

**Academic Second-Language Reading Comprehension  
Through Interaction**

by

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## ABSTRACT

Teachers and learners will agree that one of the basic skill requirements expected from all college students – whether they be first language (L1) or second language (L2) students- is the ability to read academic documents to deepen, supplement and build upon their knowledge of specific course contents. On the assumption that reading must lead to comprehension and that without comprehension there is no reading as such, in this instance, the main challenge for college-age students lies in achieving a reasonable degree of comprehension of academic texts. Thus, for all readers in an academic context, and for L2 readers in particular, there exists a need to develop ‘reading for understanding’ and ‘reading to learn’. The corollary challenge for teachers lies in fostering comprehension in their students through instruction. Studies in L2 reading have shown that a primary goal of L2 reading instruction should be to help students develop as strategic readers. For the purpose of this study, strategic and interactive L2 reading instruction and practice were integrated into a series of regular content-based discussion tutorials at the university level. The participants – 41 in total – were all Japanese students taking part in an eight-month academic exchange in Canada, and were divided into treatment and comparison groups. In the comparison group, an approach to tutorials mostly based on discussions of course content was used. In the treatment group, course reading materials served as the basis for content discussion, and participants were led to develop strategic reading approaches as they processed text with the help of the instructor and of reading guides. The researcher was primarily interested in finding out if the use of interactive reading strategies in class could transfer into quantitative improvements in terms of receptive vocabulary acquisition and reading comprehension. The Vocabulary Levels Test and the academic reading component of the International English Language Testing System (IELTS) were used in pre- and post-test conditions to measure any change. Issues of interest in assigned course reading materials, of strategy knowledge and use, and of L2 reading perception on the part of the participants, were also examined and compared across the groups, using questionnaires and student interviews. Beyond the mere comparison of quantitative and qualitative data, the study provides the teaching community with an opportunity to reflect upon some of the major issues related to L2 reading in an academic context.

Although the students in the treatment group reported an initial interest in L2 reading, a good comprehension of what proficient reading actually entails, a progress in both reading comprehension and vocabulary, the usefulness of interactive reading for the comprehension of course content, and more interest in course readings than their counterparts from the comparison group, results quantifying progress in receptive vocabulary and comprehension of academic texts suggest that the pedagogical treatment based on interactive reading had inconclusive effect.

The results highlight the complexity of the reading situation in terms of its linguistic, pedagogical, and socio-cultural components, as well as the need to acknowledge the crucial role of readers’ development over time.

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## CHAPTER 1: INTRODUCTION

### 1.1 Identification of the Problem

In pace with globalization, university campuses all over North America welcome increasing numbers of international – *English as a Second Language* (ESL) – students yearly. Multiple challenges await those students in terms of socio-cultural, academic and linguistic adjustments. As they were accepted into a university partly on the basis of linguistic placement tests, most college-age ESL students may feel quite confident in their language abilities and in their ability to do the work expected of them. At times, however, various difficulties surface and it becomes clear that some of those students might not possess all the linguistic and academic tools necessary to perform their tasks at satisfactory levels. For instance, the participants in this study – a group of Japanese students taking part in an Academic Exchange Program (AEP) at a large Western Canadian University (WCU) – were placed in a special section of a content-based course, because it had been determined that they needed supplementary academic help.

Advanced academic studies require that students read a sizable volume of expository texts so that they can deepen and build upon their knowledge of course contents. According to Flowerdew and Peacock (2001), “Reading is probably the skill needed by the greatest number of EAP [English for Academic Purposes] students throughout the world” (p. 185). Carrell and Grabe (2002) also refer to reading abilities as “critical for academic learning” and to L2 reading as “the primary way that L2 students can learn on their own” (p. 233). Academics in general will agree that comprehending expository texts, even in one’s own native tongue, is often complex and challenging. Hence, it is not hard to imagine the difficulties which await university students when performing that crucial and unavoidable academic task of reading to learn in their second language. As reading is an interactive and immensely complex process, challenges to L2 readers abound, such as linguistic, grammatical and lexical difficulties, issues of personal knowledge, as well as various affective and socio-cultural factors. The reading process is discussed at length in Chapter 2.

Thus, ESL university students face daunting but nevertheless necessary challenges whenever they are required to read expository texts in English to acquire content for their courses. Some of them might find it difficult to read content material independently. Not being able to read academic texts fluently in English might of course constitute a handicap for any students who desire – or feel the necessity – to learn content in such manner in order to enhance their general or technical knowledge.

A group of Japanese students participating in an eight-month Academic Exchange Program (AEP) at a large Western Canadian University (WCU) was chosen for the study (see Chapter 3 for detail on the sampling process and a general profile of the participants). This particular group of students was chosen because of my own interest in teaching and interacting with Japanese students and also because of the access which I was granted as a teaching assistant (TA) at WCU. I lived and worked in Japan for 9

years, from 1991 to 2000. During that time frame, I was called upon to teach students in a variety of settings and situations, including junior high schools, colleges, and well-established corporations. My own experience with Japanese students and observation of an array of English as a Foreign Language (EFL) classes and settings in Japan – compounded by results found in the literature (see Section 2.2.4.2 for a review of the main findings) – have made me aware of a series of conditions particular to Japanese culture, to the Japanese educational system, and to the way EFL – and especially reading – is taught in Japan, which pose their own set of unique challenges to the acquisition of L2 reading by Japanese learners. As a possible consequence of those conditions, it has been noticed that the level of reading in English is rather low among Japanese college students (Bamford, 1993; Browne, 1996; Robb & Susser, 1989; Torikai, 2003). Moreover, Laufer and Yano (2001) have established, through empirical research, that Japanese college students were not able to read expository texts independently because their lexical knowledge was still below a critical threshold.

Hence, there clearly exists a need for a different approach to academic reading among Japanese college students, one that is in line with the most recent theories on reading and that can account for the complexity of reading. This thesis will discuss the effects of reading instruction on the comprehension of academic texts and on vocabulary acquisition among the group of Japanese students who took part in the study, within the context of a content-based course.

According to Grabe and Stoller (2001), meaningful English for Academic Purposes (EAP) instruction involves “vocabulary development, careful reading of texts, awareness of text structure and discourse organization, the use of graphic organizers to support comprehension, strategic reading, fluency development, extensive reading, student motivation, and integrated-skills tasks”(p. 192). The restrictive context of the present study – 50 minutes of instruction per week for 10 weeks – could not possibly accommodate such an ambitious program. Nevertheless, some principles for an optimal reading instruction approach in the context of the present study could be identified in the relevant literature: reading instruction in the content area should help students’ comprehension of academic texts and motivate students (Eskey, 2002), by explicitly promoting the use of reading strategies (Brown, 2001; Farrell, 2001; Grabe, 2002), by promoting engagement with text, by encouraging social interactions in class, and by stimulating reading fluency and vocabulary development (Grabe & Stoller, 2001). For this study, in line with those principles, two components in particular – strategies and interactions (with text and with other readers) – were stressed. Accordingly, the type of reading instruction used in this study is referred to as *interactive reading*, which can be defined as an approach to reading expository material that emphasizes both the reader’s engagement with text through the use of reading strategies and social interactions through in-class discussion about text, with the aim of improving the reader’s general reading comprehension and bringing the reader to a better comprehension of the content under study.

The present study purported to establish whether or not an instructional approach based on interactive reading could help ESL university students improve their comprehension of academic texts

and their receptive knowledge of vocabulary, and foster greater use of strategies and interest in course materials. Further considerations covering such issues as the readers' profile prior to the pedagogical treatment, the students' own subjective perceptions regarding their experience in the course and their progress in reading and vocabulary, and the students' perceptions about the helpfulness of the instruction were also investigated in order to give the research more analytic depth.

It should be stated at this point that, for the purpose of the study, the participants were divided into a treatment and a comparison group, and that the data obtained by the research on the various measures were compared across both groups to find out whether they differed or not. The participants took part in weekly tutorials of 50 minutes each.

## **1.2 Purpose of the Study**

Besides its main goal, that of investigating the effect of interactive reading on such variables as reading comprehension, vocabulary acquisition, strategy use, and interest in course reading materials, the present study also served a variety of purposes that can potentially benefit the participants (and other L2 readers), language and content-area instructors, and the field of L2 reading research as a whole.

The present study aimed at testing out and at reflecting upon a pedagogical approach based on *interactive reading* (including strategy instruction) and used for the teaching and learning of academic course content. In that sense, it was meant as a contribution to the development and understanding of L2 reading in a higher educational and academic context. Given the importance for university students of reading expository materials for the acquisition or reinforcement of content, there was a need to investigate reading processes for future pedagogical application in second language classroom situations. The study will contribute to a growing body of research literature on second and foreign language reading for academic purposes.

Most importantly perhaps, this study provided the participants in the treatment group with a different approach to academic reading to the one they were trained in – traditionally. The pedagogical approach based on *interactive reading* was intended to give the participants some new insights into L2 reading processes (and reading English academic texts in particular), which they might be able to build upon as they continue to interact with various types of text, even after the end of their exchange program. The approach then purported to stimulate the participants to read academically and encourage, through the whole process, their acquisition of content. It was hoped that the participants would become more proficient L2 readers as a result.

Finally, the findings and insights achieved through this study might be beneficial to other course content and language instructors who are already using or would like to consider interactive approaches to academic reading, especially with their Japanese (and perhaps other Asian) students.

## **1.3 Significance of the Study**

This study is particularly significant for the following reasons.



Generally speaking, there are still relatively few studies about L2 reading in an English for Academic Purposes (EAP) context, especially in content-based courses. Many of the studies surveyed for this research are in fact accounts of experiments that took place in the context of language courses. Thus, the originality of the present study stems from the uniqueness of the setting, that is to say, a content-based course. The tutorials – during which a pedagogical approach based on interactive reading was used – were not a language course per se but focused on content. In a general sense, this study was inspired by calls in the literature for more research into L2 reading contexts. According to Grabe and Stoller (2001), for instance, “It is likely that the development of new ways to engage students through content-based instruction will be a major focus of advanced reading instruction for the coming decade” (p. 201). In particular, there seems to be a great need for studies examining the impact of reading strategies in content-based courses. This research sought to help fill the gap.

In Section 1.1, reading was briefly presented as an interactive process. In this study, I sought to bring this process into the open and implement it in a pedagogical context. When doing the literature review (Chapter 2), I seldom encountered the concept of *interactive reading* in research that focused on pedagogical issues, although the phrase itself has been used in practical guides (e.g., Brown, 2001). The original use of this concept makes for another significant feature of the study.

The study employed both quantitative and qualitative methods of data collection as a means of introducing more balanced insights into the results than it would have been possible otherwise. Through the interviews, in particular, a voice was given to the participants. This voice, added to other qualitative and quantitative results, might contribute to a better understanding of the reading overall context and of its importance and help delineate pedagogical interventions appropriate to similar groups in the future.

Finally, in this study, great care was taken to provide a profile of the participants as L2 readers and to explain relevant socio-cultural contexts and issues. Such contexts and issues are deemed important throughout the literature (Oxford, 1996). The situation of the participants – as Japanese students studying abroad and experiencing a different teaching and learning style – was acknowledged.

#### **1.4 Questions Guiding the Research**

The research questions that guided the study are the following:

##### *1. Profile of participants as readers*

*Question 1:* What is the pre-intervention profile of the study participants in terms of academic reading comprehension, receptive vocabulary level, use of reading strategies, general interest in second-language reading, and knowledge of proficient reading?

##### *2. Reading Comprehension*

###### 1. Quantitative Progress

*Question 2.1:* Can the use of interactive reading strategies in class transfer into greater quantitative improvements in terms of reading comprehension of expository texts than can a traditional discussion approach?

## 2. Perception of Progress

*Question 2.2.1:* What is the respondents' recent evolution in their overall perception of L2 reading? To what factors do the respondents attribute their evolution – or lack thereof?

*Question 2.2.2:* Did the respondents perceive any progress in L2 reading over the term? To what factors, especially academic, did the respondents attribute their perceived progress – or lack thereof – in L2 reading comprehension?

## *3. Vocabulary Acquisition*

### 1. Quantitative Progress

*Question 3.1:* Can the use of interactive reading strategies in class transfer into greater quantitative improvements in terms of receptive vocabulary acquisition than can a traditional discussion approach?

### 2. Perception of Progress

*Question 3.2:* Did the respondents perceive any progress in L2 vocabulary over the term? To what factors, especially academic, do the respondents attribute their perceived progress – or lack thereof – in L2 vocabulary?

### 3. Perception of Reading Test Difficulty

*Question 3.3:* How difficult did the treatment group and the comparison group perceive the reading comprehension post-test in terms of general comprehension, vocabulary and grammar?

## *4. Strategies*

### 1. Use of strategies

*Question 4.1:* Can the use of in-class reading strategies foster greater use of strategies for the treatment group than for the comparison group?

### 2. Perception of interactive reading

*Question 4.2:* What is the treatment respondents' overall perception of *interactive reading* strategies in class?

## *5. Helpfulness of tutorials*

### 1. Potential academic benefits

*Question 5.1:* What are the similarities and differences between the treatment group and comparison group tutorials in terms of their potential academic benefits?

## *6. Interest and Motivation*

### 1. Interest in course required readings

*Question 6.1:* Can the use of in-class reading strategies results in a greater interest in required readings for the treatment group than for the comparison group?

### 2. Course content motivation

*Question 6.2:* Can the respondents' topical motivation (motivation by course content) be used as a factor to explain the results?

## **1.5 Thesis Organization**

The present thesis is structured around five different chapters.

Chapter 1 serves as an introduction to the research project. The rationale for the selection of a research focus is emphasized and the problem or question under investigation is also stated. The purpose and the significance of the study are presented along with the research questions that guided the project. The main issues to be discussed in the remainder of the thesis are delineated as well.

Chapter 2 provides a thorough review of the relevant literature. The concepts of second language reading processes and comprehension as well as the main variables that influence second language reading are discussed. The emphasis is placed on reading as an interactive process and on such determining factors as linguistic influences, issues related to background knowledge and motivation, and socio-cultural and educational contexts. The role of reading strategies and the teaching of strategies are examined, and the rationale for the choice of a reading test and vocabulary test is also presented. The relationship of the various elements to the study is explained.

The first part of Chapter 3 introduces and describes the context and settings of the study, as well as the participants. The second part of Chapter 3 presents a description of the main pedagogical approach used during the study. The final part of Chapter 3 centers on the methods employed for data collection and analysis.

Chapter 4 describes the results related to each of the research questions, from both quantitative and qualitative sources.

Chapter 5 focuses on a discussion of the research findings and their implications. From the findings, recommendations are presented that take into account the linguistic level of students, some pedagogical requirements for L2 reading improvement, and the socio-cultural characteristics and priorities of the learners. Limitations of the study are examined and suggestions for further research are also made.

## CHAPTER 2: REVIEW OF THE LITERATURE

Chapter 2 will introduce several strands of literature relevant to the current study. It will first examine studies that characterize the interactive process of reading as a whole and then explore major relevant variables that influence this process – i.e., cross-linguistic influences, background knowledge, motivation (attitude, interest in reading), socio-cultural and educational contexts – especially as they pertain to second-language reading. Next, the place of interactive reading strategies within that process will be discussed, along with pertinent pedagogical issues. Finally, the literature review will address the main principles that support the measuring of reading comprehension and of vocabulary size and level as performed in the study. The relationship of the various elements to the study is explained.

### 2.1 Reading Comprehension

The participants in the present research had to read a selection of content readings in class as a key part of the treatment. Reading comprehension being the focal point of the present research, it is therefore essential to start the literature review by describing its process.

As a complex process, reading can be approached from different angles and perspectives – physiological, cognitive, educational, philosophical, affective, and socio-cultural – all of which are interrelated to some degree (Day & Bamford, 1998). This inter-relatedness means that, in carrying out the present study, all of the above-mentioned perspectives quite naturally presented themselves under my scrutiny at one point or the other. Without downplaying the importance of physiological and philosophical considerations, it should be mentioned, however, that cognitive, affective, and socio-cultural<sup>1</sup> perspectives have been emphasized in this study. Each of those key perspectives translates into variables that influence the whole process of reading and that also present a series of challenges to readers. Thus, a general description of the reading process based on the recent literature is essential to this study, in that such a discussion will help to identify the major variables that influence reading – especially considered within the context of second language learning.

#### 2.1.1 Reading as an Interactive Process

In the past three decades, the major feature attached by researchers to reading comprehension has been its interactive aspect, often considered from a cognitive perspective. However, because reading cannot be limited to its sole cognitive aspect –which is particularly true within the context of this study– there is a need to clarify the notion of interaction to see if and how it can accommodate other pertinent perspectives as well. In that sense, the basic distinction suggested by Ellis (1999) about the concept of interaction in second-language acquisition may prove useful to the present discussion.

Ellis (1999) defines interaction both as an “intrapersonal activity involved in mental processing” and as an “interpersonal activity that arises during face-to-face communication”, stressing that

“interpersonal and intrapersonal interaction [sic] are closely connected with regard to both our use and our acquisition of language” (p. 3). Indeed, reading, as it will be discussed shortly, clearly involves a range of intrapersonal –mostly psycholinguistic– activities. Although, upon closer examination, Ellis’ (1999) perspective on intrapersonal interaction does not highlight the role of affective variables (e.g. attitude, motivation), these important variables can hardly be dissociated from a complete description of reading and can also be categorized as intrapersonal. Furthermore, reading also involves various interpersonal activities as its “longer developmental process cannot be understood without recognizing social influences on reading development” (Grabe, 2002, p. 54).

In this study, the use of the word *interactive* – especially as applied to “strategies” (see Section 2.3) – implies both types of interaction, intrapersonal and interpersonal. From a purely intellectual point of view, such a distinction between the interpersonal and the intrapersonal is helpful in providing insights into the reading process; this being said, it is important not to lose sight of the fact that all processes involved in reading are interrelated and that the distinction should not be understood in a dichotomous way. It constitutes a view among other possible approaches to a common issue. The interplay of various interpersonal and intrapersonal variables will be highlighted in the following discussion.

#### **2.1.1.1 Reading: An Intrapersonal View**

In this section, I will examine, through a review of the pertinent literature, how the reading process is being carried out interactively at an intrapersonal level.

In an up-to-date discussion on the main insights gained from reading research throughout the years, Grabe (2000, 2002) describes fluent reading in terms of individual cognitive processing which can be broadly divided into lower-level (also referred to as *bottom-up* or *text-driven* in the literature) and higher-level (also *top-down* or *concept-driven*) processes, in line with major interactive models of reading (e.g. Rumelhart, 1994; Stanovich, 1980)<sup>2</sup>. More specifically, Grabe (2000, 2002) discusses a view of reading as the combination and interaction of two abilities, i.e. word recognition and comprehension abilities. On the one hand, comprehension abilities are already developed to a certain extent in learners when they start to be taught reading and are thus not specific to reading. On the other hand, word recognition abilities are truly unique to reading and therefore should “be developed most thoroughly for reading comprehension to operate” (Grabe, 2000, p. 228).

If, in a general sense, Grabe’s (2000, 2002) account adopts the “basic bottom-up – top-down” distinction of traditional interactive models of reading as specified previously, this author’s description of the reading process is more specifically inspired by Kintsch’s (1988, 1998) construction-integration model of reading comprehension. In this model, lower and higher level processes operate along a

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<sup>1</sup> For the purpose of this discussion, the socio-cultural perspective also includes the educational perspective.

meaning construction-integration mode. In his detailed account of Kintsch's construction-integration model, Nassaji (2002) explains:

The model distinguishes between two main processes: a construction process, whereby a textbase containing the propositional<sup>3</sup> meaning of the text is constructed from the textual input, and the integration process, whereby the constructed textbase becomes integrated into the reader's global knowledge, forming a coherent mental representation of what the text is about or a situation model. (pp. 452-453)

Grabe (2000, 2002) gives an account of how word recognition and comprehension abilities actually combine to produce fluent reading within a construction-integration framework. Lower level processes imply the ability for the reader to recognize lexical units – through the processing of orthographic, morphemic, and phonemic information – and activate word meanings (*lexical access*), extract syntactic information (*syntactic parsing*), and integrate these various pieces of information (*propositional integration*), in a rapid, interactive, and automatic fashion, to create “initial unit meanings” (p. 53). This is about “getting meaning” and corresponds to what Eskey (2002) has described as “information acquired from the text” (p. 6).

For their part, higher-level processes intervene early in the course of reading, as “text comprehension extends beyond sentence-level propositional integration by incorporating each newly formed propositional unit in working memory into a textual propositional network” (Grabe, 2000, p.234). Always according to Grabe (2000, 2002), these higher-level processes first involve the reader's ability to achieve two levels of text understanding, which are referred to as *text model of comprehension* and *situation model of comprehension*. Here is a brief account of how this process of textual networking is achieved in the readers' minds. As they attack each word, line, or portion of text, the readers form in their minds a summary representation of the basic meaning, which closely reflects textual information, by combining salient clause-level information and ideas. However, a crucial learner variable comes into play, as this initial representation (*a text model of comprehension*) simultaneously and gradually meshes with factors such as the readers' cultural orientation, prior knowledge, past experience, affect (motivation, attitude towards the text content) and evaluation of the text itself to become a more interpretative model of text (*a situation model of comprehension*). Furthermore, the higher-level processes allow readers to be strategic about their reading: they monitor their reading in order to determine if their purpose is being achieved and in order to proceed with any adjustments necessary for fulfilling – what they perceive to be

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<sup>2</sup> Day and Bamford (1998) call this distinction “useful heuristics” but suggest that “it is probably better to leave them behind lest they unhelpfully polarize a description of how mental processes interact with text features in fluent reading comprehension” (p. 12).

<sup>3</sup> Nassaji (2002) defines *propositions* as “the smallest idea units that can be judged to be true or false” (p. 469).

– better comprehension. Eskey (2002) associates this process with the idea of “bringing meaning” or “knowledge supplied by the brain” (p. 6).

#### **2.1.1.2 Reading: An Interpersonal View**

Part of what is happening in the reader’s intrapersonal sphere when reading will be affected in one way or another through his interactions with changing socio-cultural and educational contexts. Ryan and Anstey (2003) emphasize the fact that, far from happening in a vacuum, reading is dynamic in nature as it reflects various socio-cultural processes as well as the reader’s knowledge. They contend that “All readers have an identity which is derived from their life experiences and which provides them with resources as a reader [sic]” (Ryan & Anstey, 2003, p. 11).

Generally speaking, various social contexts are likely to influence reading, including home, school, interactions among peers and between students and teachers. Indeed, at an interpersonal level, reading can also become an interactive pedagogical activity, whereby text comprehension is achieved through a process of co-operation between students and their teacher, and also among students. Furthermore, Grabe (2002) highlights the fact that “Peer interactions over time and student-teacher interactions also have a major role to play in a developing reader’s motivations, attitudes, task successes, and reading experience” (p. 54). This consideration is particularly important, as Bamford and Day (1998) point out: “There is also the affective power of reading itself. It seems that successful reading experiences promote positive attitudes toward reading which in turn motivate further reading. The result for students is an upward spiral toward greater reading proficiency” (p. 130). When discussing the intrapersonal view of reading in the previous section, mention was made of the reader’s background and cultural knowledge, prior experience, and affect – including motivation – gradually coloring the reader’s initial representation of text (Grabe 2000, 2002). Hence, it is also important to see that social factors are likely to impact reading, often through an influence on the reader’s affect. Relevant considerations on background knowledge and on motivation in L2 reading can be found in Sections 2.2.2 and 2.2.3, respectively.

In particular, the influence of the reader’s cultural background on reading is complex and far-reaching as it extends into both intrapersonal and interpersonal realms. Aebbersold and Field (1997) have identified in the literature an extensive set of reading factors that are influenced by cultural orientation, including readers’ attitudes towards text and views on the purpose of reading, readers’ choice and use of strategies in L1 and L2, the transmission through the educational channel of culturally-oriented beliefs about reading, and finally, issues pertaining to readers’ background knowledge (or content schemata), knowledge of text types (or formal schemata), and linguistic knowledge (or linguistic schemata). For Oxford (1996), “The importance of culture is reflected in the concept of ‘situated cognition’, which holds that the setting and the activity in which knowledge is developed are not separable from learning, nor are they neutral; they are an integral part of the learning” (p. x). In a L2 context, if the learner initially brings his culturally-determined beliefs, attitudes, training, and schemata, he is, in turn, encultured “through

classroom activities and through the modeling and coaching of the teacher and many others” (Oxford, 1996, p. x).

In the present section (2.1), reading was defined in terms of its interactive nature, a key concept in this study. Summing up the discussion, it is possible to state that reading takes place in the interval area of tension that is being created by the perpetual interplay of intrapersonal and interpersonal elements or variables, which makes reading comprehension an extremely complex and challenging process. Key variables influencing the process of reading and presenting a challenge to L2 readers in particular, can be derived from the above discussion. These variables will be introduced and expanded upon in Section 2.2.

## **2.2 Variables Influencing Reading, including L2 Reading**

Referring to various authorities in reading research –for instance Alderson (1984), Grabe (1986, 1991), and Scarcella and Oxford (1992)– Aebersold and Field (1997) are proposing a set of six variables that influence the reading process: the reader’s cognitive development, L1 language proficiency, meta-cognitive knowledge of L1 grammar, L2 language proficiency, as well as the differences between the L1 and L2, and the reader’s cultural orientation. My own foray into the literature for the purpose of the previous discussion on “interpersonal and intrapersonal interaction” has led me to specify four main variables, which encapsulate most elements<sup>4</sup> suggested by Aebersold and Field (1997) but, in my view, better correspond to the nature of the present study, namely, 1) cross-linguistic influences, 2) background knowledge, 3) affective and motivational considerations, and 4) socio-cultural factors.

In a general sense, a thorough discussion of those variables is crucial, because it will clearly identify some of the major challenges awaiting L2 readers, will help justify the need for a pedagogical intervention to support L2 readers in a higher academic context, and – at the end of this thesis – will contribute to an explanation of the results obtained from the various measures, to a final assessment of the treatment, and to various recommendations regarding L2 reading in the content areas.

Of particular importance to this study –especially in view of the participants’ linguistic background and linguistic level and considering the difficulty of the academic material they had to read– are the notions of word recognition, lexical access, and grammatical knowledge. Section 2.2.1 will elaborate on those notions in terms of the linguistic challenges that L2 readers must face.

The role of background knowledge in L2 reading will be investigated in Section 2.2.2. As stated in Chapter 1, the present study was conducted within the context of a content-based course, so the effect of content knowledge on reading comprehension becomes one area of attention; another area connected to background knowledge and relevant to the study is the interaction of prior knowledge with language proficiency.

The affective and especially motivational aspect of L2 reading will be discussed in Section 2.2.3, as a motivational component was integrated to the pedagogical approach used in the study. Questions



about participants' interest in L2 reading, about their interest in course readings, and about their topical motivation were also asked as part of this study. Motivation has long been recognized throughout the literature as a mainstay of success in second-language acquisition (SLA), and its potentially positive role in a strategies-based program has also been stated.

Finally, a discussion of the socio-cultural variables (Section 2.2.4) is paramount to the understanding of this study for three main reasons: firstly, because of the challenges to L2 reading posed by the cultural background as well as educational history of the participants; secondly, because of the particularities of the English for Academic Purposes (EAP) context the participants were taking part in; and thirdly, because the nature of the study required that a large part of the pedagogical focus be placed on classroom interactions.

Throughout the entire discussion, it will become clear how L2 contexts impose their own unique set of constraints on reading (Alderson, 2000; Grabe, 2000).

### **2.2.1 Cross-linguistic Influences**

Since it involves two languages – sometimes, even more – L2 reading is cross-linguistic in nature. In L2 reading, both the reading ability in the first language and the level of linguistic proficiency in the second language will come into play to determine comprehension. In Section 2.2.1, the emphasis will be placed on lexical considerations because of their importance to L2 readers. Issues pertaining to grammar and text structure awareness will also be raised.

#### **2.2.1.1 Lexical Access and the Automaticity of Word Recognition**

Word recognition abilities are key to the reading process (Grabe, 2000, 2002), and their importance will be highlighted here before any thorough discussion of cross-linguistic influences per se. It has now become an indisputable fact throughout the research literature that word recognition plays a central role in reading (Alderson, 2000; Carrell & Grabe, 2002; van Dijk & Kintsch, 1983; Grabe, 2000; Juel, 1991; Stanovich, 1986). Even though other key distinguishing factors do exist, especially in academic reading (see, for instance, Sections 2.2.2, 2.2.4.1, and 2.3), it is now widely recognized that what fundamentally tells a proficient reader apart from a poor reader is the automaticity of word recognition (Alderson, 2000). Alderson (2000) reports that research on eye movements has firmly established the important role of rapid and automatic processing of words. Referring to Perfetti (1985) and Stanovich (1980), Perkins (1998) contends that “Even skilled readers use orthographic information to identify words” (p. 212). Just and Carpenter (1987) have established that fifty percent of all function words and that seventy-five percent of all content words in a text were actually sampled by fluent readers. As a matter of fact, the practice of relying heavily on the context to extract meaning from text is characteristic of the “weaker readers who are over-compensating because they have inadequate word recognition skills and lack automaticity in comprehension processing” (Grabe, 2000, p. 227). The more

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<sup>4</sup> The reader's cognitive development was seen as irrelevant to the study context, as participants were all

efficient a reader is, the better he is at basic word decoding, which allows top-down processes to operate more freely and to be called upon whenever needed to assist comprehension. However, in the case of less efficient readers—for example, unpracticed L2 readers— weaker and less automatic decoding skills or vocabulary recognition skills will force them to spend more effort in identifying and comprehending words, which can lead to a disabling cognitive overload (Alderson, 2000). A reader's *working memory* plays a crucial role in this process. Grabe (2000) defines *working memory* as “the metaphorical space in which comprehension processing is carried out” (p. 232). The author highlights the fact that “this processing environment is a major source of variation in reading abilities, and, in particular, a source of differences between better and less-skilled readers” (p. 232). He adds: “Issues of processing efficiency in working memory also implicate speed of lexical access and speed of proposition integration. As a consequence, reading processes need to be carried out at a reasonably rapid rate to ensure fluent reading” (p. 232). When weaker readers must compensate somehow for that lack of decoding ability, they tend to rely more heavily than more efficient readers on background knowledge and other top-down processes for understanding – “such as linking propositions, making inferences, resolving ambiguities and integrating new information with existing knowledge” (Alderson, 2000, p. 58) – thus consuming much needed cognitive resources. As it will be discussed in Section 2.2.1.3, the issue of word recognition can have serious repercussions in the context of this study, because the participants, being Japanese, come from a predominantly logographic background.

#### **2.2.1.2 Lexical Knowledge**

According to Laufer and Sim (1985), foreign language learners rank vocabulary, subject matter knowledge, and syntactic structure, in that order, as their most pressing needs. In a context of English for Academic Purposes (EAP) such as the current study, this might be all the more true since a more specialized vocabulary includes less frequent words – perceived as more difficult. This general impression of foreign language learners about the central role of vocabulary is confirmed by empirical evidence. Alderson (2000) and Ellis (1999), for instance, report that measures of vocabulary are highly predictive of performance on tests of reading comprehension. For Hsueh-chao and Nation (2000), readability studies have also shown that the knowledge of vocabulary constitutes a key component of reading. In an experiment by Strother and Ulijn (1989) reported in Alderson (2000) and in Urquhart and Weir (1998), an original text and its syntactically-simplified version were given to L1 and L2 readers, and no significant differences were found in comprehension scores across the groups. Although such result does not automatically mean a rejection of the role of grammar in reading (see Section 2.2.1.4), vocabulary has indeed been identified as the most important contributing factor to reading comprehension for both L1 and L2 readers (Laufer & Sim, 1985). The relationship, however, remains correlational more than causal, and some researchers caution against adopting a purely instrumentalist view of vocabulary

knowledge as a major causative factor in comprehension (Hsueh-chao and Nation, 2000). Having a large vocabulary and a good reading comprehension can also be seen as a function of a good mental aptitude or as “an indicator of good world knowledge” (Hsueh-chao & Nation, 2000, p. 405; see also Anderson and Freebody, 1981; Nation, 1993). Hsueh-chao and Nation (2000) emphasize the fact that none of these positions should be held at the exclusion of the others and that “different relationships exist at different stages of vocabulary growth and skill development” (p. 405).

Lexical knowledge is extremely complex as it involves for the reader a varying degree of familiarity with a set of features including pronunciation, spelling, grammatical patterns, meanings and appropriateness of use in different contexts, associations with other words, and derivations (Perry & MacDonald, 2001). Nation and Waring (1997) have proposed a three-dimensional model of vocabulary knowledge, which takes into account the number of words known (or *breadth of knowledge*), the amount of knowledge present for each word (or *depth of knowledge*), and the capacity to use a word quickly (or *automaticity*). Because of this inherent complexity, learning all existing aspects and features of the same word at once is impossible. Lexical acquisition is thus incremental in nature, as every time a word is encountered, only a little more may be learned about that word. That is actually considered to be the main characteristic of lexical knowledge. According to Beck and McKeown (1991), lexical knowledge cannot be considered as an absolute case of “knowing” or “not knowing” but should be seen as a continuum ranging from “not knowing” to “partial knowledge” all the way to “knowing how to use a particular word metaphorically”.

In its pedagogical phase, this study did not involve any systematic vocabulary study or work on vocabulary per se in class. Instead, pedagogical attention was primarily placed on content and on the reading of content-based academic literature through the use of interactive reading strategies, including basic vocabulary strategies. However, one of the main purposes of the study was to determine whether or not the introduction and in-class use of such strategies with the treatment group would stimulate greater incidental and receptive vocabulary acquisition in that group than in the comparison group.

Vocabulary can indeed be learned from context. In a seminal L1 study, Nagy, Herman, and Anderson (1985) reported that children do learn new words incidentally when reading. According to Swanborn and De Glopper (1999), the “word *incidental* implies that the purpose for reading does not specifically provoke learning or directing attention to the meaning of unknown words. Before reading no mention has been made of any assignment or intent of learning new words” (p. 262). Nation (2001) adds that in incidental vocabulary learning the readers’ attention is primarily focused on the message of the text. For Krashen (1994), readers acquire new words incidentally and subconsciously in the process of understanding their meanings in context. Zaki and Ellis (1999), however, argue that if it is possible for readers to acquire vocabulary incidentally, they can only do so “if they consciously notice words in the text” (p. 155). “Learners need to notice new words when they read; they need to become conscious of them. In other words, vocabulary acquisition can only take place when learners engage in bottom-up

processing as a result of a gap in their mental lexicon” (p. 155). An over-reliance on top-down processing, and inferring through context in particular, without the necessary noticing of new vocabulary items, can actually interfere with vocabulary acquisition (Zaki & Ellis, 1999).

However, incidental learning of vocabulary represents an enormous challenge. On the one hand, if the density of unknown words in a text is too high, incidental vocabulary learning – through inferring – is obstructed. This has been observed for both L1 (Swanborn & De Glopper, 1999) and L2 (Nation, 2001). Liu and Nation (1985) argue that 1 unknown word per 20 running words in L2 English would be a minimum for inferencing to happen while Nation (2001) indicates an optimal figure of 1 unknown word per 50 running words. On the other hand, no significant acquisition of new vocabulary can possibly take place either if students read exactly at their ability level, i.e. around 1 unknown word per 100 running words (Carver, 1994; Nation, 2001). “This is of course an area of tension. In order not to hinder comprehension, students must not encounter too many unknown words; in order to learn new word meanings students have to encounter unknown words” (Swanborn & De Glopper, 1999, p. 280). Thus, ensuring that the density of unknown words suits individual students in a particular group is a tough balancing act to follow, especially in an L2 academic context of content area reading where learner variables – in terms of linguistic level, for instance – might clash with the readability of course materials often pre-selected with first-language speakers in mind.

This idea of lexical challenge in L2 reading will be expanded upon in the following section.

### **2.2.1.3 Lexical Challenges and Distinctive Features of L2 Reading**

There exist a number of specific lexical features of L2 reading that distinguish this activity from L1 reading. These features simultaneously translate into a series of lexical challenges, which L2 readers in general and the participants in the present study had to face. Furthermore, as we will see, the discussed lexical challenges can take on – and be complicated by – an institutional dimension.

A first important feature impacting L2 reading lies in the orthographic differences between the learner’s L1 and L2. According to the Orthographic Depth Hypothesis, a language with a transparent relationship between its orthography and its phonology is said to be “shallow”, while a language with an opaque relationship is considered to be “deep”. Despite a number of puzzling irregularities for the L2 learners, English is characterized by the relatively close relationship between its orthography and the phonological processing involved in reading it; this feature makes that language shallower than Japanese, a language in which the link between the orthography and phonological access is much more distant because of its use – although not exclusive – of logographic characters, often referred to as *kanji*.

The pertinent literature reveals that the more or less great distance between the orthographies of the L1 and L2 (or “orthographic depth”) can affect L2 word recognition (Carrell & Grabe, 2002; Koda, 1994; Koda, 1996) as well as the use of strategies by L2 learners at various stages of their development (Perfetti & Zhang, 1996). According to Carrell and Grabe (2002), comparative studies of L2 learners from various L1 backgrounds have invariably established superior L2 word recognition performance among

those learners whose first language shares more orthographic features with their second language. The logographic nature of *kanji*, the way they are read, and even the way they are learned have a strong influence on the way Japanese people learn and read English. Koda (1990) found that Japanese readers of ESL were comparatively less able to detect visually accessible phonological information in English words. Word-recognition strategies used for reading English by Japanese ESL students are actually based on cognitive mechanisms that these students have established for processing words in their own language. Processing English words would represent a far greater challenge for a Japanese reader than for another reader whose language shares an alphabetic background with English, because in a logographic script, "the transformational processing of words into mental representations does not involve the computational processing of sequences of the constituent letters in words" (Akamatsu, 1998, p. 19). This transposition of L1 reading strategies onto L2 reading has been well documented throughout the literature (Cheng, 2003).

A second key lexical distinction is related to the concept of *language threshold*. The language threshold hypothesis (Alderson, 1984; Clarke, 1980) posits that there is a breaking point in L2 "beyond which second-language readers have to progress before their first-language reading abilities can transfer to the second-language situation" (Alderson, 2000, p. 23). It should be noted that such threshold is not absolute (Alderson, 2000) and will vary with the type of text (topic and language), the task (its level of difficulty), the reader (and his prior knowledge), and the situation. Indeed, Carrell and Grabe (2002) emphasize the relative nature of the linguistic threshold, which should be interpreted in terms of a continuum unfolding as "L2 proficiency increases" (p. 244).

Within the concept of a linguistic threshold, it is first and foremost quite natural to expect that in order to achieve comprehension of a particular text, the reader must possess word recognition skills, and by the same token, enough vocabulary. The literature on reading comprehension (Hirsh & Nation, 1992; Laufer, 1992; Laufer & Sim, 1985; Nation, 2001; Schmitt, 2000) further reveals that there cannot be comprehension unless some lexical threshold is crossed, i.e., L2 readers must be able to recognize a minimum percentage of words in order to be able to gain adequate understanding of any given text and read texts independently (although the knowledge of all the words of a text would not necessarily guarantee one hundred per cent comprehension). Laufer (1989) has estimated that fluent reading requires that the reader understand a minimum of 95% of all the words on a given page, while Nation (2001) puts this requirement higher at 98% coverage<sup>5</sup>. Carver (1994) found out that young L1 students commonly know 99% of the words in the material they read at their grade level. Of course, the notion of a lexical threshold is particularly important for reading in a second or foreign language, as new and older readers in a second or foreign language do not possess the same level of vocabulary than even young first-language readers and will require years to even partly overcome this handicap and improve their recognition vocabulary to match the minimal lexical requirements leading to comprehension. In the meantime, it is

easy to realize that L2 students are often required by their teachers to read and comprehend difficult texts well beyond their present lexical ability.

