to be divided into multiple shorter sentences.

- *Furigana* provision should be selective and level-appropriate so that learners feel suitably challenged when reading modified texts.
- An eclectic approach, i.e., employing simplification and elaboration in a complementary way, may be most effective.

7.4 Recommendations for future studies

As specified in section 5.1.7.4, the modified texts used in Project One had two modification measures, i.e., key word provision and *furigana* provision, that contributed to gains in participants' reading comprehension of the modified texts. One avenue for future studies may be to limit text modification measures by omitting either key word or *furigana* provision, or omitting both. Such studies will serve to examine the increase of learners' comprehension gained solely from simplification, elaboration or easification. Furthermore, including an unmodified text which provides key words and *furigana* would provide an empirically feasible comparison in analysis.

Although the current study demonstrates that lexical modifications have more direct and immediate influences on L2 Japanese learners' reading comprehension than syntactic modifications, it has not delved into discrete issues. That is, the study did not broadly compare the differences in learners' reading comprehension among different discrete modification measures. Therefore, future research in the context of JSL/JFL could usefully investigate the differences in learners' reading comprehension of three differently modified texts, i.e., texts with only lexical modifications, texts with only syntactic modifications, and texts with both modifications.

Furthermore, if a large sample of L2 Japanese learners could be obtained, future research could employ a comparison or control group design in order to

further the present findings regarding whether or not there is a statistical significance in learners' comprehension depending on text modification measures, and how variables of native language and proficiency level interact with text modification measures. Also, when a comparison or control group design is possible, intact original texts could be used as unmodified texts. A study with a large sample size of either L1 English or L1 Chinese learners of Japanese could usefully examine how differently text modifications affect the reading process of these two types of learners from different script (alphabet) and similar script (Chinese graphic) backgrounds.

Similarly, the difference of influence of text modification between content-familiar texts and content-unfamiliar texts could be compared. Findings from such research would guide writers of Japanese reading materials on how to vary text modification depending on the content and topics they are dealing with.

Investigation into how much vocabulary intake text modification can enhance is another important agenda for future studies in JSL/JFL contexts.

Extensive research in relation to the reading process which L2 Japanese learners' experience during computerised reading, in particular when they use currently available online-dictionaries, is needed. Specifically, how various types of learners process Japanese texts using online-dictionaries could be investigated by means of concurrent assessment measures such as a think-aloud procedure.

More importantly, researchers and instructors should provide specific guidelines that learners can refer to when deciding what to read. In order to devise such guidelines, there must be a reliable learners' level check method, in particular, a method which examines learners' vocabulary and/or *kanji* proficiency.

7.5 Concluding remarks

In the tertiary educational context of JFL such as that of the current study, differing mixed-ability learners of Japanese often have to learn in one class despite having many different attributes in terms of L2 linguistic abilities, L1 background, purposes of study, cognitive maturity and so forth.

Nevertheless, through the current study the researcher discovered one positive common factor among all the participants: their strong admiration and respect toward their target language and culture. They are all eager to master reading in Japanese despite its extreme difficulty for them. The findings obtained claim that modified texts play an important role to pave a way for developing such learners' reading fluency. When learners understand the benefits of reading modified texts and when modified texts are given an appropriate role in a well-balanced language programme, modified texts give learners an authentic reading experience. Without a doubt, modified texts serve to help realize the dream envisaged by Jake:

Oh, my ideal images [as a master of Japanese reading]. Ever since I was probably thirteen when I started learning Japanese, I was always seeing myself being able to live in Japan, completely natural as I do in NZ... I'd really love to wake up in the morning, and watch the news in Japanese, then go and get coffee at a café and read a Japanese newspaper or something, completely naturally. I don't have to carry around a dictionary... and obviously I am still long way off...but... I definitely have an aspiration that I will be able to read anything.

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Appendix

Appendix 1: A sample Japanese text which contains *kanji*, *hiragana*, *furigana* and *katakana*

日本で今一番あついのは、声優！？

「日本語を勉強しようかな」と思ったきっかけが、アニメだという人は多い。ニュージーランドでもだいぶ前に、ポケモンやセーラームーンなどが流行っていた。そして、今はワンピース。

私には 16 歳になる姪がいて、東京のど真ん中に住んでいる。渋谷にも 30 分以内でいけるし、原宿にだって 30 分以内でいける。だから、どんなトレンドイなファッションも簡単に手に入る。たまに町でジャニーズ系のタレントも見かけるらしい。コンサートに行きたければ、いつでも行けるだろう。東京ではいつもたくさんの JPop のスターのコンサートをやっているから。

(This text was written by the present researcher.)

