ANALYZING ENGLISH L1 AND L2 PARAPHRASING STRATEGIES THROUGH CONCURRENT VERBAL REPORT AND STIMULATED RECALL PROTOCOLS

by

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Abstract
Paraphrasing is taught to postsecondary students to help them avoid plagiarism in their academic essays, but it can be challenging for native speakers (L1) as well as nonnative speakers (L2) of English. To examine these challenges I analyzed 35 paraphrases written by 4 English-Canadian students and 5 Japanese international students at an English-medium community college in Ontario. I evaluated paraphrase quality through a modified replication of Keck’s (2006) analytic method, and I analyzed paraphrase appropriateness through a set of criteria I developed and verified with a second rater. I then analyzed 6 concurrent and post-task reports of 3 L1 and 3 L2 students, who used a variety of paraphrasing strategies. All participants wrote relatively inappropriate paraphrases which did not always correspond with perceived appropriateness. L1 students tended to copy directly from the original text excerpts more often than the L2 students did. Implications for teaching and further research are discussed.
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Chapter 1

Introduction

In post-secondary education, many course assignments require students to familiarize themselves independently with scholarly journal articles and other sources from outside of the classroom, and then incorporate this information into their own writing (Barks & Watts, 2001; Pennycook, 1996; Shi, 2001). Part of this practice requires students to identify relevant ideas from a variety of sources and synthesize these ideas into an effectively argued report or essay. These skills are challenging yet revealing indicators of academic literacy and success for speakers of English as a first language (L1) and speakers of English as a second language (L2) alike. For L2 speakers such as learners of English as a Second Language (ESL), the demands of writing at the post-secondary level in English are further compounded by the “more difficult questions about identity, authorial authority and meaning” (Thompson & Pennycook, 2008). Not only are L2 students expected to recognize when an idea should be borrowed, but they must also recognize how the idea should be borrowed and the ways in which the language expressing that idea can become their own. The quality of written work and the appropriate borrowing of context, content (meaning), and language involve highly sophisticated linguistic and meta-linguistic strategies on the part of students, strategies which can help these students prevent copying and outright plagiarism in the eyes of content and language instructors (Barks & Watts, 2001).

For English language teachers and their L2 students, recognizing when and how to use these strategies to avoid plagiarism is not an exact science for many reasons. For one, the problem of defining plagiarism varies with the pedagogical approaches of and
principles held by instructors and researchers (see Pennycook, 1996; Thompson & Pennycook, 2008). Instructors of all disciplines are left to explore which preventative measures might be taken in the classroom to avoid incidences of plagiarism. To address this concern, many instructors of academic English and ESL recognize that quoting, paraphrasing, and summarizing skills are essential strategies for students to develop and use in an authentic academic setting (Barks & Watts, 2001; Campbell, 1987; Shi, 2001).

Paraphrasing has been found to be a frequently attempted strategy to avoid plagiarism (Keck, 2006; Shi, 2001), but little research has been done to determine and analyze the linguistic and meta-linguistic strategies used by students while paraphrasing (Keck, 2006). A challenge is to uncover the cognitive processes that take place during a paraphrasing task. Furthermore, the types, qualities, and amount of paraphrasing instruction that take place in adult L2 classrooms are unclear and probably vary greatly. I argue that among other meta-linguistic strategies used in summary writing and idea synthesis, paraphrasing is an undervalued, oversimplified, and overlooked meta-linguistic skill in the curricula of ESL teaching programs. I further suggest that determining and comparing the pre-existing meta-linguistic strategies used by L1 and L2 community college students in a paraphrase task can provide insight for curriculum developers and instructors who aim to recognize and advocate for the instruction of meta-linguistic strategies in L2 academic writing classes.

The guiding purpose of the present research therefore is to develop a clearer understanding of how L1 and L2 participants paraphrase text in English, the degree to which these participants are aware of strategies they use while paraphrasing, and how paraphrasing, if done appropriately and effectively, can serve as a useful tool in
appropriating language from external sources in an acceptable manner in a writing assignment.

This study attempted to address these concerns through an analysis of three L1 and three L2 participants’ verbal reports as they completed four paraphrases based on excerpts from an article from a Canadian current events magazine. Participants then offered additional insights into their writing habits during a post-task interview session. The data collected from these concurrent and post-task verbal reports allowed me to analyze the types and frequencies of decision-making episodes (DMEs) made by participants during the task. I further observed trends, similarities and differences in paraphrasing strategies among participants and between language groups.

The thesis is organized as follows. After reviewing the relevant studies and theories about textual appropriation and adult language learners in Chapter 2, I then present my research questions. Chapter 3 outlines the purpose, rationale and design for this study of L1 and L2 students’ paraphrases within the context of an Ontario community college. In this chapter I also describe why and how I adapted Keck’s (2006) analytic method to measure the extent to which participants copied directly from a source text during a summary task. Chapter 4 presents the results of a three-part analysis I conducted: first, I described the trends and inconsistencies in participants’ meaningful utterances as they related to paraphrasing strategies; next, I described and compared the quality of 35 paraphrases, building on Keck’s approach; finally, I judged the appropriateness of the 35 paraphrases according to three criteria established after inter-reliability tests, which eliminated four criteria out of seven. The Discussion chapter (Chapter 5) addresses limitations of the study and suggests how English and ESL
teachers need to re-evaluate how much time and attention should be devoted to paraphrasing instruction, and how appropriate paraphrases should be assessed within an L2 writing classroom.
Chapter 2

Review of Relevant Publications

To examine the role of paraphrasing and paraphrasing strategies as tools to avoid plagiarism I have identified a range of empirical studies that link paraphrasing as a skill to plagiarism and plagiarism avoidance, particularly for adult students from different language and cultural backgrounds. Studies that analyze, measure and compare paraphrasing skills and strategies between L1 and L2 adult learners are also of significance, as are the highly variant approaches to establishing and defining what appropriate paraphrasing actually is. Finally, in this chapter I address the lack of research addressing effective paraphrasing instruction in classrooms.

Paraphrasing to Avoid Plagiarism

Language teachers cannot teach paraphrasing skills effectively without first considering how the skill is linked to the concept of plagiarism and its broad definitions. There appears to be some solidarity among post-secondary academic institutions in defining plagiarism broadly as a “textual ‘crime’” (Thompson & Pennycook, 2008) in which the so-called “criminals,” or students, steal others’ words, claiming these words as their own. When the concept of textual crime is approached more narrowly, however, the distinction between the many types of plagiarism becomes blurry, and questions ultimately arise about what plagiarism actually is and how to reinforce strict ethical guidelines in colleges or universities (Barry, 2006; Pennycook, 1996; Thomson & Pennycook, 2008).

Institutes of higher education in North America have been forced to deal with students who hand in completed assignments which include an “inappropriate use of source texts – instances of textual borrowing that professors and administrators would likely label as
plagiarism” (Keck, 2006, p. 262). For L1 and L2 college and university students, avoiding plagiarism through effective means of “textual borrowing” (Pennycook, 1996, p. 201; Shi, 2004, p.172) and “discourse synthesis” (Segev-Miller, 2004, p.5) is both challenging and frustrating. Pennycook (1994, 1996) argued that for ESL students in particular, deciding when to borrow material and the degree to which someone else’s words become their own demands a variety of complex linguistic and cognitive skills, skills which present unclear and inconsistent challenges in the native-speaking academic community as well. For instance, establishing main ideas, using synonyms, changing active to passive voice, knowing when to quote or keep certain expressions, and re-ordering sentence structure demand a high lexical proficiency, advanced reading comprehension, as well as syntactical sophistication (Barks & Watts, 2001). Additionally, some researchers have claimed that post-secondary educators have an “oversimplified view of plagiarism” (Currie, 1998, p. 1), refusing to acknowledge its complexities, and treating it as a blatant act of cheating rather than part of an essential process of language learning.

Other research has explored the vague and perplexing notions of plagiarism and how paraphrasing can be treated as a potential solution to avoid stealing someone else’s words intentionally. Barry (2006), for instance, found that giving students numerical grades for six paraphrasing assignments would improve their overall understanding of plagiarism and how to avoid it. After a six-week period of practice, the experimental groups’ posttest definitions of plagiarism were more accurate than their pretest definitions. On average, participants in this group recognized plagiarism “as a form of academic dishonesty” (p. 380). Barry’s findings suggest that paraphrasing practice through graded assignments can teach students about plagiarism, but it is unclear how explicit instruction on paraphrasing strategies would also
improve students’ understanding. These findings furthermore suggested that students who completed paraphrasing assignments developed a clearer understanding of plagiarism, and paraphrasing could be used as an effective strategy to avoid plagiarism. The experimental group of students adhered to strict grading rubrics that measured the students’ level of the following criteria: “an understanding of the quote… the meaning of the quote, [the use of] correct citation after the paraphrase, and correct reference format” (Barry, 2006, p. 379). Here, Barry paid attention to students’ adherence of a specific writing process without receiving any actual instruction on rules. Students were expected to learn paraphrasing techniques by reading two articles and inductively interpreting the assignments’ grading system, not through repeated practice initiated by the instructor. The paraphrasing strategies used by the students were not addressed, nor were they reflected upon, therefore suggesting that actual instruction of paraphrasing as a skill was deemed unnecessary, given that the results measured students’ understanding of plagiarism, not which strategies students used to paraphrase in the first place.