A third lexical challenge lies in the number of times a reader must see a new word before this word can be retained. A survey of the literature by Perry and MacDonald (2001) has revealed a lack of agreement as to how many times are actually necessary. According to the various sources examined by Perry and MacDonald (2001), anywhere from 5 to 17 times would be required. Thus, even knowing the basic meaning of a particular word and increasing one's breadth of vocabulary knowledge in general require an enormous amount of reading. In a survey of a series of graded readers for L2 adult learners, Nation and Wang Ming-tzu (1999) counted only 108 words that were repeated ten times or more. They calculated that for ensuring 10 repetitions, 200,000 words – or nine of the simplified readers – would have to be read by the students for them to have a chance to learn those words receptively (or passively). But repetitions are not enough. Other favourable conditions are needed: the reader would have to achieve a 95% to 98% coverage of the text (as discussed previously), actually encounter and notice any new word ten times (which means that the word would not be forgotten from one repetition to the next), and be successful at guessing the meaning of the word. Further deepening one's knowledge of any particular word would also entail even more encounters. Laufer (2003) examined the long-standing assumption that reading is the main source of vocabulary acquisition in any instructed L2 learning context. In a series of studies, she compared vocabulary gains from reading with vocabulary gains from word-focus tasks and found out that a word is more likely to be remembered if practiced in a productive word-focused task than if encountered and noticed by the reader in text, and subsequently looked up in the dictionary.

The opportunity of retaining words through multiple encounters in reading is hardly ever provided to L2 learners by their educational contexts (Hulstijn & Laufer, 2001)<sup>6</sup>, and, as a matter of fact, the amount of reading that should be demanded from L2 learners in an institutional context to secure the required number of word repetitions might be quite unrealistic (Laufer, 2003). This institutional dimension constitutes a fourth important challenge related to the acquisition of L2 vocabulary.

Cummins (1981) found out that ESL children who came to Canada at age 6 took 5 to 7 years to match native speakers' scores on vocabulary tests at their grade level. Even when they build a good vocabulary, migrant children know fewer facets of a same word than native speakers (Verhallen & Schoonen, 1993). The task might be even more daunting for older students entering an English-speaking university with a sometimes limited L2 vocabulary and with fewer occasions to socialize on a daily basis with native speakers than younger migrant children, and with fewer academic opportunities to develop

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<sup>5</sup> The term *coverage or lexical coverage* refers to "the number of known words in a text" (Laufer, 2003, p. 571).

<sup>6</sup> In their discussion for further research, Hulstijn and Laufer (2001) suggest that studies should be held to find out if task type could compensate for the relatively limited amount of times L2 learners are exposed to new words. As reported, Laufer (2003) established that word-focused tasks lead to better vocabulary acquisition than reading alone.

their linguistic proficiency, as this proficiency is sometimes taken for granted by institutions of higher learning. According to Laufer and Yano (2001), “foreign learners in tertiary education are expected to read authentic academic texts which were not written for people with a limited vocabulary and are therefore bound to contain many words unfamiliar to the learners” (p. 550). The same authors emphasize the fact that the “vocabulary of foreign learners who are high school graduates and even university students does not amount to a quarter of the vocabulary known by their native speaking peers” (p. 549). Drawing on research by Shillaw (1995) and Barrow, Nakashimi, and Ishino (1999), Laufer and Yano (2001) report that EFL university learners in Japan taking Nation’s (1983) Vocabulary Levels Test have shown a knowledge of between 2,000 and 2,300 word families<sup>7</sup> after 800 to 1,200 hours of instruction. Those figures, which in my view are broadly representative of the level of the participants in the present study, fall short of the lexical requirements for an ESL learner to understand academic texts, as stated by Nation (2001): “To reach 95% coverage of academic text, a vocabulary size of around 4,000 word families would be needed, consisting of 2,000 high-frequency general service words, about 570 general academic words [...] and 1,000 or more technical words, proper nouns and low-frequency words” (p. 147). If we accept Cobb and Horst’s (2001) assertion that 550 new words a year represent “the normal pace of classroom acquisition” (p. 319), at least three more years of studies might have been necessary for the Japanese students which Laufer and Yano (2001) referred to.

In view of the various lexical challenges discussed in this section, it would seem crucial to support L2 reading and, in particular, L2 vocabulary development in non-native speakers taking part in academic programs. Within the context of this study, because of curricular and time limitations, large-scale vocabulary development – through extensive reading and intensive word-focused tasks – could not be implemented in the treatment tutorials. The pedagogical approach in the treatment group was based on the use of reading strategies – including vocabulary-learning strategies – in class. These strategies were introduced to give participants tools with which to approach L2 reading and vocabulary and help with the acquisition of course content. Section 2.3 discusses reading strategies and strategy instruction in general. A complete description of the actual pedagogical approach implemented in the tutorials can be found in Chapter 3.

For the time being, I will continue with more variables that influence L2 reading and that present a challenge to L2 readers.

#### **2.2.1.4 Grammatical Knowledge and Challenge for L2 Readers**

Another important element of cross-linguistic influence – and of the threshold hypothesis described previously – is grammatical knowledge. If young children implicitly know the basic syntactic and discourse structures in their own mother tongue before they even begin to read, this knowledge cannot be possibly available to the same levels in L2 readers than in L1 readers (Carrell & Grabe, 2002).

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<sup>7</sup> According to Nation (2001), a word family consists of a headword, its inflected forms (e.g., plural, past

During a research study for the International English Language Testing System (IELTS) test, Alderson (1993) reported evidence of strong correlations between a test of communicative grammar and a series of academic reading comprehension tests. However, the role of grammatical knowledge in L2 reading has not been firmly established by research. Alderson (2000) seizes up this reality when he states that "The ability to parse sentences into correct syntactic structure *appears* [italics added] to be an important element in understanding text" (p. 37).

Alderson (2000) reports on studies which suggest that differences in syntax and discourse across languages may have an effect on word identification and that syntactic parsing strategies may also vary according to various languages. According to the same author, however, stating that syntactic structures will always make text harder to process for L2 readers would be too simplistic a view. For Grabe (2002), transfer of L1 syntactic knowledge to L2 reading occurs even at an advanced level and can at times support or at times interfere with the L2 reading process.

Nation (2001) highlights the fact that the lexicon itself includes aspects of grammatical knowledge and that the syntactic construction of the sentence is in great part determined by lexical choice, especially that of verbs. Nation (2001) also discusses the notion of "grammatical learning burden" for L2 learners (p. 56): the learning burden is said to be light when an L2 word takes the same grammatical patterns as its approximate L1 equivalent and when two L2 words with a related meaning, such as "like" and "hate", involve similar patterns. Taking Nation's (2001) outlook, it can be said that for the participants in this study the grammatical burden must have been rather heavy, on account of the syntactic differences between Japanese and English, making the participants' reading even more problematic. Unfortunately, the treatment tutorials were not a language course per se, and no time could be spent on the discussion of discrete grammatical items. However, as explained below, a different aspect of grammatical knowledge was particularly stressed in order to help participants deal with key features of academic texts.

Indeed, besides those considerations about syntactic structures, grammatical knowledge in L2 can be extrapolated to include such components as awareness of text organization, discourse features, and co-reference, all key aspects of expository texts such as the ones used in the current study. Expository materials pose more challenges to readers than do narrative texts, especially due to the fact that the former use text structures that are more varied and complicated than the latter (Kucan & Beck, 1997). In the section on background knowledge (Section 2.2.2), the importance of those forms of knowledge will also be stressed. Wallace (2001), for instance, advocates the teaching of such knowledge in text-focused literacy studies for intermediate students.

Considering the high level of difficulty of the expository reading material used as part of this research and the differences in syntax, text organization, and ways of expression between the Japanese

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tense, comparative, etc.), and its closely related derivatives (e.g., un-, -ly, -ness, -ful).



language and the English language, it was quite natural to expect grammatical knowledge to impact the participants' reading comprehension of this material in some way or the other. In order to help the participants develop an awareness of – and deal with – various discourse features and especially organizational aspects of expository texts, a number of strategies were introduced through the reading guides used in class during the treatment tutorials.

### **2.2.2 Background Knowledge**

As stated previously, the current research took place within the context of a content-based university course that entailed a certain amount of academic reading. Therefore, for the participants, topical background knowledge (or knowledge of content domain) and background knowledge of text structure and discourse cues (or formal knowledge) constituted two important elements to consider in relation to reading comprehension in a second-language.

If the role of background knowledge as a facilitator of L2 reading is well-established throughout the literature (Carrell & Grabe, 2002), it has been pointed out that the effects of background knowledge can be rather moderate if not weak in terms of statistical significance (Bernhardt, 1991). The interplay between language proficiency and background knowledge, in particular, is a complex area to investigate and has often lead to inconclusive or contradictory results (Weir, Huizhong, & Yan, 2000). The main issue consists in finding out if activating relevant background knowledge can help readers compensate for linguistic inadequacies.

In her investigation of the effect of specific content knowledge on reading comprehension, Clapham (1996) found out that the specificity of reading passages determines the relative importance of background knowledge and language proficiency. For Clapham (1996), it will be difficult for readers below a certain threshold of language ability to make use of their background knowledge. In order to account for inconclusive results regarding the role of background knowledge, Ridgway (1997) has proposed a conceptual framework stating a lower threshold and an upper threshold. Below the lower threshold, a poor reader cannot comprehend a given text because of a lack of both linguistic and background knowledge, causing cognitive short-circuits that the recourse to top-down reading strategies cannot help overcome. Above the upper threshold, a proficient reader will not show much in terms of background knowledge effect unless the text content is highly specific. Second-language readers situated in-between those two thresholds – i.e., intermediate level students such as a number of participants in the present study – however, will show more obvious background knowledge effect than either proficient or poor readers, as their background knowledge can be used, at least in part, to compensate for language deficiencies. Weir et al. (2000) emphasize the fact that “Whatever the findings, it seems that language proficiency levels play at least as important a role as background knowledge in the comprehension of reading texts” (p. 26).

Moreover, Carrell and Grabe (2002) highlight the significant influence on L2 reading of being aware of text structure and discourse cues used in expository texts. Reporting on a series of training

studies, these authors conclude that this type of knowledge can have facilitating effects on L2 reading in terms of comprehension and information recall, especially when mapping strategies for making text structures explicit are used.

Thus, because of the facilitating effects of topical and formal background knowledge on the reading of intermediate L2 learners, there was a clear need to help the participants in this research build their background knowledge to assist them with the reading of the course materials and the acquisition of related content. In the treatment tutorials, as part of the approach based on interactive reading, pre-reading activities were designed in order to activate background knowledge of content domain (especially as the research occurred within the context of a content course) and with the potential aim of facilitating reading. Gersten, Fuchs, Williams, and Baker (2001) have reported that in cases where topical knowledge covered in expository texts is too limited or fragmented, high school learning disabled students' comprehension – in L1 reading – is negatively affected. Exercises included in the interactive reading guides were also aimed at helping participants help build background knowledge of text organization and discourse cues.

### **2.2.3 Second Language Reading Motivation**

Reading motivation is a multidimensional phenomenon, whether it be in a first language (Guthrie & Wigfield, 2000; Wigfield & Guthrie, 1995) or in a second language (Mori, 2002). Very few L2 reading motivational frameworks actually exist (Mori, 2002), and it would simply be out of the scope of this thesis to discuss general theoretical models of learning motivation – such as the ones proposed by Tremblay and Gardner (1995) or Cohen and Dörnyei (2002) – and the way they can be applied to L2 reading. Thus, inspired by various pertinent readings, I will keep to practical considerations that are immediately relevant to the context of the present study and highlight motivation as another challenging variable for L2 readers.

Teachers in general are well aware of the impact of their students' motivational profile on learning and of the need to motivate their students to carry on various academic tasks at some point or the other, whatever their level. For Alderson (2000), the qualitative outcome of reading is related to reader motivation. According to Gersten et al. (2001), "Motivation and persistence affect performance in all academic areas and are clearly related to students' developing a sense of failure and frustration in the presence of academic tasks" (p. 287).

Accordingly, from the very beginning steps of this research, motivational factors were expected to play an important role. My initial perception stemmed from the feeling that, faced with the reading of very difficult material in a relatively unfamiliar content area, the participants in the study might be in need of special stimulation and encouragement, due to their linguistic level as discussed previously. Moreover, considering the EAP context of the present study, the need for promoting L2 reading motivation among ESL university students seemed to be amply justified by the fact that reading is, without a doubt, the most required skills in an academic environment.

However, besides those two basic reasons for supporting L2 reading motivation within a pedagogical approach, I identified three more relevant areas, which I will discuss in the following paragraphs.

First, from the outset, I believed that some of the participants' socio-cultural and educational characteristics might adversely impact their motivation for or interest in L2 reading, a situation which would normally prompt the need for motivational support. Generally speaking, it can be considered that the values and attitudes held by Japanese students are in great part dependent on the perception of L2 reading that they have acquired through the Japanese educational system.

As it will be explained in more detail in Section 2.2.4.2, second-language reading in Japan is devalued by two main compounding factors: the peculiarity of the L2 reading culture that has developed in that country and the official position promoting, almost exclusively, oral communication in English. According to Cohen and Dörnyei's (2002), students' initial commitment towards learning might be enhanced or might flounder depending on the quality of the messages – positive or negative – from the larger environment. For Wigfield and Guthrie (1995), motivation is domain-specific; applied to a L2 context, this would mean that a student who is very motivated to speak English is not necessarily motivated to read in English, and vice versa.

Another relevant feature of the educational system in Japan is the fact that extrinsic motivators – in the form of entrance examinations leading to the best schools or careers – are extremely important. When treatment participants were asked to read in class or encouraged to read outside the classroom, there were no grades either significantly or directly attached to their effort. To compensate in part for this lack of extrinsic motivators, various pragmatic benefits associated to L2 reading (for example, the potential of improving one's grades on papers and course examinations through reading), as well as more intrinsic considerations, were highlighted by the TA to the participants as part of the motivational component used in the treatment pedagogical intervention.

Second, after the influence of the participants' original cultural context, I would like to discuss how the actual learning situation in an academic exchange program was susceptible to affect the participants' L2 reading motivation. The degree of confidence L2 learners have in their ability to carry out a language task is largely determined by the learners' linguistic level or, more especially, the perception they have of their level, and also by their initial belief – at times somewhat unrealistic – about the amount of time necessary to reach a certain level of linguistic competence (Cohen & Dörnyei, 2002). According to Alderson (2000), research has shown that poor readers in L1 and L2 do not have the necessary motivation to read or “to spend time improving their ability to read” (p. 53).

In particular, the linguistic level or readability of course materials is likely to have an influence on reader motivation. As it was reported in Section 2.2.1.3, ESL university students are often required to read expository texts with vocabulary largely exceeding their lexical knowledge (Laufer & Yano, 2001). In this study, a reader profile – based on reading comprehension test and vocabulary test results – was

established prior to the intervention to obtain a general idea of the participants' coping potential for L2 expository texts, which was susceptible to impact on their motivation. Pointing to the fact that English has a very large and diversified vocabulary, Nation and Meara (2002) insist that teachers "should rely principally on the learners' own motivation to get them to these very high levels of vocabulary knowledge" (p. 51), which might also imply that this type of motivation has to be cultivated in the learners. Since, in L2 reading, texts are an important part of the learning experience, their degree of interest or attractiveness for the reader will also have a motivational impact. According to Williams (1986), "Interest is vital, for it increases motivation, which in turn is a significant factor in the development of reading speed and fluency" (p. 42). Interest in the course readings and topical motivation were partly investigated in the present study.

Another important motivational issue related to the learning situation is the gap between students' and instructors' perceptions of various linguistic skills. In a study of intermediate level ESL university students, Harlow and Muyskens (1994) found out that students actually ranked the speaking and listening skills as a much more important goal than reading, whereas teachers ranked reading development on par with the oral skills as a goal for instruction. Commenting on this situation, Lynch (1999) states that this "mismatch between instructor and student goals is itself often a source of the motivation problems faced by students" (p. 2). The motivational component of the research pedagogical intervention was also designed in an attempt to alleviate such problems.

The third area I would like to explore about L2 reading motivation concerns some of the more concrete aspects of reading instruction in a content-based course. Grabe and Stoller (2001) suggest practical ways for teachers to help their students develop reading motivation in a content-based course, such as sharing views in class about the importance of reading and individual interests in reading, relating reading activities to course content and involving students in pre-reading activities in order to develop their interest, helping students build their knowledge base in order to reinforce their feeling of competence, taking into account the difficulty level of reading passages and the students' reading abilities in the design of pedagogical activities, fostering social interactions between students so that they can help one another through difficult reading passages, and finally, designing ways to help students become thoroughly engaged in reading and have them experience "flow" (Csikszentmihalyi, 1990) when reading. These practical suggestions helped give an orientation to the pedagogical component used in the current study. For Grabe and Stoller (2001), "The key idea for teachers is that motivation makes a real difference in students' reading development, and teachers need to consider how to motivate students to engage as actively as possible with class texts and in extensive reading" (p. 199).

Moreover, the integration of content and language instruction, as it happened in the current study, can add to the quality of the learning experience by opening new horizons. Commenting on that link, Hudson (1998) suggests that integrating content and language instruction "allows the learner to use the

target language in a meaningful way or 'real-world' purposes that are not tied specifically to language instruction. Such contexts of language can serve to provide motivation for reading" (p. 54).

To conclude, Cohen and Dörnyei's (2002) emphasize the impact of strategies on learners' motivation throughout all phases of motivation: the awareness of strategies can act as an incentive to initiate learning, their use can serve as a way to boost one's self-confidence, and finally their consolidation can lead to more successful experience and inspire future learning. Hajer, Meestringa, Park and Oxford (1996) state that positive attitudes towards L2 reading are stimulated by strategy instruction. O'Mallet and Chamot (1990) highlight the need for a motivational component in strategy training, insisting that such training "could benefit from a motivation component to help get reluctant students over the initial hurdle of learning to use new strategies" (p. 161). In the present study, basic strategy instruction and reading activities involving the use of strategies were used. Section 2.3 discusses reading strategies in more detail.

#### **2.2.4 Socio-cultural and Educational Contexts**

In Section 2.1.1.2, the overall importance of socio-cultural and educational contexts in L2 reading was stressed. In the present section, I will more specifically discuss L2 reading both in an English for Academic Purposes (EAP) context and in the Japanese cultural and educational context.

##### **2.2.4.1 English for Academic Purposes (EAP) Reading**

The present study took place within an English for Academic Purposes (EAP) context (see Chapters 1 and 3 for a description of the research context). For Brown (2001), "EAP (English for Academic Purposes) is a term that is very broadly applied to any course, module, or workshop in which students are taught to deal with academically related language and subject matter. EAP is common at the advanced level of pre-academic programs as well as in several other institutional settings" (p. 123). The brief account that follows explains how the EAP variable determines L2 reading.

A majority of textbooks and journals made for the academic context are published in English only. Hence, whatever the medium of instruction at their colleges or universities, students everywhere need to be able to read English. Flowerdew and Peacock (2001) refer to a series of features and difficulties specific to reading in an EAP context that set this type of reading apart from "general English reading". In subject areas, contrarily to "general English reading" where the purpose is more related to "enjoyment", students read to perform a task, i.e., "to learn about something, get information, learn how to do something or draw material for argument" (p. 185). More than any other skills, EAP students throughout the world need to read in order to learn (Flowerdew & Peacock, 2001).

Usually, in an EAP context, reading is also linked to writing as students seek to extract various ideas and information from a variety of text sources in order to be able to articulate their thoughts on written assignments, essays, exams, projects, or even notes in support of oral presentations. Because of that link, some instructors focus on reading skills and strategies that can support students' writing. "Examples are distinguishing relevant from irrelevant information, note-taking skills, skimming and

scanning skills, understanding connections between paragraphs and between sections, use of cohesive and other markers and interpreting the writer's point of view" (Flowerdew & Peacock, 2001, pp. 184-185). Besides the emphasis on tasks in EAP reading, there is, according to Flowerdew and Peacock (2001) a clear distinction in registers and genres between EAP reading and general reading.

The above considerations are extremely important in view of the fact that even good readers of general English texts are not necessarily good readers in their subject areas in college. Ideally, such a discrepancy should be taken into account by teachers. However, as reported by Flowerdew and Peacock (2001), "Reading is often neglected by subject teachers" (p. 185). More specifically, teachers often explain verbally or simply give notes about difficult readings without having their students do any substantial reading. As a result, students do learn the content but not how to develop their content reading skills or how to organize information or how to develop as independent and strategic readers. Thus, in EAP contexts, there is an obvious need to help students identify the main features of expository texts, develop strategies through a variety of academic tasks, and become independent readers. In the current research, care was taken to introduce treatment participants to content reading with such goals in mind. The link with writing, however, could not be exploited because of a lack of time.

#### **2.2.4.2 Japanese EFL Readers in Context**

Participants in the present study were all college-age Japanese students taking part in a year-long academic exchange program at a Canadian university. In this section, a brief discussion of the particular Japanese socio-cultural and educational context is presented in terms of the impact such context has on L2 reading. Even though the participants in the study had been in Canada for four months already at the beginning of January 2002, it would not be realistic to assume a significantly reduced influence of their original context on the way they approached reading.

According to the research literature about academic reading in Japan, the level of reading in English is rather low among Japanese college students (Bamford, 1993; Browne, 1996; Mulvey, 1998; Robb & Susser, 1989; Torikai, 2003). My own observations of a variety of Japanese students in Japan and in Canada tend to confirm this assessment. A variety of reasons might explain this unsatisfactory reading level.

As discussed in Section 2.2.1, language-specific considerations like the influence of the L1 orthographic system, the lexical threshold, and indeed the linguistic threshold in general (Grabe 2002) are playing a crucial role, in so much that Japanese and English are two very different languages<sup>8</sup>. It is also possible to argue that language being also part of culture, these linguistic factors are also partly cultural in

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<sup>8</sup> Reporting on a study by Daulton (1998), Nation (2001) notes the high incidence of English loan words in the Japanese language, i.e. up to 38% of the 2000 most frequent words and 26% of the terms in the University Word List. Even though most of the loan words do not have the same semantic depth than the original English terms, they help with the learning of English, according to the study.

nature. In this section, I would like to highlight other socio-cultural and educational factors that can be used to explain the low level of L2 reading among Japanese students studying abroad.

Although not as pervasive as it used to be, the practice of having high school students “read” English – or rather “learn” discrete items of the English language – by means of a grammar-translation process called *yakudoku* remains well-entrenched in Japan, despite serious methodological pitfalls (Gorsuch, 1998; Hino, 1988; Hino, 1992). According to Torikai (2003), “the Japanese learners seem to have difficulty in reading, or they do not perform as well as they should, chiefly because they are too slow in reading in English, not having received proper training in reading strategies. Most of the time, the reading that is taught at school is bottom-up reading, analyzing sentences with the help of dictionaries, consulting every single word that is new or unknown” (p. 1). Another widespread pedagogical practice that impedes EFL reading progress is the habit of having beginner EFL students transcribe English words phonetically using Japanese *katakana*, a phonetic alphabet that cannot reproduce faithfully the sounds of English (Jannuzi, 2001). Among other educational factors that are not conducive to fluent EFL reading in Japanese schools, there is also the time spent on the teaching of low-frequency level vocabulary<sup>9</sup> at the expense of high-frequency words (Guest, 2000). In terms of vocabulary type and coverage in an academic text, low-frequency vocabulary represents around 5% of the coverage, whereas the 2000 most frequent words make up 80% or more (Nation, 2001). For Nation (2001), the teacher should not spend a great amount of time explaining low-frequency vocabulary and rather should aim at training “learners in the use of strategies to deal with such vocabulary” (p. 20). Furthermore, Browne (1996) suggests “that Japanese high school and university reading classes utilize materials which are often too hard for the students to be able to improve their reading skills” (p. 28).

In our globalizing context where the promotion of English oral skills has taken a great importance in national curricula, such an approach to reading can ultimately have the perverse effect of marginalizing reading when, paradoxically, it is realized that the reading practice in question fails at promoting oral proficiency (Harden, 1995). As a matter of fact, recent years have seen a considerable emphasis on the development of English speaking skills in Japan to meet the demands of modern communication. However sensible, this emphasis, seen as a national educational priority (Hood, 2001), might also have led to a further devaluation of EFL reading in the curriculum or, at the very least, in the minds of Japanese students. The general absence of content-area reading in English and the absence of any extensive reading program in EFL in Junior and Senior High School and even beyond – two elements likely to contribute to readers’ motivation (Brown, 2001; Day & Bamford, 1998) – might be a reflection of that state of affair. In a report compiled by students from Ryukoku University, in Kyoto, Japan, most

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<sup>9</sup> Here is how Nation (2001) circumscribes the notion of low-frequency vocabulary: “They include all the words that are not high-frequency words, not academic words and not technical words for a particular subject. They consist of technical words for other subject areas, proper nouns, words that almost got into the high-frequency list, and words that we rarely meet in our use of the language.” (p. 12)

English instructors that were surveyed at that institution expressed the wish that their students should read many more books in order to develop their curiosity and diversify their interests, which were said to be lacking (Arita, 1997).

At a higher cultural level, the Japanese educational system is characterized by a teacher-directed Confucian type of learning, whereby students expect the teacher, as the main authority figure, to extract meaning from text for them, in the initial phase especially: this might prevent students from interacting effectively with text.

I think this is a product of the sort of Confucian educational system which basically leads to Japanese people envisaging language as a set of facts, a set of words, a finite number of grammar rules that if you master you will somehow learn the language. It just doesn't happen that way. So Japanese learners are just very reluctant to play the role of language user. They think you have to be a native speaker to be a language user. Otherwise, you have to be a language learner. (p. 3, "Rod Ellis", 2001)

Finally, another defining feature of Japanese education is a highly competitive entrance examination-driven school system where most academic work is geared towards getting the best marks possible for admission in the best schools, forcing teachers to encourage rote learning and "to teach to the test". Despite the official emphasis on English for international communication, the format used for English-language entry exams remains quite traditional, and so is, within that format, the conception of reading (and of second-language as a whole). According to Clark (2003), "Preparation for those exams is clearly the main reason why so many educated Japanese either dislike English or speak it badly" (para. 11). As we can see, both the cultural context and the embedded educational context can have a great influence on the way L2 readers approach reading (see Parry, 1996 for more examples of this), and Japanese students studying abroad do appear disadvantaged by their context as far as reading in a second language is concerned<sup>10</sup>.

These features entail that a different approach to L2 reading should be introduced to Japanese students. The pedagogical approach chosen for the present study was based on reading strategies and, as explained previously, on a motivational component. The next section will discuss reading strategies in detail.

### 2.3 Reading Strategies

One of the main features of fluent reading, either in a first or a second language, resides in the fact that it is "strategic", in the sense that the reader employs "strategies" to bring about comprehension

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<sup>10</sup> If we look at Kubota's (2001) personal account of her own L1 literacy development in Japan, which took place in an incredibly print-rich environment, both at home and at school, the approach taken to EFL literacy seems to correspond to a unique and separate pedagogical culture.



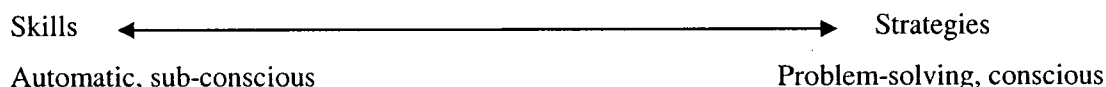
(Bamford & Day, 1998; Carrell & Grabe, 2002; Grabe, 2002). Over the years, research has ascertained the fact that the proficient reader is a better strategic reader than the less proficient reader (Carrell, 2002). For Oxford (1996), "The use of well-chosen strategies distinguishes experts from novices in many learning areas" (p. xi).

### 2.3.1 Defining strategies

Efforts to understand, describe and characterize the reading process, especially from a cognitive point of view, have led to the identification of individual mental operations that have been labeled by researchers using a plethora of terms, such as "skills", "abilities", "processes", "sources of knowledge", or "strategies", to name a few. Such terms have often been ill-defined (Ellis, 1994; Purpura, 1999) and used inconsistently by authors throughout the literature, causing confusing overlaps and even casting doubt about the appropriateness of a multi-divisible view of reading (see also Alderson, 2000, and Urquhart & Weir, 1998). The terms "skills" and "strategies", in particular, have often been used interchangeably. However, Urquhart and Weir (1998) report a consensus about the way "skills and strategies" should be distinguished through definition, using a distinction made by Williams and Moran (1989): "A skill is an ability which has been automatised and operates largely subconsciously, whereas a strategy is a conscious procedure carried out in order to solve a problem" (Williams & Moran, 1989, p. 223; also cited in Urquhart & Weir, 1998, p. 98).

For Tomlinson (2000), proficient reading in L1 is mostly "experiential", that is to say, "we read more or less continuously without paying much conscious attention to the content or expression of the text nor to the application of the reading strategies in our repertoire" (p. 524). The author argues that a proficient reader will only have recourse to conscious mental operations –i.e. "strategies" – in cases of careful or "studial" [sic] reading or in cases where some major breakdown in comprehension occurs. Otherwise, "experiential" reading will involve mostly sub-conscious mental operations which he calls "instruments", a term that corresponds by and large to "skills" in Williams and Moran's (1989) distinction. It is possible to imagine a continuum from the automatic and sub-conscious skills to the conscious and problem-solving strategies in order to characterize an aspect of the mental operations used in reading:

**Figure 1: Mental Operations while Reading**



If we imagine a simple reading situation, for instance, the reading at the university of a social study text in English on a given topic, we can assume that, on the one hand, proficient L1 readers who also already possess a reasonable amount of topical knowledge would operate more often at the "skills" end of the continuum", because they have relatively few problems to solve, and that, on the other hand, less

proficient L2 readers who possess limited topical knowledge would operate more often at the “strategies” end of the same continuum, because they have relatively more problems to solve than their counterparts. Of course, it is easy to conceive a multitude of movements along the continuum, different for each reader, depending on such factors as the readability of the passage and the reader’s general linguistic ability and topical knowledge. If we accept the fact that L2 intermediate readers, such as the students who took part in the study, are more often on the “problem-solving” mode, then it makes sense to help them develop their strategic reading. After a discussion on strategy classification, I will introduce further on a typical instructional approach – as found in the literature – to help foster the development of strategic reading in a L2 context.

### **2.3.2 Classification of Strategies**

As soon as one seeks to describe and analyze a process as complex as learning or reading, distinct components appear quite naturally, even though they might seem arbitrary and subject to confusing interpretations at times. It is indeed difficult to draw clear-cut boundaries around individual learning or reading strategies (Kidd Villaume & Greene Brabham, 2002), but categorizations of strategies do exist. They stem from the multi-divisible view of reading. This view of reading has significant repercussions in terms of instruction and testing: identifying separate component strategies allows curriculum-designers to give teachers something specific to teach, allows teachers to give students something specific to learn, and provides test-users with something specific to test – although in that last case, it becomes extremely difficult to know if the strategy which test-makers purported to test in the first place is really being tested (see Alderson, 2000).

A popular categorization of strategies is Oxford’s (1990) Strategic Inventory of Language Learning (SILL). The SILL is in fact a structured questionnaire comprised of statements about learning (“learning English” in the case of the ESL version); each student must respond by stating on a scale how true of him or her every statement is (Brown, 2001). The ESL version of SILL includes six main categories regrouping fifty separate learning strategies: cognitive, metacognitive, affective, social, memory, and compensatory, but Oxford (1996) specifies that memory and compensatory strategies “have been included as cognitive strategies by most researchers” (p. xi). The competent learners are able to use a whole range of strategies (Oxford, 1996). The SILL being a repertory of general learning strategies, it is to be expected that the strategies listed do not always match “reading strategies” as elicited through think-aloud protocols (Yamato, 2000), despite some obvious overlaps (Alderson, 2000). Nevertheless, it seems that the four main categories of SILL can accommodate most reading strategies, which would make sense considering the earlier discussion in this chapter of the main dimensions of reading (cognitive/metacognitive, socio-cultural, and affective). For instance, in her doctoral thesis about a case study on reading strategy usage with five Chinese college students, Cheng (2003) regrouped the strategies reported in think-aloud protocols by the participants into four categories, cognitive, metacognitive, social, and affective, which correspond to four of the categories in Oxford’s SILL. O’Mallet and Chamot (1990)

have also suggested similar categories for learning strategies. Yamato (2000), however, has proposed a different set of categories. For a research on awareness of strategies and the real use of strategies among a group of Japanese university students, he developed his own second-language strategy questionnaire by including 38 items taken from a number of studies about strategies that affect reading comprehension. The items were initially divided into the six main SILL categories, but, after analyzing response data from the main questionnaire through a principal component factor analysis, Yamato (2000) classified 35 reading strategies identified in the study into 5 new categories, i.e. top-down processing strategies, extracurricular practice strategies, grammar-oriented bottom-up processing strategies, vocabulary-oriented bottom-up strategies, and relaxation strategies. However, due in part to some irregularities in Yamato's (2000) classification, I believe that Oxford's (1990) main categorization is superior in reflecting the dimensions of reading as discussed thus far in this dissertation.

The process of strategic reading may involve predicting, activating prior knowledge, making inferences, skimming, scanning, separating main ideas from supporting ideas, and recognizing word families (Barnett, 1988), to name just a few. The actual strategies that participants were encouraged to apply to their academic reading during the pedagogical intervention will be presented in Chapter 3, along with the motivational strategies used by the treatment TA to promote the value of reading among participants.

### **2.3.3 Strategy Training**

There is no shortage of research studies supporting the general claim that strategy training can help learners, both in the general educational field (e.g., Palincsar & Brown, 1984; Pressley & Associates, 1990) and in second-language learning (e.g., O'Malley & Chamot, 1990; Oxford, 1996; Oxford, 2001; Wenden & Rubin, 1987).

However, according to Dreyer and Nel (2003), many students are not sufficiently prepared to meet academic reading demands when they enter higher education: they read with limited strategic intent and are unable to use strategies in an efficiently manner. Comparing the results of first-language studies, by Durkin (1979) and Pressley, Wharton-McDonald, Hampson, and Echevarria (1998), Asselin (2002) reveals that, in the span of twenty years or so, the classroom time actually devoted to teaching comprehension has remained extremely limited. Perhaps unaware of this educational limitation, universities often wrongly assume that their new students, including ESL students, possess the necessary skills and strategies to tackle academic reading.

Not being able to read academic texts fluently in English might of course constitute a handicap for any college students who desire – or feel the necessity – to learn content in order to enhance their general or specialized knowledge. Students in this study were more than likely to experience breakdowns in the process of reading academic texts because of their overall linguistic level and the challenge posed by a new subject area. In the context of this research, it thus seemed reasonable and even necessary to stimulate the participants' awareness, development and use of "strategies" so as to help them deal with

such potential breakdowns. Eskey (2002) states two main roles for the teacher when teaching reading: motivating students and helping them understand. The motivation component was already discussed on a practical level in Section 2.2.3. The following paragraphs will examine various aspects of strategy teaching for reading comprehension.

Carrell and Grabe (2002) suggest that “L2 readers can be successfully trained in strategy use” (p. 246), and referring to a study by Kern (1989), add that low-proficiency students can benefit from strategy instruction to a larger extent than higher-proficiency readers. Integrated strategy training “enables the learner to perceive the relevance of the task, enhances comprehension, and facilitates retention” (Wenden, 1987, p. 161). According to Hajer et al. (1996), studies that “have investigated the effects of reading strategy instruction on gains in reading comprehension” suggest that “strategy instruction has beneficial effects on reading performance, because this instruction enables learners to become more aware of their reading processes and strategies” (p. 132). A review of the literature and an experiment conducted by the same authors have also revealed that positive attitudes toward L2 reading were also stimulated by strategy instruction (see Section 2.2.3 on second-language reading motivation).

However, according to Wenden (1987), some learners may not necessarily apply strategies in a spontaneous manner nor grow into autonomous learners as a result of this type of training. Ellis (1994) and Purpura (1999) highlight a lack of empirical evidence throughout the research literature concerning possible causal links between learning strategies and L2 performance to justify strategy training. Nevertheless, “this has not prevented a number of attempts at strategy training” (Ellis, 1994, p. 556).

A number of pedagogical issues and questions related to strategy training have been raised by Ellis (1994), about specific aspects of that type of training, namely, the linguistic level at which strategy training should be implemented, the choice of strategies – or combination of strategies – to be taught, the need to take into account the learners’ own preferred strategies, the resistance to strategy training and the need to convince the learners that strategy training is worthwhile, strategy training as a separate strand or as an integrated part of language teaching materials, finally, the choice between making learners conscious of the strategies or simply providing them with opportunities to practice. Ellis (1994) raises those issues, as they have not been clearly resolved by research. It would be out of the scope of this dissertation to address these issues in detail. Yet, as I searched the literature for a general blueprint to strategy training, some elements of response could be found.

For Cohen (1998), strategy-base instruction (SBI) is a learner-centered approach with two major components: the explicit teaching of how, when, and why strategies can be used to make learning and language task easier, and the explicit or implicit integration of strategies into everyday class materials and language tasks. For Janzen and Stoller (1998), integrating strategic reading instruction into the L2 classroom requires 4 steps:

- (1) Choosing texts at appropriate difficulty level.
- (2) Selecting strategies for instruction (based on student characteristics, demands of text, goals of

instruction).

- (3) Structuring lessons and using “scripts” to guide presentation of strategies
- (4) Adapting instruction in response to student needs and in-class reactions

Farrell (2001) describes the actual steps to follow for the teaching of strategies. The author suggests that, for each strategy, a teacher should:

- (1) Describe the strategy to his students.
- (2) Explain why the strategy is important and remind students of its possible benefits.
- (3) Demonstrate the effective use of the strategy (the teacher reads, thinks out loud, and models the strategy).
- (4) Point out to his students when and where to use the strategy.
- (5) Teach his students how to evaluate use of strategy.

Hajer et al. (1996) report about “self-regulated” or “self-directed” strategy instruction, defined as an approach to help “readers to use a variety of effective cognitive reading strategies and to raise awareness of their own reading processes through the practice of metacognitive strategies” (p. 132). The ultimate goal of this approach is to encourage language learners become independent readers capable of transferring “successful reading strategies to similar reading tasks *with no direct assistance from their teachers*” (p. 132). In a review of a study about such strategy instruction, the authors stressed the efficacy of print materials as a way to promote learner autonomy through the step-by-step practice of, not only cognitive strategies such as “identifying key words, identifying topic sentences, skimming, scanning, making inferences, recognizing link-words, paraphrasing, and summarizing”, but also “metacognitive strategies involving monitoring, evaluating, and planning” (p. 133). Fostering the development of metacognition has positive effects on reading comprehension (Hajer et al., 1996). Explicit<sup>11</sup> instruction, in-class instant feedback at each step, and independent reading practice outside lessons – using the same print materials – were also features of the research reviewed the authors.