In this sample text,

Examples of *kanji*, logographs, with *furigana* above: 声優, 流行, 姪, 中, 渋谷

Examples of *kanji* without *furigana*: 日本, 今一番, 勉強, 思, 以内

Examples of *hiragana*: あつい, きっかけ, だいぶ, そして, では

Examples of *katakana*: アニメ, ニュージーランド, レンディ, ファッション

Kanji is used for writing the majority of content words, *hiragana* for functional words and some content words, and *katakana* for loan words and specific names.

Furigana is not always added to *kanji* in Japanese texts, but some Japanese texts contain *furigana* because of their intended readership and purpose of use.

Due to the space limitation, only indicative parts of each material are provided.

Appendix 2: Level check test

Reading Proficiency Test

Please read the following texts (I) ~ (V) and choose the most suitable answer to each question.

(I)

イアン様

先日はお便りありがとうございました。こちらこそごぶさたしております。

卒業記念発表会のご案内状もありがとうございました。ホームステイでわが家にいらっ
しゃった時は、まだ来日なさったばかりでしたのに、もう2年になるのですね。ほんとう
に早いものです。あの時はほとんど日本語が話せなかったのが心配でしたが、発表会では
大勢の人の前で日本語で話されるのですね。本当に驚きました。発表会へは、家族そろ
って、うかがうつもりです。イアンさんの発表をお聞きするのが今からとても楽しみで
す。ところで、その後は何かご予定がありますか。よろしければ一緒にお食事でもいかが
でしょうか。ご都合をお聞かせください。

では、発表会当日を楽しみにしております。

3月10日

田中よしこ

卒業記念発表会: speech presentation by students who are going to graduate

問1 この手紙で表されている書き手の気持ちとして、最も適切なものはどれか。(=

What is the most suitable answer to describe the feelings of the author?)

- 1 留学生が日本語を話せないことを心配している。
- 2 留学生が日本語で発表することを不安に思っている。
- 3 留学生がホームステイに来ることを楽しみにしている。
- 4 留学生が日本語で発表することをうれしく思っている。

問2 この手紙を読んだ人は、この後何をするか。

- 1 発表会を聞きに行く。
- 2 発表会の案内状を出す。
- 3 発表会後の都合を知らせる。
- 4 発表会後に食事に招待する。

Appendix 3.1: Information sheet form for Project One

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

Participant Information Sheet for Research of Input Modifications

My name is Mitsue Sandom. I am a PhD student in Japanese at Victoria University of Wellington. As part of this degree I am undertaking a research project. The project I am undertaking is investigating the relative effects of different input modification measures. That is to say, the project will look into how modifying written input in different ways can affect the reading comprehension of learners of Japanese. The University requires that ethics approval be obtained for research involving human participants. Such approval has been obtained for this research.

I am inviting learners of Japanese to participate in this research project. Participants will be asked

- (on the first day) to have a proficiency test in Japanese. This will last approximately 60 ~ 75 minutes.
- to fill out the questionnaire form which has been approved by the Faculty of Humanities and Social Sciences Human Ethics Committee.
- (on the second day) to carry out two types of reading related exercises. Participants will read short articles, and then orally recall whatever he/she can remember. (free recall) Then, they will be asked to answer short answer questions regarding the contents of the articles. (reading comprehension questions) This will last approximately 60~75 minutes.
- to attend a post-project interview where I will ask questions based on the afore-mentioned questionnaire forms. Interview sessions will last approximately 30 minutes.

Should any participants feel the need to withdraw from the project, they may do so without question and any information provided by them can be withdrawn before 31st of March, 2011.