Additionally, Barry neglected to refer to the linguistic background or to describe the overall English proficiency of the participants in this research. Regardless, it is significant to note the implied correlation between college students’ practicing the skill of paraphrasing in assignments and their developing an increased appreciation of what plagiarism means under a variety of conditions in reading and writing tasks (Barry, 2006).

Some writing centres at post-secondary institutions in North America have suggested simple tips for plagiarism prevention. The University of Toronto’s Writing Centre (Plotnick, 2009) and Purdue’s Online Writing Lab (2009), for instance, have encouraged students to adopt the “triadic model” in their writing (Barks & Watts, 2001, p. 252; Keck, 2004, p. 262). This model suggests that learning how to quote, paraphrase, and summarize content from a source
will effectively break students’ inappropriate habits of lifting text directly from sources and improperly appropriating the original author’s words.

Purdue’s Online Writing Lab (2009), for instance, listed “Six Steps to Effective Paraphrasing” and provided a sample of a legitimate paraphrase and a plagiarized version for learners to examine and compare. The six steps are as follows:

1. Reread the original passage until you understand its full meaning.
2. Set the original aside, and write your paraphrase on a note card.
3. Jot down a few words below your paraphrase to remind you later how to envision using this material. At the top of a note card, write a key word or phrase to indicate the subject of your paraphrase.
4. Check your rendition of the original to make sure that your version accurately expresses all the essential information in a new form.
5. Use quotation marks to identify any unique term or phraseology you have borrowed exactly from the source.
6. Record that source (including the page) on your note card so that you can credit it easily if you decide to incorporate the material from your paper.

Pennycook (1996) focused less on the practical skill-based approach to avoiding plagiarism and instead turned our attention to plagiarism as a concept interpreted uniquely among a variety of cultural groups and their respective academic settings. More specifically, Pennycook suggested that western teachers of English and ESL needed to develop an “awareness of cultural difference and a self-reflexivity about the practices to which we adhere” (p. 227). With regards to theories of plagiarism and practices of paraphrasing, both pragmatic (skill-based) and socio-cultural approaches to textual borrowing call for a re-examination of student practices in borrowing material and a consistency among teachers in their practices of instruction and evaluation.
Studies Examining L1 and L2 Paraphrasing

Campbell (1987), Keck (2006), and Shi (2004) have explored how native and non-native English speaking students prevent plagiarism through appropriate textual borrowing practices. In an early studies on textual appropriation and borrowing habits of ESL and native-speaking students, Campbell (1987) asked more and less proficient ESL and native-English speaking college students to write a multi-paragraph composition using vocabulary learned from an Anthropology textbook. In her analysis, Campbell classified seven types of written units within each composition and defined each written unit as a “quotation, exact copy, near copy, paraphrase, summary, original explanation, or marooned term” (p. 14). Campbell found that native speakers provided less directly copied material in their paraphrases than did non-native speakers, who were less likely to attribute material to the author and so received lower scores. However, an inter-rater reliability rating of .75 between two raters was likely due to the “unclear distinction between one category and the next” (p. 19), thus implying some variation among L2 researcher and teacher evaluations. This result questions the degree to which graders were consistent in their own interpretations of what factors contribute to a paraphrased (or slightly plagiarized) statement. Although instructors may have shared similar ideas about general ethical implications of such a practice, they might have overestimated the shared inter-rater understanding of what an acceptable paraphrase is. As a further complication, Campbell also noted that students’ final drafts may have been quite different had the learners been writing for someone other than the “immediate audience” (p. 30), the college instructor.

Keck’s (2006) study modified Campbell’s (1987) definitions of paraphrasing types but produced similar findings nonetheless. Using a “Taxonomy of Paraphrase Types” (p. 268), Keck analyzed the percentage of words borrowed and the amount of material copied directly from the
original for English L1 and English L2 writers. Both L1 and L2 writers used the same amount of individual paraphrases per summary (nearly half of an average summary consisted of paraphrases). But for L2 writers, nearly 40% of the paraphrases were made up of words with unique links, whereas for L1 and bilingual writers, 23% of the paraphrases were made up of words with unique links. Using a specialized computer program, Keck (2004) calculated the percentage of unique links, defined as “exactly copied strings of words used in the paraphrase that also occurred in the original excerpt but occurred in other places in the original text” (p. 266) within a summary. The percentage of “general links” (p. 267) was also calculated. General links, defined as “lexical words used in the paraphrase that occurred in the original excerpt but that also occurred elsewhere in the original text” (p. 267) and unique links were the broader categories used on a sliding scale to measure students’ “attempted paraphrase,” (p. 273), which “contained at least one word-level change made to the excerpt” (p. 265). In this way, Keck numerically measured the effort of a student to avoid plagiarism by trying to write a summary in his or her own words. Depending on the percentage of unique and general links within an attempted paraphrase, Keck was able to classify each paraphrase attempt into one of the following four categories: “near copies, minimal revision, moderate revision and substantial revision” (p. 268). At 95%, Keck achieved a higher inter-rater reliability among coders than Campbell did, attributing this to successful training during the pre-test and the fact that participants “were aided by line number annotations…which highlighted instances in which words or phrases used in the summary also occurred in the original text” (p. 266). For both studies, it was apparent that inter-rater reliability during a pre-test was an important factor in establishing consistent grading of paraphrases in a quantitative context.
Like Keck (2006), Shi (2004) observed differences between English L1 and English L2 paraphrases after finding that adult Chinese students, while completing a summary task, borrowed over two-thirds of original material from a source text and in some cases mixed their own words in with completely copied text. This tendency contrasted with English-speaking students, who borrowed only a quarter of original text and less frequently extracted strings of words identical to the source text. Both Shi (2004) and Keck (2006) called for more quantitative research to examine how English L1 and English L2 students quote, paraphrase and summarize material from scholarly sources and how they synthesize such material into a coherent academic essay.

Limitations to Defining and Measuring Paraphrasing

The definitions used by Keck (2006) were based on Campbell’s (1987) framework, which suggested that the extent to which someone copies material from another source could be represented on a continuum, or in “degrees” (p. 4). Keck (2006) also acknowledged that the type and extent of paraphrasing were measured on a floating scale and could be interpreted subjectively by different readers or graders, leading to problems in consistency and reliability. In addition, focusing on the product of students’ writing rather than the processes used to compose summaries and paraphrases may offer some theoretical basis and analytic rigor but provides limited pedagogical applications. Placing emphasis on a writer’s final paraphrase might have put unnecessary focus on the cultural variations on cheating as a principle; rather, focusing on specific strategies or steps during the process of paraphrasing might have enlightened researchers and educators on effective teaching practices, therefore aiming to help students from a variety of cultural and linguistic backgrounds to prevent plagiarism.
Cognitive and Meta-Linguistic Factors Influencing Paraphrasing

Paraphrasing has been viewed as a complex cognitive activity complicated by socio-cultural factors. Speaking to the general sophistication required in synthesizing texts, Currie (1998) suggested that educators of L2 learners of English may fail to consider “the layers, complexities, and ambiguities embedded in the production of text” (p. 1) when instructing L2 students and grading L2 student papers. Campbell’s (1987) suggestion that students who copy text verbatim tend to possess a certain “cognitive immaturity” (p. 29) was echoed by Segev-Miller (2004), who acknowledged that “previous research indicated that performing discourse synthesis tasks [such as paraphrasing from a variety of sources] proved too demanding for most college students” (p. 6) and is “cognitively more demanding” (p. 6) than simple summarizing skills.

Cultural factors contributing to the issue of paraphrasing as a tool to avoid plagiarism have not been overlooked either, although generalized findings have been inconclusive. In a paraphrasing experiment using Kaplan’s contrastive rhetoric model (1966), Connor and McCagg (1983) analyzed the paraphrasing ability of L1 and L2 college students who recalled main points and details after reading a text in English. Both native and non-native speaking students remembered the same amount of information from the text, but native Japanese speakers and native Spanish speakers retained the structure of the original passage more often than did native English speakers in their paraphrases. In addition, native Spanish-speakers were found by raters to be “speculative” (p. 265) in their tone and style of paraphrase. However, because factors such as “personal opinions and changes in perspective” (p. 262) were not distinguishable, it was difficult to prove a link between cultural differences in organizational
thought with this particular task. Shi (2004) also reported “different attitudes toward copying between L1 and L2 students” (p. 175).

In his discussion of plagiarism and how students in some cases commit unknowable offenses in copying and textual stealing, Pennycook (1996), in similar fashion to Connor and McCagg (1983) but omitting discussion of Kaplan’s (1966) Contrastive Rhetoric model, advocated a socio-cultural approach towards plagiarism and textual borrowing. Pennycook (1996) did not attribute Hong Kong students’ copying habits to blatant intentions to deceive. He argued that overwhelming workloads at school, insufficient training, having no “ownership over English” (p. 225), and a lack of motivation and concern for detail were responsible for students’ unwillingness to paraphrase. In fact, one student reported that he felt he would be plagiarizing the ideas of someone else’s work if he tried to put them into his own words.

Pennycook (1996) suggested that the Hong Kong students he studied lacked sufficient training in how to avoid plagiarism. This insufficient training explained their propensity for outright copying, therefore implying that teachers’ taking action in the classroom to address specific textual borrowing strategies might alleviate students’ propensity to copy chunks of language.