Other important considerations must be made in relation to the actual practice of strategy teaching. One such consideration concerns the choice of providing practice for one strategy at a time or multiple strategies. Especially when dealing with expository material as it is the case at the academic level, a teacher might consider an approach based on the simultaneous use of multiple comprehension strategies, as this type of material “incorporates a greater variety of text structures” and is, overall, “less familiar and engaging” for students than narrative text (Gersten et al., 2001). Gersten et al. (2001) report on a recent trend in strategy instruction (in general – not specific to L2): this approach involves the teaching of multiple comprehension strategies and consists in a “more natural, constructionist, and less transparent modeling of strategies” (p. 308). The approach is adaptive and will vary with particular contexts,

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<sup>11</sup> Oxford (1990) refers to “informed instruction”.

purposes, and texts. According to Ellis (1994), competent learners use a greater variety of strategies and have the ability to choose the most appropriate ones for specific tasks. Another consideration concerns the systematic and explicit nature of strategy teaching – evident in Farrell's (2001) approach. Kidd Villaume and Greene Brabham (2002) warn the teacher of some serious pitfalls: either "the instructional plan is insufficiently systematic" and "the students may fail to develop [their] knowledge and strategies of skillful reading", or "the instructional plan is excessively systematic" and "the students may never experience the fluid and dynamic nature of the reading process" (p. 674). Finally, if strategy instruction should promote positive attitudes toward L2 reading, it would seem necessary to stress once more the fact that stimulating interactions between readers and text as well as students-instructor and peer interactions should be part of that effort.

The pedagogical intervention used for this research was devised keeping in mind the main principles outlined previously. A detailed description of the actual approach can be found in Chapter 3, along with a list and explanation of the strategies taught and used as part of the intervention.

#### **2.3.4 Research Concerning Second-language Strategy Instruction in Content-based Courses**

It would be out of the scope of this thesis to investigate all links that can be made regarding reading strategies and their possible effects. For instance, the impact of reading strategies on reading comprehension, the impact of reading strategies on vocabulary development, the impact of vocabulary strategies on reading comprehension, as well as the impact of vocabulary strategies on vocabulary development, could all be discussed. In the current study, if it is true that, as part of the pedagogical approach, a limited number of vocabulary-related strategies were reviewed in class, all reading strategies, including the vocabulary ones, were taught and used as a whole, with the primary purpose of helping with the participants' comprehension of reading passages and, by the same token, with their knowledge of course content. The main interest regarding vocabulary in this research resided in the possibility that this process of dealing with the course content through interactive reading might correlate with incidental vocabulary development over the academic term. Therefore, this section will concentrate on the effects of strategy training on reading comprehension in the context of college content-based courses, as a general indication of the role that this type of pedagogical approach can play.

In general, second language reading strategy research at the secondary and university levels are characterized by the diversity of the participants, of the research methods, of the tasks required from the participants, of the reading materials involved, and of the criteria used to distinguish successful readers from less successful ones, hence the difficulty of generalizing the role of strategies in the L2 reading process at higher levels of language instruction (Brantmeier, 2002). In her review of ten representative studies dated from 1977 to 2000, Brantmeier (2002) noticed that most studies did not test the effects of strategy instruction per se and did not check the participants' comprehension of the actual passages used in the study.

Grabe and Stoller (2001) believe that content-based instruction "will be a major focus of advanced reading instruction for the coming decade" (p. 201). Based on my own search for relevant studies in the main electronic catalogues of journal articles, it would seem that there is still a rather limited number of studies examining the impact of strategy instruction on reading ability and or vocabulary, especially within the context of content-based courses, at the college and university level. Therefore, the studies reviewed below do not for the most part concern reading activities related to content-based courses. However, all being relevant to L2 contexts in a university setting, they do inform and interestingly apply to the present study.

In an early study, Barnett (1988) investigated the reading comprehension of 278 university students learning French. The participants were divided into a treatment group and a comparison group. Top-down (e.g., using background knowledge, predicting, skimming) and bottom-up (e.g., guessing word meanings from context, identifying word families and reference words) strategies were taught in the treatment group. Comprehension measures included a written recall and a multiple choice comprehension questionnaire whereby participants had to choose the best continuing sentence. The results showed that participants in the treatment group had achieved better understanding of submitted passages than their counterparts in the comparison group.

Carrell, Pharis, and Liberto (1989) looked into the effects on reading comprehension of an instructional approach based on both cognitive and metacognitive strategies. This approach included semantic mapping and the Experience-Text-Relationship (ETR) technique, essentially a method used to activate background knowledge and stimulate interest in the reading passage, as well as reinforcement through metacognitive awareness and regulation. The participants numbered 26 and were adult high-intermediate ESL students of various linguistic backgrounds. They were divided into four reading classes: the treatment consisted of 9 students in semantic mapping and 9 more in ETR, and the control included 3 and 5 participants in two separate groups. The four-day long instructional treatment led to the enhancement of the participants' reading comprehension.

In replications of a seminal L1 study by Palincsar and Brown (1984), Cotterall (1990) and Song (1998) used an instructional approach based on Reciprocal Teaching to teach ESL (Japanese and Iranian) and EFL (Korean) college-age students respectively. Reciprocal Teaching involves the modeling of higher level strategies by the instructor (clarifying, identifying the main idea, summarizing, and predicting), small-group discussions of the strategies by the students, and the reading of a chosen passage under the supervision of a student who acts as a teacher and models the strategies for the benefit of others, also in small groups. The main findings from both studies indicated that, as a result of strategy training, the treatment group scored higher on the comprehension test than the comparison group.

Raymond (1993) performed a replication of an earlier ESL study by Carrell (1985), involving forty-three native English readers of French (at the high intermediate level), with the general purpose of examining the effects of strategy training on the reading comprehension of expository texts. Five hours of

instruction were dispensed over two weeks. The instructional approach used with the treatment group consisted in the explicit teaching of the rhetorical organization of expository texts. The emphasis was on five types of text organization, namely, description, collection, cause-effect, problem-solution, and comparison. After reading two texts, the participants had to do a written recall of idea units in their L1. A reading test was also administered before and after the intervention. As it was the case with Carrell's (1985) experiment, the participants in the treatment group were able to recall more idea units from one of the two texts than their counterparts in the comparison group, and showed greater proficiency on the reading test as well.

Finally, Salataci and Akyel (2002) conducted a dual L1- EFL study in a technical college with 20 Turkish participants at the pre-intermediate level. Their aim was to check the improvement in frequency of strategy use and in reading comprehension after the intervention. To measure the improvement in EFL reading comprehension, the reading component of the Preliminary English Test (PET) was used. The instructional approach was administered 3 hours per week for 4 weeks and was based on both Experience-Text-Relationship and Reciprocal Teaching techniques. Three strategies were focused upon, i.e., predicting, using background knowledge, and summarizing. Results showed that the use of the main strategies – and of other metacognitive strategies – had significantly increased as compared to the beginning of the intervention and that comprehension scores on PET had also improved.

Hence, a sample of studies investigating the influence of strategy instruction and use on the development of L2 or EFL reading at the university level tend to confirm the findings of more general studies stating that such instruction can help learners improve. The scarcity of studies conducted within the context of content-based courses has also been noticed. The present study aimed at contributing to the knowledge base with regard to L2 strategy instruction within such context.

## **2.4 Measuring Reading Comprehension and Vocabulary**

### **2.4.1 Measuring Reading Comprehension**

#### **2.4.1.1 Principles Guiding the Choice of a Reading Comprehension Measure**

Due to the EAP nature and context of the present study, the reading comprehension test had to reflect the general and specific construct implied by that context. First, participants in the study were Japanese students in their early twenties attending a Canadian institution. Thus, the test had to assess the reading ability of ESL learners who need to study in a higher education institution where English is used as the medium of instruction (Chalhoub-Deville and Turner, 2000). More specifically, there was a need for a test used internationally, with an International English construct. Furthermore, the test had to correspond to the interests and needs of the target age group. Secondly, a series of parameters concerning the reading test passages and items and more directly related to the academic construct of the test had to be taken into account. As part of the development effort for the Advanced English Reading Test (AERT) in the People's Republic of China, Weir et al. (2000) conducted an exhaustive survey of EAP reading



tests and textbooks that led to the identification of key test conditions. The aspects most relevant to the present study include the following considerations (Weir et al., 2000, p. 50):

- “Texts should be of general academic nature but they should be written for a non-specialist audience.”
- “Topics of texts should be familiar to all students so as to avoid possible bias caused by topic familiarity. Several passages of different topics might be used to counter-balance the topic familiarity effect.”<sup>12</sup>
- “Passages of various length should be used to allow the testing of different skills and strategies. Different passages should be used for the testing of expeditious and careful reading to make students aware of the flexibility of using different approaches to different texts and different tasks.” Abilities and strategies are seen as key components of the academic reading construct (Alderson, 2000; Weir et al., 2000).
- “Some texts might contain graphics, e.g., tables and charts, which is a general feature of expository academic texts.”

Chalhoub-Deville and Turner (2000) add an interesting element of authenticity to that list:

- A reading comprehension test has to “incorporate a variety of item types that reflect those used in instructional settings.” (p. 524)

In the Target Language Use (TLU) domain, reading tasks are often complex and varied. Due to obvious time constraints, it is not possible to replicate the variety and complexity of TLU tasks in a reading test. The relative importance given to various tasks in the testing situation is thus more dependent on time than on the reality of the TLU domain. It is also clear that in the TLU domain, academic reading tasks will include such key elements as the knowledge of a subject matter, co-operative reading and critical reading, which is not the case with most testing situations, as test-users want the test to assess language exclusively (Alderson, 2000). Furthermore, in the case of reading strategies, Alderson (2000) contends that it is very difficult to know if a particular test item will elicit a specific strategy. The testing situation might constrain strategy use, once more because of time and other pressure-related limitations.

#### **2.4.1.2 International English Language Testing System (IELTS) Academic Reading Module (UCLES, 2001a): Description and Specific Principles guiding the Choice of the Test**

This study used the Academic Reading Module from the IELTS (International English Language Testing System) Specimen Materials (UCLES, 2001a) to evaluate the participants' academic reading

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<sup>12</sup> Clapham (1996), however, showed how problematic delineating “general” knowledge could be. Indeed, longer texts might lead to content bias (Alderson, 2000), which might favor some test-takers over others. At the same time, longer texts often tend to better reflect the reality of the Target Language Use (TLU) and may constitute an important element of authenticity.

comprehension, both at the beginning and at the end of course ASTU201. The Specimen Materials are authentic IELTS materials authored by the University of Cambridge Local Examinations Syndicate (UCLES); they could have been used as a live version of the test but were published as practice material instead (L.J. Guymmer, personal communication, December 21, 2001). As a measure of proficiency, the IELTS is available in two formats – the General Training and Academic formats. Each format is composed of four distinct modules, one for each of the basic language skills, i.e. reading, listening, writing, and speaking. The test intends to assess the linguistic ability of applicants who need to study or work where English is used as the main medium of communication. The Academic format is mostly used for university admission purposes. For the purpose of the study, only two out of the three texts included in the IELTS Academic Reading Module were used. The choice of the first two texts only was motivated by time constraints, as it would not have been possible for the participants in the study to complete the reading of the three texts in 50 minutes – i.e. the time allocated to the weekly tutorials attended by the participants in this research– which is 10-minutes short of the IELTS-prescribed 60 minutes. The participants had 40 minutes to cover both texts. The first text was comprised of 950 words, and the second, of 740 (data available in Weir et al., 2000). Their length is fairly representative of passages that undergraduate students have to read in the TLU domain. Topic-bias is minimized through the use of authentic passages that do not require specialized knowledge. In the reading test used for this study, the participants were required to identify paragraphs or text sections, complete sentences using words found in text, give short answers to factual questions, complete a table using words found in text, answer multiple choice comprehension questions, match a list of headings with paragraphs, and identify the writer's claims. The item types reflect those used in instructional settings, as suggested by Chalhoub-Deville and Turner (2000).

Officially, IELTS expresses the result achieved by a candidate on each module by a band score. The band score covers nine levels, from “non-user” to “expert-user”. As I was not able to gain access to the IELTS Technical Handbook and in the absence of clear criteria in other IELTS publications, I could not use the official band scores in marking the test for the study. At any rate, the comparative nature of the study only required the use of raw scores. Thus, one point was attributed for every good answer, with a possible maximum mark of 11 points for the first reading passage and of 14 points for the second passage. It should be noted that contrary to what IELTS recommends (UCLES, 2001b), no marks were taken for spelling mistakes, as this would have unfairly penalized participants who spelled an answer wrongly despite having shown comprehension through their answers. This practice would also have reduced the validity of the test.

The test features correspond by and large to the parameters put forward in the previous section (Chalhoub-Deville and Turner, 2000; Weir et al., 2000) and is therefore suited to the present research context. As it has been alluded previously, the Academic format targets young undergraduate students who seek admission into universities where English is the language of instruction. According to Charge

and Taylor (1997), in 1995, most candidates – for the combined Academic and General Training formats - were in the 21-25 age bracket, with an almost equal female-male ratio. The majority had been studying English for more than nine years, and just under 50% of the candidates had completed a degree. In 2001, more than 200, 000 candidates from over 200 countries took the IELTS (Cambridge ESOL, 2002). The top candidate nationalities were mostly from Asian countries, including Japan. The demographic of the study participants (see Section 3.2) thus seems very close to the demographic of IELTS examinees. Even though the “International English” construct of IELTS is far from being fully operational (Chalhoub-Deville, 2000), one can reasonably assume that the commitment to offer such international testing is in line with the values and goals of various societies and education systems, and as such the test fits the purpose of this research. Finally, always in line with the parameters listed in the previous section, reading passages in the IELTS are non-specialized, their content-bias is reduced, they are of various lengths and should involve the use of different skills and strategies, they contain a variety of item types reflecting the current usage in instructional settings, and they incorporate graphs and tables.

Six Academic versions were released by IELTS during 2001. Sufficient candidate responses have allowed to report meaningful reliability values using Cronbach’s alpha – defined as “a reliability estimate which measures the internal consistency of a test” (Cambridge ESOL, 2002, p. 7). The values range from 0.83 to 0.87, indicating that the test is very reliable. Considering the risk that a number of participants in the study might have taken the IELTS before, a specific question was asked to that effect in the post-intervention Reading Test Survey. It should be noted that the identity of the test was not revealed to the participants at any time during the study. The portion of the IELTS Academic Reading Module that was used for this study can be viewed in Appendix A.

## **2.4.2 Measuring Vocabulary Acquisition**

Words have a number of lexical aspects (See Nation, 2001, Read, 2000, and Schmitt 2000 for a full discussion on those aspects). In this study, the expression “vocabulary acquisition” refers specifically to the acquisition of word meanings, as opposed to the learning of other important lexical aspects such as grammatical or morphological knowledge.

### **2.4.2.1 General Principles guiding the Choice of a Vocabulary Measure**

According to N. Schmitt (personal communication, November 13, 2002), two types of tests can be used to assess vocabulary acquisition, i.e. tests measuring vocabulary size and answering the question “How many words are known by the learner?” and tests measuring depth of lexical knowledge and answering the question “How well are each word known by the learner?”

One of the goals of this study was to find out if a pedagogical intervention based on the use of interactive reading strategies might lead to greater incidental acquisition of receptive vocabulary among the participants than a more traditional approach for university tutorials based on discussion. Two guiding principles had to be followed when deciding on the most appropriate measure to choose for the study. First, the measure had to reflect the incremental nature of vocabulary acquisition: as it was explained in

Section 2.2.1.2, vocabulary acquisition is incremental in nature due to the inner complexity of what knowing a word entails. Since the main pedagogical approach aimed primarily at clarifying course content and not at teaching vocabulary, dramatic improvements in vocabulary acquisition – in terms of Nation and Waring's (1997) model of vocabulary knowledge, for instance – were not necessarily expected throughout the intervention. Thus, there was a need for a sensitive test capable of capturing initial lexical learning and partial knowledge of words. Second, the test to be chosen had to give some indication as to the actual lexical level – in terms of words known, even partially – of the participants. This was of particular importance, as such level has been found to constrain the type of academic task college students in an EAP context are capable of fulfilling (Schmitt, Schmitt, and Clapham, 2001).

#### **2.4.2.2 Vocabulary Levels Test (Nation, 2001): Description and Specific Principles Guiding the Choice of the Test**

Contrary to my initial expectations, very few L2 vocabulary-testing options were available for use in this research. Because lexical knowledge takes a myriad of forms (Nation, 2001; Read, 2000; Schmitt, 2000), Schmitt et al. (2001) argue that among vocabulary test formats currently available none can actually tap into all those forms. Schmitt et al. (2001) add that – for classroom pedagogical assessment and language acquisition research – “The closest thing the field has to such a vocabulary test is the Vocabulary Levels Test” (p. 55) and that the VLT has become widely used “in situations where English for general or academic purposes is taught to speakers of other languages” (p. 57). Bearing in mind that the central goal of assessment is getting the best information possible within situational and contextual constraints (N. Schmitt, personal communication, November 13, 2002), the VLT thus seemed to constitute a reasonable choice for the specific context of this study.

The Vocabulary Levels Test (VLT) is a context-independent assessing instrument that measures the receptive knowledge of vocabulary. It was first developed and published by Paul Nation in 1983 as a diagnostic test to be used by teachers. Nation republished the test in 1990 in a new book (Nation, 1990), and in 1993, Norbert Schmitt revised Nation's version – Test A – and added three updated versions, Tests B, C, and D. In the present study test B was used. More specifically, the purpose of the VLT is to give an estimate of L2 learners' vocabulary size at four word frequency levels, i.e. the 2000, 3000, 5000, and 10000 word-levels, as well as an estimate of the size of their academic vocabulary (Nation, 2001; Schmitt, 2000; Schmitt et al., 2001). Thus, the VLT does not only provide a general figure expressing general vocabulary size, it also yields a more specific level-by-level profile of vocabulary size. Its concept is based on research findings that vocabulary acquisition is incremental in nature and that the level of individual learners' vocabulary constrains the type of task – including the level of reading – these learners are capable of in their second language (Schmitt et al., 2001).

Schmitt et al. (2001) released their validity study to compensate for a lack of such inquiry into the VLT, in spite of the fact that the test has been in use for twenty years. In their study, Schmitt et al. (2001) reported high reliability indices (Cronbach's alpha) for all of the Levels sections in the two versions of the

test that were examined, ranging from .920 to .960. The four frequency sections (the “academic level” is not a frequency section) had also a very high degree of scalability<sup>13</sup> – 0.971 for the first version and 0.978 for the second version of the test. Furthermore, according to the authors, “Personal interviews indicate that examinees accept the test and that answers on the test do reflect underlying lexical knowledge” (Schmitt et al., 2001, p. 79). Other advantages of the VLT include the fact that minimal reading is required – which actually allows for more lexical items to be tested – and that guessing is minimized, although examiners are advised to tell test-takers not to blind guess before the beginning of the test (Schmitt et al., 2001).

The fact that the test could easily be done within the time frame of a single tutorial session (50 minutes) was one of the practical reasons that motivated the choice of the VLT, along with its easy-to-understand rubric, and easy administration and scoring. In the context of the present study, the same version of the VLT (Test B- Nation, 2001) was administered once at the beginning and once again at the end of the pedagogical intervention in both the treatment and comparison groups. The purpose was threefold: 1) assessing the participants’ vocabulary level at the beginning of the study to determine if they met the minimum text coverage that is necessary for independent reading; 2) measuring any incremental improvement in vocabulary size among the participants, and 3) determining if one of the study groups – the treatment or the comparison group - had actually increased their vocabulary size more than the other over the term. The actual results – including the statistical treatment – will be discussed in Chapter 4. The test is divided into five distinct sections, in the following order: the 2000 word level (first section), the 3000 word level (second section), the 5000 word level (third section), academic vocabulary (fourth section), and the 10000 word level (fifth section) At each level - including the academic level – the tested vocabulary is divided into ten clusters of six words (twelve clusters of six words for the academic level in Test B), and out of each six-word cluster the participants had to select the three words that matched the three definitions (synonyms or short explanatory phrases) that were also provided with each set. Each good answer earns an equal number of points, and the score for each level constitutes a general indication of the percentage of vocabulary words known –receptively – by the test-taker at that word frequency level: for instance, provided that each good answer is worth one point, a score of 27 out of 30 at the 2000 word level would mean that the test-taker knows 90% of the words at that level, and so on. So as not to arouse the curiosity of some students who might have been tempted to find out more about the test at the beginning of the research process, the VLT was only identified as a “vocabulary test”, and the mentions for the various frequency bands were also replaced by simple roman numerals (I, II, III, IV, and V) corresponding to each of the sections. Version B of the VLT can be found in Appendix B.

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<sup>13</sup> According to Schmitt et al. (2001), a high degree of scalability in the case of the Vocabulary Levels Test concretely means that “if an examinee reaches the criterion at one level, the teacher or researcher can be reasonably confident that the higher-frequency levels are known at least to criterion mastery as well” (p. 68).

## 2.5 Summary

Chapter 2 has introduced several strands of literature relevant to the current research. This literature review has first highlighted studies that characterize reading as a complex, interactive process – involving numerous cognitive, socio-cultural and affective components. In turn, these features are susceptible to present a series of related challenges to L2 readers.

Then, it has identified some of those major challenges confronting L2 readers, by discussing key variables that influence reading comprehension. Within that discussion, the initial emphasis was placed on lexical abilities: the demanding task of recognizing, learning and integrating vocabulary in a second-language was explored thoroughly. Other key features and challenges of L2 reading have also been identified within the areas of grammatical knowledge, background knowledge as well as L2 reading motivation. Furthermore, particular attention was devoted to the socio-cultural characteristics of Japanese L2 readers and to the English for Academic Purposes (EAP) context, in order to help situate both the participants in the current study and the setting of the study. The necessary links with the study – including the pedagogical approach – were drawn in all the above areas.

For its next step, the literature review insisted on the role and importance of reading strategies and investigated strategy-based instruction, especially within an EAP context, as a major theoretical support to the pedagogical approach used in the study.

Finally, the review has included a discussion on the main principles that support the assessment of reading comprehension and vocabulary acquisition and has justified the choice of relevant measuring instruments for the study.

## CHAPTER 3: RESEARCH METHOD

### 3.1 Research Environment

#### 3.1.1 The Program

The research was conducted from January to April 2002 at a large Western Canadian University (WCU). The participants belonged to a group of undergraduate Japanese students taking part in an Academic Exchange Program (AEP) between their Home Institution (HI), located in Western Japan, and a Western Canadian University (WCU), over a full (two-term) academic year, i.e. from September 2001 to April 2002. AEP is held every year and attracts approximately one hundred students from Japan yearly. In 2001-2002, the AEP group was composed of 100 Japanese students (30 males and 70 females) with specializations as described in the table below (Table 1).

Table 1  
*AEP Students by Gender and Specialization*

Specialization	Males	Females	Total
Asia Pacific Management	2	0	2
Business	5	5	10
Economics	4	8	12
International Relations	8	21	29
Law	2	3	5
Literature	2	12	14
Political Sciences	1	9	10
Sciences & Engineering	3	1	4
Social Sciences	3	11	14
Total	30	70	100

AEP students live in residences on the WCU campus and share accommodations with other non-Japanese students – mostly English-speaking Canadians, although not exclusively. AEP has its own building where various functions are combined – program administration, student accommodations, classrooms, instructors offices, computer lab and meeting places where various formal and informal events are held. The vocabulary and reading pre-tests, a first series of questionnaires, and laboratory classes (referred to as labs or tutorials) directly related to the present research were administered in

various classrooms which were located in two different buildings on campus; the post-tests, a second series of questionnaires and interviews were all administered in a classroom in the AEP building.

AEP students arrive at WCU from Japan in August. Most come at the very end of the month, but some students arrive in the first week of August to take a 3-week conversational English language course at WCU's language institute. In August 2001, approximately 40 students availed themselves of that opportunity. During the first term, from September to December, AEP students take a course load composed of 5 courses, including a social science research methodology course, then, either the first part of a course on intercultural communication or an introductory course on new media, an introduction to Canadian studies, and a course on developing academic strategies (especially on how to write academic papers). The research methods course includes an off-campus component that requires students to volunteer in local community service organizations, schools and care facilities. Those first-term courses are open to both AEP students and to a limited number per class of international and regular WCU students. During the second term, which runs from January to April, AEP students take six courses, including an introduction to sociolinguistics, the second part of a course on intercultural communication, an introductory course on popular media, a course on intercultural issues concerning Canada and Japan (the present study took place within the context of that course), and finally a course on economic, political, and geographical interrelations between Canada and Japan. These last two courses are taken alongside a large number of regular WCU students. In the second term, moreover, AEP students who have the necessary course prerequisites and sufficient GPA in the first term are eligible to take courses of their own choosing in other faculties from the regular course calendar. After taking their final exams in April, AEP students return to HI in Japan, in order to continue their regular academic program. Most AEP students complete the final portion of their third year of a four-year academic program upon their return to Japan. All of the courses they take at WCU count towards credits at HI.

### **3.1.2 The Course – Art Studies 201 (ASTU201)**

The present research was conducted at WCU within tutorial sections from Art Studies Course 201 (ASTU201). ASTU201 is a three-credit course and one of only two courses where AEP students can actually mingle with a large contingent of regular WCU students. Approximately half of the students are from AEP, and half from WCU. As an exercise in cross-cultural communication, ASTU201 investigates social, cultural, political, and psychological characteristics, practices and constructs that distinguish Canada – as well as other Western countries – from Japan and other Asian countries. Issues discussed in the course include learning-style differences, early childhood socialisation, self-esteem, obedience to authority and various cultural dimensions such as individualism versus collectivism, uncertainty avoidance, power distance and masculinity versus femininity (See Table 2 for a list of the main course contents covered in ASTU201).

In ASTU201, students are encouraged to take an active part in discussions and various problem-solving tasks, and to share insights with their classmates, Teaching Assistants (TAs), and main course



instructors. The main study materials used for the course in Academic Year 2001-2002 were a package of required readings composed of 14 articles covering 113 pages and course notes made available by the instructors on WebCT. The course evaluation consisted of a mid-term and a final exams counting for 20% and 25% respectively, and of a 2000-word essay counting for 20% of the final mark. Students' postings on WebCT and participation in the regular tutorials – including a class presentation, attendance and general participation – completed the grading with 10% and 25% of the final mark respectively. Participation in the supplementary tutorials did not earn the students any specific mark. (See a description of regular and supplementary tutorials below).

Table 2

*ASTU201 Course Contents (based on official Course Syllabus 2002)*

1. A cultural perspective on learning styles  – Socratic vs. Confucian Learning Styles.
2. Hofstede's (1997) Cultural Dimensions:  Individualism vs. Collectivism  Uncertainty Avoidance  Power Distance  Masculinity – Femininity
3. Need for positive Self-regard.
4. Primary/Secondary Psychological Control.
5. Obedience to Authority:
6. Milgram's (1974) experiment; Zimbardo's (1975) Stanford Prison Study
7. Early Childhood Education/Socialization.
8. Sapir-Whorf Hypothesis and the Social Construction of Reality.
9. Culture and Beliefs about Purpose (Meaning in Life).

From January to April 2002, all students enrolled in ASTU201 had to attend three 50-minute seminars a week dispensed by two instructors, at 2pm or 3pm, on Monday, Wednesday, and Friday, plus one 50-minute tutorial session per week. Tutorial sections numbered 12 and were placed under the responsibility of 6 TAs. Moreover, a group of 55 AEP students – out of a total of 100 students - had to take one supplementary fifty-minute tutorial session per week for linguistic and academic enhancement purposes. These AEP students were selected for this supplementary tutorial session by the program

administrator on the basis of an aggregate performance index whereby the average mark for all first-term courses – out of 100 points – and the results on the Test of English as a Foreign Language (TOEFL – Educational Testing Service, 2001) were merely added. Were placed in an extra tutorial section all students whose resulting total was below 600 points. The main idea behind this additional session was to help those students gain the necessary linguistic and academic tools to cope more effectively with course content. The students selected for the extra tutorial were divided into four sections under the responsibility of two TAs, including myself. For the purpose of the study, it was decided that the two sections under my supervision would be the treatment group, and that the two sections under my colleague's would be the comparison group. Every student in both treatment and comparison groups was free to become an active participant or not in the study.

### **3.2 Description of Participants**

Out of the one hundred AEP students, 41 took part in the study, 14 males and 27 females. These 41 students were among the 55 AEP students who had to register in a supplementary tutorial section for course ASTU201 (see Section 3.1.2), which means that 75% of the potential maximum number of participants actually volunteered to be part of the study. All 41 participants gave their informed consent by signing the required ethics form. At the beginning of the study, the average age of the participants was 20 years and 7 months, ranging from 19 years and 10 months to 22 years and 9 months. A student aged 49 years and 6 months was also part of the participating groups but was excluded from this calculation. In terms of cultural and educational backgrounds, the group was relatively homogeneous, as the AEP is destined to Japanese students studying at a specific academic institution in Western Japan. Before coming to Canada, the majority of AEP students had accumulated five years of compulsory English language education through junior and senior high school and approximately two years at the university. All participants were registered in course ASTU201, along with the rest of the AEP students and with approximately a hundred more WCU students.

The comparison group was comprised of 20 students (10 males and 10 females), the treatment group of 21 students (4 males and 17 females). A breakdown of study participants by gender and specialization is given in Table 3 below. The discrepancy in the gender distribution between the treatment group and the comparison group can be explained by the following: 1) A ratio of 1 male to 3.5 female students came from Japan for the academic year; 2) more male students were registered in the comparison tutorial sections than in the treatment tutorial sections without the course administrator knowing which section was going to be comparison or treatment for the purpose of the study (14 versus 8); 3) more male students in the comparison sections decided to participate in the study than in the treatment sections (10 versus 4); 4) equalizing the gender distribution would have been administratively impossible because of the students' individual schedules; 5) and the TAs involved did not have any authority to make any changes in terms of tutorial section assignments. The design of the study was quasi-experimental in nature since participants were not randomly assigned to the treatment or comparison group. Moreover, the

AEP administrator arbitrarily assigned the four supplementary tutorial sections to a colleague and myself. For practical reasons, my colleague and I also decided that I would be responsible for the two treatment sections and that she would be responsible for the two comparison sections. The main reason for this choice was that our respective schedules would not have permitted enough time for me to train my colleague in the interactive reading approach to be used in the treatment group.

Table 3  
*Study Participants by Gender and Specialization*

Specialization	Treatment		Comparison		Total (Specialization)
	M	F	M	F	
Asia Pacific Management			1		1
Business	2	3	2		7
Economics	1	5	2	1	9
International Relations		2	1	4	7
Law		1	1		2
Letters	1	2	1		4
Political Sciences		1	1	2	4
Sciences & Engineering				1	1
Social Sciences		3	1	2	6
Total (male/female)	4	17	10	10	
(treatment/comparison)		(21)		(20)	(41)

### 3.3 Summary of Procedure

Table 4 below summarizes the research procedure and the corresponding time-line, including the consent forms, the instruments of data collection, and the pedagogical intervention, for both treatment and comparison groups. The pedagogical intervention is discussed in Section 3.4 and the various measures in Section 3.5.

Table 4  
Data Collection Timeline

<i>Data Collection Procedure and Intervention</i> <i>(consent forms, instruments of data collection, and pedagogical intervention)</i>	<i>Timing</i>
Consent forms	January 14 and 16, 2002
Self-Assessment Reading Survey (O'Malley and Valdez Pierce, 1996) Self-Assessment of Reading Strategies (O'Malley and Valdez Pierce, 1996)	January 14 – 30, 2002
Pre-tests: Vocabulary Levels Test (Test B – Nation, 2001) IELTS Academic Reading Module (UCLES, 2001a – first two texts in Specimen Package)	January 14 and 16, 2002 January 21 and 23, 2002
Pedagogical intervention: a) treatment group: study of course content through an interactive reading process; b) comparison group: study of course content through class discussions.	January 14- March 27, 2002
Alain Grenier's Course Pack Reading Survey (Survey about Required Readings)	April 3, 2002
Post-tests (same as pre-tests above) Alain Grenier's Reading Test Survey	April 2, 4, and 5, 2002
Interviews	April 9, 10, and 11, 2002

### **3.4 Description of the Intervention**

#### **3.4.1 Context of the Intervention**

Here is an overview of the main objectives for the tutorial discussion groups (for a detailed description of the typical pedagogical approach actually adopted in each of the study groups – comparison and treatment – please refer ahead to Sections 3.4.2 and 3.4.3). In the absence of specific written guidelines framing TA work, these objectives were derived from four main sources: the ASTU201 course description (2002) which was made available to all students and TAs; discussions meeting held in December 2000 and December 2001, before the start of the term, where ideas about the course and the tutorials were exchanged among the two main instructors for Course ASTU201 and the TAs; discussions held between both TAs involved in the research project, i.e. myself (treatment group TA) and a colleague (comparison group TA); and, finally, literature findings (see Chapter 2). The classification suggested here might not match what actually happened, in practice, in all the tutorials at all times, but they should be taken as a fair representation of objectives. It is also possible that overlaps existed in places not illustrated here.

As explained in Section 3.1, tutorial sections for Course ASTU201 consisted of twelve regular sections and of four supplementary sections. The six TAs in charge of the twelve regular tutorial sections and the two TAs responsible for the four supplementary sections were expected by the program administrator to attend all the lectures and familiarize themselves with the required readings and the course notes on WebCT in order to provide an informed support to their students. Therefore, in terms of the teaching content, it was understood that all TAs would follow the weekly syllabus used in the main seminar. All TAs also shared the common responsibility of helping students gain better understanding of the course content about cross-cultural communication as introduced in the main seminar, first by providing opportunities for in-class exchanges and interactions, secondly by clarifying any issues or aspects which the students might have found more challenging. In the process, TAs would also make sure that students not only discuss about cross-cultural communication but that they also experience cross-cultural communication. Beyond that common ground, however, TAs were under no obligation to follow any specific pedagogical approach. Each TA was allowed to have his or her own approach to teaching and learning; I took advantage of that flexibility to compare two distinct pedagogical interventions for the purpose of the present study. The first one was designed and implemented by myself in the treatment group, and the second one was used by my colleague in the comparison group. These approaches will be described in detail in Sections 3.4.2 and 3.4.3 respectively, as they were actually carried out in classroom situations. For the time being, I will continue the present discussion about common objectives, this time about those objectives that were more specifically linked to the supplementary tutorials and, by the same token, to the treatment and comparison groups.

The supplementary tutorials were set up by the EAP administrator in order to provide language-related and academic assistance to a group of students who were evaluated to be in need of such

assistance, as discussed previously in Section 3.1.2. Relying on the sources enumerated at the beginning of this section, the treatment and comparison TAs decided upon a set of general objectives to help carry out this assistance in their own specific tutorials – and to be added to the common objectives for all TAs described in the preceding paragraph. While the main focus of the tutorials had to remain on course content, the TAs for the extra tutorials decided that they should provide students with academic strategies to help them master that content, explain particularly difficult linguistic elements like vocabulary and paragraph organization, clarify for the benefit of the students how the various concepts discussed in the course were interconnected, help students make connections between those concepts and their own cross-cultural experience, and motivate students to carry on their academic endeavours.

Furthermore, the treatment group and the comparison group each had their own unique objective, an important distinction that was at the basis of the research project. On the one hand, the specific objective of the treatment group was to explore content through the reading in class of excerpts from the required readings and to make students better strategic and interactive readers in the process. On the other hand, the approach used in the comparison group sought to examine the same cultural concepts as the ones studied in the treatment group but, this time, mostly through class discussions, and to make students better able to express their ideas, especially through short academic presentations. Table 5 summarizes all the tutorial objectives which have been discussed in the present section. It should be made clear that the specific objectives had to be integrated to and were actually constrained by all other course objectives; such constraints had the effect of limiting the specific pedagogical action in the comparison group and especially in the treatment group.

Table 5  
Summary of Tutorial Objectives

<i>Objective specific to treatment group</i>	<i>Objective specific to comparison group</i>
Make students better strategic and interactive readers.	Make students better able to express ideas, especially through short academic presentations.
<b>Objectives more specific to extra tutorials</b>	
<p><b>Provide students with academic skills and strategies.</b></p> <p>Discuss and explain difficult language-related elements, e.g. vocabulary, paragraph organization.</p> <p>Provide students with element of cohesion (clarifying connections between the various parts of the content).</p> <p>Help students make connections between ideas/ concepts and their own cross-cultural experience.</p> <p>Provide motivational support.</p>	
<b>Objectives common to all ASTU201 Tutorials (regular and extra)</b>	
<ol style="list-style-type: none"> <li>1. Cover and review same content as in main seminars.</li> <li>2. Help students gain a better understanding of course content: by providing opportunities of in-class interactions; by clarifying more challenging content.</li> <li>3. Have students not only discuss but especially experience cross-cultural communication.</li> </ol>	

I will now draw an outline for each of the pedagogical approaches. We will see how the main objectives were actually operationalized within the context of the treatment and comparison groups through two distinct pedagogical approaches.

### 3.4.2 Specific Objectives and Pedagogical Approach in Treatment Group

Participants in the treatment group engaged in an exchange of views on the course content, as it was a general objective for all ASTU201 tutorials to foster discussions on content among students. However, in the treatment group, an approach not used in the other tutorials was implemented: individual texts were taken from the package of required readings and used as the key to the learning of content through in-class use of interactive reading strategies. Tutorial discussions revolved in part around an extract chosen from the course readings and highlighting the main theme of the week. Here is a

description of the typical format that I – as treatment group TA - followed for the greater part of the treatment tutorials. First, I would ask some basic questions in order to activate in my students their background knowledge on the main concept under study, before we started reading the chosen piece. Generally speaking, the students in the treatment group would discuss the questions together in small units of two, three or four individuals. I would go around to check the students' initial grasp of the main issues and areas of difficulty, and then try to clarify some of the problems with the whole class through a short discussion. These pre-reading tasks completed, the next step would be the actual reading of the focus passage of interest in the course readings. An interactive reading guide, which I had designed specifically for the passage to be read, was given out to every student<sup>14</sup>. Referring to such guides as “study guides”, Gunderson (1991) briefly outlines their main purpose:

Study guides are transitional aids to help students become independent content readers. They help students begin to focus on text in an organized fashion, before they read and as they read. A general study guide identifies what the teacher thinks is important in a particular passage or chapter of text. It calls students' attention to certain text features and asks them questions about the features. (p. 148)

In the same vein, according to Wallace (2001), “Reflective reading, where the reader is engaged with text, might be encouraged by the interspersion of questions or prompts during the text to encourage interrogation of text” (p. 26). The students then went through the steps as stated on the reading guide with their partners (“while-reading” tasks), finding possible answers to some of the questions, reflecting upon the content and making connections with what they already knew or with other issues debated in the course. The reading guide would also direct the students' attention toward some of the linguistic features that played a major role in the comprehension of that particular text. Moreover, students were directed to use some specific reading strategies to understand the extract. I made a point to join the discussions in the small groups in order to encourage students' interactions and respond to any questions about linguistic features, the reading process and the content. Finally, students would be invited to share comments, opinions, or insights on the process and content. A total of eight reading guides and worksheets were used throughout the term. In some cases, the guides were quite elaborated and could not be completed during the rather limited weekly timeframe of the tutorials; hence, students were encouraged to look at the rest of the weekly guide as homework. Table 6 introduces a sample of representative statements from the reading guides used in the research project, each with a reference to a purpose or a strategy. Appendix C shows an actual reading guide used in the tutorials. For a complete list of reading strategies, please refer to Table 8 in this chapter.

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<sup>14</sup> In some cases, the reading guide also included questions for the pre-reading tasks discussed previously.