Both free recall tasks and interview sessions will be recorded and later transcribed. The results of the participants' reading assessment tasks will be analyzed and form the basis of my research project. All the data, i.e., comments given during interviews and results from reading tasks will be handled on a confidential basis. It will not be possible for you to be identified personally. All material collected, in other words, all the research outputs will be kept confidential. No other person besides myself and my supervisors, Dr. Andrew Barke and Dr. John Macalister, will be able to identify you as a provider of collected data. The research paper will be submitted to the School of Languages and Cultures as a part of my PhD dissertation. The results of this research project may be submitted to relevant academic journals. In such journal articles also your identity will be kept confidential. All collected data may be kept at least for five years up to ten years after the completion of the project for later substantiation of findings.

If you have any questions about the project, please contact me or my primary supervisor by email or by phone.

My contact details: email; mitsue.sandom@vuw.ac.nz phone; 021-127-2875

My primary supervisor, Dr. Andrew Barke's contact details:
email; andrew.barke@vuw.ac.nz phone; 04-463-6467

Mitsue Sandom

signed:

Appendix 3.2: Consent form for Project One

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

Participant Consent Form for a Study of Input Modifications

Please read the following carefully and sign at the bottom if you agree.

1. I have been given and have understood an explanation of this research project.
2. I agree to have my post-task interview recorded, transcribed and included in a summary of this research project.
3. I agree to have free recall task recorded, transcribed and included in a summary of this research project.
4. I understand that I may withdraw from this research at any time for any reason and any information provided can be withdrawn before 31st of March, 2011.
5. I understand that I will not be identified by my name anywhere in the thesis, a research summary, publications, or any other research outputs.
6. I understand that the results of this research project may be submitted to relevant academic journals and be presented at relevant academic conferences.
7. I understand that all the information I provide may be kept for at least five years and up to ten years after the completion of the project for later substantiation of the findings.
8. I would like to receive a summary of this study.

Yes: ☐ No: ☐

In the case you answer yes, please provide your email and contact details below.

email: _____

phone: _____

address: _____

(Signature)

(Name)

(Date)

Appendix 4: Previous-vocabulary knowledge test

Previous Vocabulary Knowledge Check(rival)

Please circle the right answer regarding your previous knowledge of the words which are in the text you just read, or in the original text of what you just read.

進級 (=^{しんきゅう}年生になること)

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

会話を交わす (=^{かいわ}話を^かする)

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

互いの (=^{たが}ふたりの)

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

進んで (=^{すす}行^いって)

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

医師 (=^{いし}医^い者^{しや})

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

照れくさそうな (=^ては^ずかし^さうな)

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

鮮やかによみがえる (=^{あざ}は^つき^りと^{おも}い^だせ^る)

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

退学 (=^{たいがく}高^{こう}校^{こう}をやめること)

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

心の叫び (=^{こころ}心^{こころ}に^{さけ}あること)

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

綴る (=^{つづ}書^かく)

1. I knew the word	2. I think I knew the word
3. I don't think that I knew the word	4. I didn't know the word

Appendix 5.1: Biodata questionnaire used in Projects One and Three (page 1)

1

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

Personal Information Questionnaire

Researcher: Mitsue Sandom: School of Languages and Cultures, Victoria University of Wellington

I am a PhD student in Japanese at Victoria University of Wellington. As part of this degree I am undertaking a research project that investigates the relative effects of different input modification measures. That is to say, the project will look into how modifying written input in different ways can affect the reading comprehension of learners of Japanese. Prior to the main data collection, in this questionnaire, I would like to collect information on general issues concerning your second language learning as well as second language reading. Should you choose not to answer a question, please leave it blank.

1. Name _____
2. Gender _____ Male _____ Female
3. Age _____ years old
4. First language(s) _____
- 5-1. For how many years have you studied Japanese? _____ years
- 5-2. Where and how have you studied Japanese?

6. Did you receive Japanese reading instruction in your previous Japanese study history? If so, please provide the details of the instruction. (for example, how often, how long, what kind of instruction, what kind of materials did you use, etc.)

This questionnaire has been constructed with the reference to the sample biodata questionnaire in Mackey, A., & Gass, S., M. (2005). *Second Language Research – Methodology and Design*. Lawrence Erlbaum Association, Inc. New Jersey.

Appendix 5.2: Biodata questionnaire used in Projects One and Three (page 4)

4

18. The following questions are about factors that may affect the difficulty of reading a Japanese text. Please rate each factor below from 1 ~4 to indicate the degree to which you think each factor contributes to the difficulty of a text.