**Concurrent Verbal Reports and Stimulated Recall Protocols**

One way of documenting the strategies that L1 and L2 students use to compose paraphrases is to ask students to report verbally the information they are heeding (stored in their short-term memories) while they write paraphrases. These verbalizations are called concurrent verbal reports (Ericsson & Simon, 1984, 1993). Ericsson and Simon (1984, 1993) distinguished between concurrent verbal report sessions, in which participants were asked to verbalize their
thoughts as they completed a task, and retrospective verbal protocols (also known as “stimulated recall” sessions), in which participants completed a post-task interview and then reported on what they were thinking at particular moments during the task. Concurrent verbal protocol sessions were said to involve Level 2 verbalizations (Ericsson & Simon, 1984, 1993), in which participants’ cognitive processes during a concurrent verbal report task were not likely affected by the verbalization itself, although the possibility of reactivity might have occurred, in which task performance might have been affected by the verbalization itself. Participants’ verbalizations during a retrospective, stimulated recall interview, in contrast, might have encouraged Level 3 verbalizations (Ericsson & Simon, 1984, 1993), in which participants interpreted, reflected on, rationalized and possibly distorted their previous thought processes during a task.

Cumming’s (1990) research on the effectiveness of concurrent verbal protocol during writing tasks provided a useful framework for other research designs analyzing L1 and L2 adult student paraphrasing strategies. Cumming (1990) showed the usefulness of adult students’ verbal reports to document their thinking processes while composing in a second language, specifically for word retrieval, word choice, and other strategic elements students used when writing letters, summaries, and arguments. Cumming (1990) referred to “sources of variation” (p. 486), which led ESL writers to compose in individualized manners. He further suggested that a high level of proficiency in writing in one’s first language affected one’s quality of writing in one’s second language, and concurrent verbal protocol sessions with an emphasis on Level 2 verbalization allowed access to specific decisions made during the L1 and L2 writing process.

Shi (2004) also suggested that “think-aloud protocols and interviews with students would help explain the textual choices students made” (p. 190). These findings and
recommendations provoke the following questions: Does an individual’s high proficiency in writing in L1 necessarily transfer to effective and appropriate paraphrasing ability in L2? What is the best research method to discover which choices students make while paraphrasing? Using think-aloud protocols could help researchers observe some factors influencing the cognitive processes involved in paraphrasing, therefore enhancing our understanding of what specific strategies L1 and L2 participants use in a writing task.

Concurrent verbal reports might pose added challenges for L2 participants who have difficulty describing their strategies and decisions verbally in English or in their native language, especially while focusing on the challenging task of paraphrasing itself. Despite this hurdle, using stimulated recall protocols in a post-task interview in addition to concurrent verbal protocols would help to clarify some of the obscure strategies that writers may only hint at while verbalizing during a task itself. This study used both forms of verbal reports — concurrent reports and stimulated recalls — and presumed them to be complementary. I expected to obtain detailed information from concurrent verbal reports while participants wrote paraphrases, and then, after participants completed the paraphrasing task, participants would be offered additional opportunities to explain their decisions during the task, prompted by an audio recording of their own voices describing their writing strategies. This form of post-task interview using stimulated recall prompts would encourage participants to clarify any uncertainties or inaccuracies about their verbalized paraphrasing strategies during the writing task.

**Teaching Paraphrasing**

With regard to pedagogical practice, Barks and Watts (2001) noted that instruction on methods of preventing plagiarism were often superficial because they do not delve deeply into principles and the process of preventing plagiarism. Instead, teaching materials often provided
isolated steps or lists of steps, with limited time spent on revision and individualized cognitive development. Campbell’s (1987) findings contradicted this statement by suggesting that repetition of paraphrasing was beneficial, and that both first and second language college learners possessed the facility to appropriately integrate someone else’s ideas in their writing, but that these students “need[ed] to be given ample opportunity to practice this type of writing in order to train themselves to edit out instances of copying” (p. 33). Keck furthered this notion by recommending that teachers focus on “effective paraphrasing strategies” (p. 274) rather than spending time discussing different interpretations of what constitutes copying among cultures. An example of such a strategy is rhetorical planning, as stated by Segev-Miller (2004), who pointed to specific skill-based practice as a possible solution, and reported that “explicit instruction of mapping had a significant effect both on the process [of discourse synthesis] and on the quality of the [written] product” (p. 8; see also Risemberg, 1993). In her case study analyzing one ESL student’s challenges in avoiding plagiarism, Currie (1998) attributed extensive reading, vocabulary development and an increased attempt to fully understand tasks and assignments as helpful holistic strategies.

Before consistent, effective methods of instruction can be proposed or implemented in classrooms, dialogue among L2 researchers and writing teachers is necessary, given academic communities’ inconsistent views and treatments of different types of plagiarism. To establish effective pedagogical practices in classrooms requires determining and analyzing the specific strategies students use when paraphrasing, as I will demonstrate through data I collected from concurrent and retrospective verbal reports. Such research to determine students’ existing strategies on paraphrasing may, in turn, uncover inconsistencies about teaching and learning on
this topic and offer solutions to the ongoing dialogue on plagiarism and ways that L1 and L2 writers can avoid it while synthesizing material in their academic assignments.

**Research Questions**

I posed the following research questions, aiming to document and analyze closely a small sample of L1 and L2 students’ knowledge and perceptions about paraphrasing and the strategies they used to paraphrase a set of written text excerpts. I then planned to evaluate the quality and the appropriateness of the written paraphrases that the students from either language background produced:

1. What perceptions do English L1 and L2 students have of their knowledge about paraphrasing?

2. What paraphrasing strategies do English L1 and English L2 students use in a paraphrasing task?

3. What is the relative quality of the paraphrases produced by L1 and L2 students?

4. What is the relative appropriateness of the L1 and L2 students’ paraphrases?

5. What differences appear between L1 and L2 students in their perceptions, strategies, quality, and appropriateness of paraphrases?
Chapter 3

Method

The purpose of this research was to determine and analyze similarities and differences in the strategies used by L1 and L2 community college students during a paraphrasing task. These strategies were determined through descriptive analyses of the types and frequency of decision-making episodes (DMEs) that occurred during 3 L1 and 3 L2 participants’ think aloud reports as they independently completed a paraphrasing task. Participants were then given an opportunity to further explain these episodes during a post-task interview, whereupon each participant and I listened to his or her verbalized thoughts and watched a screen recording of the key strokes, cursor movements and typographic changes (e.g., adding and deleting words, changing sentence structure and using the translation dictionary on Microsoft Word) made during each of the first two paraphrases. An external rater and I analyzed the verbalized data of these 6 participants, coding for the frequency and type of certain utterances, and focusing on the DMEs verbalized by each of the 6 participants as they wrote two paraphrases.

I also determined the quality of 35 paraphrases by 4 L1 and 5 L2 participants. I defined quality according to a modified replication of Keck’s (2006) quantitatively derived set of criteria outlined in the “Taxonomy of Paraphrase Types” (pg. 268). I then enlisted the help of the same external coder to measure the appropriateness of each paraphrase using a checklist I adapted from the following sources: my descriptive analysis of participants’ DMEs, Shirley’s (2004) instructional notes on paraphrasing, Campbell’s (1987) operational definitions of the terms summary and paraphrase, and OWL at Purdue’s (2009) online tips on how to avoid plagiarism.

All participants completed a personal background questionnaire (see Appendix A) which, in addition to detailing their language and educational backgrounds, also provided contextualized
and unique insights into participants’ exposure to explicit paraphrasing instruction, their meta-
linguistic awareness of their paraphrasing strategies, and their perceptions of the purpose and 
usefulness of paraphrasing within a post-secondary writing context.

Participants

Eight female students and one male student, all studying full time in their first or second 
year at the same community college in the Greater Toronto Area, responded to my flyer (See 
Appendix B) inviting participation in the research, and agreed to participate in this study. They 
all later completed the requirements for the paraphrasing task. Participants’ ages ranged from 18 
years to 29 years old. Table 1 details their personal backgrounds and self-selected pseudonyms.

The L1 participants.

Three female participants and the male participant who spoke English as a first language 
grew up in Ontario. With the exception of Camille, who was home-schooled through a 
correspondence program based in eastern Canada, these participants received a high school 
diploma from an Ontario school. All of the 4 L1 participants were studying graphic design or 
multimedia design. Two participants, Lisa and Chris, had already obtained undergraduate 
degrees at Canadian universities and were completing certificate and diploma credit courses 
respectively in applied programs.
Table 1

Participants (N=9)

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>L1</th>
<th>Gender</th>
<th>Age</th>
<th>Program</th>
<th>Grade in Essay Writing Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camille</td>
<td>English</td>
<td>F</td>
<td>20</td>
<td>Graphic Design</td>
<td>84%</td>
</tr>
<tr>
<td>Chris</td>
<td>English</td>
<td>M</td>
<td>22</td>
<td>Multimedia Design</td>
<td>86%</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>English</td>
<td>F</td>
<td>18</td>
<td>Graphic Design/Advertising</td>
<td>exempted</td>
</tr>
<tr>
<td>Lisa</td>
<td>English</td>
<td>F</td>
<td>28</td>
<td>Graphic Design</td>
<td>exempted</td>
</tr>
<tr>
<td>Aya</td>
<td>Japanese</td>
<td>F</td>
<td>21</td>
<td>Tourism Management</td>
<td>77%</td>
</tr>
<tr>
<td>Megumi</td>
<td>Japanese</td>
<td>F</td>
<td>24</td>
<td>Business Management</td>
<td>mid-80%</td>
</tr>
<tr>
<td>Namie</td>
<td>Japanese</td>
<td>F</td>
<td>22</td>
<td>Business Management</td>
<td>75%</td>
</tr>
<tr>
<td>Nozomi</td>
<td>Japanese</td>
<td>F</td>
<td>29</td>
<td>Practical Nursing</td>
<td>74%</td>
</tr>
<tr>
<td>Yukari</td>
<td>Japanese</td>
<td>F</td>
<td>21</td>
<td>Tourism Management</td>
<td>83%</td>
</tr>
</tbody>
</table>