Table 6

*Sample Statements from Reading Guides and Connection to Purposes/Strategies*

Sample statements	Purposes / Strategies
<p><i>The following statements concern school life in the U.S. and in Japan. Use the knowledge you have acquired in the course or through your own experience to complete the statements. Write 'in the U.S.' or 'in Japan' in the blank spaces.</i></p>	<p>Activating prior knowledge.</p> <p>Making connections between own experience and reading.</p> <p>Discussing with peers.</p>
<p><i>Highlight important parts of the passage, make notes, and produce an outline.</i></p>	<p>Inviting readers to use a specific reading strategy.</p> <p>Outlining main ideas.</p>
<p><i>"Sorge used his privilege" – What is this "privilege"? Read back to find the answer.</i></p> <p><i>"However": pay attention to this word when you think about the main idea for this paragraph.</i></p> <p><i>"The interpretation": Read on, the author will give his interpretation of the results.</i></p>	<p>Directing the readers' actual reading process and attention while reading.</p> <p>Drawing attention to key points.</p> <p>Understanding textual coherence; identifying connecting words.</p>
<p><i>When reading the rest of the paragraph, be careful to notice the "contrast" the author continues to make between the North American and the Japanese people. Can you write some statements about the contrast?</i></p>	<p>Drawing the readers' attention.</p> <p>Suggesting a certain way to go about a text.</p> <p>Recognizing text pattern.</p>

Sample statements	Purposes / Strategies
<i>In this paragraph, the author gives further explanations about his main point from the previous paragraph.</i>	Making some points clearer for the readers.
<i>What is the author's position? Do you agree with the author? Relate what the author says to your own experience.</i>  <i>How would you have reacted if you had been a subject in the experiment described here?</i>	Asking questions for the readers to ponder. Recognizing writer's stand. Relating content to own experience. Reading critically. Discussing with peers
<i>Remember what you already know about "interactive reading". With your partners, you can produce a visual map with key words, an outline with main idea and details, make notes, ask questions, etc.</i>	Making readers interact with text and become more reflective while reading.  Peer reading.
<i>Look at the title: "The decision to abort the mission". Do you know the word "abort"? Do you know of another word that sounds like it? If you are still not clear, read on and try to figure out the meaning.</i>	Identifying word families.  Inferring word meaning through context.

Another key part of the approach used in the treatment group was the explicit teaching component that drew on the results found in the literature on reading to stress the importance of reading in general and to promote co-operative learning, task persistence, as well as other benefits of reading. Besides these motivational presentations, this explicit teaching component was also used to review reading strategies. Taking just a few minutes every other tutorial session or so, and thus limited in scope, the explicit teaching component nevertheless aimed at creating in the students an awareness of the reading process as a whole. The assumption was that such awareness might lead the students to be more motivated to read

for academic purposes and that a greater motivation for reading might carry over in terms of increased reading ability and vocabulary acquisition. Please refer to Appendices D and E for samples of the material that was used.

During the pedagogical intervention, short explanations of difficult vocabulary and structures were provided on request. If proper attention was given to key terms and concepts related to the course main themes – terms and concepts such as “self-regard”, “power distance”, or “social construction of reality” – no systematic lexical or grammatical instruction was carried out so as not to stray from the main focus on content. The overall goal of the strategy instruction was to make participants aware of the strategies and to stimulate through their use reader-text and peer interactions, always keeping in mind the various linguistic, cognitive/metacognitive, affective and social factors that characterize reading (Carrell & Grabe, 2002). The following three tables provide an overview of both the approach used and the strategic content taught in the treatment group. First, Table 7 below summarizes the pedagogical approach. Then, an exhaustive list of reading strategies introduced in the treatment group appears in Table 8 (preceded by a short presentation in Section 3.4.2.1), and a list of motivational strategies used by the treatment TA, in Table 9. Together, Tables 8 and 9 form the core of the EAP Syllabus that was used in the treatment group.

Table 7  
*Outline of Pedagogical Approach for Treatment Group*

Type of Task	Detail
Pre-reading tasks	<ul style="list-style-type: none"> <li>○ Activation of background knowledge through discussion and/or written questions</li> </ul>
While-reading tasks	<ul style="list-style-type: none"> <li>○ Use of reading guides in small groups</li> <li>○ With help and under supervision of TA</li> <li>○ Gave participants a chance to try out various strategies</li> </ul>
Post-reading tasks	<ul style="list-style-type: none"> <li>○ Sharing insights about content area and/or reading process</li> </ul>
Explicit teaching component	<ul style="list-style-type: none"> <li>○ Review of reading strategies</li> <li>○ Motivational presentations based on research results</li> </ul>

#### 3.4.2.1 Strategies used in the Intervention

As it was stated previously, metacognitive, cognitive, social, and affective (motivational) strategies were introduced to treatment group participants by the instructor during the pedagogical intervention. Some were actually put into practice by the participants in the weekly tutorial reading sessions – those were mostly metacognitive, cognitive, and social in nature, and were more directly concerned with the reading task at hand. Others – mostly affective– were used to encourage students to read, through brief motivational talks and discussions based on interesting insights from the research on reading. Here is a breakdown by category of the main strategies used in the course of this study. Table 8 represents strategies used for both the careful and expeditious reading of texts (for an in-depth discussion

on this distinction, refer to Urquhart and Weir, 1998). Besides O'Malley and Chamot's (1990) and Oxford's (1990) taxonomies, various accounts or distinctions about reading strategies –namely, from Alderson (2000), Langan (1998), Pakenham (1998), Schmitt (2000), Seyler (2000), Urquhart and Weir (1998), and Weir et al. (2000) – provided guidelines for the categorization, description, and choice of metacognitive, cognitive, and social strategies, identified in most of those sources as particularly useful for students in an English for Academic Purposes (EAP) context. Table 9 represents the motivational strategies used to encourage treatment group participants to read. Those motivational strategies were designed by considering my own knowledge and experience of reading, reflecting on the general nature of motivation and taking into account the particular EAP context of the pedagogical intervention, including participants' characteristics. They are linked to the concept of “making aware”, i.e., most of them aimed at promoting metacognition in the participants. Although metacognitive strategies which treatment participants used to read in class can already be found in Table 8, the strategies listed in Table 9 add a key element by emphasizing the role of explicit motivational techniques used by the instructor. Various references on motivation and awareness may be found in Chapter 2. In Table 9, other pertinent references are added wherever possible.

Table 8  
*Strategies for Careful and Expeditious Reading*

<i>Category</i>	<i>Name of main strategy</i>	<i>Features (operationalizations/activities)</i>
Meta-cognitive	Previewing (pre-reading strategy)	<ul style="list-style-type: none"> <li>Recognizing the level of difficulty and interest by looking at title, table of contents, and other relevant features (see also “skimming”).</li> </ul>
	<ul style="list-style-type: none"> <li>Predicting (pre-reading strategy)</li> </ul>	<ul style="list-style-type: none"> <li>Anticipating the content.</li> <li>Thinking about topic and asking related questions.</li> <li>Activating/ using background knowledge.</li> <li>Formulating a hypothesis about topic and main idea (s).</li> <li>Clarifying the purpose for reading.</li> </ul>
	<ul style="list-style-type: none"> <li>Self-questioning (while-reading strategy)</li> </ul>	<ul style="list-style-type: none"> <li>Interrogating text (especially aloud with others).</li> <li>Focusing on difficult aspects of text.</li> <li>Summarizing, questioning, clarifying, and predicting may be used.</li> <li>Annotating/ highlighting text as a way of interacting with text through questions, comments, and reflections on content and ideas expressed by author.</li> <li>Reading critically.</li> </ul>
	<ul style="list-style-type: none"> <li>Self-monitoring (while-reading strategy)</li> </ul>	<ul style="list-style-type: none"> <li>Checking if comprehension actually occurs through self-verbalizing/ questioning.</li> <li>Adopting strategies to assist comprehension if necessary.</li> <li>Being aware of strategy use.</li> </ul>

<i>Category</i>	<i>Name of main strategy</i>	<i>Features (operationalizations/ activities)</i>
	<ul style="list-style-type: none"> <li>○ Evaluating and responding (post-reading strategy)</li> </ul>	<ul style="list-style-type: none"> <li>• Relating content to own knowledge and experience and to the world at large.</li> <li>• Giving a personal response.</li> <li>• Challenging text.</li> </ul>
Cognitive	<ul style="list-style-type: none"> <li>○ Understanding text (careful reading strategy)</li> </ul>	<ul style="list-style-type: none"> <li>• Recognizing the text pattern of organization (for example, “comparison and contrast”), especially through identification of signal words.</li> <li>• Using text structure to make connections among ideas and generate question.</li> <li>• Outlining main ideas and supporting ideas.</li> <li>• Recognizing how main and supporting ideas fit together.</li> <li>• Mapping.</li> <li>• Recognizing writer’s stand, attitude or intention.</li> <li>• Using knowledge of course content and vocabulary used in main seminars by instructors to try to figure out meaning.</li> </ul>
	<ul style="list-style-type: none"> <li>○ Understanding textual coherence (careful reading strategy)</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying cohesive devices to understand how ideas are linked from one sentence to the next.</li> <li>• Identifying connecting pronouns to understand how ideas are linked from one sentence to the next.</li> <li>• Identifying writer’s repetition of same ideas through the use of synonyms or paraphrases.</li> </ul>
	<ul style="list-style-type: none"> <li>○ Understanding lexis (careful reading strategy)</li> </ul>	<ul style="list-style-type: none"> <li>• Guessing/infering meaning from context.</li> <li>• Identifying part of speech, esp. verbs.</li> <li>• Identifying word families.</li> <li>• Analyzing affixes and roots.</li> <li>• Identifying key words and skipping non-essential words.</li> </ul>
	<ul style="list-style-type: none"> <li>○ Skimming (might involve both expeditious and careful reading )</li> </ul>	<ul style="list-style-type: none"> <li>• Quickly reading titles, sub-titles, graphs, some words and phrases.</li> <li>• Carefully reading introductory and concluding paragraphs, first and last sentences of paragraphs.</li> <li>• Selective processing of text to extract main idea.</li> </ul>
	<ul style="list-style-type: none"> <li>○ Search reading (might involve both expeditious and careful reading)</li> </ul>	<ul style="list-style-type: none"> <li>• Selective processing of text to locate information on predetermined topic.</li> </ul>

<i>Category</i>	<i>Name of main strategy</i>	<i>Features (operationalizations/ activities)</i>
	<ul style="list-style-type: none"> <li>○ Scanning (expeditious reading strategy)</li> </ul>	<ul style="list-style-type: none"> <li>• Quickly surveying a text to locate specific item (word, phrase, name, figure, or date).</li> </ul>
Social	(all the above meta-cognitive and cognitive strategies can be used as social strategies if related activities done orally with peers or teacher in instructional setting)	<ul style="list-style-type: none"> <li>• Peer reading.</li> <li>• Asking others.</li> <li>• Discussing and co-operating with other people.</li> </ul>

Table 9  
*Motivational Strategies used in Treatment Group*

<i>Description</i>	<i>Some References</i>
Encouraging students to read (reading volume correlates with greater vocabulary acquisition and better comprehension of text; also contributes to growth in verbal skills).	Cunningham and Stanovich (1998)
Encouraging students to reflect about their own L2 reading (in general), about the importance they give to reading in academic and individual contexts.	
Emphasizing task persistence: major element in comprehension for all students, especially for academic text. Insisting on the fact that it takes "time" to develop as a proficient L2 reader. Making students aware of L2 reading challenges, especially those specific to Japanese readers.	DeWitz (1997)
Promoting co-operative learning – thinking aloud with your partners.	Oxford (1997)
Making students discover/ making them aware of reading as a complex interactive and strategic process.	
Encouraging students to use reading strategies as a way to interact with text and develop their own ideas (and creativity in the process).	
Thinking/Reflecting about own use of strategies.	Cohen (1998)
Stressing the importance of engaging with text in an active and creative manner (seeing reading as a dialogue between the writer and the reader, or even as a discussion if the reader makes links with what was said by the teachers or other students in class for instance).	Ellis (1999)

Description	Some References
Making students aware of the greater context the knowledge acquired in reading can be applied to, helping them find connections with the greater context/world.	
Encouraging students to post their ideas and questions – especially about their reading – on course (ASTU201) WebCT.	
Creating interest in content area by connecting contents with students' own experience, feelings.	
Bringing students to realize that it is normal not to understand everything every time when reading and that not understanding everything should not be a deterrent. Insisting on the author's responsibility in creating ambiguity.	
Encouraging students to be critical of what they read (this might be important for a text like "The Stanford Prison Experiment" in the package of course readings).	
Encouraging students to make connections between various parts of course content in order to help with reading.	

### 3.4.3 Specific Objectives and Pedagogical Approach in the Comparison Group

Under their TA's guidance and mediation, students in the comparison group engaged in thorough discussions of course content as introduced in the main lectures and assigned readings. From a practical point-of-view, tutorials based on oral discussions of course content are a widely used format at the university level; informal talks I had with other TAs in charge of regular tutorials for Course ASTU201 have tended to confirm that this was an approach of choice. The comparison group instructor reported positive feedbacks from AEP students whom she taught using a discussion-based approach during the previous academic year (2000-2001). It is difficult, however, to know more precisely how such tutorials are conducted without direct observations. As I explained in Section 3.4.1, discussions held prior to the start of the study allowed for the drawing of a framework within which the discussion groups would operate. My colleague in charge of the comparison group recorded brief course notes and comments on her tutorials throughout the term. Table 10 provides a detailed outline of the pedagogical intervention used in the comparison group.

Table 10  
*Outline of Pedagogical Intervention in Comparison Group*

ACTIVITIES	GOALS
1. "Two-minute talk"	<ul style="list-style-type: none"> <li>○ Short motivational warm-up.</li> <li>○ Practicing speaking (short talk on topics raised by students).</li> <li>○ Building students' confidence in speaking.  <i>Ex.: Talking about cultural shock and cultural adaptation (first 2 tutorial sessions).</i></li> </ul>
2. Reviewing the main lecture	<ul style="list-style-type: none"> <li>○ Instructor briefly reviews the main points.</li> </ul>
3. Discussing <i>(Pair /group work and then whole class)</i>	<ul style="list-style-type: none"> <li>○ Exploring the major points in the main session</li> <li>○ Studying the key words/terminology in the lecture</li> <li>○ Making links with/between the main lectures, themes, required readings, videos.</li> </ul>
4. Answering questions	<p>Surveying questions/doubts from the students and working on them together. Questions concerning:</p> <ul style="list-style-type: none"> <li>• Main lectures</li> <li>• Videos</li> <li>• Course readings</li> <li>• WebCT discussions.</li> </ul>
5. Providing support for academic reading and writing	<ul style="list-style-type: none"> <li>○ Searching for academic reading materials.</li> <li>○ How to start a term paper.</li> <li>○ General guidelines for writing an academic paper.</li> <li>○ Writing references.</li> <li>○ Avoiding plagiarism.</li> </ul>
6. Presenting academically <i>(1 month before the final exam)</i>	<ul style="list-style-type: none"> <li>○ Effective presentations skills:</li> <li>○ Procedures</li> <li>○ Voice, language, eye contact, transparencies, etc.</li> <li>○ Involving the audience.</li> <li>○ Responding to questions.</li> </ul>

Generally speaking, the tutorials in the comparison group consisted partly of teacher-mediated discussions and partly of peer discussions about course content as introduced and discussed in the main lectures, WebCT postings, and assigned readings. It should be noted that the comparison group – alike the treatment group – used a double syllabus: the first part of the syllabus is of course related to the thematic content of course ASTU201 (light grey-shaded area in Table 10), and the second part is an EAP syllabus promoting academic skills (dark grey-shaded area in Table 10). Thus, besides participating in discussions around course content and themes, students in the comparison group also learned about academic skills, especially those related to essay-writing and academic presentations. Time was made available for them



to practice for their group presentations to be done in their regular tutorial. They also had to make a short presentation on their essay topic, as a necessary step toward the completion of their main essay.

### **3.5 Measures**

The main goal of this study was to observe how an independent variable, namely, a pedagogical intervention based on interactive reading strategies, might influence a number of dependent variables among a group of EAP students: reading comprehension of expository texts, incidental vocabulary acquisition, use of reading strategies, and interest and motivation in reading. These variables form the basis for the main research questions (see Chapter 1). Examining the participants' perception of progress in those areas and establishing a profile of the participating students as L2 readers were also part of the study objectives.

In order to answer the main questions put forward by this study, linguistic tests, reading-related questionnaires, and interviews were administered. The linguistic tests were composed of the Vocabulary Levels Test - B (VLT-B) (Nation, 2001) and of the International English Language Testing System (IELTS) Academic Reading Module (UCLES, 2001a). These two tests were administered once before the pedagogical intervention and once more after. A full description, including the rationale for their choice in the context of this study, was provided in Chapter 2 (see Section 2.4). The present section will focus on the other quantitative and qualitative measures used in this project, i.e., four reading-related questionnaires and the post-intervention interviews. Table 11 provides a summary of the study quantitative and qualitative measures as they relate to the research questions (see Section 3.7).

#### **3.5.1 Linguistic Tests: the Vocabulary Levels Test - B (Nation, 2001) and the IELTS Academic Reading Module (UCLES, 2001a)**

As stated previously, the participants in the study were administered these two tests twice, once at the beginning (as pre-tests) and once at the end (as post-tests) of the research project. Version B of the Vocabulary Levels Test was used. This test can be found in a publication by Nation (2001). The number of correct answers out of the total at each of the vocabulary levels (30 for all levels except the academic level, 36) provided the score for each of the participants. As far as the IELTS Academic Reading Module is concerned, the first two passages – out of a total of three – were chosen for the present study from a specimen package made available by the University of Cambridge Local Examinations Syndicate (UCLES) in 2001. In this case, one mark was awarded for each right answer, for a potential perfect score of 25 points. The results from those tests were used in order to help establish a reading profile of study participants prior to the intervention and in order to determine if the independent variable, i.e., the pedagogical intervention, had an effect on such variables as incidental vocabulary acquisition and reading comprehension of expository texts. The vocabulary and reading tests have been discussed at length in Section 2.4. Please refer back to that section for detail. The tests can also be viewed in Appendix A and Appendix B.

### **3.5.2 Self-Assessment Reading Survey (O'Malley and Valdez Pierce, 1996)**

This simple survey was used at the beginning of the study to check the level of interest in reading among the participants. It was part of my initial effort to draw a general reading profile of the participants. The survey included five open-ended questions, but only responses to questions 1, 4, and 5 were considered for the purpose of this study. Here are the survey questions:

- . Do you like to read? Why or why not?
- . What kinds of stories/books do you like to read?
- . What book are you reading now?
- . How do good readers read?
- . What do you need to do to be a better reader?

The participants were told to think in terms of L2 reading especially.

### **3.5.3 Self-Assessment of Reading Strategies (O'Malley and Valdez Pierce, 1996)**

This 10-item survey of reading strategies was given to the participants to fill in at the beginning of the term, in order for the researcher to establish an initial profile of strategy-use among the participants. It is short but nevertheless representative of the main categories of reading strategies used by both L1 and L2 readers (please refer to Chapter 2 for a detailed discussion of strategies). It was given along the Self-Assessment Reading Survey, as described in Section 3.5.2. The students had to rate the frequency of their strategy usage using a simple 3-point Likert (1932) scale. For each of the 10 items, the participants had to say if they used a particular strategy "often", "sometimes", or "almost never". Although this choice might appear rather limited at first, it tends to force survey-takers to choose between distinct categories. Here are the 10 items (I suggested the type of strategy between brackets):

- I think about what I already know on the topic (cognitive)
- I make predictions and read to find out if I was right (cognitive; metacognitive)
- I reread the sentences before and after a word I do not know (cognitive; metacognitive)
- I ask another student to help (social strategy; metacognitive)
- I look for the main idea (cognitive)
- I take notes (cognitive or metacognitive, depending on the nature of the notes)
- I discuss what I read with others (social strategy; metacognitive)
- I stop and summarize (cognitive)
- I choose books from the library on my own (affective)
- I make outlines of what I read (cognitive)

### **3.5.4 Alain Grenier's Course Pack Reading Survey**

This Survey (see Appendix F) was given at the end of the term and was designed to measure the level of interest that students in course ASTU201, including study participants, had for the required readings throughout the academic term. Through this survey, I purported to find out how much of the required reading package was read by individual students (Volume), how the required readings were used,

for instance, to prepare for lectures, papers or exams (Use), if students thought the required readings were difficult, interesting, and helpful, and how hard they tried to read the reading package (Effort, Interest). Finally, the students had to indicate any unread article(s) and rate each article that they had read in the package (14 articles in total) in terms of level of interest (Detailed interest). A six-point Likert (1932) scale was used for all items included in this survey, ranging from 0 (the lowest or most negative value) to 5 (the highest or most positive value). In the last part of the questionnaire, the scale was slightly modified to include "00"; the participants were also able to select "00" to indicate that they had not read an article from the required reading package. The participants had to circle the value that corresponded to their actions and perceptions. Statements the participants had to respond to about the volume of their reading included:

The Reading Course Pack<sup>15</sup> for ASTU201 contains about 100 pages. About how many pages did you read?

The Reading Course Pack for ASTU201 contains 14 different articles. About how many articles did you read in whole?

The Reading Course Pack for ASTU201 contains 14 different articles. About how many articles did you read in part?

If you did not read an article, please circle 00 (in the case of individual articles).

Statements the participants had to answer about the use they made of the course pack included:

I read the course pack to prepare for the mid-term and final exams.

I read the course pack to prepare for my term paper.

I read the course pack to prepare for class (main seminars and lab sections).

Statements the participants had to rate about their motivation and interest in reading the course pack included:

Please rate the level of difficulty of the course pack.

Please rate how interesting the course pack was.

Please rate how helpful the course pack was.

Please rate your own effort in reading the course pack.

Please rate how interesting each of the course pack articles was.

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<sup>15</sup> In the actual questionnaire, the collection of required readings for course ASTU201 was referred to as "the Reading Course Pack". "Required readings", "assigned readings", and "course readings" are other expressions used in this thesis.

### 3.5.5 Alain Grenier's Reading Test Survey

As an immediate-recall procedure, the Reading Test Survey was administered immediately after the participants in the study had completed the reading comprehension post-test. Its main purpose was to survey the participants about their just-completed reading experience, more specifically about their use of cognitive and meta-cognitive reading strategies, their general level of text comprehension, and the perceived level of passage and test difficulty. The survey consisted of three main parts. The first part required participants to report on their use of 25 strategy-related items<sup>16</sup> while reading the two passages that made up the test. To that effect, the survey-takers used a six-point Likert (1932) scale (1= not at all; 6 = a lot). The second part asked the participants to state what approximate percentage of each of the passages and approximate percentage of vocabulary in each of the passages they had actually understood. A similar scale was used, from 1 = not at all (0%) to 6 = completely (100%). In part three, the participants had to rate – from easy (1) to difficult (6) – the following elements from their reading test experience: understanding vocabulary and grammar; distinguishing main ideas and details; understanding test questions; and finally, comparing the pre-test and post-test reading experience. Two more parts completed the survey, one where participants were invited to indicate which of four well-known language tests they had heard of or actually done, and another one where they were invited to write any comments they might have had about the reading test. The Reading Test Survey can be viewed in Appendix G.

### 3.5.6 Participant Interviews

At the end of the term, 14 participants (7 participants from each of the two study groups, namely, 3 female and 4 male participants from the comparison group, and 6 female and 1 male participants from the treatment group) agreed to participate in a semi-structured interview that focused on the following issues: their general perceptions about course ASTU201 and tutorials and about what they learned; their interest in reading in English; and their perceived overall progress in English vocabulary and reading ability throughout the term and the various factors that might have contributed to such progress. The interviewees from both treatment and comparison groups had to answer the same core of questions; however, participants from the treatment group were asked a supplementary set of questions about interactive reading, as stated below. The interviews were conducted over three days by a third party who was not a stakeholder in the research. The interviewer was chosen not only because of her excellent communication skills, but also because both her age and background as a young international graduate student were considered to be clear assets for interviewing the study participants. The set of questions that were asked to the interviewees can be found in Appendix H.

It should be noted that due to the semi-structured nature of the interviews the questions were not necessarily asked in the same order and other variations, especially in the form of sub-questions, were

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<sup>16</sup> As the students were asked to report on their strategy use during a reading comprehension test, they were not asked about “social strategies”. Among the 25 items, some correspond to the same type of strategy.

noticed. The interviewer also asked participants to supplement their response concerning their progress in reading and vocabulary with a verbal rating along a scale 0 to 5, 0 being the lowest and 5 the highest value. The interviews ran for about 20 minutes each. They were taped and later transcribed for analysis.

### 3.6 Data Analysis

As indicated in Table 11 (Section 3.7), an Analysis of Covariance (ANCOVA) was performed on the quantitative results obtained to answer Questions 2.1 and 3.1, from the reading and vocabulary pre- and post-tests. The use of a covariate in the analysis allows for a reduction of the differences that may exist between the groups at the beginning of the study by equating them statistically. Because the participants have not been randomly assigned to treatment, the present study is called a quasi-experiment. Even though bias is reduced through this statistical procedure, the ANCOVA cannot give the results the same degree of credibility as would a randomized experiment. The pre-test value was selected as covariate for the purpose of comparing each variable, but one has to keep in mind that, in a quasi-experimental design, no covariate can perfectly equate two groups. The statistical process compares the means of the two groups on each measure and tests the equality between the means of each group at post-test after the groups have been adjusted for differences at pre-test. The value of alpha is set at 0.05. Thus, a  $p$  value  $< 0.05$  indicates a statistically difference between the two means.

A procedure called Analysis of Variance (ANOVA) was used to analyze quantitative results obtained after treatment and related to Questions 3, 4, and 6. This procedure allows the researcher to establish whether the mean differences between the comparison and treatment groups are statistically significant. The ANOVA does not compare between pre-test and post-test conditions like the ANCOVA, because the measures involved were not administered prior to treatment but only after treatment, in the present case. The value of alpha is set at 0.05, which means that a  $p$  value  $< 0.05$  shows a statistically difference between the two means.

As far as the analysis of interview transcripts is concerned, the general approach suggested by Creswell (2003) was adopted as a guide. The questions of the interviews were used as the main signposts when creating the main coding categories. In turn, the initial categories and the interview statements they contained lead to a more detailed analysis of the data. Themes and patterns were identified through repetitious surveys of the data and organized in various text summaries and analytical tables. The qualitative data was then quantified by counting the number of times statements corresponding to a specific theme, pattern, or category occurred.

### 3.7 Summary of Measures and Research Questions

Table 11 shows the links between the measures used in the study, the corresponding questions and methods of data analysis.

Table 11

*Summary of Research Questions, Quantitative and Qualitative Measures and Data Analysis*

Research Question	<i>1. Profile of participants as L2 readers</i>	
	<i>Question 1: What is the pre-intervention profile of the study participants in terms of academic reading comprehension, receptive vocabulary level, use of reading strategies, general interest in second-language reading, and knowledge of proficient reading?</i>	
Quantitative Measures & Method of Data Analysis	<ul style="list-style-type: none"> <li>➤ Nation's (2001) Vocabulary Levels Test (Test B) – results on pre-test</li> <li>➤ IELTS Academic Reading Module – results on pre-test</li> <li>➤ Self-Assessment of Reading Strategies (O'Malley and Valdez Pierce, 1996)</li> </ul>	<p>Raw scores*: to evaluate if participants meet lexical threshold for independent reading (out of a total of 30 points at each vocabulary level; 36 for the academic level).</p> <p>Raw scores*: to establish if participants meet passing mark indicating adequate comprehension of expository texts (out of a total of 25).</p> <p>Establishing frequency of perceived use of strategies by participants.</p> <p><i>*Raw scores transformed into percentages for ease of comparison and presentation.</i></p>
Qualitative Measure / Qualitative & Quantitative Treatment	<ul style="list-style-type: none"> <li>➤ Self-Assessment Reading Survey (O'Malley and Valdez Pierce, 1996)</li> </ul>	<p>Compiling comments that pertain to participants' general interest in L2 reading and perception of proficient reading. Participants' statements transformed into quantitative data (frequency of main statements) and discussed.</p>

Research Question	<p><i>2. Reading Comprehension</i></p> <p>1. Quantitative Progress</p> <p><i>Question 2.1:</i> Can the use of interactive reading strategies in class transfer into greater quantitative improvements in terms of reading comprehension of expository texts than can a traditional discussion approach?</p> <p>2. Perception of Progress</p> <p><i>Question 2.2.1:</i> What is the respondents' recent evolution in their overall perception of L2 reading? To what factors do the respondents attribute their evolution – or lack thereof?</p> <p><i>Question 2.2.2:</i> Did the respondents perceive any progress in L2 reading over the term? To what factors, especially academic, did the respondents attribute their perceived progress – or lack thereof – in L2 reading comprehension?</p>	
Quantitative Measure & Method of Data Analysis	➤ IELTS Academic Reading Module – as pre-test and post-test	ANCOVA
Qualitative Measure/ Qualitative & Quantitative Treatment	➤ Participant Interviews	Transcription, compilation, and thematic analysis of responses from both treatment and comparison group. Participants' statements transformed into quantitative data (frequency of main statements) and discussed.

Research Question	<p><i>3. Vocabulary Acquisition</i></p> <p>1. Quantitative Progress</p> <p><i>Question 3.1:</i> Can the use of interactive reading strategies in class transfer into greater quantitative improvements in terms of receptive vocabulary acquisition than can a traditional discussion approach?</p> <p>2. Perception of Progress</p> <p><i>Question 3.2:</i> Did the respondents perceive any progress in L2 vocabulary over the term? To what factors, especially academic, do the respondents attribute their perceived progress – or lack thereof – in L2 vocabulary?</p> <p>3. Perception of Reading Test Difficulty</p> <p><i>Question 3.3:</i> How difficult did the treatment group and the comparison group perceive the reading comprehension post-test in terms of general comprehension, vocabulary and grammar?</p>	
Quantitative Measures & Methods of Data Analysis	➤ Nation's (2001) Vocabulary Levels Test (Test B) – as pre-test and post-test ➤ Post-test Reading Questionnaire	ANCOVA  Descriptive statistics and ANOVA.
Qualitative Measure/ Qualitative & Quantitative Treatment	➤ Participant Interviews	Transcription, compilation, and thematic analysis of responses from both treatment and comparison group. Participants' statements transformed into quantitative data (frequency of main statements) and discussed.

Research Question	<p style="text-align: center;"><i>4. Strategies</i></p> <p style="text-align: center;">1. Use of strategies</p> <p><i>Question 4.1:</i> Can the use of in-class reading strategies foster greater use of strategies for the treatment group than for the comparison group?</p> <p style="text-align: center;">2. Perception of interactive reading</p> <p><i>Question 4.2:</i> What is the treatment respondents' overall perception of <i>interactive reading</i> strategies in class?</p>	
Quantitative Measure & Method of Data Analysis	➤ Post-test Reading Questionnaire	Descriptive statistics and ANOVA
Qualitative Measure / Qualitative & Quantitative Treatment	➤ Participant Interviews	Transcription, compilation, and thematic analysis of responses from both treatment and comparison group. Participants' statements transformed into quantitative data (frequency of main statements) and discussed.

Research Question	<p style="text-align: center;"><i>5. Helpfulness of tutorials</i></p> <p style="text-align: center;">1. Potential academic benefits</p> <p><i>Question 5.1:</i> What are the similarities and differences between the treatment group and comparison group tutorials in terms of their potential academic benefits?</p>	
Qualitative Measure / Qualitative & Quantitative Treatment	➤ Participant Interviews	Transcription, compilation, and thematic analysis of responses from both treatment and comparison group. Participants' statements transformed into quantitative data (frequency of main statements) and discussed.



Research Question	<p><i>6. Interest and Motivation</i></p> <p>1. Interest in course required readings</p> <p><i>Question 6.1:</i> Can the use of in-class reading strategies results in a greater interest in required readings for the treatment group than for the comparison group?</p> <p>2. Course content motivation</p> <p><i>Question 6.2:</i> Can the respondents' topical motivation (motivation by course content) be used as a factor to explain the results?</p>	
Quantitative Measure & Analysis	➤ Course Pack Reading Survey	Descriptive statistics and ANOVA.
Qualitative Measure / Qualitative & Quantitative Treatment	➤ Participant Interviews	Transcription, compilation, and thematic analysis of responses from both treatment and comparison group. Participants' statements transformed into quantitative data (frequency of main statements) and discussed.

## CHAPTER 4: RESULTS

In this study, quantitative and qualitative measures were used to answer the main research questions. The data obtained from these measures will be reviewed in this chapter as they were analyzed by statistical, thematic categorization, and descriptive procedures. A description of the measures used to obtain the data and of the procedures used to analyze the data can be found in Chapter 3. In this thesis, the research questions have been grouped under six different themes, in the following order: readers' profile (Question #1), reading comprehension (set of Questions #2), vocabulary acquisition (set of Questions #3), strategies (set of Questions #4), appraisal of tutorials (Question #5) and motivation (set of Questions #6). Accordingly, the present chapter will introduce the results in that order, with the following specifications. In order to establish a general profile of the participants as readers, their results on the vocabulary and reading pre-tests are presented first with the supporting descriptive statistics, followed by their answers on two questionnaires – both multiple choice and open-ended – about general strategy use and interest in ESL reading. When discussing the progress of the participants in both reading comprehension and vocabulary over the term, pre-test and post-test results on the linguistic tests are compared across the treatment and comparison groups, through an analysis of co-variance (ANCOVA). These quantitative results are then contrasted with the participants' perception of their own progress as stated in the participant interviews held at the end of the pedagogical intervention. Finally, quantitative results (based on an analysis of variance or ANOVA) from post-intervention and post-test questionnaires on strategy use and interest in content reading are also discussed along the treatment group participants' perception of interactive reading and all participants' appraisal of tutorials and motivation in course contents, as expressed in the interviews. Regarding the series of interviews that followed the tutorials at the end of the term, it should be noted that, in all, 14 participants – 7 from each the treatment group (6 female and 1 male respondents) and the comparison group (3 female and 4 male respondents) – answered questions on key aspects of the current research, and that, in the following account, all the respondents' names have been changed to protect their anonymity.

### 4.1 Research Question 1 (Reader Profile)

*1. Profile of participants as readers*

**Question 1: What is the pre-intervention profile of the study participants in terms of academic reading comprehension (1.1), receptive vocabulary level (1.2), use of reading strategies (1.3), general interest in second-language reading (1.4), and knowledge of proficient reading (1.5)?**

#### 4.1.1 Results – Reading Comprehension

*Measure: The IELTS Academic Reading Module (UCLES, 2001a)*

On the reading pre-test, the participants had to read two academic texts and answer 25 items in total, i.e., 11 items for the first text and 14 for the second. The treatment group averaged 13 points and the comparison group, 12.6 points out of a total of 25 points (i.e., 52% and 50% respectively). According to the IELTS Handbook (UCLES, 2001b), a percentage of over 65% on the practice test is necessary for test-taker “to get an acceptable score on the IELTS Academic Reading Module under examination conditions” (p. 10). From approximately 45% to 64%, test-takers “may not get an acceptable score on the IELTS Academic Reading Module under examination conditions” (p. 10). In order for test-takers within that range to achieve the necessary level, “more lessons or practice” are recommended (p. 10). Although the suggested passing mark, i.e., over 65%, constitutes an approximation, it should be accepted as a reliable indication of reading fluency, as the IELTS has been submitted throughout the years to rigorous checks regarding its reliability (Cambridge ESOL, 2002). It is clear that the average scores obtained by the participants in the study do not meet the necessary reading level. As expressed in Table 12 below, the means obtained by the treatment and comparison groups on the pre-test were relatively close, indicating that all participants were relatively similar in terms of linguistic level. Table 12 also presents the post-test descriptive statistics that will be discussed in Section 4.2.

Table 12

*Pre-test and post-test descriptive statistics for the IELTS Academic Reading Module (UCLES, 2001a)*

Group	n	Pretest		Posttest	
		Mean	SD	Mean	SD
Treatment	21	13.00	4.48	12.86	4.65
Comparison	20	12.60	4.97	11.40	4.04

#### 4.1.2 Results – Receptive Vocabulary Level

*Measure: Vocabulary Levels Test - B (Nation, 2001)*

According to Nation (2001), “To reach 95% coverage of academic text, a vocabulary size of around 4,000 word families would be needed, consisting of 2,000 high-frequency general service words, about 570 general academic words [...] and 1,000 or more technical words, proper nouns and low-frequency words” (p. 147).

Table 13 shows the range in percentages obtained by the study participants on each of the five components of the Vocabulary Levels Test (VLT) at the beginning of the term (pre-test), from the lowest to the highest mark. This range of test scores gives an indication of the actual text coverage achieved by the participants at that time and, as discussed in Chapter 2, is indicative of their general level of reading

fluency. In Table 13, the range of test scores has also been translated into a range of words known by the participants at every level.

Table 13

*"Text Coverage" of Participants as indicated by VLT Pre-test*

<i>Word-level</i>	<i>Test score (%)</i> <i>= Text coverage</i>	<i>N° of words known at that</i> <i>level (approx.) / maximum</i>
<i>2000</i>	<i>85% - 90%</i>	<i>1700 - 1800/ 2000</i>
<i>Academic</i>	<i>59% - 67%</i>	<i>336 - 381/ 570</i>
<i>3000</i>	<i>69% - 75%</i>	<i>*690 - 750/ 1000</i>
<i>5000</i>	<i>38% - 44%</i>	<i>*380 - 440/ 1000</i>
<i>10 000</i>	<i>5% - 12%</i>	<i>*50 - 120/ 1000</i>
<i>*Total of word families known by participants at levels 3, 5, and 10k = 1020 - 1310</i>		

For the L2 readers to achieve sufficient coverage of academic texts (95%) and become able to read independently, Nation (2001) advocates the mastery of the first two thousand word families and of the 570 word families from the *Academic Vocabulary List* (Coxhead, 2000). As indicated by the VLT Pre-test results (Table 12), the study participants did not fully master enough word families and thus fell short of this objective for those two basic components (between 59% and 67% coverage for the academic vocabulary, and between 85% and 90% coverage for the 2000 word level). On top of this essential vocabulary, around 1000 more word families are needed, according to Nation (2001). The participants did possess slightly over that amount in the lower frequency bands (3, 5, and 10K), i.e., between 1020 and 1310 words; however, a number of necessary technical words might be outside of those bands. As the means achieved on each of the vocabulary levels by the control and treatment groups are relatively close – as shown in the descriptive statistics, Table 14 – we can assume that participants in both groups were more or less at the same linguistic level. Table 14 also presents the post-test descriptive statistics that will be discussed in Section 4.3.

Table 14

*Pre-test and Post-test descriptive statistics for five word levels of Nation's (2001) Vocabulary Levels Test (VLT)*

	Pre-test				Post-test			
	Treatment		Comparison		Treatment		Comparison	
Word Level	M	SD	M	SD	M	SD	M	SD
2000	26.90	1.98	25.80	2.44	26.85	1.73	26.75	1.83
3000	22.10	3.75	21.30	4.44	23.35	3.80	22.25	3.86
5000	12.65	3.98	12.50	4.17	13.40	3.94	11.70	5.0
Academic	23.45	6.95	23.10	4.40	25.70	4.74	23.35	6.46
10000	2.60	2.91	2.70	2.27	2.55	1.61	2.55	2.24

#### 4.1.3 Results – General Use of Reading Strategies

*Measure: Self-Assessment of Reading Strategies (O'Malley and Valdez Pierce, 1996)*

The questionnaire titled Self-Assessment of Reading Strategies (O'Malley and Valdez Pierce, 1996) was used at the beginning of the study in order to establish an initial profile of strategy-use among the participants. For a detailed description of this questionnaire, including the exact wording of the statements, please refer to Chapter 3, Section 3.5.3. Table 15 presents how respondents from both comparison and treatment groups answered each of the 10 statements included in the questionnaire: the respondents had to specify if they used a particular strategy "almost never", "sometimes", or "often" when reading in English.