(1) Type of text, e.g., a novel, diary, newspaper article, an academic article, encyclopaedia entry.

1. very little 2. somewhat 3. quite a lot 4. a lot

(2) Coherence (whether a text is written in a logical sequence or not)

1. very little 2. somewhat 3. quite a lot 4. a lot

(3) Abstractness (whether it refers to abstract ideas or concrete things/events)

1. very little 2. somewhat 3. quite a lot 4. a lot

(4) Sentence length (whether a text tends to have many long sentences or many short sentences)

1. very little 2. somewhat 3. quite a lot 4. a lot

(5) Proportion of *kanji* in a text

1. very little 2. somewhat 3. quite a lot 4. a lot

(6) Text length (whether the length of the text is long or short)

1. very little 2. somewhat 3. quite a lot 4. a lot

(7) Familiarity with the content (whether you know much about the topic of the text or not)

1. very little 2. somewhat 3. quite a lot 4. a lot

(8) Personal interest in the content (whether the content of a text is interesting to you or not)

1. very little 2. somewhat 3. quite a lot 4. a lot

Which of the above factors do you think is the most important in determining the difficulty of a Japanese text? _____

Which of the above factors do you think is the second most important in determining the difficulty of a Japanese text? _____

Thank you so much for giving your precious time for my research!

This questionnaire has been constructed with the reference to the sample biodata questionnaire in Mackey, A., & Gass, S., M. (2005). *Second Language Research – Methodology and Design*. Lawrence Erlbaum Association, Inc. New Jersey.

良きライバルへ

私たちが出会ったのは7年前、高校2年生に進級した春でした。最初はなんとなく会話を交わす程度の仲だったけど、初めてお互いの将来について話したとき、“医学部に進んで医師になりたい”という同じ目標を持っていることを知りました。「そうだったんだ、同じだねえ」とふたりで笑ったあのときの、恥ずかしそうな照れくさそうなあなたの真っ赤な顔が、今でも鮮やかによみがえってきます。

でも、それからすぐに私は病気で学校に行けなくなりました。結局私は高校を退学することになりました。そのあと、あなたは、私の心の叫びを綴ったもの凄く長いメールに答えてくれるようになりましたね。愚痴、将来の不安、勉強方法、やってみたいこと……。いつしかあなたは、私にとってカウンセラーのような存在になっていました。

少しずつ体調を回復した私は通信制高校に編入学し、迷いながら新しい目標を持つようになりました。あなたは、語り合った目標を一心に目指しながらも叶わず他の学部に進みました。

あれから7年。私は看護学校を、あなたは大学看護学科を卒業し、私たちはともに看護師国家試験に合格しました。

お互いに現実という壁にぶつかりながら、きっかけもそれぞれながら、こうしてまた同じ目標を目指すことになった偶然に照れてしまうのは私だけでしょうか？

あなたがいたから頑張ってやろうと思えた。もし目指す道が変わっても、これからも良きライバルでいてください。

Appendix 6.2: Samples of the texts used in Project One (Good rival – simplified)

良きライバルへ (simplified)

Key Words	
もくひょう 目標: aim	
いがくぶ 医学部: a medical school	いしや 医者: a doctor
つうしんせい こうこう 通信制の高校: correspondence school	
がくぶ 学部: faculties of university	
かんごし こっかしけん 看護師国家試験: a national exam for nurses-to-be	

私たちが会ったのは、7年前の春でした。高校2年生になった時です。最初は、なんとなくちょっと話をするだけでした。でも、ある日初めて将来のことを話しました。そして、ふたりの目標が同じだということを知りました。その目標は、「医学部に行って、医者になること」でした。「そうだったんだ、同じだねえ」とふたりでわらいました。その時、あなたははずかしそうに、顔を赤くしました。私は、あなたのその顔を今でもよく思い出せます。

でも、それからすぐに私は病気で学校に行けなくなりました。そして、私は高校をやめることになりました。そのあと、あなたは、私のとても、とても長いメールにこたえてくれるようになりましたね。私は、心にあることを、いろいろメールに書きました。あなたは、そのメールにこたえてくれました。あなたは、私にとってカウンセラーのような人になっていきました。