All L1 participants reported that English was their first language. Camille and Lisa reported being monolingual English speakers. Elizabeth was born in the Philippines and moved to Canada at two and half years, but she still considered English her first language. Her parents spoke to her in Tagalog, but she claimed she lacked proficiency in it because she was formally educated only in English. Chris reported that his parents spoke a Jamaican patois in his home: “I listened to it but it hasn’t influenced my English.”
With the exception of Lisa, who started attending this community college in 2007, the L1 participants began their respective academic programs in September, 2008. During the application process, or later in their essay writing classes, all L1 participants exhibited an above-average performance in academic English writing at the community college level. They had been selected by faculty members to work at the college’s writing centre as paid peer tutors because they showed an active interest in composition and worked well with others in a supportive academic environment. From September to December, 2008, I was Camille and Chris’ essay writing instructor in the required credit course for native English speakers. I recommended them for the peer tutoring training and subsequent hiring at the writing centre because of their above average grades (see Table 1) and because their compositions reflected clear organization, a sophisticated development of ideas, and accuracy in grammar and mechanics. Camille and Chris also exhibited critical thinking and effective time management skills.

Elizabeth and Lisa also peer taught at the college’s writing centre. Elizabeth’s college application essay was strong enough to exempt her from the requisite essay writing credit course, and she was then encouraged by faculty to become a peer tutor. Lisa had successfully completed composition courses at another Ontario college, and she had already obtained a Bachelor of Fine Arts through correspondence at a western Canadian university. Like Elizabeth, Lisa was exempted from the mandatory essay writing course. Lisa was also trained in teaching English as a second language (TESL) and had some experience working in a writing centre, so she actively sought out a peer tutoring position in the writing centre.

**The L2 participants.**

All five L2 volunteers were female international students who spoke Japanese as a first language. They all completed elementary school, junior high school and high school in Japan.
Like most other public school students in Japan, they received approximately 3 hours of English instruction per week in junior high school. Whereas Aya continued to learn English in high school for 3 hours per week, Megumi, Namie, Yukari, and Nozomi received at least 4 hours per week of English instruction in high school. All L2 participants reported learning English primarily through grammar translation in junior high school and high school, with some focus on oral communication. Namie attended high school in Germany for one year and was still learning German sporadically up until the time of her participation in this study. Megumi spent two years at a high school in British Columbia, Canada, where she completed three English as a Second Language (ESL) courses in addition to the mainstream English courses in grades ten and eleven. Both Nozomi and Aya studied at a private language school in Canada before applying for college. All L1 participants began studying full time in a range of programs at the college in September, 2008, except for Namie (L2), who entered her Business Management program in 2007.

Of the L2 speakers with previous post-secondary experience, Nozomi graduated from a large private university in Japan where Japanese was the language of instruction. Yukari graduated from a small public college in Japan, where Japanese was the language of instruction. Yukari, Aya, and Namie had attended this college’s EAP (English for Academic Purposes) program from 2 to 8 months. Before arriving at this college, none of these L2 participants had ever attended a public post-secondary institution in Canada where English was the language of instruction.

Both Namie and Yukari reported taking the TOEFL iBT test. Namie could not recall exactly her score, but Yukari remembered receiving a score of 51, which was below the community college’s English language requirement of 80 or higher for admission into most
diploma or certificate programs. Four of the five L2 participants had completed the requisite ESL essay course at the college, receiving a final grade of B or higher (see Table 1). Megumi had completed approximately two-thirds of her essay course requirements at the time of her participation in this study and had received grades of A or A-plus on her assignments and tests.

**L1 participants’ experiences with paraphrasing.**

Lisa reported learning how to paraphrase at her previous college and the university where she got her degree, but she had not been taught how to paraphrase at the community college she was currently attending. She did not recall ever learning how to paraphrase during elementary or secondary school. Camille also did not remember learning anything about paraphrasing during her correspondence high school course work, nor did she learn explicitly how to paraphrase in her college English course.

Chris recalled receiving some paraphrasing instruction before and during secondary school, estimating that he received about 5 hours of paraphrasing instruction before high school, and approximately 20 hours of paraphrasing instruction during secondary school. He claimed not to have been taught any paraphrasing tips during his college or university education. Finally, Elizabeth reported never learning how to paraphrase during her secondary or post-secondary education but did recall having been taught to “flip sentences” and “take out the details (e.g., adjectives)” some time before she began secondary school.

**L2 participants’ experiences with paraphrasing.**

None of the 5 L2 participants recalled learning how to paraphrase in their L1 at any time during their education in Japan. They did, however, recall being exposed to paraphrasing instruction at some time in their ESL careers after they arrived in Ontario to study. Nozomi and
Megumi, for example, reported receiving about 5 hours of explicit paraphrasing and summary instruction in English classes. Of the L2 participants who attended the community college’s EAP program, Yukari remembered receiving about 10 hours of explicit instruction during 4 months of EAP. Namie estimated receiving about 15 hours of paraphrasing instruction in EAP, and Aya, who studied in EAP the longest, remembered receiving nearly 30 hours of paraphrasing instruction.

The community college and composition courses.

With a full-time enrollment of approximately 20,000 students, this large community college in Ontario was offering, at the time of this research, a wide range of full- and part-time programs within the polytechnic and liberal arts disciplines. Despite its emphasis on technical and applied programs, the college had a reputation for placing high value on literacy and critical thinking. This support for the arts was reflected in its mandated general education credit (chosen from a range of elective Humanities and Social Science courses, among other disciplines) as well as compulsory English and ESL credit courses.

In order to graduate, nearly all full-time students were required to complete an essay writing course or technical writing course in their first year, as well as business writing in subsequent years of study. Learning outcomes in the essay writing courses included successful learning of research skills, idea synthesis, summary writing, and critical thinking. Because English and ESL credit courses did not explicitly list paraphrasing as learning objectives on course outlines, teaching and practicing this particular language skill in the classroom was not required, although some English and ESL instructors were known to make an effort to teach it explicitly, either as a meta-cognitive tool for language learning, or as an integral skill within the context of summary writing or research methods.
Prior to acceptance, all domestic and international applicants to the college were required to complete an initial written assessment essay, and those applicants who met the basic language requirements of credit college programs, and whose writing sample exhibited errors typical of ESL learners, were placed in the college’s ESL stream. Applicants whose initial writing sample met the minimum standards of the credit-level essay course for native speakers of English were placed directly in the communications course focusing on essay writing.

The essay and business writing courses in the ESL stream were similar to mainstream English courses in overall course objectives and learning outcomes. The credits were deemed equivalent, so students who completed writing courses in the ESL stream were not required to take the mainstream writing courses, as is typical of other community colleges in Ontario.

As part of the criteria for participation in this study, volunteers must have completed or nearly completed a mandatory essay writing course either in the English L1 or ESL stream. Alternatively, they could have been exempted from taking the required essay course because they had successfully completed composition courses at another community college, or if their college application essay exhibited a high proficiency in English, a sophisticated level of argumentation, and above-average grammatical and syntactical accuracy. This was the case for both Elizabeth and Lisa.

**Materials**

*The source article.*

A week prior to the paraphrasing session, I gave all participants a copy of an article from *MacLean’s* magazine entitled “College or University?” (Noble, 2006). I selected this article because it addressed current issues and concerns relevant and of interest to many community
college students. The article described Canadian colleges’ recent shift towards a hybrid model of education which allowed students to receive a combined theoretical degree and applied diploma concurrently, thus attracting highly motivated youth who sought occupation-specific training without foregoing a strong theoretical foundation. I chose this article also because *MacLean’s* magazine was familiar to many students attending community colleges in Canada. It featured in the college library’s periodical collection and is perhaps the leading example of a Canadian current events magazine in English.

The article is approximately 1,900 words in length and was placed at a grade 12 level on the Flesch-Kincaid readability index (using this function in Microsoft Word). This relative reading difficulty was characterized by low-frequency vocabulary such as *ubiquitous*, *baccalaureates* and *amphitheatre*, longer than average sentence length, and above-average number of syllables per word.

I instructed participants to read the entire article before arriving at our paraphrasing session. I asked them to familiarize themselves with the article’s purpose, main idea(s) and audience, but I also reassured them that I would not be quizzing them on the article’s contents. I told them I would give them a clean copy of the article to refer to during the writing task. My providing the article in advance allowed participants to read it at their own pace and in a comfortable environment, and it gave them time to check any unfamiliar concepts or terms if they felt it necessary.

*The article excerpts.*

The participants were responsible for paraphrasing four excerpts that I pre-selected from the original article. I selected each excerpt according to the following criteria: (a) it was 40 to 50
words in length, (b) it contained a clear main idea, (c) at least 65% of the excerpt contained the 1,000 most common words in English, and (d) it appeared authentically appropriate for a college student to paraphrase in a research assignment for a Humanities course.