Table 15

*Number of Participants answering "almost never", "sometimes", or "often" when describing Strategy Use*

Question / Strategy	"Almost never"			"Sometimes"			"Often"		
	Comp	Treat	Total	Comp	Treat	Total	Comp	Treat	Total
#1 / Invoking prior knowledge	2	0	2	10	12	22	1	2	3
#2 / Making predictions	3	2	5	10	9	19	0	3	3
#3 / Guessing vocabulary from context	2	1	3	6	8	14	5	5	10
#4 / Asking others for help	5	2	7	6	8	14	1	4	5
#5 / Finding main idea(s)	1	1	2	5	3	8	7	10	17
#6 / Taking notes	5	6	11	4	6	10	4	2	6
#7 / Discussing with others	9	3	12	3	10	13	1	0	1
#8 / Summarizing	6	9	15	7	3	10	0	2	2
#9 / Choosing own books	9	9	18	4	2	6	0	3	3
#10 / Making an outline	10	9	19	2	5	7	1	0	1
Total	52	42	94	57	66	123	20	31	51

*N.B. Comparison: respondents  $n = 13$  (Question #4:  $n = 12$ ); Treatment: respondents  $n = 14$*

Responses given by participants on the Self-Assessment of Reading Strategies suggest the following preliminary remarks. At the beginning of the study, a majority of respondents declared using a majority of strategies, i.e., seven out of ten, "sometimes or often". This would indicate that most participants were well aware of a number of strategies and were actually using them at some point or the other when reading. "Finding the main idea" was by far the most popular strategy, with 17 "often". The next three most popular strategies were "guessing vocabulary from context" (10 "often"), "invoking prior knowledge" (22 "sometimes"), and "making predictions" (19 "sometimes"). A social strategy - "asking others for help" - scored rather well (14 "sometimes"), despite the fact that 7 participants declared using it "almost never". Among the least popular strategies, there were two closely related strategies, namely, "making an outline" (19 "almost never") and "summarizing" (15 "almost never"), which clearly suggests that this was an area of weakness among the participants; however, students might have been aware of the importance of those strategies, as they indicated them among the main features in "the profile of the good reader". A great majority of participants also indicated that they did not choose their own books (18 "almost never"); either this is a reflection of the educational system where readings are more than likely forced upon the students without them having any say or this reveals a lack of interest or motivation in

reading or even perhaps a lack of knowledge as to which –especially second-language- sources, books, authors are currently available to students at their level or in a particular field. As a basic indication of interaction with text, 16 participants reported that they sometimes or often took notes when reading, while 11 stated that they did not. Close to half of the respondents stated that they almost never discussed with others when a question arose concerning their reading. A fourth – 7 participants out of 27 – also indicated that they hardly ever asked others for help. These last two results suggest that there was room for improvement in terms of social strategies for reading among the study participants. Actually, the most striking difference between the comparison and the treatment groups lies in both social strategies on the survey: 12 participants from the treatment group stated that they often or sometimes asked others for help against 7 only for the comparison group, while 10 participants in treatment reported discussing reading problems with others against only 4 participants in comparison. Nine comparison students against 3 treatment participants indicated that they almost never discussed with others, and 5 against 2 reported that they did not ask others for help when encountering a reading problem.

#### 4.1.4 Results – *Do you like to read in English?*

*Measure: Self-Assessment Reading Survey (O'Malley and Valdez Pierce, 1996), question 1*

This question corresponds to the very first question on the original survey (see Chapter 3 for a detailed description of this questionnaire). The original question was worded “Do you like to read? Why or why not?” However, for the purpose of the study, the participants were instructed to answer a slightly modified version: “Do you like to read in English? Why or why not?” Participants were given this survey to do as homework, and some might have answered thinking about the more general question on the original survey. Yet, relevant insights can be derived from the participants’ utterances, as presented in Table 16 and in Table 17. Table 16 shows the number of participants who responded “no”, “yes if...”, or “yes” to the question “Do you like to read in English?” in each of the two groups. Table 17 lists the reasons suggested for liking or not liking to read in English as well as the number of times each of those reasons were given.

Table 16

*Breakdown of Participants by Response to the Question “Do you like to read in English?”*

Group	No	Yes, if...	Yes
Treatment (n=14)	5	2	7
Comparison (n=15)	6	4	5

Table 17

*Reasons given by Participants for Liking or not Liking to Read in English – Breakdown by Group*

Answer: "No"		
Reasons	Treatment (n° of occurrences)	Comparison (n° of occurrences)
Lots of new or difficult vocabulary	4	1
I hate to check the meaning of so many words		1
It's hard, so it takes too much time	1	1
It's difficult		1
I'm not good at reading		1
I can't keep on reading/ I can't concentrate for a long time		2
I have poor eyesight	1	
Total	6	7

Answer: "Yes, if..."		
Reasons	Treatment (no. of occurrences)	Comparison (no. of occurrences)
... I read something / a book / on a topic I'm interested in / I'm motivated about	4	5
... I read a novel but not a textbook!	1	1
... it's not too difficult		1
Total	5	7

Answer: "Yes"		
Reasons	Treatment (no. of occurrences)	Comparison (no. of occurrences)
I can acquire new knowledge, get to know new ideas and opinions, discover things	5	4
I can learn new ways of expressing myself		1
Reading is fun		1
Reading is good for me		1
Total	5	7

The number of participants who answered they liked to read was the same for both comparison and treatment groups (9). The remaining participants in both groups (6 versus 5) stated that they did not like reading. In terms of reasons given for liking or not liking to read in English, the "yes side" tallied twice or nearly twice as many significant utterances as the "no side" in each of the two groups, more precisely, 10 occurrences against 6 in the treatment group, and 14 occurrences against 7 in the comparison group. Nine of twelve utterances stating a conditional "yes" made clear that the respondents would read if the topic interested or motivated them. An equal number and proportion of utterances stating a more categorical "yes" answer revealed that the main reason for enjoying reading was the opportunity of acquiring new



knowledge and discovering new ideas and opinions. This can also be seen as a key motivational factor. Among the reasons invoked for not liking to read in English, six out of thirteen utterances are directly vocabulary-related. This concern tends to be confirmed by the results on the vocabulary pre-test. In Chapter 2, it was also mentioned that L2 learners considered vocabulary as the most important component in reading.

#### 4.1.5 Results – Profile of the “good reader”

*Measure: Self-Assessment Reading Survey (O'Malley and Valdez Pierce, 1996), questions 4 and 5*

As part of the researcher's initial effort to draw a general reading profile of the participants, two open-ended questions – included in the above-mentioned survey – were asked at the beginning of the study, i.e., "How do good readers read?" and "What do you need to do to be a better reader?" Responses to both questions were consolidated under a general table heading, "Profile of the good reader", and, once analyzed, were grouped under four main features: reading practice and automaticity, developing one's vocabulary, using while-reading strategies, and being motivated. The number of times each response occurred was also reported. Table 18 below presents the results in four parts, i.e., A, B, C, and D. There were 15 respondents for the comparison group and 14 respondents for the treatment group.

Table 18

*Profile of the Good Reader – Breakdown of Reader's Strategies and Characteristics reported by Participants*

##### Part A

Main feature	Strategies/characteristics	N° of occurrences		
		CG (n=15)	TG (n=14)	Total
Reading practice And automaticity	Reading fast	1	1	2
	Reading without a dictionary	1		1
	Reading/ practicing everyday	3		3
	Reading a lot	4	3	7
	Developing habit of reading	1		1
	Being able to read logically		2	2
	Understanding easily		1	1
	Understanding words deeply	1		1
	Not reading aloud in one's mind	1		1
	Developing concentration	3	1	4
		15	8	23

**Part B**

<i>Main feature</i>	<i>Strategies/ characteristics</i>	<i>N° of occurrences</i>		
		<i>CG</i> <i>(n=15)</i>	<i>TG</i> <i>(n=14)</i>	<i>Total</i>
Developing one's vocabulary	Need for large vocab/ Increasing vocab	5	8	13
	Repeating new words	1		1
	Memorizing vocabulary	2		2
	Identifying key words	1	1	2
	Guessing without dictionary		4	4
	Keeping reading even if unknown words		1	1
		9	14	23

**Part C**

<i>Main feature</i>	<i>Strategies/ characteristics</i>	<i>N° of occurrences</i>		
		<i>CG</i> <i>(n=15)</i>	<i>TG</i> <i>(n=14)</i>	<i>Total</i>
Using while-reading strategies (not vocabulary specific)	Taking one's time/ having enough time	1	1	2
	Skimming	1	1	2
	Scanning	2		2
	Being able to do both skimming and intensive reading		1	1
	Finding main idea (s)	5	2	7
	Summarizing	1	1	2
	Asking someone in case of problem	1		1
	Reading more than once	1		1
	Understanding main theme (not necessarily all words)		1	1
	Checking by oneself in case of problem (metacognition)	1		1
	Thinking while reading (metacognition)	1		1
	Reading between the lines/ Thinking about what the author wants to say (metacognition)	2	1	3
		16	8	24

**Part D**

<i>Main feature</i>	<i>Strategies/ characteristics</i>	<i>N° of occurrences</i>		
		<i>CG</i> <i>(n=15)</i>	<i>TG</i> <i>(n=14)</i>	<i>Total</i>
Being motivated	Having an interest in the topic	1		1
	Having your own opinion about the book		1	1
	Enjoying thinking about theme, and author's view/ style		2	2
	Having fun/ enjoying reading	1	1	2
		2	4	6

In all, 76 statements were made by participants in establishing the profile of the good reader (42 by the comparison group and 34 by the treatment group. The need for building up one's vocabulary was

the individual item most strongly echoed by study participants, as it tallied 13 utterances. As a matter of fact, in total, 23 utterances highlighted the importance of vocabulary-related strategies, including "guessing meaning without a dictionary", which recorded 4. Reading a lot and practicing every day recorded 10 utterances, and 13 more statements were related to the idea of developing automaticity in reading. Being able to find the main idea, with 7 utterances, was by far the most important while-reading strategy, followed by metacognitive strategies with 5 statements. In total, while-reading strategies that are not specific to vocabulary recorded 24 occurrences. Motivation-related features tallied 6 utterances in all.

#### *Summary – Readers' Profile*

At the beginning of the study, results on the reading comprehension and vocabulary levels pre-tests indicated that the participants from both treatment and comparison groups failed to meet the required passing marks and the required linguistic threshold necessary to be able to read academic texts independently. The concern with the lack of vocabulary in particular was as obvious as it was recurrent. For instance, respondents who stated that they did not like reading in English on the Self-Assessment Reading Survey, argued for the most part that the vocabulary was too difficult. Furthermore, the need for developing one's vocabulary was the single most emphasized element when the respondents were asked to establish the "profile of the good reader". This being said, a majority of respondents in both groups stated that they did like reading in English, with positive answers revolving around the idea of topical interest and the acquisition of new knowledge. Always on the Self-Assessment Reading Survey, respondents also emphasized the need for a lot of practice in reading. They also declared using a variety of reading strategies on the Self-Assessment of Reading Strategies, including such top-down strategies as "invoking prior knowledge" and "making predictions" and such bottom-up strategies as "guessing vocabulary from context" and "finding the main idea". If "making an outline" and "summarizing" seemed to be an area of weakness for all, treatment respondents were more aware of social strategies such as "asking for help" and "discussing problems with others" than their counterparts from the comparison group. Despite the fact that the participants were not able to read expository texts independently before the intervention, the profile of the good reader indicated that they were aware of the main features and qualities of proficient reading.

## 4.2 Research Question 2 (Reading Comprehension)

### 2. Reading Comprehension

#### 1. Quantitative Progress

**Question 2.1:** Can the use of interactive reading strategies in class transfer into greater quantitative improvements in terms of reading comprehension of expository texts than can a traditional discussion approach?

#### 2. Perception of Progress

**Question 2.2.1:** What is the respondents' recent evolution in their overall perception of L2 reading? To what factors do the respondents attribute their evolution – or lack thereof?

**Question 2.2.2:** Did the respondents perceive any progress in L2 reading over the term? To what factors, especially academic, did the respondents attribute their perceived progress – or lack thereof – in L2 reading comprehension?

### 4.2.1 Quantitative Results – Question 2.1: Can the use of interactive reading strategies in class transfer into greater quantitative improvements in terms of reading comprehension of expository texts than can a traditional discussion approach?

*Measure: IELTS Academic Reading Module (UCLES, 2001a), as pre-test and post-test.*

The IELTS Reading Academic Module (UCLES, 2001a) was used in pre- and post-test conditions to answer question 2.1. Descriptive statistics based on the results obtained by the participants on the IELTS Academic Reading Module are presented in Table 12 (Section 4.1.1). As study participants were not randomly assigned to the treatment or comparison group, the design of the study was quasi-experimental in nature. Scores obtained by the treatment and comparison group participants on the first administration (pre-test) were used as covariates when analyzing results on the post-test measures. This procedure, referred to as analysis of covariance (ANCOVA), reduces original differences between the groups by statistically equating them.

Two texts out of the three included in the IELTS Academic Reading Module (UCLES, 2001a) were used for the purpose of this study. Any statistically significant difference revealed by the ANCOVA in the reading comprehension scores between the treatment and comparison groups would indicate a possible correlation between the interactive-reading pedagogical intervention and the reading comprehension of expository texts by study participants. Descriptive statistics concerning the reading tests can be found in Table 12 (Section 4.1.1), and the results from the Analysis of Covariance (ANCOVA) are presented below in Table 19.

Table 19  
*Sources of Variance in Post-test Reading Comprehension*

Source	df	Mean Square	F	Sig.	Eta Sq.
Intercept	1	195.83	13.01	.00	.26
Covariate (RCA)*	1	171.28	11.38	.00	.23
GROUP	1	16.75	1.11	.30	.03
Error	38	15.06			

*R. square = .252 (Adjusted R Squared = .213)*

\*RCA = Reading Comprehension A (pretest)

The treatment group scored better than the comparison group on both pre- and post-tests. However, there was no statistically significant difference between the groups,  $F(1,38)=1.11$ ,  $Mse=15.06$ ,  $p > .05$ , after adjusting for the statistically significant covariate RCA,  $F(1,38)=11.38$ ,  $p < .05$ . The treatment group did not perform better than the comparison group. The adjusted means were 12.77 and 11.50, respectively, and the effect size  $\eta^2$  was .028. The ANCOVA has revealed no statistically significant difference between the two groups on the IELTS Academic Reading Module when potential differences at pre-test are taken into account. On the Reading Test Survey, participants were asked if they knew or had ever done the IELTS. Only one student reported knowing the test, but no student indicated that he or she had done the test before.

#### 4.2.2 Results – Perception of Progress

**4.2.2.1 Results – Question 2.2.1:** *What is the respondents' recent evolution in their overall perception of L2 reading? To what factors do the respondents attribute their evolution – or lack thereof?*

*Data collection:* Participant Interviews

*Related Interview Questions:*

- Do you feel more comfortable reading in English than before?
- Do you usually read a lot in English?
- Outside the classroom, what kind of material do you read in English?

When they were asked if they felt more comfortable reading in English now as compared to the beginning of the Academic Exchange Program (AEP), a clear majority of respondents in both treatment and comparison groups – 5 and 7 students respectively – felt that they were reading more comfortably in L2 and that they had a more positive attitude overall towards reading in L2. In the comparison group, six interview participants (3 males and 3 females) used phrases such as “I used to dislike reading in English”, “reading in English used to be annoying”, or “before, I was scared of reading in English” to qualify their feeling toward L2 reading before they came to Western Canadian University (WCU). Chie suggested that reading was still difficult but that somehow it was much easier than before for her to read long academic articles. Yachiyo felt encouraged to try to read more upon her return to Japan. Only three participants (2 males, 1 female) in the comparison group were explicitly asked by the interviewer to comment on their L2 reading outside class. The male respondents, Masaru and Kazuto, reported very little reading. When

he did read, Kazuto said he was mostly reading Web sites. Chie too reported reading mostly from the Internet.

Not unlike most of their counterparts in the comparison group, the six female participants from the treatment group reported feeling more comfortable when reading in English, using phrases such as “I didn’t like reading in English at first”, “before coming, I didn’t read English books”, or “I really don’t like reading, however, I think I became more positive toward reading” to describe their past and present L2 reading experience. Aki, the participant who said that she had become “more positive toward reading” since she joined the AEP, added that she “became to read articles carefully compared with the first semester”. Another participant, Yukie, revealed that she could “now read faster with more understanding”. Sanae said that, compared to the beginning of the program, “I think I can read a lot, I can read more than before”. Mikiko was pleased to say that “in Japan, I read a book translated into Japanese, but here I could read the book in English, the same book”, adding that she was now reading young adult books in English. Naoko confided that, before starting the academic program, “I didn’t read any English book, I didn’t study English, but I came here, now I can read English texts and books, maybe I can write English very easy”. The only male respondent from the treatment group, Takuya, also mentioned about some personal progress in reading, but without revealing if he felt more positive about L2 reading.

When asked if they read in English for pleasure, three female students – Emi, Naoko, and Sanae – indicated that during the term, except for academic material, they did not have much time to read. Another student, Aki, told the interviewer that she enjoyed reading pop culture magazines and her classmate Yukie referred to Web sites and newspapers, but neither did specify how much reading they had actually done. Mikiko revealed that she liked reading young adult books. As to the only male participant among the interviewees from the treatment group, Takuya, he said that he had read novels and newspapers, adding however that overall he had done less reading in English during the current term than during the previous.

From the interview participants’ reports, it is obvious that the evolution in their perception of L2 reading was overall very positive and that nothing which was said by the respondents in either group allows for a clear distinction between the treatment and comparison groups. In the next section (Section 4.2.2.2), I will examine another set of interview questions which will explore, in more concrete terms, the links between the positive perception held by participants and academic and other factors that influenced that perception.

**4.2.2.2 Results – Question 2.2.2:** *Did the respondents perceive any progress in L2 reading over the term? To what factors, especially academic, did the respondents attribute their perceived progress – or lack thereof – in L2 reading comprehension?*

*Data collection:* Participant Interviews

*Related Interview Questions:*

- Do you think your reading ability has improved during the term?
- On a scale, 0 to 5, 0 being the lowest value and 5 the highest, how would you rate your progress in reading ability?
- Did the pedagogical activities in your tutorials help you improve your reading ability?

After interview respondents were invited to qualify in broad terms how their perception of L2 reading had changed (Section 4.2.2.1), they were also asked more direct questions to find out 1) whether they perceived an improvement in their L2 reading comprehension over the term, and 2) to what factors they attributed their perceived progress – or lack thereof. Contrarily to the first set of interview questions discussed previously, this part of the interview was directly oriented to the respondents' perceptions of their academic work and environment during the term.

Here is an account of how the respondents from the comparison group – where a pedagogical approach based on academic discussions of course content was used – answered. Six of the seven participants from the comparison group perceived and reported various degrees of progress in their reading ability during the term. When asked by the interviewer to quantify their progress on a scale 0 to 5, 0 being the lowest value and 5 being the highest value, one student reported a progress of 2.5 (Masaru), two students reported a progress of 3 (Hideo and Ichiro), one student a progress of 3 or 4 (Kazuto), and two reported a progress of 4 (Chie and Yumi), for an average of between 3.25 and 3.4 (the margin is due to the fact that one student gave two different scores). Yachiyo was not asked by the interviewer to quantify her progress in reading over the term. However, she did feel that her comprehension had improved a little, as she was able to read with more ease. She contended that another sign of her progress was a recent increase on her TOEFL score. Comparison participants attributed their progress to an array of causes or conditions. Only two participants, Chie and Masaru, could link in-class tutorial activities with progress in reading, but did not necessarily cite such in-class activities as the main cause of their progress. Still, academic activities were clearly involved: Chie said her progress was mostly due to homework she had to do (see transcript excerpt below) and to the large volume of reading done during the term, and Masaru linked his progress to his reading of journal articles as preparation for a class presentation on his essay topic.

***Interviewer:* What you did in your tutorials, do you think it has helped you improve your ability in reading English?**

***Chie:* I think, it's only hearing the lecture by the TA, so she encouraged us to read, but it's not directly helped me. It hasn't.**

***Interviewer:* It didn't really, directly help you improve your reading ability?**

***Chie:* It's more homework things.**

The remaining five comparison respondents – Hideo, Ichiro, Yachiyo, Kazuto, and Yumi – made clear, however, that they could not see any connection between tutorial activities and improvements in their reading ability and vocabulary size. One of those students, Kazuto, argued that the tutorials were not helpful in that regard because no articles were read in class and because “we just discussed lectures”. Kazuto attributed the change in his reading to the large volume of reading done over the term – like Chie – but also, more especially, to being immersed in a natural English-speaking environment. As Kazuto reported: “...about reading skills, we always see English newspapers and English books, so it became more natural, it's our daily life, so it's helped us.” Ichiro too mentioned the influence of the English-speaking environment. In an indirect reference to the sizeable volume of reading to be done during the term, Yumi indicated that tackling the course readings and the course notes had helped with her reading. As a suggestion for improvement, Yumi argued that there was a need for the TA to summarize and help with the assigned readings in class, as this was an important part of the course. The remaining two students, Hideo and Yachiyo, did not specifically state how they would account for their progress in reading.

Next is an account of how the respondents from the treatment group commented on their possible improvement in reading comprehension over the term, in relation with their academic activities. The potential link with interactive reading – the pedagogical approach used with that group – will not be included here as it is going to be treated separately due to its importance under Section 4.4.2. Six of the seven respondents from the treatment group were asked by the interviewer to quantify their progress in reading over the term. Their responses followed a pattern very similar to that of the comparison group, with one student reporting a progress of 2 (Naoko), the only male respondent a progress of 2 or 3 (Takuya), another respondent a progress of 3 (Emi), one student a progress of 3 or 4 (Yukie), and two more participants reporting a progress of 4 (Aki and Mikiko). One of the female participants did not quantify her progress but mentioned about an improvement (Sanae). As it was the case for the comparison



group, those respondents felt that they had achieved average progress (the average of the declared scores is between 3.0 and 3.3 – the margin is due to the fact that some students reported two scores).

When asked to relate their academic activities, and especially tutorial activities, to their progress in reading, four treatment participants who took part in the interviews attributed their improvement – however small or large – to a variety of factors. One female participant, Aki, said that she had to read a lot of articles during the term and that those articles she was mostly interested in had given her reading (and vocabulary) a boost. A classmate, Emi, also made a reference to the large volume of reading but linking it more specifically to an improvement in her reading speed. Mikiko too reported having covered a great deal of text, through scanning and skimming; the same student also thought that learning about strategies in class had a positive effect on her reading. Aki and Yukie reported on the helpfulness of reading in class. In a remark that highlights the role of background knowledge in reading, Yukie remarked that “after I learned about the topic in the lab section, I can read the course package easily”. According to Yukie, the TA’s explanations had helped her read the assigned readings more easily. In a clear reference to the influence of the greater environment, Yukie also mentioned that her interest in reading had developed simultaneously with her growing interest in cultural matters. Yukie admitted that she became more motivated in reading about course topics as her interest in culture – especially through the multicultural character of Vancouver – developed.

Among the remaining three respondents from the treatment group, both Sanae and Naoko stated that their reading had progressed during the term but that the tutorial activities had not been really helpful in that regard, without elaborating. Takuya could not link any substantive part of his progress in reading or vocabulary to the tutorials. He stressed the fact that for him topical motivation was the most important aspect to consider when reading, making clear that he was not interested in the ASTU201 course content, especially as it had nothing to do with his major.

I will now summarize the main ideas expressed by the respondents from both the treatment and comparison groups about the link between tutorial activities and progress in reading. Respondents in both groups felt that their reading had improved in an average way: when the respondents were asked by the interviewer to quantify their progress, the average of all the declared scores was between 3.0 and 3.3 out of 5 for the treatment group, and between 3.25 and 3.4 out of 5 for the comparison group.

It is interesting to note that an almost equal number of statements in both groups (3 in the treatment group and 4 in the comparison group) made a specific reference to the volume of academic reading as having had an impact on their improvement. (From the participants’ utterances, one does not get the sense that they did a lot reading in English for pleasure). Yukie’s report sums up this situation rather well: “Actually, in Japan, last year, I didn’t have English classes so much. And we didn’t do a lot of readings, but here I had to read many things, so at first I don’t like reading but, yeah, I could read faster and faster, and easier to understand”. This would suggest that the participants linked their progress in reading ability with an increase in their volume of reading, a perception which corresponds to a well-

established fact throughout the literature (Cunningham and Stanovich, 1998).

Always judging from the interview reports, it would seem that treatment participants were more able to detect a direct and positive impact on their reading from their tutorial activities than their counterparts from the comparison group were. In the treatment group, 3 statements regarding the role of strategy-learning and reading in class were recorded, as well as 2 more statements on the benefits derived from the TA's explanations and from learning about the main lecture topic in the tutorials. In the comparison group, only two statements were recorded about the role of academic factors directly related to tutorial activities. A clear majority of respondents (5 out of 7) from that group said that they could not relate any of their perceived progress in reading to their tutorial activities. The difference in pedagogical approach between treatment and comparison tutorials might have played a role in this difference in perception.

Finally, one cannot fail to notice that the interview respondents' evolution in L2 reading seemed to be also related to the pervasiveness of English in the environment, to some extent. Two revealing comments to that effect were made in the comparison group, and one in the treatment group. As it can be seen in Section 4.3, being immersed in an English-speaking environment was also perceived as a key element in the development of their vocabulary by the respondents from both the comparison and treatment groups.

#### *Summary – Reading comprehension*

Test results have not revealed any quantitative improvement or any statistically significant differences across the groups at the end of the intervention, in terms of progress in reading comprehension. However, answers from respondents to interview questions about changes in their perception of L2 reading and about progress in L2 reading show that the respondents did perceive a positive development in their reading ability overall. Respondents from both treatment and comparison groups equally stressed the amount of academic reading and the immersion in an English-speaking environment as possible factors behind that perception. The only distinction between the groups came from a bigger emphasis put by respondents from the treatment group on the direct role of their tutorial activities.

### 4.3 Research Question 3 (Vocabulary Acquisition)

#### 3. Vocabulary Acquisition

##### 1. Quantitative Progress

**Question 3.1:** Can the use of interactive reading strategies in class transfer into greater quantitative improvements in terms of receptive vocabulary acquisition than can a traditional discussion approach?

##### 2. Perception of Progress

**Question 3.2:** Did the respondents perceive any progress in L2 vocabulary over the term? To what factors, especially academic, do the respondents attribute their perceived progress – or lack thereof – in L2 vocabulary?

##### 3. Perception of Reading Test Difficulty in terms of Vocabulary and Grammar

**Question 3.3:** How difficult did the treatment group and the comparison group perceive the reading comprehension post-test in terms of general comprehension, vocabulary and grammar?

**4.3.1 Quantitative Results – Question 3.1:** *Can the use of interactive reading strategies in class transfer into greater quantitative improvements in terms of receptive vocabulary acquisition than can a traditional discussion approach?*

*Measure: The Vocabulary Levels Test-B (Nation, 2001), as pre-test and post-test.*

Similarly to the IELTS Reading Academic Module (UCLES, 2001a), the Vocabulary Levels Test (Nation, 2001), or VLT, was used in pre- and post-conditions to answer Question 3.1. Descriptive statistics based on the results obtained by the participants on the VLT can be found in Table 14 (Section 4.1.2). As study participants were not randomly assigned to the treatment or comparison group, the design of the study was quasi-experimental in nature. Scores obtained by the treatment and comparison group participants on the first administration (pre-test) of the VLT were used as covariates when analyzing results on the post-test measures. This procedure, referred to as analysis of covariance (ANCOVA), reduces original differences between the groups by statistically equating them.

The Vocabulary Levels Test (VLT) is divided into five sub-components, i.e., the 2000, 3000, 5000, and 10 000 word level components, as well as the “academic vocabulary” component. If the Analysis of Covariance (ANCOVA) were to reveal a statistically significant difference in any of the five vocabulary components between the treatment and comparison groups, this would suggest a potential relationship between the interactive-reading pedagogical intervention used in this study (see Chapters 2 and 3) and the incidental acquisition of vocabulary among the study participants. Descriptive statistics for each of the components of the VLT can be found in Table 14 (Section 4.1.2), and the results from the Analysis of Covariance (ANCOVA) for each of these measures are listed in ANCOVA Tables 21, 22, 23,

and 24 (except at the 2000 Word Level as explained below – Table 20).

#### *2000 Word Level*

The covariate VOCA1 was not significant in this case,  $F(1, 37) = 2.76, p > .05$ . Therefore, an analysis of variance (ANOVA) was conducted to compare the means between pretest and posttest on this variable (VOCB1).

Table 20

*Comparison between Comparison and Treatment Groups of Post-test Means on VLT at 2000 Word Level*

	df	Mean Square	F	Sig.
Between groups	1	.04	.01	.91
Within groups	39	3.10		
Total	40			

At the 2000 Word Level, there was no statistically significant difference between the groups,  $F(1,39)=.01, Mse = .04, p > .05$ . The treatment group did not perform better than the comparison group.

#### *3000 Word Level*

Table 21

*Sources of Variance in Post-test Vocabulary Knowledge at 3000 Word Level*

Source	df	Mean Square	F	Sig.	Eta Sq.
Intercept	1	224.13	19.36	.00	.34
Covariate (RCA)*	1	129.92	11.22	.00	.23
GROUP	1	5.42	.47	.5	.01
Error	37	11.58			

R Squared = .25 (Adjusted R Squared = .21)

\*VOCA2= Pre-test Vocabulary Knowledge at 3000 word level.

At the 3000 Word Level, there was no statistically significant difference between the groups,  $F(1,37)=.47, Mse=11.58, p > .05$ , after adjusting for the statistically significant covariate VOCA2,  $F(1,37)=11.22, p < .05$ . The treatment group did not perform better than the comparison group. The adjusted means were 23.17 and 22.43, respectively, and the effect size  $\eta^2$  was .01.

## 5000 Word Level

Table 22

Sources of Variance in Post-test Vocabulary Knowledge at 5000 Word Level

Source	df	Mean Square	F	Sig.	Eta Sq.
Intercept	1	149.73	8.95	.01	.20
Covariate (RCA)*	1	150.01	8.97	.01	.20
GROUP	1	26.46	1.58	.22	.04
Error	37	16.73			

R Squared = .22 (Adjusted R Squared = .18)

\*VOCA3= Pre-test Vocabulary Knowledge at 5000 word level.

At the 5000 Word Level, there was no statistically significant difference between the groups,  $F(1,37)=1.58$ ,  $Mse=16.73$ ,  $p > .05$ , after adjusting for the statistically significant covariate VOCA3,  $F(1,37)=8.97$ ,  $p < .05$ . The treatment group did not perform better than the comparison group. The adjusted means were 13.36 and 11.74, respectively, and the effect size  $\eta^2$  was .04.

## Academic Level

Table 23

Sources of Variance in Post-test Vocabulary Knowledge at Academic Word Level

Source	df	Mean Square	F	Sig.	Eta Sq.
Intercept	1	307.90	13.74	.00	.27
Covariate (RCA)*	1	389.56	17.38	.00	.32
GROUP	1	46.50	2.08	.16	.05
Error	38	22.41			

R Squared = .35 (Adjusted R Squared = .31)

\*VOCA4= Pre-test Vocabulary Knowledge at Academic word level.

At the Academic Word Level, there was no statistically significant difference between the groups,  $F(1,38)=2.08$ ,  $Mse=22.41$ ,  $p > .05$ , after adjusting for the statistically significant covariate VOCA4,  $F(1,38)=17.38$ ,  $p < .05$ . The treatment group did not perform better than the comparison group. The adjusted means were 25.60 and 23.45, respectively, and the effect size  $\eta^2$  was .05.

## 10000 Word Level

Table 24

Sources of Variance in Post-test Vocabulary Knowledge at 10 000 Word Level

Source	df	Mean Square	F	Sig.	Eta Sq.
Intercept	1	58.42	18.01	.00	.33
Covariate (RCA)*	1	23.91	7.37	.01	.17
GROUP	1	.01	.00	.96	.00
Error	37	3.24			

R Squared = .17 (Adjusted R Squared = .12)

\*VOCA5= Pre-test Vocabulary Knowledge at 10000 word level.

At the 10 000 Word Level, there was no statistically significant difference between the groups,  $F(1,37)=.003$ ,  $Mse=3.24$ ,  $p > .05$ , after adjusting for the statistically significant covariate VOCA5,  $F(1,37)=7.37$ ,  $p < .05$ . The treatment group did not perform better than the comparison group. The adjusted means were 2.57 and 2.54, respectively, and the effect size  $\eta^2$  was .00.

Table 25 presents the adjusted means at each of the Word Levels for both treatment and comparison groups.

Table 25

*Adjusted Mean Post-test Scores for Vocabulary Knowledge at 3000, 5000, Academic, and 10000 Word Levels*

Group	Treatment	Comparison
Word Level	Adjusted Mean	Adjusted Mean
3000	23.17	22.43
5000	13.36	11.74
Academic	25.60	23.45
10000	2.57	2.54

Summing up the results for Question 3.1, as suggested by the statistical analysis for each Word Level, no statistically significant difference was revealed between the two groups on any of the VLT components when potential differences at pre-test were taken into account.

#### **4.3.2 Results – Perception of Progress – Question 3.2: Did the respondents perceive any progress in L2 vocabulary over the term? To what factors, especially academic, do the respondents attribute their perceived progress – or lack thereof – in L2 vocabulary?**

*Data Collection:* Participant Interviews

*Related Interview Questions:*

- Do you think your vocabulary has improved during the term?
- On a scale, 0 to 5, 0 being the lowest value and 5 the highest, how would you rate your progress in vocabulary?
- Did the pedagogical activities in your tutorials help you improve your vocabulary?
- Did reading the assigned readings (“course package”) help you improve your vocabulary?
- How much of the assigned readings did you read?
- Outside the classroom, what did you do to improve your English vocabulary?

Interview respondents were asked questions to find out 1) whether they perceived a general improvement in their L2 vocabulary over the term, and 2) to what factors they attributed their perceived progress – or lack thereof. These questions were directly related to the respondents’ perceptions of their academic work and environment during the term.

When comparison group interviewees were asked to quantify their progress in vocabulary over the term, on a scale 0 to 5, 0 being the lowest value and 5 being the highest value, one male student (Ichiro) reported a progress of 2 the first time he was asked and a progress of 3 or 4 when he was asked again, another male student (Hideo) a progress of 3, one more male student (Masaru) a progress of 3.5, one female student (Yumi) a progress of 3.5 or 4, another female student (Chie) a progress of 4, and finally, one male student (Kazuto) reported a progress of 5, for an approximate group average ranging from 3.5 to 3.8 (the margin is due to the fact that some participants gave two different scores). One female student, Yachiyo, was not asked to quantify her progress; she reported that she did not know exactly how she had progressed.

The pedagogical approach used in the comparison tutorials was based on discussions of course content. Yumi was the only comparison respondent to state that her progress in vocabulary was mostly due to in-class discussions about course content. Ichiro also cited the role of lectures, but it is not clear if he referred to lectures in the main seminars or to the occasional lectures in the tutorials, or even both. Two more comparison participants, Masaru and Chie, also linked a specific in-class tutorial activity, i.e., the TA's explanations of vocabulary related to the course content, to their progress in vocabulary (excerpt below).

*Masaru:* **"My teacher did some words, repeat it, so I can memorize easily, and my teacher used the white board to write down, so I can see the words, and I had the pronunciation of the words, so it's useful."**

Academic reading, as an important component of the course, also attracted a series of comments as to its helpfulness in developing students' vocabularies. A small majority of four students (Chie, Masaru, Yumi, and Ichiro) referred to the helpfulness of the course readings. Chie pointed to the large volume of reading to be done and said that she had used "guessing words" as a strategy when reading course articles (see excerpt below); she declared having read about 50% of the articles. Masaru stated that although he had not read much out of the course readings (20% to 40%), he had improved his vocabulary through memorizing. Yumi and Ichiro (respectively, 70% and 30% of the course articles read) simply cited the assigned readings as helpful in acquiring vocabulary. Yumi, however, gave more importance to her reading of the course notes in that regard.

*Chie:* “[...] when I read this material, there were many unknown words, I sometimes guessing, and just read through, there are some words that appeared many times, so I look for in the dictionary, so repeating that kind of activity, I can remember the word, so some words I remember like that. So I guess meaning through that... by guessing from context.”

Among the remaining three respondents (Hideo, Yachiyo, and Kazuto), two participants – Hideo and Yachiyo – could not make a connection between the course assigned readings and their progress. Although he declared having read 80% of the assigned articles, Hideo, for instance, did not think that reading the course material had positively contributed to his vocabulary, adding he was not interested in some of the topics and that he had read before the mid-term exam only and never before class. Kazuto, who reported a reading volume of about 10% to 20% in the set of course articles, made clear that he would have probably gained much more vocabulary had he read more of the assigned material. Paradoxically, Kazuto was the only student from either group to give his vocabulary progress over the term a full mark of 5 points. According to Kazuto, the main source of vocabulary acquisition had to be found outside academic activities, but he still stressed the need for Japanese students “to be pushed” and suggested that vocabulary quizzes be given “to force us to study and memorize vocabulary”. Kazuto’s suggestions highlight both the Confucian learning style tendency of Japanese students and their need for marks as an incentive for learning.

This being said, a non-negligible part of the comparison respondents’ utterances about conditions favorable to vocabulary development actually concerned factors outside – or larger than – the immediate academic realm. In total, five interview respondents (Chie, Masaru, Kazuto, Yumi, and Hideo) from the comparison group produced six statements suggesting that interacting with native speakers was a privileged way to increase one’s vocabulary, especially familiar oral expressions. For instance, Yumi revealed that she kept a vocabulary notebook of such expressions. Kazuto, who reported a progress of 5 in vocabulary on the scale, insisted on the pervasiveness of the English-speaking environment, saying that, in such an environment, “we have to build up our vocabulary to explain our opinion and feeling”. Another male student, Hideo, echoed Kazuto’s position when he highlighted the fact that he had learned a lot of vocabulary from talking with roommates and reading newspapers. In a comment emphasizing the importance of interactions with native speakers for exchange students, Hideo stressed that he had come to Canada to learn about Canadian culture, not for studying.

Thus, for comparison group respondents, it seems that their perception of progress in vocabulary hinges upon two main factors: first, the volume of academic reading that had to be done throughout the term, and second, the immersion in an English-speaking environment that especially stimulates interactions with



native speakers. Some tutorial activities per se were reported as effective but did not seem to carry the same weight in the respondents' minds.

All interview participants from the treatment group but one reported some progress in their vocabulary over the term. When asked by the interviewer, five students quantified their progress in vocabulary, on a scale 0 to 5, 0 being the lowest value and 5 being the highest value. One female respondent reported a progress of 1 or 2 (Emi), another female participant (Mikiko) and the only male interviewee from the treatment group (Takuya) a progress of 3, one female student (Yukie) reported a progress of 3 or 4, and one more female respondent (Aki) a progress of 3.5, for a group average of between 2.7 and 3.1 (this margin is due to the fact that some students reported two scores). One student (Naoko) reported some progress but did not quantify it. Another student (Sanae) believed that her vocabulary had not really progressed.