私はすこしずつ元気になりました。そして、通信制の高校にまたはいりました。そこで、新しい目標を持ちました。あなたは、最初の目標のために、すごくがんばっていました。でも、うまくいかなかったのも、大学では、ちがう学部にいきました。

あれから7年たちました。そして、私もあなたも、看護師国家試験にパスしました。

ふたりとも、むずかしいことがありました。でも、また同じ目標のためにがんばるようになりました。

私はあなたがいたからがんばることができました。これからも、いいライバルでいてくださいね。

Appendix 6.3: Samples of the texts used in Project One

(Good rival – elaborated)

良きライバルへ (elaborated)

あなたには、いっしょに勉強やスポーツを「がんばってやろうね」、
と言ってくれる人がいますか？そんな友だちは、いいライバルでもあり
ます。この話は、^{こうこうせい}高校生の時、「いいライバル、いい友だち」にあった
人の話です。

Key Words

^{いがくぶ}医学部 : a medical school

^{いしや}医者 : a doctor

^{もくひょう}目標 : aim

^{つうしんせい}通信制 ^{こうこう}高校 : correspondence school

^{がくぶ}学部 : faculties of university

^{かんごがっこう}看護学校 : nursing trainee schools

^{かんごしこっかしけん}看護師国家試験 : a national exam for nurses-to-be

つまり : that is, that means

私たちが^{で あ}出会ったのは、7年前の春で、ふたりが^{こうこう}高校1年生から2
^{ねんせい}年生に、^{しんきゅう}進級した時でした。最初は、なんとなくちょっとだけ^{かいわ}会話を^か交わ
すぐらいの^{なか}仲の^{とも}友だちだったけど、初めてふたりのお互いの^{たが}将来について
話したとき、びっくりすることがわかりました。あなたも私も、「^{こうこう}高校を
^{そつぎょう}卒業したら、^{いがくぶ}医学部に^{すす}進んで、^{いしや}医者になりたい」という同じ^{もくひょう}目標をもっ
ていたんです。「そうだったんだ、同じ目標だねえ」とふたりで^{わら}笑ったあ
のとき、あなたは^は恥ずかしそうに、そして、^て照れくさそうに、^{かお}顔を赤くし
て笑っていました。その^{わら}顔が今でもはっきりと^{あざ}鮮やかに私の^{こころ}心によみがえ
ってきます。私は今でもあなたのあの^{かお}赤い顔を^{おも}はっきりと思い出せます。

でも、私には、かなしいことがおこりました。そのあとすぐに、私
は^{びょうき}病気で学校に行けなくなったのです。結局私は^{けっきょく}高校にもどれず、^{たいがく}退学す
ることになりました。でも、そのあと、あなたは、私の長い長いメールに
^{こた}応えてくれるようになりましたね。その長いメールで、私は、私の^{こころ}心の中
にあること、私の^{こころ}心の^{さけ}叫びを^{つづ}綴りました。

^{しょうらい}将来どうしようか、という不安、どうしたら勉強がうまくいくのか
という^{べんきょうほうほう}勉強方法のそうだん、やってみたいこと、などなど。私の長いメー
ルに^{こた}こたえてくれているあなたは、いつしか、^し知らないうちに、私にとっ
て^{そんざい}カウンセラーのような存在になっていたのです。

少しずつ私の^{びょうき}病気はよくなりました。体調ももとのように^{たいちよう}回復して
^{げんき}元気になりました。そこで、私は家から勉強できる、^{つうしんせい}通信制の^{こうこう}高校に^{へん}編入

しました。そして、どうしようかなあと迷いながらも、新しい目標を持つようになりました。あなたは、私にはなしてくれた、あの目標のために一心にがんばっていたけど、うまくいきませんでしたね。そして、大学は医学部ではなく、ちがう学部に入りましたね。

あれから7年たちました。私は看護学校をでました。あなたは大学の看護学科を卒業しました。そして、私たちはふたりとも、看護師国家試験にパス、合格したのです！

お互い現実という壁、つまり、現実におこるたくさんのもんたいがありました。看護師になろうと思ったきっかけは、あなたも、私もそれぞれちがいます。でも、こうしてまた同じ目標を目指すことになったのは、すごくふしぎだとは思いませんか？私だけでしょうか、このすごい偶然にちょっと照れているのは。