Table 2 shows the results of a VocabProfiler (retrieved from www.lextutor.ca) analysis conducted using the Compleat Lexical Tutor version 6.2 (Cobb, 2009). Each excerpt was scanned for the frequency of each content word (i.e., nouns, verbs, adjectives, adverbs) and function word (i.e., prepositions, conjunctions). The scan highlighted each content or function word which fell within the top 1,000 (K1) most frequently used words in English, or the top 2,000 (K2) most frequently words used in English. The VocabProfiler also determined the percentage of words in each excerpt which fell under particular subgroups of Coxhead’s (2007) Academic Word List (AWL).

**Table 2**

*Word Frequencies in Four Selected Excerpts for Paraphrasing*

<table>
<thead>
<tr>
<th>Excerpt</th>
<th>Word Count</th>
<th>K1 Words (%)</th>
<th>K2 Words (%)</th>
<th>AWL Words (%)</th>
<th>Off List Words (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Excerpt 1</td>
<td>44</td>
<td>68.18</td>
<td>4.55</td>
<td>13.64</td>
<td>13.64</td>
</tr>
<tr>
<td>2. Excerpt 2</td>
<td>44</td>
<td>72.73</td>
<td>4.50</td>
<td>13.64</td>
<td>9.09</td>
</tr>
<tr>
<td>3. Excerpt 3</td>
<td>44</td>
<td>73.91</td>
<td>4.35</td>
<td>6.52</td>
<td>15.22</td>
</tr>
<tr>
<td>4. Excerpt 4</td>
<td>47</td>
<td>75.51</td>
<td>2.04</td>
<td>6.12</td>
<td>16.33</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td><strong>44.75</strong></td>
<td><strong>72.58</strong></td>
<td><strong>3.86</strong></td>
<td><strong>9.98</strong></td>
<td><strong>13.57</strong></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td><strong>1.5</strong></td>
<td><strong>3.15</strong></td>
<td><strong>1.22</strong></td>
<td><strong>4.23</strong></td>
<td><strong>3.18</strong></td>
</tr>
</tbody>
</table>
To ensure uniform task conditions, I opened up a Microsoft Word file of the task on a laptop computer and asked participants to type their four paraphrases in the spaces following each excerpt taken from the article. See Figure 1 for a sample of the template with the 4 excerpts to be paraphrased by participants.

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**Excerpt from Original**

1. Canada’s college sector is no longer what you, your parents and even some of your guidance counsellors think it is. Once purely vocational institutions, colleges have undergone a dramatic evolution in the past decade, and are poised for further – some even say transformational – change.

2. Driven by a variety of factors – demand by students and professional associations for higher credentials, government agendas, the increased cost of education infrastructure and an overall shift toward a culture of lifelong learning – colleges across Canada are offering baccalaureates in all shapes and sizes.

3. “Students graduating from high school don’t understand the tremendous range of programs available to them,” says David Thomas, vice-president, academic, at Malaspina University-University-College in Nanaimo, B.C. “The system for informing high school students of their choices has not kept up with the times.”

4. You can’t always count on smooth sailing when moving between colleges and universities. British Columbia and the Atlantic provinces are by far the most advanced when it comes to inter-institutional agreements that allow seamless transfer, the experts say. Alberta is next in line. Ontario is making progress.

*Figure 1. Four excerpts from the article “College or University?” by Noble (2006).*

**Recording tools.**

Eight of the 9 participants completed their paraphrase tasks using Microsoft Word on a laptop computer. Each participant worked with the same set of instructions and task template on the computer screen. After completing her first paraphrase on Word, Aya (L2) expressed her
preference for handwriting, so she completed her second and third paraphrases on paper, stopping short of the fourth paraphrase because of time constraints. For these reasons she was exempted from the screen recording, and I disregarded her verbal data from analysis, although I did evaluate the quality and appropriateness of her three completed paraphrases.

To capture participants’ verbalized thoughts, I used two digital voice recorders. Each participant wore a headphone set attached to a microphone to verbalize their thoughts into the first digital recorder. The headphones shut out any potentially distracting noises and allowed participants to concentrate in a quiet environment.

To observe and analyze 6 participants’ decisions as they typed, I used NBXSOFT screen recording software purchased from the Internet. This software allowed me and each participant to view in video format his or her cursor movements, additions and deletions, and any other functions used on Word (e.g., use of Word thesaurus or Word translator). During the post-task report session, each participant and I watched these videos while simultaneously listening to the think-aloud reports provided by the participant during the first two paraphrases of the writing task. For these participants I used the second digital recorder to record their reflections as they listened to their verbalizations.

Adding a second voice recording device as well as the screen recorder allowed me to verify participants’ verbalizations in three ways. First, I could ask participants what they were specifically referring to when they uttered something unclear or vague during the writing task. Secondly, I was able to verify typing sounds during the writing task and determine exactly which verbalized decisions corresponded to those typed decisions. Thirdly, if participants
spontaneously responded to or reflected upon any of their verbalizations, the second recording device would capture those spontaneous utterances.

The questionnaire.

Each participant completed a personal background questionnaire (see Appendix A), designed to offer additional insight into participants’ language backgrounds, educational experiences and their perceptions of paraphrasing. I applied data about these experiences and perceptions to my descriptive analysis of the spoken utterances made by participants during the task and to my analysis of their written products.

Procedures

Participant recruitment.

In the spring of 2009 I posted a recruitment flyer (see Appendix B) throughout the college, requesting that interested students who speak English or Japanese as a first language contact me. I sought Japanese-speaking students specifically because I had lived in Japan for two years, was familiar with the Japanese language, and could encourage L2 participants to use their L1 during the verbal protocol sessions without depending heavily on a third party translator. Because I expected many Japanese speaking students to hold international student status, I received permission from the international student office to post my flyer electronically via the school’s international student list server. I also posted my recruitment flyer in the school’s writing centre in hopes of attracting peer tutors, whom I understood to be responsible, hard workers with an above average proficiency in English writing at the college. When contacted by interested volunteers, I sent them a copy of my information and consent letter (see Appendix C) for them to peruse and ask me questions about. All volunteers who showed interest in
The participating agreed to meet me for the paraphrasing session at a day and time of their convenience.

**Introducing participants to the task.**

I asked each participant to meet with me individually in a private study room on campus for at least 1 hour. On average, the L1 participants required approximately 1 hour to complete the task requirements. The L2 participants required about 1.5 hours on average, but two of the L2 participants, Aya and Yukari, took nearly 2 hours.

Prior to the session, all participants understood they were to complete a writing task based on the *MacLean’s* article (Noble, 2006) I had given them the previous week. They also understood that their confidentiality would be protected, and they could withdraw at anytime if they chose. As mentioned, Aya elected to complete only three out of the four paraphrases because of the time-consuming nature of the task, but she did not withdraw from the study.

First, I guided each participant through the task instructions with the help of an agenda (see Appendix D). Participants read the information letter, signed the consent form (see Appendix E), and selected a pseudonym. We then discussed the purpose of verbal reports and how to complete them successfully. All participants were unfamiliar with verbalizing thoughts concurrently while completing a task, so this training session required from five to ten minutes of practice. To start the training I asked participants to watch a video on my computer showing my cursor movements and typed decisions as I began to paraphrase a selected excerpt from the information letter. Appendix F shows the accompanying instructions for the training session. Participants could also hear my voice as they watched the video of my cursor movements, typed additions and deletions as I completed the paraphrase on Microsoft Word. Showing participants
this video allowed me to control the systematic order and wording of instructions and the demonstration, therefore allowing me to control the conditions under which each participant trained for verbal reports. During the video demonstration, I was careful to focus on the verbal reporting rather than paraphrasing as a task; as a result, I showed participants only a brief verbalization of my paraphrasing so as not to be “teaching” them the skill. Instead I gave them feedback during their own verbal reporting while they paraphrased another excerpt of the information letter. I found this practice to be more valuable than my demonstration because I was able to impart advice on their verbal reporting (e.g., “please keep talking”) without imposing on them my own expectations on how to paraphrase.

Next, participants opened up an envelope containing hard copies of the task instructions (see Appendix G), a clean copy of the MacLean’s article, and the questionnaire. Together we read through the instructions for the paraphrasing task. All participants had read the article prior to the session, but I allowed them more time to read it and make notes if they felt it was necessary. I asked participants to pretend they were incorporating four excerpts taken from the article into a research essay entitled “The Benefits of Going to College” as part of a required Humanities essay assignment at this community college. See Appendix H for the actual task instructions. When the participants told me they clearly understood the hypothetical purpose and audience of the writing task, I emphasized that although this research essay was not actually going to be written in full, the participants should pretend to the best of their abilities that this task was both authentic and integral to a high-stakes college assignment they would complete for their Humanities professor.

I told all participants that they may use any language or writing tools available to them as they wrote. For instance, I allowed the L2 participants to use their own Japanese-English
electronic dictionaries if they felt it necessary, as long as they verbalized these actions during the writing task. For participants interested in using an online dictionary, or Microsoft Word’s language tools (e.g., spell check, thesaurus, grammar check, translation dictionary), the recording software captured each action and enabled the participant to later elaborate on or explain each particular action if necessary.

I allowed participants to look over all hard copies of the instructions and to ask me any additional questions about the task, the computer tools, or verbal reporting in general. Participants were permitted to speak any language they wanted during the task. I emphasized to all of them that their descriptions of their thoughts would not be judged as right or wrong but would rather enlighten me on what goes on in a college student’s mind as he or she paraphrases.