When asked about a possible link between their academic activities during the term – especially tutorial activities – and reading improvement, the treatment participants who reported progress – or lack thereof – in vocabulary acquisition attributed this to various reasons. A few direct references were made to the TA's treatment of vocabulary in class, which was mostly limited to the explanations of content-related concepts. Takuya, Aki and Emi reported some help – although limited – from the TA's vocabulary explanations in class. Mikiko too said that the TA's explanations were helpful because the main concept words were being repeated. As to the impact of the pedagogical approach based on interactive reading, when invited to discuss that aspect, treatment group respondents did not produce any comments about a potential link with vocabulary development (see Section 4.4.2 for detailed results on the respondents' perception of interactive reading in the context of this study).

When the respondents from the treatment group were prompted to express their thoughts on the role of the assigned readings, a series of nuanced opinions were aired. For instance, Mikiko and Aki, who reported having read most of the course articles, contended that the reading had been beneficial for their vocabulary because they encountered the same words again and again. Sanae differed, stating that she did not feel any improvement in her vocabulary because she could not use the words encountered in the readings and the lectures in her daily life; such perceived irrelevance to daily life might have been a factor of reduced motivation for some participants in the study. Naoko expressed the idea that her vocabulary improvement came from a little reading of the course material (she nevertheless stated that she had read 70% or 80% of the required readings) but also from the writing she had done when preparing for exams, which points to the importance of output in learning (Swain, 1985). Yukie, who reported a progress of 3 or 4 on the scale, mentioned that she had read 60% of the course pack and – not unlike Emi (see below) – felt overwhelmed by “too many words”, while admitting the assigned readings might have been useful for the learning of culture-related vocabulary.

**Interviewer: Was the assigned readings helpful for your vocabulary?**

**Yukie: So so helpful, because there were really many words, so I couldn't look for all the words in dictionary...**

Emi, who reported a progress of 1 on the scale, said that the course package contained too many words difficult to understand. Text readability and text interest can affect a reader's motivation: Emi declared having read only about 20% of the course articles and insisted on the need to study with more interesting materials, while Aki stated that reading articles she was interested in had contributed to her vocabulary development. Finally, Takuya did not know if the assigned reading material, of which he had read 70%, had been useful for his vocabulary, because he had no basis for comparison. To sum it up, four respondents from the treatment group (Aki, Mikiko, Yukie, and Naoko) made a positive link between academic reading and the improvement of their vocabulary during the term, while the remaining three students (Emi, Sanae, and Takuya) were not able to produce a similar link.

Fewer students from the treatment group than from the comparison group were asked by the interviewer about what they did outside of class to improve their vocabulary. Two treatment participants who were asked, however, responded in very similar terms to their comparison counterparts, highlighting the role of the English-speaking environment over academic activities, in three different statements. Sanae and Emi, who reported minimum progress in vocabulary, said that they liked watching TV, reading TV captions, and conversing with native speakers. Emi maintained that her overall improvement in vocabulary was mostly due to conversations with native speakers and TV watching – and not particularly to the reading of academic articles, for instance.

Thus, as in the case of their comparison counterparts, treatment group respondents expressed the perception that their progress in vocabulary over the term was determined by the academic reading they had to do – especially its large volume – and by the immersion in an English-speaking environment – including TV watching and interactions with native speakers – more than by tutorial activities, although in that case the TA's limited role in explaining vocabulary words also drew some positive comments.

I will now summarize the main findings for Question 3.2 (Section 4.3.2) about the perceived progress in vocabulary as indicated by interview reports. The overall perception of progress in the treatment group was not as high (average between 2.7 and 3.1) as in the comparison group (average between 3.5 and 3.8). This might be explained – at least, in part – by the fact that two students made clear that they had struggled with the high number of new words in the assigned readings, a perception that most certainly affected the reported average for the treatment group (for instance, Emi reported a progress of 1 or 2 points out of 5). When asked about the reading of the course articles for ASTU 201, a majority and comparable number of students in each group stated this activity as beneficial for their vocabulary,

but to various degrees. Another revealing factor stressed by respondents from both groups was the positive influence of the English-speaking environment, which took various forms. In both group, the overall effect on vocabulary improvement from in-class tutorial activities was perceived as weaker than the positive influence respondents attributed to academic reading and to the greater environment. Still, positive but limited effects were noticed in relation with tutorial activities, especially the TAs' explanations of vocabulary. No respondent in the treatment group volunteered a link with interactive reading.

**4.3.3 Results – Question 3.3: How difficult did the treatment group and the comparison group perceive the reading comprehension post-test to be in terms of general comprehension, vocabulary and grammar?**

*Data Collection:* Post-test Reading Questionnaire (Reading Test Survey), Part II and Part III

The Post-test Reading Questionnaire was administered in part to survey the respondents' perceived level of reading passage and test difficulty immediately after having completed the reading comprehension post-test. Table 26 presents the data as examined through an analysis of variance (ANOVA).

Table 26

*Statistical Analysis of the Differences between Treatment and Comparison Group on each Question of the Reading Test Survey – Part II and Part III*

Variable	Treatment (n=20)		Comparison (n=20)		F value
	Mean	SD	Mean	SD	
<i>PART II "What percentage of... did you understand?"</i>					
Q.1 First text (in general)	3.33	1.20	4.00	1.05	3.46
Q.2 Second text (in general)	3.86	1.20	3.63	1.30	.33
Q.3 Vocabulary in first text	3.24	1.04	4.11	.94	7.58**
Q. 4 Vocabulary in second text	3.57	.93	3.84	.96	.83
<i>PART III "How difficult did you find...?"</i>					
Q.1 Vocabulary	3.71	1.20	3.21	1.03	2.03
Q.2 Grammar	3.19	1.12	2.53	.96	3.98*
Q.3 Understanding main idea	3.48	1.12	3.00	.82	2.31
Q.4 Distinguishing main idea from details	3.52	1.30	3.26	.99	.51
Q.5 Understanding test questions	3.24	1.51	2.89	1.70	.46
Q.6 Doing reading test second time as compared to first time	2.76	1.04	2.47	.96	.82

The difference between the two groups for Question 3 of Part II was statistically significant:

**Part II**

**Question 3:** The comparison group reported understanding a greater proportion ( $M = 4.11$ ,  $SD = .94$ ) of the vocabulary in the first text than did the treatment group ( $M=3.24$ ,  $SD = 1.04$ ). This difference was significant,  $F(1,38) = 7.58^{**}$ ,  $p=.009$ .

The groups did not significantly differ on the other questions.

### Summary – Vocabulary Acquisition

The statistical analysis performed on the Vocabulary Levels Test results has revealed that in terms of quantitatively measurable lexical level and improvement over the academic term both groups were on par. At the perceptive level, however, a clear majority of interview respondents from both the treatment and comparison groups reported some progress. In this case, both groups could be differentiated, as the comparison respondents reported stronger progress than their treatment counterparts. This can be probably explained by the fact that two students from the treatment group – but none from the comparison group – reported difficulties in dealing with the large amount of new vocabulary in assigned readings. On the reading post-test as well, treatment participants experienced more difficulties in understanding vocabulary than their comparison counterparts, as suggested by the results from Question 3.3 (Section 4.3.3). This indicates that students from the treatment group might have had the perception to struggle with vocabulary more than students from the comparison group, including some potential negative effects on motivation in some treatment participants. As no direct question concerning the link between text readability and motivation was asked, it is hard to attribute and extrapolate this type of perception to all participants, however.

Interview respondents in both groups did not seem to particularly emphasize the influence of specific tutorial activities to account for their progress in vocabulary, although some positive statements were made to that effect. Treatment respondents did not take into account the role of interactive reading as a factor for progress in vocabulary. In fact, answers from both treatment and comparison interviewees primarily focused on the reading of assigned course articles and, perhaps even more insistently and more interestingly, on the interactions with the English-speaking environment, as major elements of change in vocabulary for the academic term. This position tends to confirm statements made by respondents from both groups in response to the inquiry about the overall perception of their evolution in L2 reading (Section 4.2.2). For some students in the treatment and comparison groups, there might have been a greater need for familiar words for everyday communication before being able to move on to lower frequency and academic vocabulary, in line with Vygotsky's (1978) pedagogical concept of Zone of Proximal Development and with the concept of linguistic threshold (Clarke, 1980).

#### 4.4 Research Question 4 (Strategies)

##### 4. Strategies

##### 1. Use of strategies

**Question 4.1: Can the use of in-class reading strategies foster greater use of strategies for the treatment group than for the comparison group?**

##### 2. Perception of interactive reading

**Question 4.2: What is the treatment respondents' overall perception of interactive reading strategies in class?**

#### 4.4.1 Quantitative Results – Question 4.1: Can the use of in-class reading strategies foster greater use of strategies for the treatment group than for the comparison group?

Data Collection: Post-Test Reading Questionnaire (Reading Test Survey), Part I

In order to answer Research Question 4.1, data from the Reading Test Survey – Part I was used. An analysis of variance (ANOVA) was performed on the data to determine if the differences between the treatment and comparison groups were statistically significant (see Table 27 below). The Reading Test Survey – Part I is comprised of 25 questions that sought to determine how much participants used the corresponding strategies during the reading post-test.

Table 27

*Statistical Analysis of the Differences between Treatment and Comparison Group on each Question of the Reading Test Survey – Part I*

Variable	Treatment (n=21)		Comparison (n=19)		F value
	Mean	SD	Mean	SD	
<i>PART I "What did you do when reading the texts?"</i>					
Q.1 Reading every word	2.67	1.32	2.95	1.03	.56
Q.2 Making predictions	3.95	1.24	4.26	1.66	.45
Q.3 Picturing text situation/ideas in one's mind	3.48	1.40	3.58	1.43	.05
Q.4 Invoking prior knowledge (first text)	3.33	1.53	3.11	1.76	.19
Q.5 Underlining unknown vocab	1.71	1.06	1.37	.90	1.24
Q.6 Underlining key words	2.38	1.60	2.95	2.04	.97
Q.7 Underlining key information	2.38	1.69	2.72	1.90	.35
Q.8 Making notes in margin	1.38	.67	1.37	.76	.00
Q.9 Mapping of ideas	1.57	1.25	1.47	.84	.08
Q.10 Making an outline	1.33	.73	1.32	.82	.01
Q.11 Picturing text outline in one's mind	3.86	1.42	3.79	1.84	.02
Q.12 Skimming	4.43	1.75	4.32	1.60	.05
Q.13 Scanning	4.67	1.32	4.74	1.28	.03
Q.14 Skipping unknown words	4.71	1.23	4.63	1.38	.04
Q.15 Inferring meaning from context	3.81	1.60	4.63	1.34	3.06
Q.16 Finding word family/root	4.43	1.40	4.63	1.42	.21
Q.17 Finding text pattern	3.38	1.43	3.21	1.72	.12
Q.18 Finding the main idea	3.86	1.77	3.95	1.58	.03
Q.19 Distinguishing main idea from less important details	3.81	1.60	4.26	1.28	.96
Q.20 Reading whole text before answering test questions	2.14	1.31	1.63	.90	2.02
Q.21 Reading text and answering test questions at same time	4.14	1.91	4.95	1.27	2.42
Q.22 Checking own understanding while reading	2.57	1.36	2.84	1.34	.40

<i>Continued</i>					
Q.23 Reading back to understand	3.95	1.24	4.74	1.19	4.12
Q.24 Identifying connectors	3.10	1.58	3.00	1.37	.04
Q.25 Invoking prior knowledge (second text)	3.43	1.72	3.16	1.43	.30

According to the Analysis of Variance (ANOVA), the groups did not significantly differ on any of the questions.

#### **4.4.2 Results – Question 4.2:** *What is the treatment respondents' overall perception of interactive reading, in class?*

*Data Collection:* Participant Interviews

*Related Interview Questions:*

- Can you explain what “interactive reading” means?
- During your tutorials, you did some of the course readings together with the instructor and the other students: Did that approach help you understand/learn the content in ASTU201?
- You learned some reading and vocabulary strategies in your lab section. Do you think they were helpful to you?
- Are you using these strategies when you read other articles or other material?

In the series of interviews that followed the tutorials at the end of the term, the respondents from the treatment group (6 female and 1 male students) were asked questions to find out what was their overall perception of interactive reading and what were the main academic benefits they felt they had derived from that pedagogical approach.

First, a majority of respondents (5) were able to give short tentative, nevertheless personal definitions of interactive reading, which hinted at the usefulness of this approach. The students produced such definitions as “connecting a reading to another reading” (Yukie), “first time I read by myself, and after reading I discuss with somebody else” (Naoko), and “sometimes I read articles very passively, but interactive reading is read the materials and think about opinions, and it is true or not” (Mikiko).

More especially, interviewees from the treatment group had to answer questions about the use of interactive reading in class. Answering the interviewer's questions about the strategies taught in the treatment tutorials, three students from the treatment group – Yukie, Sanae, and Mikiko – cited those strategies as very important or helpful. Yukie and Mikiko said that they were using those strategies to read material in other classes. For Mikiko, the strategies were contributing positively to the development of her reading ability. Two more students, Aki and Takuya, were not as positive regarding the strategies used in class. Nevertheless, they were aware of the role of strategies in the reading process: for one, Takuya stated that he already knew and was already using those strategies when he read; in the same vein, Aki declared “I didn't feel the importance of the reading strategies because I already knew them” [and] “I think I use those strategies unconsciously”. Yet, Aki was among the group of six students who felt that interactive reading was helpful for their comprehension of the course content; it should also be noted that, in an earlier part of the interview, this particular student had reported the highest progress in reading for her group with 4 points out of 5 on the scale. Emi was the least enthusiastic respondent from the treatment

group when asked about strategies, as she reported no change in the way she read, adding “I don’t think I’m using those strategies”. As reported previously in the section about vocabulary improvement, Emi felt particularly overwhelmed by the volume of new vocabulary in the assigned readings. A classmate, Sanae, did not say anything specific about the strategies that were taught in the tutorials; she just commented in general about interactive reading, saying it had been very useful for her comprehension of the course content. As a matter of fact, all six female respondents from the treatment group reported that tutorial activities – which included interactive reading – had helped them understand course content, and more specifically, five said that reading articles in class had helped them in that regard.

#### *Summary – Strategies*

Recapping the main findings from this section, it can be stated that most interview respondents from the treatment group were aware of the importance of reading strategies, some in a general sense but others more specifically regarding their tutorials. The connection between interactive reading and the comprehension of course content showed very strongly. But it is difficult to know in this instance whether or not those participants actually made a clear distinction between a more general tutorial activity, namely “reading in class”, and “interactive reading” as such. It can always be argued that the type of reading done in class was precisely of the “interactive” type. The fact that many respondents were able to produce a definition of interactive reading might indicate, however, that most treatment participants were well aware of the recourse to strategies during the tutorials. Thus, the treatment respondents’ perception of accomplishments due to interactive reading or to the use of strategies was overall positive. In spite of this positive assessment, if one considers the results from the Reading Test Survey reported in Section 4.4.1, the treatment group did not show greater use of reading strategies at post-test time than the comparison group.

### **4.5 Research Question 5 (Helpfulness of tutorials)**

*5. Helpfulness of tutorials*

**1. Potential academic benefits**

**Question 5.1: What are the similarities and differences between the treatment group and comparison group tutorials in terms of their potential academic benefits?**

#### **4.5.1 Results – Question 5.1**

*Data Collection:* Participant Interviews

*Related Interview Questions:*

Did the tutorials help you with ASTU201, in general?

Did the tutorials help you understand the contents of course ASTU201?

Do you think that tutorial activities helped you for writing your essay or your mid-term exam?

In your tutorials, is there anything different you would have liked to do?

Knowing in what ways the tutorials were helpful for the participants represented an important aspect of this research, as the main goal of the tutorials was the overall academic advancement of the

students. The influence of the tutorials on progress in reading comprehension and vocabulary acquisition was already discussed in previous sections, as well as the specific impact of the treatment tutorial on reading strategy use. Here, the emphasis will be placed on other response elements such as help with content, assignments and exams, and other possible considerations brought about by the interview respondents on the topic of academic benefits that they derived from the tutorials. The previous section already included some elements of response from the treatment group. The aim of the present section is to compare findings from both the comparison and the treatment groups.

When asked to express their views on their learning experience in their tutorials, a majority of comparison respondents (4) stated that, generally speaking, their tutorials were helpful. One student specified that the class discussions had been helpful, and another one mentioned that, because of the small tutorial sessions, it was easier to ask questions than during the main seminars. Three comparison students also thought that their tutorials had actually helped them with course content. Comparatively, in the treatment group, the six female respondents reported that their tutorials had helped them with content. More specifically, five of those treatment respondents said that reading articles in class had helped them with content, an aspect on which comparison respondents could not comment on, as they had not read in class.

Three respondents from the comparison group told the interviewer that tutorials had been helpful for their mid-term exam and their final essay, and the figure was the same for the treatment group. This kind of academic help was more direct in the comparison group, as reported by Yachiyo in the following excerpt from the interviews.

**Interviewer:** Do you think the tutorials helped you with your mid-term exam and your main essay?

**Yachiyo:** I remember she [the comparison group TA] helped the essay very much, she lecture about how to write essay.

The use of time in the tutorials seemed to have been a concern for a number of respondents in each group. At the same time, respondents made a few suggestions to improve the tutorials. One comparison student argued that the approach based on class discussion of content was a waste of time. Three respondents from the treatment group and one from the comparison group stated that they would have enjoyed more discussion time. One interviewee from each group felt that what could be achieved in the tutorials was rather limited due to a lack of time. In the comparison group, one student said that help should have been offered with the reading material to clarify course content, another participant thought that more support should have been offered to help students prepare for exams, and one more respondent



suggested the need for more oral presentations – especially based on course articles – in class. Three respondents from the comparison group and only one respondent from the treatment group suggested that more time should have been spent by the TA summarizing the content of the main lectures (and/or the content of course readings) for the students' benefit, an indication that perhaps students in the comparison group might have had stronger Confucian leanings (see transcript excerpt below). Yet, two comparison participants mentioned that clear explanations and content summarizing by their TA had been helpful. Four participants in total – two in each group – agreed that too much time was spent for the present research in class.

**Interviewer:** How would you improve the tutorials?

**Hideo:** In the other class [ASTU202], the TA is summarizing the lectures, so that class is very helpful for us [...] Teachers should teach subjects!"

A respondent from the treatment group was the only interview participant to express the opinion that the treatment tutorials had been mostly helpful for their motivational role. It should be noted that since no direct question concerning motivation was asked, this participant volunteered this opinion. As a matter of fact, all interview questions remained fairly open in order to let the respondents express their views as freely as possible. The drawback of this approach is that participants might not have been able to think about and underline interesting aspects concerning motivation – or other topics – because of the lack of an appropriate prompt. A different picture of the tutorial situation might have emerged if direct questions about motivation had been asked.

#### *Summary – Helpfulness of tutorials*

From this discussion on tutorials, it would seem that the treatment and comparison respondents did not perceive the helpfulness of their respective tutorials in exactly the same way or to the same extent. On the whole, the tutorials were perceived by treatment respondents as more helpful for understanding the content than by comparison respondents. Reading assigned articles in class might have contributed to that perception in the treatment respondents. An equal number of respondents in each group expressed the opinion that the usefulness of the comparison tutorials also laid in the preparation of students for their mid-term exam, their class presentation, and their final essay. Some students in the treatment group thought that there should have been more time spent discussing course content, and some respondents from the comparison group would have liked the teacher to produce more summaries of content and course articles. In conclusion, interviewees from the treatment and comparison groups gave a relatively positive appraisal of their learning experience in their respective tutorials. Given the fact that a strong majority of respondents from the treatment group thought that their tutorials helped them deal with course

content, it would seem that the treatment participants held slightly more favorable views than their counterparts.

#### 4.6 Research Question 6

<b>6. Interest and Motivation</b>
<b>1. Interest in course required readings</b>
<i>Question 6.1: Can the use of in-class reading strategies results in a greater interest in required readings for the treatment group than for the comparison group?</i>
<b>2. Course content motivation</b>
<i>Question 6.2: Can the respondents' topical motivation (motivation by course content) be used as a factor to explain the results?</i>

##### 4.6.1 Results – Question 6.1: Can the use of in-class reading strategies results in a greater interest in required readings for the treatment group than for the comparison group?

Data Collection: Course Pack Reading Survey

Data from the Course Pack Reading Survey (Parts II, III, and IV) were used to answer this question. Two sets of data were analyzed. A first set of data was included in Part II and Part III of the questionnaire. Variables such as the reading volume, the purpose for reading, the perceived degree of overall text difficulty, interest, and helpfulness, as well as the perceived level of personal effort in reading the assigned articles, were analyzed to determine whether or not one of the groups showed more interest or motivation for reading the package of assigned readings. Table 28 represents this first set of data as examined through an analysis of variance (ANOVA).

Table 28

*Statistical Analysis of the Differences between Treatment and Comparison Group on each Question of the Course Pack Reading Survey (Part II and Part III)*

Variable	Treatment (n=14)		Comparison (n=11)		F value
	Mean	SD	Mean	SD	
PART II					
Quest1 Reading volume (pages)	2.71	1.07	2.18	.874	1.79
Quest2 Reading volume (whole articles)	2.71	1.14	2.18	.874	1.64
Quest3 Reading volume (part articles)	2.71	1.27	2.64	1.21	.02
Quest4 Reading for exams	3.57	1.34	2.36	1.86	3.57
Quest 5 Reading for paper	3.71	1.38	2.27	1.74	5.35*
Quest 6 Reading for class	2.21	1.58	1.64	1.21	1.01
Part III					
Quest1 Level of difficulty	4.00	1.30	2.73	.91	7.6*
Quest2 Level of interest	2.36	1.34	2.55	1.44	.11
Quest3 Level of helpfulness	3.14	.77	2.64	1.29	1.50
Quest4 Level of personal effort	3.36	1.51	2.18	1.08	6.78*

\* $p < .05$

The difference between the two groups for Question 5 of Part II, and Question 1 and Question 4 of Part III was statistically different.

## Part II

**Quest5:** The treatment group reported reading the course pack to prepare for term paper more ( $M = 3.71$ ,  $SD = 1.38$ ) than did the comparison group ( $M = 2.27$ ,  $SD = 1.74$ ). This difference was significant,  $F(1,23) = 5.35$ ,  $p = .03$ .

## Part III

**Quest1:** The treatment group reported that the course pack level of difficulty was high, more ( $M = 4.00$ ,  $SD = 1.30$ ) than did the comparison group ( $M = 2.73$ ,  $SD = .91$ ). This difference was significant,  $F(1,23) = 7.60$ ,  $p = .01$ .

## Part III

**Quest4:** The treatment group put more personal effort ( $M = 3.36$ ,  $SD = 1.51$ ) in reading the course pack than did the comparison group ( $M = 2.18$ ,  $SD = 1.08$ ). This difference was significant,  $F(1,23) = 6.78$ ,  $p = .02$ .

According to those results, the treatment group did put more effort in reading the assigned articles, especially when they had to prepare for their term paper. This greater effort might also be explained by the perceived degree of difficulty of the required readings, as respondents from the treatment group thought those readings were more difficult than the respondents from the comparison group. The groups did not significantly differ on the other questions.

A second set of results was used to answer Research Question 6.1. In Part IV of the Survey, participants from each group were asked to rank each of the 14 articles from the Course Pack of required readings in terms of its level of interest, on a scale 0 "not interesting at all" to 5 "extremely interesting". Participants were also able to indicate whether or not they had read a particular article. For each article, an average was calculated, allowing comparisons between groups. From the calculated averages, it was discovered that respondents from the treatment group found 70% of the articles – i.e., 10 out of 14 articles – more interesting than did the respondents from the comparison group. I also calculated the number of times each value – 0 to 5, or "not read" – was reported by participants. The number of times each value was chosen by a particular group was then compared to the overall number of choices made by that group when answering the survey (196 choices by treatment, and 154 choices by comparison respondents) in order to establish a percentage. Hence, the highest values – 4 and 5 – were reported 35% of the time (69 choices out of a total of 196) by treatment respondents versus 22% of the time (34 choices out of 154) by comparison respondents, while the lowest values – 0, 1, and 2 – were reported 26% of the time (50 choices out of 196) by treatment respondents versus 30% of the time (46 choices out of 154) by comparison respondents. The middle value – 3 – was reported in roughly equal proportions by both

groups, i.e., 15% of the time (29 choices out of 196) and 14% of the time (21 choices out of 154) by treatment and comparison respondents respectively. Furthermore, treatment respondents indicated 19% of the time (37 choices out of 196) that they had not read articles versus 32% of the time (50 choices out of 154) for comparison respondents. It should be noted that not all participants in the study answered the Course Pack Survey (treatment  $n = 14$ ; comparison  $n = 11$ ).

**4.6.2 Results – Question 6.2:** *Can the respondents' topical motivation (motivation by course content) be used as a factor to explain the results?*

*Data Collection:* Participant Interviews

*Related Interview Questions:*

Did you learn anything new or interesting in ASTU 201?

How was the course ASTU 201?

Interview respondents from both treatment and comparison groups were asked questions to find out whether they were interested in the content of course ASTU 201, in order to determine if the respondents' topical motivation could be used as a factor to explain the research results. When asked, "Did you learn anything new or interesting in ASTU201?", respondents from both groups who expressed interest in the course content highlighted various cultural aspects they were interested in. These aspects were not only seen by the respondents as academic topics but also considered as a reality that was somehow linked to their life experiences.

For instance, in the comparison group, Masaru reported being interested in education and in learning styles, while Kazuto, showed interest in cultural differences, also emphasizing the "learning style" aspect. Ichiro expressed the view that the course discussed "cultural things that connected to my life". In the treatment group, not unlike Masaru and Kazuto from the comparison group, Sanae commented that she had discovered the differences in learning styles between Canada and Japan. For Yukie, discovering the multicultural character of Vancouver helped her deepen her interest in culture, which in turn encouraged her to read about course topics. Perhaps because of the comparison with other cultures which the course – and overall context – provided, Aki noted that the course content had helped her develop a clearer sense of her own self (see transcript excerpt below). Mikiko revealed that she had studied about Confucianism in Japan but that she had been able to learn more interesting aspects through the course. Finally, Naoko was the only respondent from either group to explicitly report as a benefit the fact that she had been encouraged to think critically as part of the course.

**Interviewer:** How was that course, ASTU 201?

**Aki:** It's very interesting, it was boring at the first time, because I thought it was general things, so I think it was not important for me [...] but according to the classes, I felt it was interesting because I didn't notice myself in Japan or in Canada, so... In Canada, I recognized myself much more than myself in Japan, but in 201 lecture, I recognized more and more.

In all, three comparison respondents and five treatment respondents showed various degrees of interest in the main subject matter of ASTU201, which might be taken as an indication that they felt motivated – to some extent – by the course content. With considerations about their developing of “self-recognition” and of “critical thinking” through the course, treatment group respondents possibly gave their responses a little more personal depth than those of the comparison group interviewees.

Critics about ASTU201 from comparison participants sounded particularly harsh with responses such as “the course made students to have stereotypes” (Yachiyo and Yumi), “the course made me uncomfortable” (Yumi), and “the course was a waste of time” (Hideo) to describe its content or its discussion-based approach. Hideo also mentioned that it was difficult for him to learn about other cultures and give a personal opinion, especially on test questions.

In the treatment group, one participant (Emi) was also critical of the course style based on discussions, while another (Takuya) just could not find anything positive in terms of personal interest in the course content or anything helpful about ASTU201. As reported in Section 4.2 about progress in reading comprehension, Takuya made clear that for him topical motivation was the most important aspect to consider when reading.

#### *Summary – Interest/Motivation*

In Section 4.6, statistically significant results have showed that respondents from the treatment group put more effort in reading the course pack of assigned articles throughout the term than comparison counterparts, especially when preparing for their final essay. It was also established that Course Pack Survey respondents from the treatment group found more articles more interesting than comparison respondents and that they reported having not read particular articles much less often than their counterparts. In interviews, treatment respondents gave a more positive account of the course content (their critics of content also sounding less harsh) and provided deeper personal connections to explain their interest than the comparison interviewees. However, this should be taken only as a general indication, considering the small proportion of respondents involved for each group. The actual difference in motivational outlook between the two groups might have been minimal, thus attenuating the possible effect of topical motivation as a factor to explain the results.

## **4.7 Synthesis of Results**

### **4.7.1 Findings related to Question 1 (Reader Profile)**

A pre-intervention reading profile of the participants was drawn in order to establish key features of the participants as readers and eventually determine whether or not differences existed between the groups at the outset of the study. These features and differences were thought in terms of their potential to shed light onto the final results of the study.

This profile of the participants revealed a number of pertinent aspects. First, a majority of participants in both groups reported on the Self-Assessment Reading Survey that they liked reading in

English, some citing the acquisition of knowledge as a key reason but others also referring to topical motivation as a condition for enjoying reading. Responses on the same survey indicated that the participants held a balanced view of what proficient reading should be by equally emphasizing the need for reading practice, the need to use strategies while reading, and the need to develop a large vocabulary.

Despite this positive outlook on L2 reading, the results on a set of pre-tests (IELTS Academic Reading Module and Vocabulary Levels Test-B) suggested that, if all participants in the study were at a relatively similar level in terms of reading comprehension and vocabulary level, this pre-intervention linguistic level did not allow them to meet the minimum text coverage necessary to read academic texts independently, thus justifying the need for some form of instructional aid.

In particular, the problem with vocabulary was reflected by statements made by participants on the Self-Assessment Reading Survey: in those statements, vocabulary-related reasons for not liking L2 reading were emphasized, and the importance of building a solid vocabulary – including the use of vocabulary-related strategies – as a way of becoming a good reader was also highlighted (as stated previously). Thus, all participants were clearly aware of the fact that they had a deficient vocabulary at the beginning of the study. This concern with vocabulary is in line with Laufer and Sim's (1985) identification of vocabulary as the most pressing need of foreign language learners in general.

Finally, there were a series of results concerning reading strategies. As it was stated previously, while-reading strategies were identified as an important component of proficient reading by the participants. Other results, from the Self-Assessment of Reading Strategies, revealed that a majority of participants were well aware of a number of strategies (such as "invoking prior knowledge", "making predictions", "finding the main idea", and "guessing vocabulary") and that they probably made use of strategies to various degrees. An area of weakness for respondents from both treatment and comparison groups appeared to be the related strategies of "summarizing" and "making an outline". This might be explained by the fact that Japanese students often tend to rely on their teachers to provide such summaries or outlines of course readings, in part because of the Confucian-type transmission of knowledge favoured in the Japanese educational system. Always regarding strategies, the most striking difference at the start of the study between the comparison and treatment groups was found in social strategies. Indeed, from the survey, it is clear that more treatment group participants reported using such strategies much more often than their comparison counterparts.

Thus, besides a better acquaintance with social strategies among treatment group participants, the participants in the study shared the same characteristics in terms of interest in L2 reading, linguistic level, conception of fluent L2 reading, and reported strategy use, at the beginning of the study. This homogeneity in profile results might be explained by the very own homogeneity of the participants' background and L2 experience, as it was previously explained in related sections of Chapters 2 and 3. In a nutshell, all participant readers shared a rather positive interest in L2 reading, held a reasonably good conception of what the L2 reading process actually entailed, including the use of strategies. They were

also at the instructional level and below the linguistic threshold but well aware of their deficiencies, especially in terms of vocabulary.

#### **4.7.2 Findings related to Question 2 and Question 3 (Reading and Vocabulary Development)**

Aspects related to reading comprehension (Research Question 2) and vocabulary acquisition (Question 3) will be covered together under this section, as a number of considerations apply to both.

At the end of the academic term, post-intervention measures of reading comprehension (IELTS Academic Reading Module) and of receptive vocabulary knowledge (Vocabulary Levels Test-B) were administered. The post-intervention results were compared with the pre-intervention results on the same measuring instruments for both treatment and comparison groups. According to the statistical treatment of all pre- and post- test results (ANCOVA), a pedagogical approach based on interactive reading offered no significant advantage to the study participants. In this study, students who took part in a weekly interactive reading tutorial did not perform better than students attending a discussion-based tutorial on those quantitative measures of reading comprehension and receptive vocabulary. In the case of the VLT-B, this was true for each of the word levels. It should be specified that the test results achieved by the comparison group still placed that group on par with the treatment group. As a result, at the end of the intervention, participants in both groups still did not meet the linguistic requirements to be able to read academic texts independently.

If the vocabulary and reading measures did not yield any statistically significant progress, participant interviews conducted at the end of the academic term indicated that, at the perception level, respondents from both groups felt that they had grown more positive towards L2 reading and that they had made progress in reading and vocabulary. Both the importance of being immersed in an English-speaking environment (including extra-curricular activities and social encounters) and the important volume of academic reading were more particularly invoked by each group to explain this perception. It should be noted that interview responses showed that comparison respondents had a stronger positive perception of progress in vocabulary than the treatment respondents. This might be attributed to the fact that treatment respondents' statements included direct references to factors susceptible to affect reading motivation, such as text readability and text interest; comparison participants did not volunteer such statements.

#### **4.7.3 Findings related to Question 4 (Use of Strategies and Interactive Reading) and Question 5 (Helpfulness of Tutorials)**

Statistical treatment on strategy-related questions included in the Post-test Reading Survey showed that the treatment and comparison groups did not significantly differ in terms of strategy use during the reading comprehension test, which might mean that the treatment had very limited significant impact in terms of stimulating strategy use.

In the interviews, however, a majority of treatment respondents linked interactive reading activities done in the tutorials and the comprehension of course content. As the emphasis in the treatment

group was placed on reading assigned articles in class, the comprehension of those readings was more closely tied up to the comprehension of course content in that group than in the comparison group.

Fewer respondents from the comparison group stated that their discussion-based tutorials had been helpful with course content, and the same number than in the treatment group said that their tutorials provided academic preparation for tests, class presentations, and essays. Many treatment respondents were able to produce a personal definition of interactive reading, which indicates that they had an awareness of strategy use during the tutorials. Still, from the interview results, it was not possible to determine with complete accuracy if treatment respondents actually distinguished between a general pedagogical activity such as “reading in class” and a more specific activity such as “interactive reading”. A majority of interview respondents in both groups produced an overall positive appraisal of their learning experience in their respective tutorials.

In-class tutorial activities were not given much weight in terms of their role for directly improving vocabulary in either one of the groups. In particular, no one among treatment respondents volunteered a direct link between interactive reading and progress in vocabulary.

#### **4.7.4 Findings related to Question 6 (Interest in Course Readings and Topical Motivation)**

Replies to the Course Pack Reading Survey, administered at the end of term, indicated that respondents from the treatment group reported higher interest in the assigned readings than their counterparts from the comparison group. Treatment respondents also reported much less often that they had not read articles. Furthermore, the statistical treatment (ANOVA), performed on a different set of questions from the same measure, indicated that the respondents from the treatment group put more effort in reading the course assigned texts than the respondents from the comparison group, especially when preparing for their term papers. This might be due to the fact that the respondents from the treatment group also thought that those readings were more difficult than their counterparts did, and hence possibly required more effort.

From the participant interviews, the pattern of topical motivation – or interest in the course content – seemed stronger in the treatment group. The treatment respondents gave more positive accounts of the course content, displayed a greater range of reasons for being interested in course content and also deeper personal connections, and sounded less harsh than their counterparts in their critics of the course.



## CHAPTER 5: DISCUSSION

Reading is central to academic endeavors. With the continuous influx of international students into English-speaking universities throughout North America, interest in second-language reading, at the academic level in particular, has grown significantly in recent years.

Institutions of higher learning seem to hold certain expectations for the newly arrived ESL students in terms of linguistic and, especially, reading abilities. It is assumed that since those students were accepted on the basis of admission tests, they will be automatically capable of dealing with expository texts in a manner that is both efficient and satisfactory – if not immediately upon admission, at the very least in a matter of a few weeks or months. However, “the development of fluent reading abilities by L2 students is a challenging undertaking” (Carrell & Grabe, 2002), and deserves a close monitoring and analysis on the part of international programs stakeholders who take their ESL students’ academic progress at heart.

This research was conducted in an effort to examine and reflect upon the development of fluent reading abilities among a group of college-age students from Japan, in an English for Academic Purposes (EAP) context. In Chapter 2 of this thesis, reading was defined as a highly complex, interactive process. The current research has focused on a pedagogical approach based on a form of interactive reading that emphasizes the in-class use of metacognitive, cognitive, social, and motivational strategies and their probable effects on reading comprehension, receptive vocabulary acquisition, use of strategies, and reading motivation. Here is a review and discussion of the main results. As a useful reminder, it should be reiterated that the participants in this study were divided into a treatment group and a comparison group.

### 5.1 Summary of Findings

It was established, before the pedagogical intervention started, that a majority of the participants liked to read in English and that respondents from both groups demonstrated a good declarative knowledge of reading strategies and were aware of their importance. However, the pre-intervention results on the IELTS Reading Academic Module and on the Vocabulary Levels Test showed that the participants in this study did not match the required linguistic level to be able to read expository texts independently at the beginning of the study. Prior to the intervention, vocabulary was, in fact, a major point of concern for all participants involved: not only did the results on the vocabulary pre-test show that participants had not reached the necessary lexical threshold to be able to read academic texts independently, questionnaire respondents who answered that they did not like reading in English invoked vocabulary-related difficulties and it was also clear from students’ responses that building up one’s vocabulary constituted a crucial characteristic of “the good reader”.

At the end of the pedagogical intervention, no statistically significant differences were found between the treatment and comparison groups in terms of their performance on the reading comprehension and vocabulary pre- and post-tests, which means that the participants in the study had still

not reached the necessary linguistic level for independent reading. At the perceptive level, however, a majority of participants from both groups felt that their reading comprehension and vocabulary had improved over the term, primarily attributing this to their immersion in an English-speaking environment and to the amount of content reading which they were required to do for their courses. It should be noticed that the treatment group reported less improvement in vocabulary than the comparison group, probably because the concern with "difficult vocabulary" was greater in the former than in the latter.

Despite the fact that treatment participants covered course content using an approach based on interactive reading, they did not necessarily show statistically significant greater use of reading strategies than comparison participants when taking the reading post-test. This being said, interview respondents from the treatment group gave a positive evaluation for the use of interactive reading, especially emphasizing its helpfulness with the course content. Comparison respondents did not report the same level of helpfulness in terms of course content when discussing their own tutorials.

Finally, treatment respondents put significantly more effort and showed more interest overall than comparison respondents in the reading of the assigned articles, and also demonstrated a deeper interest in course content.

Thus, the following can be concluded from the results. Although students in the treatment group reported an initial interest in L2 reading and a good comprehension of what proficient reading entails, progress in reading comprehension and vocabulary, the usefulness of interactive reading for the comprehension of course content, as well as more interest in course readings than their comparison counterparts, the quantitative measures showed no statistically significant differences between the groups. Effects of interactive reading on reading comprehension and receptive vocabulary development were inconclusive. How can this be explained? Possible answers to explain the lack of conclusive results regarding quantitative progress in reading and vocabulary will be discussed in the next section.