私はひとりでも、看護師になれたのでしょうか？いいえ、あなたがいたから頑張ろうと思えたんです。もし、これから、また目指す道、目標が変わってしまっても、いつまでもいいライバルでいてくださいね。

Appendix 6.4: Samples of the texts used in Project One (Good rival – a marginal gloss)

Key Words	
いがくぶ 医学部 : a medical school	いし 医師 : a doctor
もくひょう 目標 : aim	つうしんせい こうこう 通信制 (の) 高校 : correspondence school
がくぶ 学部 : faculties of university	かんごがっこう 看護学校 : nursing trainee schools
かんごしこっかしけん 看護士国家試験: a national exam for nurses-to-be	

私たちが出会ったのは7年前、高校2年生に進級した春で
した。最初はなんとなく会話を交わす程度の仲だったけど、初
めてお互いの将来について話したとき、“医学部に進んで医師
になりたい”という同じ目標を持っていることを知りました。
「そうだったんだ、同じだねえ」とふたりで笑ったあのときの、
恥ずかしそうな照れくさそうなあなたの真っ赤な顔が、今でも
鮮やかによみがえってきます。

でも、それからすぐに私は病気で学校に行けなくなりま
した。結局私は高校を退学することになりました。そのあ
と、あなたは、私の心の叫びを綴った、もの凄く長いメールに
応えてくれるようになりましたね。将来の不安、勉強方法、
やってみたいこと……。いつしかあなたは、私にとってカウ
ンセラーのような存在になっていました。

少しずつ体調を回復した私は通信制高校に編入学し、
迷いながら新しい目標を持つようになりました。あなたは、語
り合った目標を一心に目指しながらも叶わず他の学部に進まし
た。

進級した：～年生に
なった
会話を交わす：話を
する
お互いの：ふたりの
進んで：行って

照れくさそうな：は
ずかしそうな
鮮やかによみがえ
る：はっきりと思い
出せる
退学する：高校をや
める
心の叫び：心にある
こと
綴った：書いた
もの凄く：とても
不安：どうしようか
なあと思ふきもち
いつしか：知らな
いうちに
カウンセラーのよう
な存在：カウンセ
ラーのような人

体調を回復した：
元気になった
編入学：新しくち
がう高校にはいる
迷いながら：どうし
ようかなあと思いな
がら
一心に：いっしょう
けんめいに
叶わず：うまくいか
ずに
他の：ちがう

あれから7年。私は看護学校を、あなたは大学看護学科
 を卒業し、私たちはともに看護師国家試験に合格しました。
 お互いに現実という壁にぶつかりながら、きっかけもそれぞれ
 ながら、こうしてまた同じ目標を目指すことになった偶然に照
 れてしまうのは私だけでしょうか？

あなたがいたから頑張ってやろうと思えた。もし目指す道
 が変わっても、これからも良きライバルでいてください。

合格する：パスする
 現実という壁：現実
 におこるたくさんの
 もんだい

良きライバル：いい
 ライバル

Please note that as for a sample of a text with pop-ups on a computer screen, Figure 5.1 in the main body presents its reduced image from a topic of *Give me advice*.

Appendix 7: A sample of a short answer reading comprehension test

Reading Comprehension Test for 良きライバルへ

Please answer the following questions

1. When did the author and her friend first meet? ()
2. How did they become very good friends?
()
3. Why did the author become unable to go to high school?
()
4. How does the author remember about the time when she became close to her friend? Fondly? Vaguely? Please describe.
()
5. What did the author start doing after she had to stop going to school?
()
6. Why did the author say that her friend became like a counsellor for her?
()
7. When the author started a correspondence schooling, what happened?
()
8. What did the author's friend do for her first dream '目標'^{もくひょう}? Did she give it up easily or what? Describe how she dealt with her first dream.
()
9. What did the author and her friend achieve after 7 years from their first meeting?
()
10. Why was the author able to continue trying to achieve her goal so hard?
()

Appendix 8: A sample of idea unit segmentation of the unmodified texts

(The original Japanese text of Atomic bomb survivor was retrieved on August 27, 2010 at 1:31p.m. from

http://www.himahima.co.jp/PeaceWeb/virtual/VirtualMuseum_j/visit/testimony/testimo09_3.html)