*The paraphrasing session and task.*

Each participant completed the paraphrasing task alone in a private study room. Although all 9 participants attempted to complete fully recorded think-aloud reports while being recorded on the computer screen, I received complete voice, screen and written data from only 6 of the 9 participants, 3 L1 and 3 L2 students. I experienced unforeseen technical problems for Camille and Yukari and was not able to record their verbal data in their entirety. Aya reported feeling overwhelmed by the technology as well as from the added stress of describing her thoughts, so I avoided pressuring her in order to prevent her from feeling any discomfort. For these three participants with missing verbal data I nonetheless reported their perceptions of paraphrasing, and analyzed the quality and appropriateness of their written data.

I instructed the other 6 participants to complete the first and second paraphrases while being recorded verbally and on screen. I waited outside the private study room and was prepared
to address any problems, questions or concerns if necessary. Each participant notified me upon completion of these paraphrases, at which point I stopped the screen recording but asked them to continue verbalizing their thoughts into the voice recorder for the subsequent two paraphrases.

The paraphrasing session: The post-task interview.

When all four paraphrases were completed, each participant took a brief break while I prepared the recording equipment for the post-task interview. After the break, the participant and I listened together for the first time to his or her verbal reports during the first and second paraphrases. For additional insight we watched the screen recording together at the same time. On some occasions, when I determined some verbalizations or typed episodes to be particularly meaningful or unclear, I stopped the recordings and prompted the participant to clarify, reflect upon or expand on an aspect of this recording. I made special effort to stop the recording during long pauses which indicated thinking but no verbalization. I also encouraged participants to spontaneously comment on or make observations about specific decisions they made while they paraphrased. I welcomed any opinions or insights they may have had about the original excerpt or their written product.

These open post-task sessions not only allowed me to prompt participants to address any unclear verbalizations, but it also allowed participants to expand and reflect upon the decisions they made while they wrote, thus reinforcing the strategic, and possibly demanding, nature of paraphrasing as a meta-linguistic writing task.

The paraphrasing session: Follow-up and questionnaire.

When the post-task interview was completed, I asked each participant if he or she had any additional comments, concerns or questions about any aspect of the task (e.g., level of
difficulty, relevance of the article’s subject matter, etc.). I then presented the participant with the questionnaire, telling him or her it could be taken home and sent to me by email or submitted to me at a later date. All participants completed the questionnaire and returned them to me within one week.

**Optional tutorial sessions.**

To compensate for their time and effort with this study, I offered all participants an opportunity to attend a one-on-one tutorial session on paraphrasing skills and related writing skills (e.g., summarizing, synthesizing ideas into research papers). All sessions took place after the data collected stage. Aya (L2) and Nozomi (L2) requested to attend a subsequent session with me, whereupon I was able to address their enquiries about second language writing and deal with language issues unique to their needs. Aya, for instance, requested an overview of paraphrasing skills, and together we worked on many samples and discussed some challenges with paraphrasing in isolated contexts as well as in research essays. Nozomi’s practical nursing program demanded advanced oral summarizing and paraphrasing skills, so she and I focused on verbal paraphrasing through mock nurse-patient and nurse-physician interactions.

**Data Analysis**

**Transcribing verbal data.**

I transcribed in full the reports of the 6 participants who had verbalized their thoughts during the first and second paraphrases in the paraphrasing task. To segment units in the verbal data for analysis, I identified and separated each distinct utterance or utterances which singularly or collectively represent one verbalized thought group, defined as a word or group of words which (a) followed a pause of four seconds or longer, (b) remained consistent in focus, topic or theme, or (c) represented one distinct strategy related to paraphrasing. I included all utterances in
my transcriptions whether they related directly to the task or not, including moments when participants read the original excerpt aloud, read aloud as they typed, read what they had already typed, or uttered any spontaneous word or words. For example, when Lisa (L1) verbalized her changing rationale for the syntactical structure of her paraphrase, I divided her long verbalizations into two sections, not because of the length of the verbalization of thought, but because two separate decisions existed within the phrase. The first unit of analysis became “Ok. At this point, even though I’m typing, I was just thinking that I probably want to make this one sentence because this section is so small.” The second unit of analysis became “however, now I’m thinking…so now I’ve thought that I want to make sure I’m including everything I want to say but I’m keeping it brief enough.” Although there was no four-second pause between these two utterances, Lisa had changed her first intention to keep the paraphrase short upon realizing that the original meaning might be lost if she did so. As a result, I split the longer thought group into two units for separate analysis.

Megumi (L2), on the other hand, left long pauses between her verbalizations, in some cases pausing for longer than 15 seconds. Each time Megumi paused for 4 seconds or longer I created a new unit of analysis for coding, even if she uttered only one word, or even if these words seemed linked in concept. See Appendix I for a key for transcription conventions relevant to the set of six verbal reports I transcribed. See Appendix J for sample transcriptions of Lisa’s and Megumi’s verbalized protocols.

**Coding verbal data.**

Once I transcribed and identified all units of analysis for 6 participants, I categorized each unit according to its function and purpose. I defined four subcategories and coded each as
<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
<th>Examples from Verbal Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td><strong>READING</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participant is reading aloud from original excerpt or his or her paraphrase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• [reads] <em>Driven by a variety of factors...</em></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td><strong>TYPING</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participant verbalizes what he or she is typing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participant is silent but typing was heard during transcription, indicated in text as [typing]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• [types] “various kinds of industries”</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td><strong>DECISION-MAKING EPISODE</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participant makes a linguistic choice (e.g., considering, selecting or removing words, changing word order, etc.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participant uses a tool (e.g., using online dictionary, handheld electronic dictionary, Microsoft Word thesaurus, grammar check, translator)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participant verbalizes awareness of a writing strategy (e.g., this is how I usually paraphrase)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participant gives opinion, reflects upon or judges an aspect of paraphrase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participant questions another decision</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participant describes writing habits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Industries? That may work.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• That’s okay I guess.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• What <em>poised</em> mean? I’m looking up <em>poised</em> in the dictionary.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• That’s a long sentence.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Um, I’ll just go with “toward” because that’s what it says in the original sentence.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• [translates <em>poised</em>] Ah, (..suru) youi ga jyoubun ni dekite (for); &lt;..suru&gt; youi ga dekite &lt;to do...ready for something.</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td><strong>OTHER</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inaudible utterance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sighing, groaning, muttering</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Meaningless utterance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ah, so. [unclear; possibly Japanese, possibly realizing a cause/effect relationship]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• [speaks Japanese, sighing], eh, jyanma</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 2. Coding scheme and examples of units of analysis.*

*Note.* Utterances may occur in L1 or L2
“R” (reading aloud), “T” (verbalization of typed text), “D” (decision-making episode), or “O” (other). Figure 2 displays operational definitions and examples for each code.

**Verbal report coding sessions with an external coder.**

I recruited a second coder to not only verify my operationally defined units but to further code the type of units according to my descriptors. This coder was a colleague who, like me, had been teaching ESL, EAP and communications at the post-secondary level for at least five years. In addition to our similar teaching background, this coder had graduated with the same TESL certificate as me, and from the same institution. The coder had also completed a Master of Arts in a second language teaching program at an Ontario university. The coder agreed to categorize all of the transcribed verbal reports of the 6 participants, as well as later to judge the appropriateness of the 9 participants’ 4 paraphrases. The participants’ identities and language backgrounds were unknown to the coder.

We began our coding session by reviewing the criteria for the verbalized units of analysis, as well as the descriptors for the unit type (R, T, D, or O). I gave the coder an opportunity to ask questions or make suggestions to clarify my descriptors for a more reliable coding session. For instance, the coder suggested that I merge the categories “Lexical Choice” and “Syntactical Choice” and replace these descriptors with “Linguistic Choice,” a suggestion with which I agreed.

After reviewing the criteria together, we worked through a transcription of Camille’s (L1) verbal report for Paraphrase 1. I had excluded Camille’s verbal report data from later analyses because of computer problems, but I was able to transcribe enough of her verbalizations on Microsoft Excel to create an authentic sample for the coder and I to negotiate through, unit by
When we both felt confident in our understanding of the codes, we worked individually through the transcribed data for the first paraphrase of the first L1 participant, Chris. When we completed the coding for Chris’ first paraphrase, we verbally checked each unit of analysis to see if we agreed. If the coder and I felt that some units could be further split into two units, we identified two codes, and I further subdivided the unit into two units in the transcription. If the coder and I disagreed with each other on a particular code, we explained our reasons and changed our codes only if one of us was persuaded by the other. In some instances we disagreed and left our original coding intact.

Together we coded the verbal reports of two paraphrases produced by 3 L1 participants and 1 L2 participant. We coded without interacting, later checking our codes verbally only upon completion of each paraphrase. We did not consult on the final 2 L2 participants’ verbal reports because by that time we felt confident in our understanding of the coding parameters. See Appendix K for a sample of our coding system.

**Inter-rater reliability for verbal report coding.**

The inter-rater reliability scores for our coding of the L1 participants’ \( (n=3) \) and L2 participants’ \( (n=3) \) verbal reports ranged from good to perfect, with an average percent of agreement for both language groups at 91.47%, and a Cohen’s Kappa score of 0.87, defined as a “very good” strength of agreement. The average percent of agreement was slightly higher for L1 participants (93.18%, Kappa 0.89, very good) than for the L2 participants (89.76%, Kappa 0.85, very good). See Appendix L for a detailed breakdown of our rater agreement scores for L1 and L2 participants’ verbal reports.
Determining paraphrasing strategies: Verbal report analysis.