## **5.2 Discussion**

### **5.2.1 Linguistic Challenge**

From the results on the vocabulary and reading tests, it is clear that a discrepancy existed between what the participants in the study were actually able to achieve in terms of academic reading and the expectations linked to the academic context, in terms of reading difficult expository texts, reading to understand and deepen one's comprehension of course content, getting ideas for essays and examinations, among others. In particular, the vocabulary levels achieved by the participants were clearly insufficient for them to be able to read academic material independently. Furthermore, if we suppose that, for at least some participants, their past experience in L2 reading had been rather meager, lower-level processing skills might have been lacking in automaticity. Even if instructional help was offered in the tutorials, it could not possibly compensate for the lack of vocabulary or deficiencies in lower-level processing skills, especially not over such a short period of time and especially not considering the fact that the tutorials were focused on the course content and not directly on vocabulary-building or on reading fluency for that

matter. The participants were expected to read to deepen their understanding of course content, but the difficulties they probably experienced in independent reading might have led to frustrations – so, a motivational component has to be taken into account here – and most likely to less reading or even to an over-emphasis on expeditious reading strategies such as skimming. Although skimming can be used with discernment according to circumstances, an over-emphasis on that strategy is not necessarily conducive to studious reading or thorough comprehension (Alderson, 2000; Urquhart & Weir, 1998). Moreover, it cannot be assumed that the participants understood all of the main content (through in-class discussions with the students, it was clear that some of the content remained somewhat difficult to understand for quite-a-few of them). Indeed, in terms of “prior knowledge”, some students might have felt that they did not understand the content enough to spend time or energy reading the assigned reading in a careful manner.

Because of inefficient word recognition skills – or lack of reading fluency – the participants in the study probably experienced a “cognitive overload”. Alderson (2000) comments about the “cognitive overload” in L2 readers:

“Lower-level processes are not automatised to the same extent as they are in the native language and thus consume resources needed for higher-level processes such as linking propositions, making inferences, resolving ambiguities and integrating new information with existing knowledge.” (p. 58)

According to Koda (1994), “Studies of bilingual processing, as a case in point, confirm that inefficient word recognition reduces L2 reading performance among otherwise fluent bilinguals”(p. 16). Thus, as a result of that cognitive overload, the participants might not have been able to use top-down processing (higher-level processes) efficiently, even though they were encouraged to use a variety of such strategies in the treatment tutorials. Moreover, the density of unknown words in most course readings was also probably too high to allow incidental vocabulary learning through inferencing or “guessing the meaning by the use of context”(Liu & Nation, 1985; Nation, 2001). In all likelihood, most of the material was felt as very challenging, even though, for in-class reading with the treatment group, care was taken to make short selections that were representative of the course main content and hopefully within students’ reach with instructional assistance. A sample extract from the course readings can be found in Appendix I.

From the lack of progress revealed by the reading comprehension pre- and post-tests and, in particular, the lack of vocabulary progress indicated by the vocabulary pre- and post-tests, it seems that participants in the study might not have had the necessary exposure to words over the term, not only in the tutorials and the related course, ASTU201, but also in other courses, despite what were probably great efforts on their part to tackle academic articles (interviews revealed that genuine efforts were made). As it was demonstrated in Chapter 2, securing the number of necessary repetitions of a same word for its acquisition would require an amount of reading that is hardly possible or even realistic in most institutional L2 reading contexts, due to high expectations that do not match the usual time, instructional,

and curricular constraints. The selection (14 academic articles on content-related themes), volume (110 pages), and level of difficulty (definitely geared towards fluent readers) of the course readings probably made those readings look inaccessible to L2 students. On top of the reading for ASTU201, more had to be done in five other courses over the term, compounding the actual difficulty or the perception.

Despite the linguistic challenge and an absence of significant results on the reading and vocabulary tests, it is nevertheless encouraging to notice that participants in both groups felt that they had made progress. The participants might have learned an appreciable amount of oral vocabulary due to the larger socio-cultural context, especially some slang and idiomatic expressions, and acquired more ease when using (sometimes already known) words and expressions associated with language functions or social situations. Thus, the perception of progress that the participants reported is in all likelihood legitimate but might be more significantly related to the oral language than to vocabulary used in academic texts. (In any case, it is unlikely that the reported progress be due to the intervention.) The VLT might not necessarily reflect progress in the use of oral idioms and other conversational expressions, hence the lack of apparent progress on the post-test. According to Koda's (1994) report on L1 reading studies, improved oral proficiency will not automatically lead to better word processing efficiency (word recognition).

Moreover, it is possible that the amount of reading done once a week in class with the treatment group was felt as being minimal and as adding very little in terms of influence when compared to the extremely large volume of reading assigned to the students not only by ASTU 201 but also by other courses in their program of study. Unaccustomed to such volume of L2 reading, especially of the academic kind, participants from both treatment and comparison groups most probably felt that being projected by the circumstances into such a print-rich context forced them to read and improve their reading. So, academic reading also became an aspect of the participants' daily environment, stated in the interviews as an important factor of progress. As Kazuto reported: "...about reading skills, we always see English newspapers and English books, so it became more natural, it's our daily life, so it's helped us."

### **5.2.2 Institutional and Pedagogical Challenge**

As the old saying goes: "time is of the essence", and it could not be truer than within the parameters of this research. It has been established already that progress in L2 reading comprehension and incremental improvements in L2 vocabulary take an amount of time that very few academic programs can make allowance for, whatever the pedagogical approach in use. It is also and particularly true of strategy training, as echoed by Farrell's (2001) "It takes time!", an article on strategy instruction. In particular, expectations concerning international curricula, such as the Academic Exchange Program (AEP), run high but are often unrealistic considering time constraints and the "saturated nature of the college curriculum itself" (Moser, 2001, p. 5). This tendency appears to be prevalent throughout higher education:

One problem we face as a discipline stems from broader misunderstanding entrenched both in higher education and in the general population: unrealistic expectations about the complexity and speed

with which one can acquire a foreign language. This leads to the misconception, even in well-intentioned discussions of internationalizing the curriculum, that making room for two to four semesters of a foreign language should be sufficient to allow students to use the language in work settings or, conversely, that language courses themselves are at fault if students do not emerge 'fluent' after two years. (Moser, 2001, p. 5)

Fostering the development of strategy use in L2 readers is important as reading is strategic in nature and as readers must learn or must be led to use strategies at the right place, at the right time, and in the right manner. Fluent readers do not only use strategies, above all they can orchestrate an array of strategies to suit their reading purpose in an efficient manner (Ellis, 1994). The efficient use of strategies is an extremely complex element to observe, measure or model. The reading guides used in the treatment tutorials promoted the use of an array of strategies as a general indication of the resources available to L2 readers. Achieving the right dosage between a systematic approach and a more intuitive one in strategy training appears to be a tough balancing act (Kidd Villaume and Greene Brabham, 2002). Furthermore, there is a very short maintenance of strategic behaviour over time. To some degree, according to interview reports, the pedagogical approach seemed to have produced its benefits among treatment participants, in terms of learning about course content especially (at the very least at the level of perceptions), but it remains difficult to know if and how the participants' reading comprehension actually changed and what really changed in their reading.

Mostly due to time constraints and to the emphasis on course content, systematic strategy training did not occur to the extent that was envisioned in the preparation phase of the pedagogical approach for the treatment group. Participants in the treatment groups were told about the strategies, their importance, their usefulness as problem-solving operations, and they were invited to use them with the help of reading guides in class. Those students were also encouraged to read more and to make use of strategies in their individual reading. However, it became clear that the step-by-step, systematic, and explicit approach to strategies – as reported, among others, by Farrell (2001) and by O'Malley and Chamot (1990) – could be effected in the treatment tutorials, but only to a certain extent. The follow-up from one week to the next was especially difficult to do, as the tutorials also had to move along the main seminars in terms of content presentation. Thus, implementing an approach in line with research findings proved to be a challenge.

Now, if we compare the treatment and comparison groups, it is possible that the two did not differ enough in terms of the pedagogical approach. For instance, students in the treatment group participated in discussion activities around course content in most of the weekly tutorials, as did their counterparts from the comparison group. As the TA, I also had to respond and adapt to the learning situation, and I also had to accommodate participants' questions and requests, which sometimes would reduce the time that I had scheduled for interactive reading activities. And if we add the time that was spent, especially at the beginning of the term, on the administration of the pre-tests, this took away from time that could have

been allocated for reading activities. On the one hand, it is reasonable to think that some of the outcomes for this research might have been different if more time could have been devoted to explicit strategy work and to actual reading activities. On the other hand, it is important not to lose sight of the fact that answering students' questions and discussion time were often integrated to interactive reading activities.

At times, the participants in the treatment group did not always respond proactively to in-class reading (from my own point of view and conception of the ideal interactive classroom, as the TA for the treatment group), raising a legitimate question about the feasibility and effect of the treatment approach. Indeed, within the idea of a pedagogical challenge, the interaction between the participants' learning style (Confucian tendencies) and the instructor's teaching style (Socratic tendencies) had to be taken into account.

Finally, it might be argued that, as the participants' level was so obviously below the required linguistic threshold for independent reading, more time should perhaps have been spent on vocabulary work in the course of the study. Because vocabulary is such a key contributing factor to reading comprehension, it would have been interesting to see how results would have changed if the pedagogical intervention in the treatment group had included more "word-noticing" activities, as suggested by Zaki and Ellis (1999), or "word-focused" activities as proposed by Laufer (2003). During the pedagogical treatment, if some key words were focused upon during instruction and if the students' attention was directed to some lexical items closely related to the concepts being studied in the main seminars, this approach was not systematic nor widespread, as it was established that the tutorial would not be a vocabulary course and should remain focused on content. Balancing content area and actual reading instruction – including vocabulary – constituted yet another pedagogical challenge.

### **5.2.3 Socio-cultural Challenge**

Interview reports have clearly established the fact that the perception of L2 reading held by participants had evolved positively throughout their academic experience, despite the influence from the participant's original context on the way most of them approached L2 reading.

Without downplaying this general positive perception, it would have been quite unrealistic to expect a significantly reduced influence from the same original context, even though the participants in the study had been in Canada for four months already at the beginning the current research, in January 2002.

For Japanese participants in this study, actually being able to bridge the gap between the L2 reading culture they were used to and trained into in Japan (see Chapter 2 to review the main discussion), and the English for Academic Purposes (EAP) reading culture, with its own set of distinctive features, might have represented an extremely difficult challenge.

Since the start of their EFL schooling in Japan a few years ago, participants in the study might have developed enduring beliefs, attitudes, and expectations about the English language in general, but more particularly about the way L2 reading should be performed, about their own ability to read in a second language, and about the relevance of L2 reading to their Academic Program and even to their

future. If this were the case, it would be too simplistic to assume that a relatively short series of tutorials could change the foundations of young college students' beliefs and attitudes (or habits) towards L2 reading in the long term, even though the pedagogical intervention in the treatment group drew favorable interview comments concerning the helpfulness for course content of interacting with text in class. The force of habits, determined by a certain cultural membership and educational training, might have clashed with the approach used as part of this research, leading to a degree of resistance or misunderstanding likely to affect motivation. For instance, learning to read in L2 using the *yakudoku* (grammar-translation) approach might have had a demobilizing effect on some of the participants regarding L2 reading over the years. If positive reading experiences bring positive outcomes, negative experiences bring more negative ones. Undoubtedly, the challenge of getting acculturated into a new way of reading requires much more reading time and practice, despite the best intentions.

In the treatment group, one part of the motivational approach addressed the intrinsic, and another part the extrinsic. In order to cater to the intrinsic aspect, the pedagogical approach aimed at developing in readers the self-satisfaction of becoming better readers through challenge and subsequent sense of accomplishment, and to develop in readers the notion of task persistence. When catering to the extrinsic aspect, it was emphasized that reading English fluently becomes an important tool to acquire knowledge with (i.e., professional and technical) and that it would be useful for the participants' future career in an increasingly globalizing world. The use of intrinsically motivating techniques by the TA in the treatment group might have been somewhat attenuated by the general context. As it was suggested in Chapter 2, "extrinsic motivators" are strongly emphasized in Japanese schooling: the educational system revolves around a series of entrance examinations, which glorifies the acquisition of content and all-out competitiveness, from a very early age. Because there was no mark attached to the tutorials per se (although the tutorials were meant to help students understand the main course content better, which might have helped some students achieve better marks in the course), the context of the research (or tutorials) itself could be said to be "low" on extrinsic motivation, whereas Japanese students are used to a "higher" extrinsic context. Consequences of relying too heavily on extrinsic motivators can yield negative effects: "The consequence of such extrinsic motivators is that schools all too often teach students to play the 'game' of pleasing teachers and authorities rather than developing an internalized thirst for knowledge and experience" (Brown, 2001, p. 78). Despite these drawbacks, marks and exams seem to be necessary motivational factors for some students, even at the university level. Thus, it might seem that an important motivational factor was lacking from the study. It could very well be that Japanese students are too used to expect such motivational – extrinsic – factors and that their absence might mean for those students that the task at hand is not important. Furthermore, some participants, feeling perhaps confused by the fact that they were part of a research project (and even though they had agreed to participate), might have decided that there was nothing in "this" for them, but just for the researcher. Then, for a variety of reasons, it might have become hard or even unnecessary for a number of students to generate their own

motivation to read more or improve their reading during the term. Beyond those suppositions about some of the limitative aspects of the participants' EFL reading culture, it is also possible to assume that the pedagogical approach used in this study – also meant to stimulate intrinsic motivation among participants for reading – played its part in boosting, in some students, feelings of competence in reading, even in the absence of extrinsic motivation, simply because the great majority of participants reported progress.

A final point about the socio-cultural challenge concerns the importance of experience and encounters for young people on an exchange program abroad. As emphasized in interview comments by a number of participants, it might have been a general trait or tendency of the students in the AEP to feel that their new, extra-curricular, second-language social context was more conducive to reading and, more especially, vocabulary progress than their more immediate academic context. Due to the nature of the AEP and to its relatively short duration, participants in the program might have had as a priority to develop and diversify social experiences and encounters that were different from the school context. It cannot be excluded that the students' perceptions of their progress in reading or vocabulary over the term, as expressed in the interviews, might simply have been a function of how positive an experience the tutorial, the course, the program or even their life in Canada as a whole represented for them.

### **5.3 Limitations of the Study**

The limitations to this study can be divided into contextual and motivational aspects.

If the research had been conducted over a longer period of time, the participants' reading and vocabulary performance – and perception of progress – might have been different and have even shown more far-ranging effects from an interactive reading approach. Not only should future research extend over a longer period of time, it should involve a greater sample of participants – both students and teachers, in order to produce more robust and reliable results. Results from the qualitative measures too can be questioned in the same manner. For instance, it is possible that most students who volunteered for interviews, especially in the treatment group, were students who felt they had derived the most benefits from the pedagogical approach. Students who felt fewer benefits might have abstained from taking part in the interviews, because of a lack of interest. Due to the relatively small and restricted sample group, the generalizability of the present research to other contexts remains limited. Generally speaking, it is difficult to link any pedagogical intervention with specific results because of the number of confounding variables coming from the social environment or involved in any learning context.

When addressing the general issue of motivation, it would be difficult to dissociate it from the testing that was performed as part of the current study. For instance, during the post-test, when the participants realized they had to read the same texts as in the pre-test, this might have constituted a demotivational factor. (After the test, some students confided to me that they felt somewhat puzzled when they saw the same texts again). Most students probably did not realize that the vocabulary test was also the same for both the pre- and post-intervention, but a general lack of motivation to go through the “research steps” – especially the last phase – might have prevented a number of students to perform at



their best. Furthermore, as emphasized throughout this study, one cannot ignore the social context, so it is also appropriate to mention that the students had their graduation ceremonies and associated partying during the week of the post-tests, and indeed some students did not appear to be in the best of shape on post-test day. Moreover, "real" examinations were also scheduled for the next couple of weeks, before the participants' return to Japan. Compared to those official examinations, the research tests might have been seen as unimportant and as taking some precious time away from studying. It is difficult to know to what extent these limitations intervened. If they had been removed, whether or not the participants would have performed better on the post-tests and whether the treatment would have achieved better scores than the comparison group is a matter for debate. Another motivational limitation was of course the fact that all the participants in this study did not get any marks for attending the extra-tutorials (most students in ASTU201 did not have to attend an extra tutorial).

In the next section, recommendations for a reading program are introduced along with specific avenues for future research.

#### **5.4 Recommendations based on this Study for a Reading Program and Further Research**

Most of the recommendations to be expressed here concern linguistic, pedagogical, and socio-cultural issues or requirements that should be taken into account when establishing a second-language reading program, within the context of a content-based course, at the university level. Avenues for further research are also suggested.

##### **5.4.1 Linguistic Requirements**

When debating the question, "How is L2 reading development supported?", Grabe (2002) suggests that it happens either through L2 linguistic knowledge (vocabulary, structure, L2 task success, exposure to L2 reading) or through prior L1 reading skills "(reading strategies, metalinguistic knowledge, task success, word learning skills)" (p. 55). Weighing the evidence for or against either of these two aspects, Grabe (2002) gives the following answer:

"Over the past ten years, the evidence has grown steadily that L2 language knowledge plays a much greater role until some general (and very variable) threshold of language knowledge is passed [...]. For most L2 students, the key is to develop a large recognition vocabulary, a reasonable command of language structure and discourse marking devices, and many positive experiences with manageable L2 reading tasks." (p. 55)

Alderson (2000) offers a similar suggestion to improve the situation when he writes: "What appears to matter is massive overlearning of words and much recognition practice in transferable and interesting contexts, in order to ensure quick access during reading" (p. 58). For these two researchers, then, the key is to provide manageable and interesting L2 reading experiences to allow greater vocabulary development.

Once a clear institutional and pedagogical stand on the central role of academic reading has been established, steps should be taken in order to design a content reading program. In linguistic terms, determining the students' reading level, i.e., the "independent level", "instructional level" or "frustration level" (Gunderson, 1991), should be the first step.

For students at the instructional and frustration levels – which was the case for the participants in this study – care should be taken to gather a pool of texts that are both suitable and readable (Brown, 2001). Texts should also be interesting to the students and could include, besides more accessible journal articles, a variety of magazines, newspaper articles, and on-line resources that introduce readers to new and important information (Guthrie, 2001). It is especially important that texts correspond to the cognitive competence of the learners (Csikszentmihalyi, 1990). It is evident that a number of participants in the current study had difficulty coping with too many new vocabulary items in the assigned readings. A key difficulty here resided in the fact that course ASTU 201 as a whole also included English native-speakers; the linguistic level of the course reading material was more geared towards those students. A few participants also reported in class a lack of connection between some of the readings and ASTU 201 content.

Ideally, students should be allowed to choose their own articles that relate to the main course content, from a pool of suggested readings. However, it might be quite a challenge to find content domain texts that matched intermediate students' level; texts should be demanding without being overwhelming. For students, being able to choose their own articles appears to be an important motivational factor (Day & Bamford, 1998). This is especially the case within an extensive reading program, where students can also be invited to fill in reading logs, do short article presentations, discuss ideas as well as language and vocabulary problems. To my knowledge, there seems to be a lack of empirical evidence in the area of L2 academic reading – at the university level – concerning the motivational aspect of text readability and suitability, and other motivational factors linked to L2 reading in general. This whole area needs further research.

#### **5.4.2 Institutional and Pedagogical Requirements**

The results of this study suggest that if students from the treatment group felt that interactive reading activities helped with course content, causing them to respond quite positively to this approach, one weekly period of 50 minutes for 10 weeks did not contribute to elevate the participants' performance in academic reading and vocabulary acquisition in any substantial way. It is true that the issue of time cannot be easily solved because of institutional constraints. However, because of the key role played by reading in academic studies, it should be clearly made a central part of the academic program by both program administrators and instructors, in terms of the nature of academic activities and allocated time. Students should be made explicitly aware of the centrality of reading for their academic studies and encouraged to show commitment towards reading. Generally speaking, an institution's planning for the academic development of its ESL population should be reviewed and better adapted to the students'

specific needs. As the priority in an academic setting like the one featured in this research is placed on content, research should endeavor to find the most efficient ways of balancing content acquisition and reading development. Furthermore, meaningful marks should be awarded to students for the hard work they invest in developing their reading.

The choice of strategies to be presented to students is also a matter for discussion. How do you establish the students' strategic needs? Should the focus of any particular class be on one major strategy to be used systematically or should the students have to use an array of strategies during a given class? Some type of one-on-one diagnostic test might be a solution. In any case, reading strategies and in-class discussion about course readings should be combined – similarly to the form of interactive reading used in this research – to help with the students' academic development. There is ample evidence in the literature and a few indications from this research as well to suggest that the recourse to strategy training in class can bring positive results, even though the teaching of strategies might not necessarily take place in a textbook-style, neat and straightforward manner (Lynch, 2001).

The process of strategy use through reading guides was slow during the treatment tutorials for this research. Again, the linguistic challenge compounded the difficulty for the students of taking the suggested actions. Only a few items on the prepared reading guides could be completed during each session. How many of the suggested strategies were actually practiced each time? Were they used efficiently? Did the reading guides force the students in a certain way that might have been counterproductive? Did the guides actually respond to the students' reading needs? A challenge for content reading instructors resides in the development of original reading guides that match their students' needs and that are adapted to course material and content acquisition. As reported by Hajer et al. (1996), print materials for strategy instruction have been shown to benefit the development of reading comprehension. The same authors insist that the "use of print materials for strategy instruction deserves greater research attention and practical consideration" (p. 140), a comment which seems particularly relevant to content-area reading situations.

In order to make a content reading program accessible to all learners who have difficulties to read independently, it should not be taken for granted that reading extensively will automatically be the main source of vocabulary acquisition or that strategy instruction alone will help students overcome vocabulary problems in any instructed learning context. Arguing that reading alone cannot generate a sufficient level of L2 vocabulary, Laufer (2003) proposes a combination of reading and vocabulary-focused instruction and productive tasks. As shown by Laufer (2003), a word is more likely to be remembered if practiced in a productive word-focused task than if encountered and noticed by the reader in text, and subsequently looked up in the dictionary. Thus, productive word-focused tasks should also be part of content reading programs. This approach corresponds to the need for making word recognition and vocabulary acquisition priorities, so as to help L2 readers progress towards the ideal text coverage for achieving independent

reading. Carrell and Grabe (2002) report on the difficulty of finding the right balance between various approaches:

“In addition, groups of Japanese EFL learners using extensive reading performed better than similar traditionally instructed control groups [...]. (It should be noted that the L1 evidence for extensive reading is now overwhelming.) Although there are good reasons to believe in the importance of extensive reading, what is not clear from these studies is the extent to which extensive reading should be balanced with an intensive reading programme containing well-considered reading instruction/pedagogy (for example, in reading strategies, in vocabulary, etc.).” (p. 247)

Opportunities to read in class, including in small groups, and to discuss ideas, vocabulary and structures – as we tried to do for the current research – should be promoted. Furthermore, without reading, it becomes difficult for students to acquire the lexical means that would allow them to express their ideas and produce quality writing within acceptable academic standards. As the treatment TA, I felt that the absence of writing practice to accompany reading – again, mostly due to time constraints – could actually have the potential of slowing down the participants’ academic progress. Ways of combining reading and writing in a balanced manner should also be thought of (Grabe & Stoller, 2001).

As suggested by Carrell and Grabe (2002), more research might be needed to examine how to balance various approaches to reading. Hence, there is a need for accuracy in establishing a profile of readers from the very start. This research provided some indications to that effect. Fostering repeat successful reading experiences in ESL students should be the ultimate goal of a content reading program in L2, so as to help those students build up even more interest and motivation in reading (Bamford & Day, 1998).

#### **5.4.3 Socio-cultural Requirements**

It is important to recognize and investigate the cultural membership and its impact on L2 reading (Oxford, 1996). In line with this principle, the present research has established a reader profile. However, this profile might have been made more complete by directly surveying the Japanese participants on the way they were taught to read in L2 to see whether or not the emerging readers profile corresponded to what the literature says about that particular group of readers. If it is necessary to acknowledge the cultural membership of the readers and what such membership entails in terms of L2 reading, this has to be done without drawing hasty conclusions or adopting a stereotypical view of the readers. Simply categorizing Japanese students as “passive” readers because of their Confucian educational background, for instance, might hide the fact that some individual learners have the capacity and desire for learning and reading in a more interactive way. In the course of the pedagogical intervention, the instructor for the treatment group took a stand on reading, as the following elements were stressed to participants: the importance of reading for the academic context, that reading is important to learn content and that readers can learn to be critical of that content, that reading can lead to an exchange of ideas, and that content

reading can be used as a tool for developing vocabulary, grammar, and strategies. Judging from interview reports, treatment respondents tended to give a positive rating to interactive reading activities, showing that at least some of the participants were receptive to incitements to read in a different way. According to the results of a study by Littlewood (2000), "if Asian students do indeed adopt the passive classroom attitudes that are often claimed, this is more likely to be a consequence of the educational contexts that have been or are now provided for them, than of any inherent dispositions of the students themselves" (p. 33). A student from the treatment group, Yukie, gave a good illustration of what Littlewood (2000) found out when she said in her interview:

I think that Japanese students don't get used to discussing things, because we don't have discussion class in Japan, but when I learn English, when I learn something, I felt discussion was a very important thing, because we can hear other opinions, so ... the different things between Japanese classes and Canadian classes, teacher and, the distance of teacher and the students is very close, closer than Japanese class, so sometimes the teacher also joined discussions, so it was very helpful [...] so we could ask questions more easily than in Japanese case ...

Still, because of the way Japanese students are acculturated into reading, there is still a need to introduce them to new ways of looking at reading. At a purely linguistic level, appropriate ways to scaffold the learners' approach to reading should be investigated. Scaffolding involves the use of "temporary supports, provided by capable people, that permit learners to participate in the complex process before they are able to do so unassisted" (Peregoy & Boyle, 1997, p. 81). During the first lessons, heavy scaffolding could be used, with the instructor modeling from a very short paragraph followed by students performing some kind of reciprocal teaching in pairs. Then, little by little, the learners take charge and tackle increasingly longer and more difficult passages. Among others, social strategies that promote peer and teacher-student interactions around reading are also worthy of further investigation. All students, sometimes because of particular cultural traits, might not always feel the need for interactions in the same way. It might be interesting for researchers to examine whether Japanese students actually gain from increased classroom exchanges – for instance, Schmitt (2000) remarks that Japanese students prefer to study vocabulary alone – and, if they do, how their learning interactions can actually be scaffolded to help them improve their ability to read academic material in L2. The approach used with the treatment group did involve a form of scaffolding, but there is a need to find out how different scaffolding techniques could be used to optimize Japanese students' L2 reading development in college.

Finally, if a strong stance to promote academic reading is taken by the AEP Administration, it might still encounter a form of resistance from the students who could decide to make the most of their short-term experience abroad by reducing time spent on academic activities in order to multiply social interactions with native speakers, for instance. Students might consider their academic program more as an opportunity to live a cross-cultural experience than as a chance to develop academic skills. Interview responses clearly suggested that, for some students, this orientation was important if not a priority.

Among other things, it helps them acquire the language. Future research should clearly prioritize the students' expectations in terms of their AEP, and examine where L2 reading stands in relation to other elements, such as linguistic skills, academic achievements, and social interactions. Program administrators and instructors should take advantage of AEP students' strong leaning toward the cross-cultural in a social context by promoting L2 reading for pleasure and learning about the world.

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## **APPENDICES**

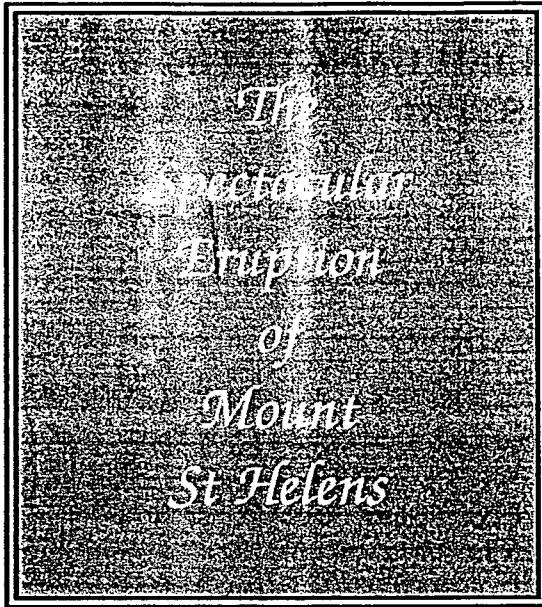
### **A – I**



**APPENDIX A :**  
**IELTS ACADEMIC READING**  
**MODULE**

## READING PASSAGE 1

You should spend about 20 minutes on Questions 1-11 which are based on Reading Passage 1.



**A** The eruption in May 1980 of Mount St. Helens, Washington State, astounded the world with its violence. A gigantic explosion tore much of the volcano's summit to fragments; the energy released was equal to that of 500 of the nuclear bombs that destroyed Hiroshima in 1945.

**B** The event occurred along the boundary of two of the moving plates that make up the Earth's crust. They meet at the junction of the North American continent and the Pacific Ocean. One edge of the continental North American plate over-rides the oceanic Juan de Fuca micro-plate, producing the volcanic Cascade range that includes Mounts Baker, Rainier and Hood, and Lassen Peak as well as Mount St. Helens.

**C** Until Mount St. Helens began to stir, only Mount Baker and Lassen Peak had shown signs of life during the 20th century. According to geological evidence found by the United States Geological Survey,

there had been two major eruptions of Mount St. Helens in the recent (geologically speaking) past: around 1900B.C., and about A.D.1500. Since the arrival of Europeans in the region, it had experienced a single period of spasmodic activity, between 1831 and 1857. Then, for more than a century, Mount St. Helens lay dormant.

**D** By 1979, the Geological Survey, alerted by signs of renewed activity, had been monitoring the volcano for 18 months. It warned the local population against being deceived by the mountain's outward calm, and forecast that an eruption would take place before the end of the century. The inhabitants of the area did not have to wait that long. On March 27, 1980, a few clouds of smoke formed above the summit, and slight tremors were felt. On the 28th, larger and darker clouds, consisting of gas and ashes, emerged and climbed as high as 20,000 feet. In April a slight lull ensued, but the volcanologists remained pessimistic. Then, in early May, the northern flank of the mountain bulged, and the summit rose by 500 feet.

**E** Steps were taken to evacuate the population. Most - campers, hikers, timbercutters - left the slopes of the mountain. Eighty-four-year-old Harry Truman, a holiday lodge owner who had lived there for more than 50 years, refused to be evacuated, in spite of official and private urging. Many members of the public, including an entire class of school children, wrote to him, begging him to leave. He never did.

**F** On May 18, at 8.32 in the morning, Mount St. Helens blew its top, literally. Suddenly, it was 1300 feet shorter than it had been before its growth had begun. Over half a cubic mile of rock had disintegrated. At the same moment, an earthquake with an intensity of 5 on the Richter scale was recorded. It triggered an avalanche of snow and ice, mixed with hot rock - the entire north face of the mountain had fallen away. A wave of scorching volcanic gas and rock fragments shot horizontally from the volcano's riven flank, at an inescapable 200 miles per hour. As the sliding ice and snow melted, it touched off devastating torrents of mud and debris, which destroyed all life in their path. Pulverised rock climbed as a dust cloud into the atmosphere. Finally, viscous lava, accompanied by burning clouds of ash and gas, welled out of the volcano's new crater, and from lesser vents and cracks in its flanks.

**G** Afterwards, scientists were able to analyse the sequence of events. First, magma - molten rock - at temperatures above 2000°F had surged into the volcano from the Earth's mantle. The build-up was accompanied by an accumulation of gas, which increased as the mass of magma grew. It was the pressure inside the mountain that made it swell. Next, the rise in gas pressure caused a violent decompression, which ejected the shattered summit like a cork from a shaken soda bottle. With the summit gone, the molten rock within was released in a jet of gas and fragmented magma, and lava welled from the crater.

**H** The effects of the Mount St. Helens eruption were catastrophic. Almost all the trees of the surrounding forest, mainly Douglas firs, were flattened, and their branches and bark ripped off by the shock wave of the explosion. Ash and mud spread over nearly 200 square miles of country. All the towns and settlements in the area were smothered in an even coating of ash. Volcanic ash silted up the Columbia River 35 miles away, reducing the depth of its navigable channel from 40 feet to 14 feet, and trapping sea-going ships. The debris that accumulated at the foot of the volcano reached a depth, in places, of 200 feet.

**I** The eruption of Mount St. Helens was one of the most closely observed and analysed in history. Because geologists had been expecting the event, they were able to amass vast amounts of technical data when it happened. Study of atmospheric particles formed as a result of the explosion showed that droplets of sulphuric acid, acting as a screen between the Sun and the Earth's surface, caused a distinct drop in temperature. There is no doubt that the activity of Mount St. Helens and other volcanoes since 1980 has influenced our climate. Even so, it has been calculated that the quantity of dust ejected by Mount St. Helens - a quarter of a cubic mile - was negligible in comparison with that thrown out by earlier eruptions, such as that of Mount Katmai in Alaska in 1912 (three cubic miles). The volcano is still active. Lava domes have formed inside the new crater, and have periodically burst. The threat of Mount St. Helens lives on.

*Questions 1 and 2*

Reading Passage 1 has nine paragraphs labelled A-I.

*Write the appropriate letters A-I in boxes 1 and 2 on your answer sheet.*

<i>Example</i>	<i>Answer</i>
Which paragraph compares the eruption to the energy released by nuclear bombs?	A

- 1 Which paragraph describes the evacuation of the mountain?
- 2 Which paragraph describes the moment of the explosion of Mount St. Helens?

*Questions 3 and 4*

- 3 What were the dates of the **TWO** major eruptions of Mount St. Helens before 1980?

*Write TWO dates in box 3 on your answer sheet.*

- 4 How do scientists know that the volcano exploded around the two dates above?

*Using NO MORE THAN THREE WORDS, write your answer in box 4 on your answer sheet.*

*Questions 5 - 8*

*Complete the summary below.*

*Choose NO MORE THAN THREE WORDS from the passage for each answer.*

*Write your answers in boxes 5-8 on your answer sheet.*

In 1979 the Geological Survey warned ... 5 ... to expect a violent eruption before the end of the century. The forecast was soon proved accurate. At the end of March there were tremors and clouds formed above the mountain. This was followed by a lull, but in early May the top of the mountain rose by ... 6 ... . People were ... 7 ... from around the mountain. Finally, on May 18th at ... 8 ..., Mount St. Helens exploded.

*Questions 9 and 10*

*Complete the table below.*

*Write your answers in boxes 9 and 10 on your answer sheet.*

Item	Equivalent to
<i>Example</i> The energy released by the explosion of Mount St. Helens	<i>Answer</i> 500 nuclear bombs
The area of land covered in mud or ash	9
The quantity of dust ejected	10

*Question 11*

*Choose the appropriate letter A-D and write it in box 11 on your answer sheet.*

- 11** According to the text the eruption of Mount St. Helens and other volcanoes has influenced our climate by
- A increasing the amount of rainfall.
  - B heating the atmosphere.
  - C cooling the air temperature.
  - D causing atmospheric storms.

## READING PASSAGE 2

You should spend about 20 minutes on Questions 12-25 which are based on Reading Passage 2

Questions 12 - 16

Reading Passage 2 has seven paragraphs A-G.

Choose the most suitable headings for paragraphs B-E and G from the list of headings below.

Write the appropriate numbers (i-x) in boxes 12-16 on your answer sheet.

### List of Headings

- i The effect of changing demographics on organisations
- ii Future changes in the European workforce
- iii The unstructured interview and its validity
- iv The person-skills match approach to selection
- v The implications of a poor person-environment fit
- vi Some poor selection decisions
- vii The validity of selection procedures
- viii The person-environment fit
- ix Past and future demographic changes in Europe
- x Adequate and inadequate explanations of organisational failure

<i>Example</i>	Paragraph A	<i>Answer</i> x
12	Paragraph B	
13	Paragraph C	
14	Paragraph D	
15	Paragraph E	
<i>Example</i>	Paragraph F	<i>Answer</i> ix
16	Paragraph G	

## PEOPLE AND ORGANISATIONS: THE SELECTION ISSUE

**A** In 1991, according to the Department of Trade and Industry, a record 48,000 British companies went out of business. When businesses fail, the post-mortem analysis is traditionally undertaken by accountants and market strategists. Unarguably organisations do fail because of undercapitalisation, poor financial management, adverse market conditions etc. Yet, conversely, organisations with sound financial backing, good product ideas and market acumen often underperform and fail to meet shareholders' expectations. The complexity, degree and sustainment of organisational performance requires an explanation which goes beyond the balance sheet and the "paper conversion" of financial inputs into profit making outputs. A more complete explanation of "what went wrong" necessarily must consider the essence of what an organisation actually is and that one of the financial inputs, the most important and often the most expensive, is *people*.

**B** An organisation is only as good as the people it employs. Selecting the right person for the job involves more than identifying the essential or desirable range of skills, educational and professional qualifications necessary to perform the job and then recruiting the candidate who is most likely to possess these skills or at least is perceived to have the ability and predisposition to acquire them. This is a purely person/skills match approach to selection.

**C** Work invariably takes place in the presence and/or under the direction of others, in a particular organisational setting. The individual has to "fit" in with the work environment, with other employees, with the organisational climate, style of work, organisation and culture of the organisation. Different organisations have different cultures (Cartwright & Cooper, 1991; 1992). Working as an engineer at British Aerospace will not necessarily be a similar experience to working in the same capacity at GEC or Plessey.

**D** Poor selection decisions are expensive. For example, the costs of training a policeman are about £20,000 (approx. US\$30,000). The costs of employing an unsuitable technician on an oil rig or in a nuclear plant could, in an emergency, result in millions of pounds of damage or loss of life. The disharmony of a poor person-environment fit (PE-fit) is likely to result in low job satisfaction, lack of organisational commitment and employee stress, which affect organisational outcomes i.e. productivity, high labour turnover and absenteeism, and individual outcomes i.e. physical, psychological and mental well-being.

**E** However, despite the importance of the recruitment decision and the range of sophisticated and more objective selection techniques available, including the use of psychometric tests, assessment centres etc., many organisations are still prepared to make this decision on the basis of a single 30 to 45 minute unstructured interview. Indeed, research has demonstrated that a selection decision is often made within the first four minutes of the interview. In the remaining time, the interviewer then attends exclusively to information that reinforces the initial "accept" or "reject" decision. Research into the validity of selection methods has consistently demonstrated that the unstructured interview, where the interviewer asks any questions he or she likes, is a poor predictor of future job performance and fares little better than more controversial methods like graphology and astrology. In times of high unemployment, recruitment becomes a "buyer's market" and this was the case in Britain during the 1980s.

**F** The future, we are told, is likely to be different. Detailed surveys of social and economic trends in the European Community show that Europe's population is falling and getting older. The birth rate in the Community is now only three-quarters of the level needed to ensure replacement of the existing population. By the year 2020, it is predicted that more than one in four Europeans will be aged 60 or more and barely one in five will be under 20. In a five-year period between 1983 and 1988 the Community's female workforce grew by almost six million. As a result, 51% of all women aged 14 to 64 are now economically active in the labour market compared with 78% of men.

**G** The changing demographics will not only affect selection ratios. They will also make it increasingly important for organisations wishing to maintain their competitive edge to be more responsive and accommodating to the changing needs of their workforce if they are to retain and develop their human resources. More flexible working hours, the opportunity to work from home or job share, the provision of childcare facilities etc., will play a major role in attracting and retaining staff in the future.

## Questions 17 - 22

Do the following statements agree with the views of the writer in Reading Passage 2?