(Hibakusha – original) idea units

1. I was born
2. on 30th of July, 1923
3. in Osaka
4. and moved to Hiroshima
5. when I was 5
6. due to my father's job
7. There were 5 members in my family
8. Parents
9. older brother
10. younger sister
11. and I
12. In April of 1929
13. my younger brother was born
14. in Hiroshima
15. which made our family a 6-member family
16. I graduated from an all-girls school
17. And I got work as an office staff
18. in 1942
19. in May
20. and my sister did
21. in April
22. at the Hiroshima Post office
23. where our father worked
24. When we three were working
25. in the same building
26. I got engaged
27. at the age of 19
28. in October, 1943
29. Therefore, I could put up with food shortages
30. and having to wear hopeless conformed bookuufukusoo
31. thanks to my joyful heart
32. Around the end of March in 1945
33. we found out
34. that my fiancé was coming back (from a battlefield)
35. due to army duties
36. between 8, 9 and 10 of August
37. the parents of both our families decided
38. to have a wedding
39. when both of us meet
40. even though there was no food
41. and (no) clothes
42. As a 21-year-old woman
43. my heart was filled with dreams (and hopes)

Appendix 9: Detailed data about inter-/intra-rater reliability for Project One

Nonparametric Correlations

(1) Correlations – two scorings by the researcher
Correlations

			Recall_unit_score_first_ratio
Spearman's rho	Recall_unit_score_first_ratio	Correlation Coefficient	1.000
		Sig. (2-tailed)	150
		N	
	Recall_unit_score_Second_ratio	Correlation Coefficient	.981
		Sig. (2-tailed)	.000
		N	150

(2) Correlations – the average of the researcher and the scoring by the academic with a near-native fluency in Japanese
Correlations

			Researcher's_rating_average	Academic's_rating
Spearman's rho	Researcher's_rating_average	Correlation Coefficient	1.000	.944
		Sig. (2-tailed)	.000	.000
		N	27	27
	Academic's_rating	Correlation Coefficient	.944	1.000
		Sig. (2-tailed)	.000	.000
		N	27	27

Appendix 10.1: Questionnaire used in Project Two (page 1)

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

The aim of this survey is to investigate what aspects make a Japanese text difficult to understand. The results of this survey will form a part of the data for my PhD dissertation. The questionnaire forms will be disposed of by December, 2013. This questionnaire is anonymous. Therefore, there will be no way for you to be identified. Thank you for your cooperation. Mitsue Tabata-Sandom

A. Please answer to the following questions.

(1) For how many year(s) have you been studying Japanese? _____

(2) What level would you rate your own Japanese ability to be? (please tick)

The numbers below each category correspond to the levels of the pre 2010 Japanese proficiency test.

☐ beginner (below 4) ☐ elementary (4~ 3) ☐ lower intermediate (about 3) ☐ upper intermediate (3~2) ☐ advanced (above 2)

(3) Do you read Japanese texts outside of the class time? (please tick) If so, what sort, how often?

☐ Yes, I do read Japanese texts.

→ What sort? _____

How often? _____

☐ No, I don't read Japanese texts.

(4) Do you want to master or improve your Japanese reading abilities? Why?

☐ Yes, I do want to improve them.

→ Why? _____

☐ No, I don't want improve them.

→ Why? _____

(5) Which do you prefer reading, a hard copy Japanese text or a Japanese text on a computer?

Why? _____

Appendix 10.2: Questionnaire used in Project Two (page 3)

C. Please read the following (Text 1). Then, circle any words or parts which you find difficult to understand. You can circle any words or any parts of sentences which you find hard to understand. Also, please explain briefly in what way you find those parts difficult.

(Example of how to indicate the parts you find difficult)

整形賛賞の声：韓「婚活」 日「自己満」 プス専どうする？

韓国では「整形文化」がポピュラーなことは周知の通りだ。韓国ではお見合い前に女性本人が整形することが多いばかりではなく、お見合いは臨む母親も整形することがあるそうです。 <http://news.livedoor.com/article/detail/4836737/> last accessed on 19 June, 2010 (8:21p.m.)

(Your comments) Could not understand what the article was about, AT ALL because I couldn't read the crucial kanji-characters. The level of grammar ~~was~~ had no effect because I could not understand what it was saying anyway.