Because my main research question involved an exploratory, descriptive analysis, I considered task duration to be an elective, strategic choice for all participants. I therefore chose not to impose a time limit on the paraphrasing task and instead used it as a variable of comparison. Before extracting the types and frequencies of paraphrasing strategies from the verbal reports of the 3 L1 and 3 L2 participants, I documented their task completion time (in seconds) using the digital recording device timer and compared task duration across language groups, individual participants, and their paraphrases. I also compared across individuals and language groups the number and percentage of decision-making episodes (DMEs) for the first two paraphrases of each of the 6 participants who completed the entire verbal report for the task.

I then undertook a descriptive analysis of all DMEs by observing the trends in the frequencies and types of decisions made. For instance, I looked for repetitions of words (e.g., how many times participants used the word summary), meta-references to paraphrasing strategies and habits (e.g., “this is what I usually do when I paraphrase”), and the use of electronic reference tools for definitions, synonyms, or translations. I then summarized consistencies and inconsistencies of these verbal reports with the goal of eventually linking these actions and strategies to the quality and appropriateness of the paraphrases produced by these 6 participants.

Measuring Paraphrase Quality

To incorporate into this study a more objective approach to the measurement and categorization of paraphrases, I chose to replicate elements of Keck’s (2006) quantitative analysis of L1 and L2 students’ paraphrase attempts in a summary task. In an effort to reliably categorize the extent to which L1 and L2 participants copied from a source during a writing task,
Keck developed a “Taxonomy of Paraphrase Types” (p. 264), which I modified and applied to my analysis of participants’ attempted paraphrases.

I labeled this type of analysis a *paraphrase quality analysis*. I chose this label because it reflects the strict moral and ethical standards by which writing students are often evaluated in an academic setting, thus implying that a better paraphrase would most likely be copied less directly, thus showing a successful attempt by the writer to avoid plagiarism, one of the purposes and benefits of paraphrasing. Using this type of analysis, a *high quality* paraphrase would be considered a substantially revised one. From a linguistic perspective, the term *quality* acknowledges the sophisticated lexical and syntactical skills required to produce a paraphrase which, although recognized as acceptable, might still fall on a continuum (see Campbell, 1987) depending on the way in which words are borrowed or copied from an original source.

Because of the differing objectives in our research designs, my analysis diverged from Keck’s (2006) in a few key ways. First, Keck’s study sampled a more diverse group of L1 and L2 participants in larger numbers, and within a different academic context. Whereas my participants (*N*=9) were all students at a community college and either grew up speaking Japanese or English, Keck recruited 165 undergraduate composition students from a variety of language backgrounds.

Secondly, with the help of external coders, Keck identified and analyzed “attempted paraphrases” (p. 264) within participants’ summaries of a *Newsweek* article entitled “Where Have the Children Gone?” (Meyrowitz, 1982). Keck then used a computer program to help identify, extract and separate words within “unique links and general links” (p. 266) among other
variables such as word count and “reporting phrases” (p.266), which indicated if participants clearly attributed their paraphrases’ key ideas to the original author.

I, on the other hand, explicitly instructed my participants to paraphrase four excerpts I had independently selected from the aforementioned MacLean’s article “College or University?” (Noble, 2006), so I did not need to code for attempted paraphrases; I instead focused on word count, general links and unique links as variables in my analysis. Keck’s (2006, pp. 266-274) identification, coding and analysis of paraphrases nonetheless informed my methodology.

I also incorporated into my analysis Keck’s distinction between words within unique links and general links for each paraphrase attempt. Such classification was a crucial step in determining the type of paraphrase attempt within Keck’s Taxonomy of Paraphrase Types. Keck first counted the number of words within unique links occurring in each paraphrase attempt and then divided the number of words in the link or links by the total word count of the paraphrase. Unique links were “tied only to a specific excerpt of the source text” (p. 267) and were defined as “individual lexical words (i.e., nouns, verbs, adjectives, and adverbs), or exactly copied strings of words used in the paraphrase that (a) also occurred in the original excerpt but, (b) occurred in no other place in the original text” (p. 266).

For the purposes of my analysis, I determined unique links by identifying all directly copied lexical words or strings of words in my participants’ paraphrases, but because my participants were not completing a summary task, their paraphrases were already tied directly to the original excerpt, and I did not observe if these lexical words existed elsewhere in the original article. I discounted most function words (e.g., articles, prepositions, personal pronouns, auxiliary verbs, and conjunctions) because their relative high frequency in the English lexicon made it
impossible for me to determine if these words had been copied or used spontaneously. However, I did count the directly copied function words if these words were attached to unique lexical links from the original excerpt. For example, the expression *in all shapes and sizes* was included in the excerpt in my participants’ second paraphrase task, taken directly from Noble’s (2006) article “College or University?” If a participant copied the words *shapes* as well as *sizes*, I counted this as two words within a unique link. If a participant copied the entire expression *in all shapes and sizes* (including the preposition *in*, the adjective *all*, and the conjunction *and*), this unique link (or, string of words) contained five words and was therefore counted as five words. I was careful to include these linked function words in my analysis because direct copying appeared most blatant in these instances, as it likely would to a college writing teacher marking a student’s essay containing directly borrowed clichés or idiomatic expressions. Acknowledging these function words in my analysis also justified my inclusion of these words in the total word count of each paraphrase.

Keck (2006) defined *general links* as “lexical words used in the paraphrase that occurred in the original excerpt but that also occurred elsewhere in the original text” (p. 267). I interpreted this definition to mean that some, if not many, words in English were difficult or illogical to find synonyms for, and were therefore acceptable to copy directly. Shirley (2004) concluded that “some key terms…should be retained in our paraphrase; these are often proper nouns or place names or jargon terms from a particular discipline” (p. 187). With this in mind, I predicted that L2 learners might have difficulty recognizing which words were more and less appropriate to borrow; so, I identified words in the excerpts which would be considered acceptable to copy, and I considered them general links and excluded these words from the total word count of each paraphrase. General links that I excluded were high frequency lexical words such as *college,*
university, high school, or student. Proper nouns such as place names (e.g., Canada, British Columbia or college names), personal names (e.g., David Thomas) and job titles (vice-president) were also excluded from analysis. Hyphenated words, full names and compound nouns (e.g., high school) counted as one general link because the term would lose (or change) meaning if half of the compound were dropped. All of these words seemed to me to be acceptable to copy in a paraphrase, along with words whose morphological form had changed (e.g., from noun to verb) from the original excerpt into the paraphrase. Keck referred to this type of change as an acceptable “word-level change” (p. 265).

Beyond tallying the percentage of unique link words per paraphrase, Keck also showed concern for the length of links, such as how many words in a row were directly borrowed from the original excerpt. I chose to focus only on the number of words copied so I could determine the percentage of directly copied words in each paraphrase.

To analyze paraphrase quality, I first used Microsoft Word’s word count feature to determine the number of words in each attempted paraphrase. I then identified and tabulated the general links (e.g., proper nouns and high frequency nouns) to subtract from the total word count. The numerical difference acted as the denominator from which I would derive a percentage of words directly copied, the words within unique links. To determine the percentage of unique links in each paraphrase, I identified and tallied the number of directly copied words within each paraphrase, and I divided this number of words in unique links by the total number of words in the paraphrase (minus the number of general links). I then classified the percentage of words within unique links according to Keck’s Taxonomy of Paraphrase Types. Figure 3 shows the categorization of paraphrase types which include the percentage of words in unique
### Taxonomy of Paraphrase Types

Based on the sample excerpt from Noble’s (2006) article “College or University?”:

*Once purely vocational institutions, colleges have undergone a dramatic evolution in the past decade, and are poised for further – some even say transformational– change.*

<table>
<thead>
<tr>
<th>Quality/Paraphrase Type</th>
<th>Description</th>
<th>Example (with Explanation)*</th>
</tr>
</thead>
</table>
| Near Copy               | 50% or more words contained within unique links | *Once purely vocational institutions, colleges have evolved a lot in the past decade, and are ready for further change.*  
(10 copied words out of 18 words = 55.56% words contained within unique links) |
| Minimal Revision        | 20-49% words contained within unique links | Before the past decade, colleges were purely focused on helping students find careers; however, they have now expanded their options and are poised for further changes  
(10 copied words out of 25 words = 40% words contained within unique links) |
| Moderate Revision       | 1-19% words contained within unique links | Over ten years ago colleges focused solely on helping students find careers; however, they have now expanded what they can offer academically to students and are ready for further changes  
(3 copied words out of 29 words = 10.34% words contained within unique links) |
| Substantial Revision    | No unique links | Colleges used to focus solely on helping students find careers; however, within the last ten years they have been significantly expanding students’ academic options and are prepared to accept what quite a few are labeling a revolutionary shift in the future.  
(0 copied words out of 40 words = 0% words contained within unique links) |

*Words in unique links: Words in general links

**Figure 3. Adaptation of Keck’s (2006) “Taxonomy of Paraphrase Types.”**

**Note.** Examples are from Noble’s (2006) article rather than from Keck’s examples.
links within each category, exemplified by samples I created using the context of participants’ task, not Keck’s. Appendix M shows an analysis of paraphrase quality for an L1 participant, Camille, and an L2 participant, Namie.

**Rationale for establishing criteria of paraphrase appropriateness.**

After adapting Keck’s (2006) quantitative analysis of paraphrases, I developed a list of criteria by which to subjectively measure the appropriateness of paraphrases. I designed these holistic measures to mimic the perspective of a writing teacher within the context of a post-secondary writing course at the community college level.