In boxes 17-22 on your answer sheet write

- YES** if the statement agrees with the views of the writer  
**NO** if the statement does not agree with the views of the writer  
**NOT GIVEN** if there is no information about this in the passage

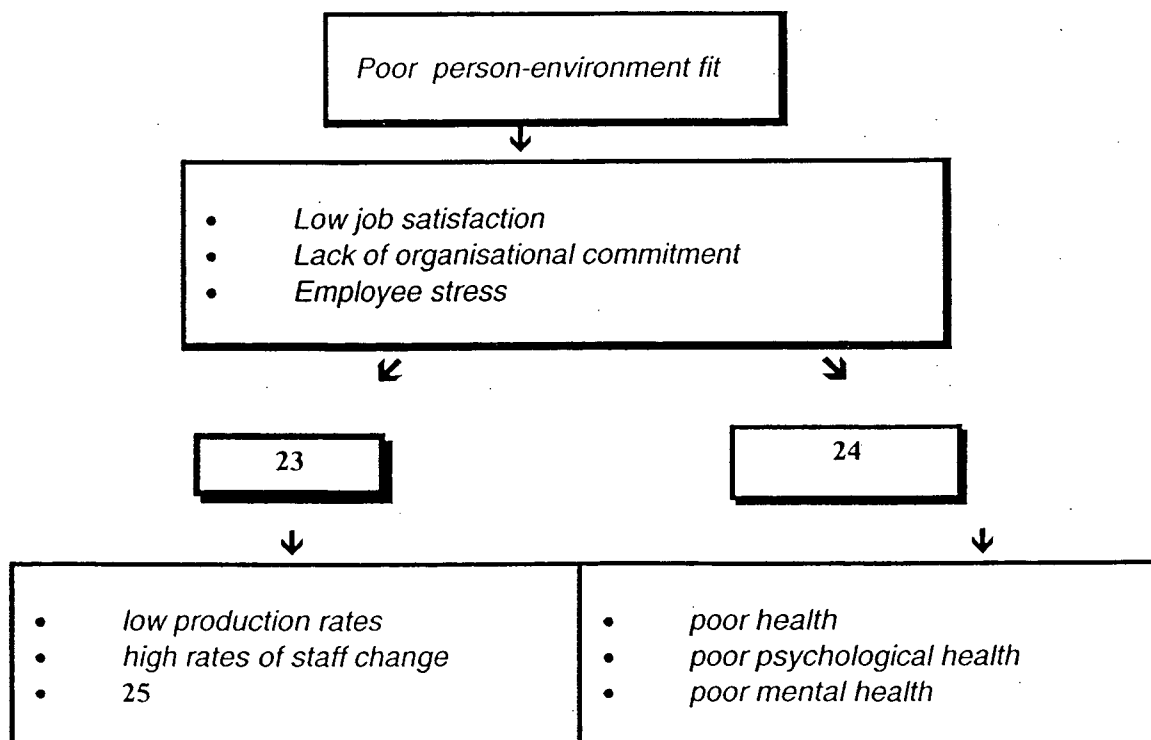
- 17 Organisations should recognise that their employees are a significant part of their financial assets.  
 18 Open-structured 45 minute interviews are the best method to identify suitable employees.  
 19 The rise in the female workforce in the European Community is a positive trend.  
 20 Graphology is a good predictor of future job performance.  
 21 In the future, the number of people in employable age groups will decline.  
 22 In 2020, the percentage of the population under 20 will be smaller than now.

## Questions 23 - 25

Complete the notes below with words taken from Reading Passage 2.

Use **NO MORE THAN TWO WORDS** for each answer.

Write your answers in boxes 23-25 on your answer sheet.





**APPENDIX B :**  
**VOCABULARY LEVELS TEST – B**

I.

- 1 copy
- 2 event
- 3 motor
- 4 pity
- 5 profit
- 6 tip

- \_\_\_\_\_ end or highest point
- \_\_\_\_\_ this moves a car
- \_\_\_\_\_ thing made to be like another

- 1 accident
- 2 debt
- 3 fortune
- 4 pride
- 5 roar
- 6 thread

- \_\_\_\_\_ loud deep sound
- \_\_\_\_\_ something you must pay
- \_\_\_\_\_ having a high opinion of yourself

- 1 birth
- 2 dust
- 3 operation
- 4 row
- 5 sport
- 6 victory

- \_\_\_\_\_ game
- \_\_\_\_\_ winning
- \_\_\_\_\_ being born

- 1 clerk
- 2 frame
- 3 noise
- 4 respect
- 5 théâtre
- 6 wine

- \_\_\_\_\_ a drink
- \_\_\_\_\_ office worker
- \_\_\_\_\_ unwanted sound

- 1 dozen
- 2 empire
- 3 gift
- 4 opportunity
- 5 relief
- 6 tax

- \_\_\_\_\_ chance
- \_\_\_\_\_ twelve
- \_\_\_\_\_ money paid to the government

- 1 admire
- 2 complain
- 3 fix
- 4 hire
- 5 introduce
- 6 stretch

- \_\_\_\_\_ make wider or longer
- \_\_\_\_\_ bring in for the first time
- \_\_\_\_\_ have a high opinion of someone

- 1 arrange
- 2 develop
- 3 lean
- 4 owe
- 5 prefer
- 6 seize

- \_\_\_\_\_ grow
- \_\_\_\_\_ put in order
- \_\_\_\_\_ like more than something else

- 1 blame
- 2 elect
- 3 jump
- 4 manufacture
- 5 melt
- 6 threaten

- \_\_\_\_\_ make
- \_\_\_\_\_ choose by voting
- \_\_\_\_\_ become like water

- 1 brave  
 2 electric  
 3 firm  
 4 hungry  
 5 local  
 6 usual

\_\_\_\_\_ commonly done  
 \_\_\_\_\_ wanting food  
 \_\_\_\_\_ having no fear

- 1 bitter  
 2 independent  
 3 lovely  
 4 merry  
 5 popular  
 6 slight

\_\_\_\_\_ beautiful  
 \_\_\_\_\_ small  
 \_\_\_\_\_ liked by many people

## II

- 1 bull  
 2 champion  
 3 dignity  
 4 hell  
 5 museum  
 6 solution

\_\_\_\_\_ formal and serious manner  
 \_\_\_\_\_ winner of a sporting event  
 \_\_\_\_\_ building where valuable objects are shown

- 1 blanket  
 2 contest  
 3 generation  
 4 merit  
 5 plot  
 6 vacation

\_\_\_\_\_ holiday  
 \_\_\_\_\_ good quality  
 \_\_\_\_\_ wool covering used on beds

- 1 apartment  
 2 candle  
 3 draft  
 4 horror  
 5 prospect  
 6 timber

\_\_\_\_\_ a place to live  
 \_\_\_\_\_ chance of something happening  
 \_\_\_\_\_ first rough form of something written

- 1 administration  
 2 angel  
 3 frost  
 4 herd  
 5 fort  
 6 pond

\_\_\_\_\_ group of animals  
 \_\_\_\_\_ spirit who serves God  
 \_\_\_\_\_ managing business and affairs

- 1 atmosphere  
 2 counsel  
 3 factor  
 4 hen  
 5 lawn  
 6 muscle

\_\_\_\_\_ advice  
 \_\_\_\_\_ a place covered with grass  
 \_\_\_\_\_ female chicken

- 1 abandon
- 2 dwell
- 3 oblige
- 4 pursue
- 5 quote
- 6 resolve

- \_\_\_\_\_ live in a place
- \_\_\_\_\_ follow in order to catch
- \_\_\_\_\_ leave something permanently

- 1 assemble
- 2 attach
- 3 peer
- 4 quit
- 5 scream
- 6 toss

- \_\_\_\_\_ look closely
- \_\_\_\_\_ stop doing something
- \_\_\_\_\_ cry out loudly in fear

- 1 drift
- 2 endure
- 3 grasp
- 4 knit
- 5 register
- 6 tumble

- \_\_\_\_\_ suffer patiently
- \_\_\_\_\_ join wool threads together
- \_\_\_\_\_ hold firmly with your hands

- 1 brilliant
- 2 distinct
- 3 magic
- 4 naked
- 5 slender
- 6 stable

- \_\_\_\_\_ thin
- \_\_\_\_\_ steady
- \_\_\_\_\_ without clothes

- 1 aware
- 2 blank
- 3 desperate
- 4 normal
- 5 striking
- 6 supreme

- \_\_\_\_\_ usual
- \_\_\_\_\_ best or most important
- \_\_\_\_\_ knowing what is happening

### III.

- 1 analysis
- 2 curb
- 3 gravel
- 4 mortgage
- 5 scar
- 6 zeal

- \_\_\_\_\_ eagerness
- \_\_\_\_\_ loan to buy a house
- \_\_\_\_\_ small stones mixed with sand

- 1 concrete
- 2 era
- 3 fibre
- 4 loop
- 5 plank
- 6 summit

- \_\_\_\_\_ circular shape
- \_\_\_\_\_ top of a mountain
- \_\_\_\_\_ a long period of time

1 circus	
2 jungle	_____ musical instrument
3 nomination	_____ seat without a back or arms
4 sermon	_____ speech given by a priest in a church
5 stool	
6 trumpet	
1 artillery	
2 creed	_____ a kind of tree
3 hydrogen	_____ system of belief
4 maple	_____ large gun on wheels
5 pork	
6 streak	
1 chart	
2 forge	_____ map
3 mansion	_____ large beautiful house
4 outfit	_____ place where metals are made and shaped
5 sample	
6 volunteer	
1 contemplate	
2 extract	_____ think about deeply
3 gamble	_____ bring back to health
4 launch	_____ make someone angry
5 provoke	
6 revive	
1 demonstrate	
2 embarrass	_____ have a rest
3 heave	_____ break suddenly into small pieces
4 obscure	_____ make someone feel shy or nervous
5 relax	
6 shatter	
1 correspond	
2 embroider	_____ exchange letters
3 lurk	_____ hide and wait for someone
4 penetrate	_____ feel angry about something
5 prescribe	
6 resent	
1 decent	
2 frail	_____ weak
3 harsh	_____ concerning a city
4 incredible	_____ difficult to believe
5 municipal	
6 specific	

- 1 adequate
- 2 internal
- 3 mature
- 4 profound
- 5 solitary
- 6 tragic

- \_\_\_\_\_ enough
- \_\_\_\_\_ fully grown
- \_\_\_\_\_ alone away from other things

#### IV.

- 1 area
- 2 contract
- 3 definition
- 4 evidence
- 5 method
- 6 role

- \_\_\_\_\_ written agreement
- \_\_\_\_\_ way of doing something
- \_\_\_\_\_ reason for believing something is or is not true

- 1 construction
- 2 feature
- 3 impact
- 4 institute
- 5 region
- 6 security

- \_\_\_\_\_ safety
- \_\_\_\_\_ noticeable part of something
- \_\_\_\_\_ organization which has a special purpose

- 1 debate
- 2 exposure
- 3 integration
- 4 option
- 5 scheme
- 6 stability

- \_\_\_\_\_ plan
- \_\_\_\_\_ choice
- \_\_\_\_\_ joining something into a whole

- 1 access
- 2 gender
- 3 implementation
- 4 license
- 5 orientation
- 6 psychology

- \_\_\_\_\_ male or female
- \_\_\_\_\_ study of the mind
- \_\_\_\_\_ entrance or way in

- 1 accumulation
- 2 edition
- 3 guarantee
- 4 media
- 5 motivation
- 6 phenomenon

- \_\_\_\_\_ collecting things over time
- \_\_\_\_\_ promise to repair a broken product
- \_\_\_\_\_ feeling a strong reason or need to do something

- 1 adult
- 2 exploitation
- 3 infrastructure
- 4 schedule
- 5 termination
- 6 vehicle

- \_\_\_\_\_ end
- \_\_\_\_\_ machine used to move people or goods
- \_\_\_\_\_ list of things to do at certain times

- 1 alter
- 2 coincide
- 3 deny
- 4 devote
- 5 release
- 6 specify

- \_\_\_\_\_ change
- \_\_\_\_\_ say something is not true
- \_\_\_\_\_ describe clearly and exactly

- 1 convert
- 2 design
- 3 exclude
- 4 facilitate
- 5 indicate
- 6 survive

- \_\_\_\_\_ keep out
- \_\_\_\_\_ stay alive
- \_\_\_\_\_ change from one thing into another

- 1 bond
- 2 channel
- 3 estimate
- 4 identify
- 5 mediate
- 6 minimize

- \_\_\_\_\_ make smaller
- \_\_\_\_\_ guess the number or size of something
- \_\_\_\_\_ recognizing and naming a person or thing

- 1 explicit
- 2 final
- 3 negative
- 4 professional
- 5 rigid
- 6 sole

- \_\_\_\_\_ last
- \_\_\_\_\_ stiff
- \_\_\_\_\_ meaning 'no' or 'not'

- 1 analogous
- 2 objective
- 3 potential
- 4 predominant
- 5 reluctant
- 6 subsequent

- \_\_\_\_\_ happening after
- \_\_\_\_\_ most important
- \_\_\_\_\_ not influenced by personal opinions

- 1 abstract
- 2 adjacent
- 3 controversial
- 4 global
- 5 neutral
- 6 supplementary

- \_\_\_\_\_ next to
- \_\_\_\_\_ added to
- \_\_\_\_\_ concerning the whole world

V.

1 alabaster  
2 chandelier  
3 dogma  
4 keg  
5 rasp  
6 tentacle

\_\_\_\_\_ small barrel  
\_\_\_\_\_ soft white stone  
\_\_\_\_\_ tool for shaping wood

1 apparition  
2 botany  
3 expulsion  
4 insolence  
5 leash  
6 puddle

\_\_\_\_\_ ghost  
\_\_\_\_\_ study of plants  
\_\_\_\_\_ small pool of water

1 arsenal  
2 barracks  
3 deacon  
4 felicity  
5 predicament  
6 spore

\_\_\_\_\_ happiness  
\_\_\_\_\_ difficult situation  
\_\_\_\_\_ minister in a church

1 alcove  
2 impetus  
3 maggot  
4 parole  
5 salve  
6 vicar

\_\_\_\_\_ priest  
\_\_\_\_\_ release from prison early  
\_\_\_\_\_ medicine to put on wounds

1 alkali  
2 banter  
3 coop  
4 mosaic  
5 stealth  
6 viscount

\_\_\_\_\_ light joking talk  
\_\_\_\_\_ a rank of British nobility  
\_\_\_\_\_ picture made of small pieces of glass or stone

1 dissipate  
2 flaunt  
3 impede  
4 loot  
5 squirm  
6 vie

\_\_\_\_\_ steal  
\_\_\_\_\_ scatter or vanish  
\_\_\_\_\_ twist the body about uncomfortably



1 contaminate

2 cringe

3 immerse

4 peek

5 relay

6 scrawl

\_\_\_\_\_ write carelessly

\_\_\_\_\_ move back because of fear

\_\_\_\_\_ put something under water

1 blurt

2 dabble

3 dent

4 pacify

5 strangle

6 swagger

\_\_\_\_\_ walk in a proud way

\_\_\_\_\_ kill by squeezing someone's throat

\_\_\_\_\_ say suddenly without thinking

1 illicit

2 lewd

3 mammoth

4 slick

5 temporal

6 vindictive

\_\_\_\_\_ immense

\_\_\_\_\_ against the law

\_\_\_\_\_ wanting revenge

1 indolent

2 nocturnal

3 obsolete

4 torrid

5 translucent

6 wily

\_\_\_\_\_ lazy

\_\_\_\_\_ no longer used

\_\_\_\_\_ clever and tricky

**I.**

**II.**

**III.**

**IV.**

**V.**

## **APPENDIX C :**

### **Reading Guide**

ASTU 201 (sections T02,T04)

March 11-13, 2002

Reading : *Children's lives* (course package, 63-72)

## A. Predictions :

The following statements concern school life in the U.S. vs. Japan (elementary school). Use your prior knowledge (acquired in the course or through your own experience) to complete the statements. Write « in the U.S. » or « in Japan » in the blank spaces :

- 1) \_\_\_\_\_, children are more likely to be encouraged to work at their own pace.
- 2) \_\_\_\_\_, children will more likely work in groups.
- 3) \_\_\_\_\_, children will more likely spend a lot of time working alone.
- 4) \_\_\_\_\_, children are more likely to be responsible for managing the classroom (discipline, cleaning, lunch time, etc.)
- 5) \_\_\_\_\_, children are more likely to be taught skills that help them function effectively in a group.
- 6) \_\_\_\_\_, children will more likely have very distinct and separate school and home lives.
- 7) \_\_\_\_\_, children usually have more limited interactions at school than \_\_\_\_\_.
- 8) \_\_\_\_\_, parents are more likely to believe that their children's primary responsibility is to apply themselves seriously to their school work.
- 9) \_\_\_\_\_, children are more likely to identify very strongly with other pupils and their school.
- 10) \_\_\_\_\_, children are more likely to play at home after school than during their time at school.

Vocabulary - reminder :

« Western visitors to Asian classrooms often comment on the children's **rapt** attention. Their ability to focus so closely on academic may be due partly to their frequent opportunities to relax [and] socialize ».

What do you think the word **rapt** means?

**Rapt** means :

- A) not happening often
- B) without caution
- C) with a strong feeling that absorbs the mind

How did you find out the meaning of **rapt**?

- A) I just took a wild guess
- B) I used the context

Try to remove the word **rapt**. Does the sentence still make sense?

« A notable characteristic of the lives of American children is a striking **discontinuity** between home and school. »

What strategy would you most likely use to find out the meaning of **discontinuity**?

Because Chinese and Japanese families believe their children's primary responsibility is to apply themselves seriously to their schoolwork, they arrange their home life so that it **is conducive** to academic activities.

What would be another expression with the same meaning as **is conducive**? What is your reasoning?

« We **delude ourselves** when we recommend individualizing instruction under the conditions that exist in American elementary schools. Teachers cannot possibly work individually and effectively during regular class period with all of the children who need help. »

Can you find any hint as to the meaning of **delude ourselves**?

B) Reading Instructions :

## Jigsaw

Write the results of your team's reading.

Listen to what the other teams have found and write this information in the box.

Asian Schools/Children/Parents	American Schools/Children/Parents

What is the author's position?

What is your position?

Do you think what the author says is accurate?

C) After reading :

What did you learn today?

Are there any points you are not clear about?

Is there anything else you would like to know about?

D) Chapter 5 (pp. 73-82)

At home, read chapter 5. Look at the main heading and at the sub-headings. Using your prior knowledge, can you guess some of the arguments to be used by the author?

Make a comparative graph (outline, word mapping, etc.) that shows the differences between Asian and American schools .

What is the author's position?

Do you agree with the author?

Relate what the author says to your own experience. Try to talk to a Canadian roommate or friend about this. Have them read a section of the text.

**APPENDIX D :**  
**EXAMPLE OF MOTIVATIONAL**  
**PRESENTATION**  
**(in treatment group)**

*Example of Motivational Presentation (part1)*

## #1 Strategy

The strategy that beats all other strategies!

Read, read, and... read !!!

Research has shown that the more you read, the more vocabulary you acquire and the better you understand text  
(Reading volume correlates with greater vocabulary acquisition and better comprehension of text)

Let's have a look at a *Word Frequency Table*

## #2 Strategy

Persistence !

According to cognitive research, task persistence is a major element in comprehension for all students, especially for academic text (DeWitz, 1997)

This goes well with the Japanese learning style!



**EXAMPLE OF MOTIVATIONAL PRESENTATION**  
*used in Treatment Group (continued)*

Which type of "text" has the richest vocabulary?

*Frequency Table*

<i>Type of text</i>	<i>Rank of median word</i>	<i>Rare words per 1000*</i>
<b>I. Printed texts</b>		
Abstracts of scientific articles	4389 <sup>th</sup>	128.0
Newspapers	1600 <sup>th</sup>	68.3
Popular magazines	1399 <sup>th</sup>	65.7
Adult books	1058 <sup>th</sup>	52.7
Comic books	867 <sup>th</sup>	53.5
Children's books	627 <sup>th</sup>	30.9
Preschool books	578 <sup>th</sup>	16.3
<b>II. Television texts</b>		
Popular prime-time adult shows	490 <sup>th</sup>	22.7
Popular prime-time children shows	543 <sup>rd</sup>	20.2
Cartoon shows	598 <sup>th</sup>	30.8
<i>Sesame Street</i>	413 <sup>rd</sup>	2.0
<b>III. Adult speech</b>		
Expert witness testimony (in a court of law)	1008 <sup>th</sup>	28.4
College graduates to friends, spouses	496 <sup>th</sup>	17.3

\*Rare word = a word with a rank no lower than 10,000

Ref: Cunningham, A.E., & Stanovich, K.E. (1998). *What reading does for the mind*

➤ What does **Word Frequency** mean?

For example:

"the" is the most frequent word in English

"it" is the 10<sup>th</sup> most frequent

"know" is the 100<sup>th</sup> most frequent, etc. etc.

In this table, words were analysed according to standard frequency count of English (Carroll, Davies, & Richman, 1971):

➤ Ranking of 86,741 words

➤ From the table, we can notice that:

children's books have 50% more rare words in them than does adult prime-time television and the conversation of college graduates;

popular magazines have roughly three times as many opportunities for new word learning as does prime-time television and adult conversation.

**Reading volume as a contributor to growth in verbal skills**  
 (Cunningham and Stanovich, 1998)

**APPENDIX E :**  
**EXAMPLE OF STRATEGY**  
**PRESENTATION**  
**(in treatment group)**

**EXAMPLE OF STRATEGY PRESENTATION**  
(in treatment group)

Astu201 - Reading Strategies

Text Organization

Being able to recognize text structure seems to be an important skill for comprehending academic texts.

In academic texts, there are six major structures for organizing the content:

Description (of characteristics, for example)

Sequence of events (in time)

Explanation (of concepts or terminology)

Definition-example

Compare-contrast

Problem-solution-effect

(Anderson & Armbruster, 1984)

In a single chapter, an author can use several structures or ways to organize the content.

In the reading course pack for Astu201, which structure(s) would be used more often?

Good readers use their knowledge of the way a text is organized to make connections among ideas from the text (Mayer, 1984) and to generate questions and hypotheses about the content (Wilson & Rupley, 1997)

**APPENDIX F :**  
**COURSE PACK READING SURVEY**

### Course Pack Reading Survey

- Please follow the instructions.  
(no name required)

#### Part I General information

- Please circle where appropriate.

1. UBC student
2. Ritsumeikan student
3. Korea University student
4. Male
5. Female

- If you belong to one of the following lab sections for Course ASTU 201, please circle which one:

T01	T02	T03	T04
-----	-----	-----	-----

#### Part II How much did you read?

- First, look at the scale carefully.



- Now, use the scale - from 0 to 5 - to answer the following questions:

1) The Reading Course Pack for ASTU-201 contains about 100 pages. About how many pages did you read? (**Please circle one number**)

0	1	2	3	4	5
---	---	---	---	---	---

- 2) The Reading Course Pack for ASTU-201 contains 14 different articles: About how many articles did you read **in whole**? (please circle one number)

0	1	2	3	4	5
---	---	---	---	---	---

- 3) The Reading Course Pack for ASTU-201 contains 14 articles: About how many articles did you read **in part**? (please circle one number)

0	1	2	3	4	5
---	---	---	---	---	---

- Use the scale below to answer questions 4,5,and 6:

Not at all	0	1	2	3	4	5	A lot
------------	---	---	---	---	---	---	-------

- 4) I have read the course pack to prepare for the mid-term and final exams.

0	1	2	3	4	5
---	---	---	---	---	---

- 5) I read the course pack to prepare for my term paper(main essay).

0	1	2	3	4	5
---	---	---	---	---	---

- 6) I read the course pack to prepare for class (main seminar and lab sections).

0	1	2	3	4	5
---	---	---	---	---	---

Part III  
What do you think?  
(Your evaluation)

- For each of the following 3 categories, please rate the Reading Course Pack for Course ASTU201.

1) Level of difficulty - 0 to 5 (please circle)

Not difficult at all						extremely difficult
0	1	2	3	4	5	

2) Level of interest - 0 to 5 (please circle)

Not interesting at all						extremely interesting
0	1	2	3	4	5	

3) Helpfulness - 0 to 5 (please circle)

Not helpful at all						extremely helpful
0	1	2	3	4	5	

- Now please rate your own effort in reading the Course Pack for ASTU-201.

4) Effort

Not much effort at all						A lot of effort
0	1	2	3	4	5	

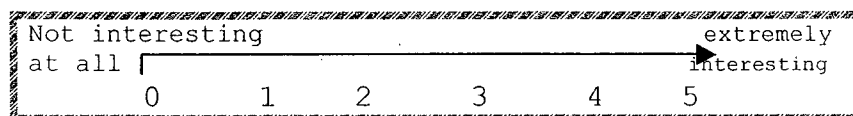
- Would you like to express some comments?

# Part IV

## Evaluation of specific articles

➤ First look at the scale.

00= not read



➤ If you have **not** read the article, **please circle 00**.  
For each article that you have read, give your rating from 0 to 5.

Author(s)	Title or "Main Topic"	Rating
• Tweed&Lehman	Confucian&Socratic Approaches	00 0 1 2 3 4 5
• Lai	Cross-cultural understanding of Teaching and Learning	00 0 1 2 3 4 5
• Hofstede	"Individualism and Collectivism"	00 0 1 2 3 4 5
• Heine&Lehman	Need for positive self-regard	00 0 1 2 3 4 5
• Hofstede	"Uncertainty Avoidance"	00 0 1 2 3 4 5
• Weisz	Psychology of control in America and Japan	00 0 1 2 3 4 5
• Hofstede	"Power Distance" (2 parts)	00 0 1 2 3 4 5
• Baumrind	"Obedience to authority" - "Milgram Experiment"	00 0 1 2 3 4 5
• Zimbardo	The Stanford Prison Experiment	00 0 1 2 3 4 5
• Hofstede	More equal than others - "Masculinity - Femininity"	00 0 1 2 3 4 5
• Stigler	Children's Lives ("early childhood socialization")	00 0 1 2 3 4 5
• Stigler	Effort and Ability ("early childhood socialization")	00 0 1 2 3 4 5
• Gracey	Kindergarten as academic boot camp	00 0 1 2 3 4 5
• (no author available)	"Sapir-Whorf Hypothesis" "Linguistic Determinism"	00 0 1 2 3 4 5



**APPENDIX G :**  
**READING TEST SURVEY**

### Reading Test Survey

You have just finished the reading test. Please take some time to answer this short survey.

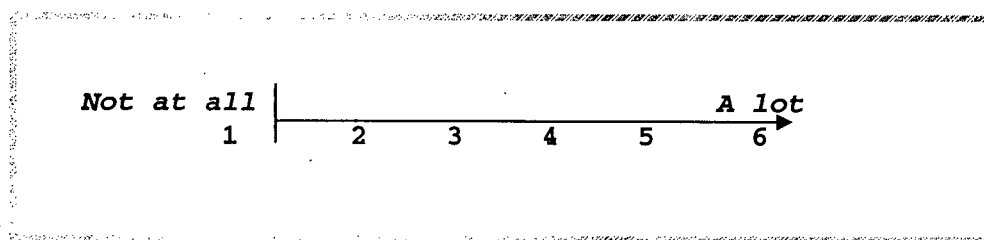
Name: \_\_\_\_\_

Lab Section (circle one): T01 T02 T03 T04

#### Part I

While reading both texts in today's test,  
what did you do?

First, examine the scale carefully:



Now, read the statements below and circle the appropriate number :

I read every word of the text.

1	2	3	4	5	6
---	---	---	---	---	---

2. I made predictions about the content of the text by looking at the title.

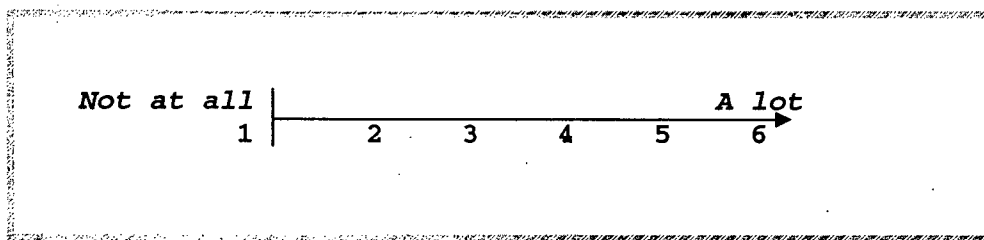
1	2	3	4	5	6
---	---	---	---	---	---

3. I tried to picture in my mind what was described (or talked about) in the text.

1	2	3	4	5	6
---	---	---	---	---	---

4. While reading the first text ("Mt. St. Helens"), I tried to remember what I already knew about "volcanoes".

1	2	3	4	5	6
---	---	---	---	---	---



5. I underlined words or phrases I didn't know.

1	2	3	4	5	6
---	---	---	---	---	---

6. I underlined important words or phrases.

1	2	3	4	5	6
---	---	---	---	---	---

7. I underlined important information in the text.

1	2	3	4	5	6
---	---	---	---	---	---

8. I wrote some notes or some questions in the margin.

1	2	3	4	5	6
---	---	---	---	---	---

9. I made a « word map » to understand the author's ideas better ("word mapping").

1	2	3	4	5	6
---	---	---	---	---	---

10. I wrote an outline to understand the author's ideas better.

1	2	3	4	5	6
---	---	---	---	---	---

11. I pictured the text outline in my mind.

1	2	3	4	5	6
---	---	---	---	---	---

12. I read the text very quickly to get the main idea(s) ("skimming").

1	2	3	4	5	6
---	---	---	---	---	---

Not at all						A lot	
1		2	3	4	5	6	→

13. I searched the text for specific information ("scanning")

1	2	3	4	5	6
---	---	---	---	---	---

14. When I didn't know a vocabulary word, I just skipped it.

1	2	3	4	5	6
---	---	---	---	---	---

15. When I didn't know a vocabulary word, I used the context to try to understand its meaning.

1	2	3	4	5	6
---	---	---	---	---	---

16. When I didn't know a vocabulary word, I looked at its parts to see if I already knew the basic meaning (example : « flatten » comes from « flat »)

1	2	3	4	5	6
---	---	---	---	---	---

17. I looked for the way each paragraph was organized (ex. « cause - effect »)

1	2	3	4	5	6
---	---	---	---	---	---

18. For each paragraph, I found the main idea.

1	2	3	4	5	6
---	---	---	---	---	---

19. I tried to distinguish between the main idea and the less important details.

1	2	3	4	5	6
---	---	---	---	---	---

Not at all	1	2	3	4	5	6	A lot
------------	---	---	---	---	---	---	-------

20. I read the whole text first before answering the questions on the test.

1	2	3	4	5	6
---	---	---	---	---	---

21. I did not read the whole text first; instead, I tried to answer the questions and read the text at the same time.

1	2	3	4	5	6
---	---	---	---	---	---

22. As I read the text, I asked myself if I understood or not.

1	2	3	4	5	6
---	---	---	---	---	---

23. I had to read back in order to understand a sentence or a passage better.

1	2	3	4	5	6
---	---	---	---	---	---

24. In English, pronouns like « they » and « it » are used to connect sentences and continue ideas from one sentence to the next. While reading, I paid attention to those words.

1	2	3	4	5	6
---	---	---	---	---	---

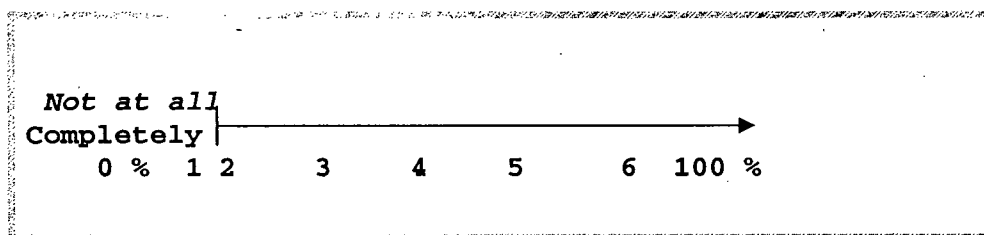
25. While reading the second text ("People and Organisations"), I tried to make connections with what I already knew about the topic - "the selection of employees".

1	2	3	4	5	6
---	---	---	---	---	---

**Part II**

What percentage of the texts (in today's test) did you understand?

First, look at the scale carefully:



➤ Now, using the scale 1 to 6, answer the following questions:

1. About how much of the first text - The Spectacular Eruption of Mt. St. Helens - did you understand?

1	2	3	4	5	6
---	---	---	---	---	---

2. About how much of the second text - "People and Organisations" - did you understand?

1	2	3	4	5	6
---	---	---	---	---	---

3. About how much of **the vocabulary** did you understand in the first text ("Mt. St. Helens")?

1	2	3	4	5	6
---	---	---	---	---	---

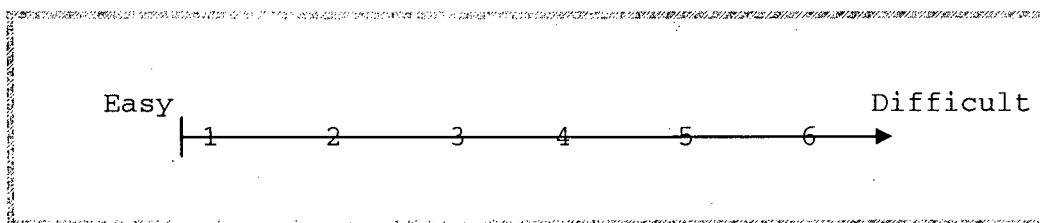
4. About how much of **the vocabulary** did you understand in the second text ("People and organisations")?

1	2	3	4	5	6
---	---	---	---	---	---

**Part III**

What did you find difficult when reading both texts (in today's test)?

First, look carefully at the following scale :



Now use the scale to rate the following:

1. Vocabulary.

1	2	3	4	5	6
---	---	---	---	---	---

2. Grammar.

1	2	3	4	5	6
---	---	---	---	---	---

3. Understanding the main idea (s).

1	2	3	4	5	6
---	---	---	---	---	---

4. Distinguishing between the main idea and the details.

1	2	3	4	5	6
---	---	---	---	---	---

5. Understanding the test questions.

1	2	3	4	5	6
---	---	---	---	---	---

6. Compared to the first time you did the test (in January), was the second time easy (1) or difficult (6)?

1	2	3	4	5	6
---	---	---	---	---	---

**Part IV**  
**General information**

➤ Read the next questions carefully and **draw a circle around** any item, as appropriate. (Of course, there might be more than one item, according to your knowledge and experience).

1. Which of the following English language tests do you know? (**circle as many as appropriate to your case**)

a. TOEIC

b. TOEFL

c. IELTS

d. EIKEN

2. Which of the following language tests have you taken before?  
(circle as many as appropriate to your case)

a. TOEIC

b. TOEFL

c. IELTS

d. EIKEN

Part V

Do you have any comments about today's reading test?

If you have any comments about today's reading test, please write them here (日本語でも、o k ! ) .

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Thanks a lot!



## **APPENDIX H :**

### **INTERVIEW QUESTIONS**

## ***PARTICIPANT INTERVIEW QUESTIONS***

### General perception of course ASTU201 and of tutorials

- Did you learn anything new or interesting in ASTU201?
- What did you do in your tutorials?
- Did the tutorials help you with ASTU201, in general?
- Did the tutorials help you understand the contents of course ASTU201?
- Do you think what you did in the tutorials helped you for writing your essay or your mid-term exam?
- In your tutorial section, is there anything different you would have liked to do?
- Do you have any other comments about ASTU201 or your tutorials?

### Progress in reading ability and contributing factors

Do you think your reading ability has improved during the term?

Did the pedagogical activities in your tutorial section help you improve your reading ability?

Did reading articles in the course package help you improve your reading ability?

How much of the course package did you read?

Outside the classroom, do you do anything to improve your reading ability in English?

Do you feel more comfortable reading in English than before?

### Progress in vocabulary and contributing factors

Did your vocabulary improve during the term?

What helped you improve your vocabulary, what kind of activity?

Did reading the package of required readings help you improve your vocabulary?

How did reading the required readings help you improve your vocabulary?

Did the pedagogical activities in your tutorial section help you improve your vocabulary?

Outside the classroom, did you do anything to improve your English vocabulary?

### Interest in reading in English

Do you usually read a lot in English?

Outside the classroom, what kind of material do you read in English?

Interactive reading

*(questions for interviewees from the treatment group only)*

Can you explain what “interactive reading” means?

During your tutorials, you did some of the required readings together with the instructor and the other students: Did that approach help you understand the content in ASTU201?

You learned some reading and vocabulary strategies in your tutorial section. Do you think they were helpful to you?

Are you using these strategies when you read other articles or other material?

Was interactive reading helpful for learning the content of ASTU201?

**APPENDIX I :**  
**COURSE READINGS SAMPLE**

From – Tweed, R.G., & Lehman, D.R. (2002). Learning considered within a cultural context : Confucian and Socratic approaches. *American Psychologist*, 57(2), 89-99.

### Pragmatic Outcome vs. Truth as End Goal

The Confucian-Socratic framework predicts that culturally Chinese learners will focus more on practical outcomes of education than will culturally Western learners. Several researchers (e.g., Salili, 1996; Sue & Okazaki, 1990; Winter, 1996) have suggested that culturally Chinese students are more likely than culturally Western students to view education as a means to an end. This practical orientation toward education may intensify when ethnic Chinese immigrate to Western countries because education can provide a path to higher status jobs when discrimination and other barriers block certain routes (Sue & Okazaki, 1990). Historical precedent laid the groundwork for this practical view of education in China; as early as 2,500 years ago, education was a path to a secure job in Chinese government (Lee, 1996). Practical orientation to education accords with the tendency toward practicality evidenced in other aspects of Chinese culture (Wink, Gao, Jones, & Chao, 1997), and contrasts with the Western philosophical orientation derived from Dewey (1916) that learning should be its own end and that education loses meaning if focused on an extrinsic goal.

Some research suggests that in the West, students striving for external goals such as high marks or pleasing others often report less intrinsic motivation toward learning and mastery. Yet in Chinese contexts, extrinsic motivation tends to co-occur with intrinsic motivation (Salili, Chiu, & Lai, in press; Volet & Renshaw, 1996). That is, among culturally Chinese students, external goals such as performance or social recognition were positively correlated with mastery goals. These findings are important because they suggest that a concern for pragmatic outcomes of education need not preclude striving for learning-related goals. Students concerned with getting high marks, getting a job, and acquiring status may seem to Westerners to be uninterested in learning, but these findings cast doubt on that interpretation for a substantial portion of students.

### Behavioral Reform

The Confucian vs. Socratic framework suggests that culturally Chinese students will be more likely than culturally Western students to believe that behavioral reform deserves a significant role in educational discourse. This concurs with Triandis' (1996) statements that individuals in collectivist cultures tend to give "more weight to norms than to attitudes as determinants of behavior" (p. 409; see also Heine, Lehman, Okugawa, & Campbell, 1992). In contrast, people in individualistic cultures prefer for behavior to be guided by attitudes (Triandis, 1996) and tend to be less comfortable with prolonged written or spoken discourse regarding morality (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985; Li, 1996). Even Triandis' phrasing, avoiding the use of the term morality, may reflect his sensitivity to a Western academic audience uncomfortable with discussion of morality (norms as a guide for behavior). Collectivist cultures according to this interpretation (Domino & Hannah, 1987), on the other hand, promote salience of moral rules, and Chinese culture in particular encourages moral exhortations not only by teachers and students (Li, 1996), but by political leaders, judges, and others in society (e.g., Coates, 1968).