(Text 1) 新ホームレス ネットカフェ難民

企業に見放され、家族にも見放された“新たな形のホームレス”が増えているという。名付けて“ネットカフェ難民”。アパート代を払えず追い出された若者が1日契約の派遣の仕事に出かけながら、毎日のねぐらにネットカフェを利用しているという。先日放送された『NNN ドキュメント'07 (日テレ系)』で彼らの生活が映し出されていた。必需品はケータイ (派遣会社との連絡)、コインロッカー (荷物の預け)、そして、ネットカフェ (低料金での宿泊) である。だが「体を伸ばして眠りたい」と、ある10代後半の女性がつぶやいていた。 <http://www.news.janjan.jp/living/0702/0701310209/1.php>

(Your comments)

Appendix 11.1: Information sheet for Project Three

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

Participant Information Sheet for Research of Text Modifications

My name is Mitsue Sandom. I am a PhD student in Japanese at Victoria University of Wellington. As part of this degree I am undertaking a research project. The project I am undertaking is investigating the relative effects of different text modification measures. That is to say, the project will look into how modifying texts in different ways can affect the reading comprehension of learners of Japanese. The project has approval from the Human Ethics Committee at the University.

I am inviting learners of Japanese to participate in this research project. Participants will be asked

- (on the first day)
 1. to have a brief proficiency test in Japanese. This will last approximately 30 minutes.
 2. to answer a biodata questionnaire. The biodata questionnaire forms have been approved by the Faculty of Humanities and Social Sciences Human Ethics Committee. This will last approximately 15 minutes.
- (on the second day)
 1. to carry out an oral think-aloud dialogue task. This involves the participants telling everything which comes into their minds to the current researcher while they are reading given Japanese texts. The participant's think-aloud protocols will be recorded and transcribed for analyses.
 2. to complete a reading comprehension task.The second day session will last approximately one hour.
- to carry out an exit interview. The exit interview will take a semi-structured approach. The main questions which the researcher will ask have been approved by the Faculty of Humanities and Social Sciences Human Ethics Committee. The interview will last approximately 15 minutes.

Should any participants feel the need to withdraw from the project, they may do so without question and any information provided by them can be withdrawn before 31st of March, 2012.

The results of the participants' reading assessment tasks will be analyzed and form the basis of my research project. All the data, i.e., comments given during the exit interview and results from reading tasks will be handled on a confidential basis. It will not be possible for you to be identified personally. All material collected, in other words, all the research outputs will be kept confidential. No other person besides myself and my supervisors, Associate Professor Edwina Palmer and Dr. John Macalister, will be able to identify you as a provider of collected data. The research paper will be submitted to the School of Languages and Cultures as a part of my PhD dissertation. The results of this research project may be submitted to relevant academic journals. In such journal articles

also your identity will be kept confidential. All collected data may be kept at least for three years up to five years after the completion of the project for later substantiation of findings.

If you have any questions about the project, please contact me or my primary supervisor by email or by phone.

My contact details: email; mitsue.sandom@vuw.ac.nz phone; 021-127-2875

My primary supervisor, Associate Professor Edwina Palmer's contact details:
email; edwina.palmer@vuw.ac.nz phone; 04-463-6465

Mitsue Sandom

signed:

Appendix 11.2: Consent form for Project Three

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

Participant Consent Form for a Study of Input Modifications

Please read the following carefully and sign at the bottom if you agree.

1. I have been given and have understood an explanation of this research project.
2. I agree to have my exit interview recorded, transcribed and included in a summary of this research project.
3. I agree to have a think-aloud dialogue task recorded, transcribed and included in a summary of this research project.
4. I understand that I may withdraw from this research at any time for any reason and any information provided can be withdrawn before 31th of March, 2012.
5. I understand that I will not be identified by my name anywhere in the thesis, a research summary, publications, or any other research outputs.
6. I understand that the results of this research project may be submitted to relevant academic journals and be presented at relevant academic conferences.
7. I understand that all the information I provide may be kept for at least three years and up to five years after the completion of the project for later substantiation of the findings.
8. I would like to receive a summary of this study.

Yes: ☐

No: ☐

If yes, please provide your email and contact details below.

email: _____

phone: _____

address: _____

(Signature)

(Name)

(Date)