There were other reasons why I created these criteria. First, in Keck’s (2006) study, attempted paraphrases were identified and coded within a summary task, within which paraphrases were attempted spontaneously. However, the attempted paraphrases in my study were highly controlled; all participants already understood they were to complete a paraphrasing task, not a summary task. Applying Keck’s analysis to my participants’ paraphrases would have been insufficient because the purposes of the writing tasks differed. Secondly, I observed that a subjective, more holistic analysis was necessary to apply to my participants’ attempted paraphrases because it allowed an evaluator to look beyond the extent of copying and find other problematic features of a written paraphrase. I predicted this type of analysis would garner differing results. This discrepancy was significant to me, and it compelled me to carry out a variety of measures that allowed me to analyze the ways in which paraphrasing strategies differed, and how these strategies correlated to appropriate or inappropriate outcomes.

For example, I discovered that paraphrases labeled *substantial revisions* (e.g., a *high quality* paraphrase) using Keck’s (2006) *Taxonomy* could at the same time be considered
inappropriate within an academic writing context (such as a writing course). Despite my certainty that the participants recognized the goals and expected outcomes of their paraphrasing tasks (as they had mentioned in the questionnaire), I noted that my participants’ attempted paraphrases, even the paraphrases not directly copied, neglected to fulfill the criteria of what might be considered in the academic community as “effective, acceptable paraphrases” (Shirley, 2004, p. 186). Many of my participants’ paraphrases (a) were substantially lower in word count than the original excerpt, (b) omitted key points from the original excerpt, (c) appeared to have been summarized, and (d) failed to meet paraphrasing guidelines and recommendations from researchers (see Barks & Watts, 2001), educators (see Shirley, 2004), and popular online writing centers (e.g., Purdue University’s online writing lab, OWL).

For example, many educators (see Shirley, 2006) have agreed that a reporting phrase (e.g., “Noble argued that...”) is necessary for a paraphrase to be appropriate. Shirley (2006) stated that a paraphrase should not “distort the meaning of the original” (p. 187), and the OWL at Purdue website defined a paraphrase as “a more detailed restatement than a summary” (Purdue University Online Writing Lab). These omissions in my participants’ paraphrases led me to wonder if (a) the writer did not comprehend the original excerpt, or, (b) the writer believed it was not necessary to include all key details in his or her paraphrase. Campbell’s (1987) operational definitions of paraphrase and summary also influenced my distinction between appropriate and inappropriate paraphrases. Campbell (1987) claimed that summaries “represented the gist of information from the background reading” (p. 14) and paraphrases “involved more syntactic changes of the original…text than near copies” (p. 14). This distinction was applied to my criteria of appropriateness to determine if participants understood that writing only the gist of the original excerpt would be insufficient and therefore unacceptable.
To further explore the acceptability of participants’ paraphrases in my study, I synthesized these aforementioned guidelines and considered the DMEs of the verbal reports, all of which led me to propose a set of required criteria within a Checklist for Paraphrase Appropriateness. With the aid of an external coder, I then counted the number of satisfied criteria for each paraphrase and categorized all 35 paraphrase attempts as appropriate, somewhat appropriate, somewhat inappropriate, and inappropriate. These Criteria for Paraphrase Appropriateness are outlined in Figure 4.

Criteria for Paraphrase Appropriateness

**Step 1**  
**Checklist for Paraphrase Appropriateness**

- a) Attributed source to original author
- b) Appropriate/sufficient use of synonyms for terminology
- c) All key points of the original excerpt are retained
- d) Sufficient syntactical shift (word order, active to passive, etc.)
- e) It is not a summary
- f) Word form changed
- g) Participant’s opinion is not reflected

**Step 2**  
For the paraphrase to be fully appropriate, it must adhere to all of the criteria in the following checklist.

If the paraphrase does not adhere to all of the criteria, the rater should judge the level of appropriateness based on the criteria the paraphrase actually meets:

**Level of Appropriateness**

- ✓ Appropriate (meets all criteria)
- ✓ Somewhat appropriate (meets 5-6 criteria)
- ✓ Somewhat inappropriate (meets 3-4 criteria)
- ✓ Inappropriate (meets fewer than 3 criteria)

*Figure 4. Criteria for paraphrase appropriateness.*

*Note.* Adapted from Shirley (2004) and Purdue University Online Writing Lab (2009).
Identifying and analyzing paraphrase appropriateness.

Considering the subjective nature of this assessment tool, I enlisted the help of my colleague who had previously coded participants’ verbal data for decision-making episodes. Following a brief training session, the rater and I independently graded all 9 participants’ completed 35 paraphrases according to the Criteria for Paraphrase Appropriateness. For a sample of the rating results for Chris’ and Elizabeth’s four paraphrases, see Appendix N.

To measure the grading reliability for Level of Appropriateness between the rater and me, I (a) determined the percentage of observed agreements in all four criteria, and (b) measured the strength of agreement using Cohen’s Kappa for all four criteria. Out of 35 paraphrases, the rater and I agreed 17 times, with an observed agreement rate of 48.57% and a low Cohen’s Kappa of 0.23. In other words, the rater and I rarely agreed on the appropriateness of paraphrases based on these narrowly defined parameters. An example of this disagreement is highlighted in Appendix N. Despite a brief training session, our interpretations of the terms somewhat appropriate and (fully) appropriate, for example, remained extremely muddled and divergent, suggesting that the terms themselves involved a subjective analysis too ineffective for measurement.

I then merged the four criteria into more generally defined terms appropriate and inappropriate. To do this, I discarded the term somewhat by merging this column into the appropriate column. I did the same for the term somewhat inappropriate, which I merged into the term inappropriate. See Appendix O for a sample of these new categories. I then conducted reliability measures for the two columns appropriate and inappropriate. I determined that out of 35 paraphrases, the rater and I agreed 28 times, an observed agreement rate of 80% and a Cohen’s Kappa score of 0.47. The Kappa score suggested a moderate reliability when considering agreement by chance, thus implying that even under these broadly defined
conditions, rater agreement was difficult to establish, therefore making appropriateness of individual paraphrases a challenge to gauge.

Finally, I determined the rater agreement not per Level of Appropriateness, but for the items on the Checklist for Paraphrase Appropriateness. I wanted to determine if some categories could be more objectively interpreted than others and were therefore measureable and operational for a meaningful analysis. See Appendix P for a detailed breakdown of rater agreement per criterion. Out of the seven criteria, only three placed higher than 80% agreement between the second rater and me:

1. The paraphrase attributed source to original author (100% observed agreement, Kappa = 1).

2. All key points of the original excerpt are retained in the paraphrase (82.86% observed agreement, Kappa = 0.60).

2. The participant avoided summarizing (82.86% observed agreement, Kappa = 0.70).

A Cohen’s Kappa analysis indicated that for these three criteria, reliability was low when considering agreement by chance. However, I argue that analyzing these three criteria is still worthwhile because the volunteered utterances of participants during the verbal report corroborate the three criteria met in the written products, especially with respect to participants’ perceived notions of what constitutes an appropriate paraphrase and what does not.
Chapter 4
Findings

This chapter presents the results of the analyses I completed to answer my research questions. As stated previously, the research questions were:

1. What perceptions do English L1 and L2 students have of their knowledge about paraphrasing?
2. What paraphrasing strategies do English L1 and English L2 students use in a paraphrasing task?
3. What is the relative quality of the paraphrases produced by L1 and L2 students?
4. What is the relative appropriateness of the L1 and L2 students’ paraphrases?
5. What differences appear between L1 and L2 students in their perceptions, strategies, quality, and appropriateness of paraphrases?

In this chapter I present findings for the first four research questions in sequence, but I integrate observations and results for the fifth research question in with reports of findings for the first four questions. Sources of data for the first research question were the questionnaire students completed as well as observations they offered during the stimulated recall interviews. Sources of data for the second research question were the concurrent and retrospective verbal reports that a sub-sample of the participants produced during the paraphrasing task. For the third and fourth research question, I and another rater evaluated the quality and appropriateness of the written paraphrases that the students had composed.
Participants’ Perceptions of Paraphrasing: Research Question 1

Three of the 4 L1 participants—Chris, Camille and Lisa—acknowledged that paraphrasing involved rewording or restating an idea into different words. Camille, for example, defined paraphrasing as “rewording something previously written in order to convey the same meaning using completely (or nearly completely) different wording.” Elizabeth differed in her interpretation of paraphrasing, suggesting that paraphrasing involved “summarizing the main idea of a text concisely.”

With the exception of Aya, the L2 participants stated similar definitions in their questionnaires, emphasizing the importance of retaining the original meaning from a source text. For instance, Megumi wrote that paraphrasing was the “same meaning, different words,” and Namie stated that paraphrasing involved “writing a phrase or paragraph with my own words without changing the original meaning.” Aya was more specific in her definition, advising writers to “rewrite an article in your own words. Don’t copy sentence structures that an author used. Choose your words carefully.”

When asked about their typical paraphrasing strategies, participants’ responses varied. Elizabeth wrote about structural changes in paraphrases, saying that she “flip[s] sentences, take[s] out details (e.g., adjectives).” Chris paid more attention to key details, saying, “I just go word by word, finding synonyms for each one.” Camille also alluded to synonyms while also acknowledging a conceptual basis to connect reading and paraphrase writing: “I read through the passage and try to understand it. Then from my understanding, I rephrase the original in as much my own words as possible. I often use synonyms of specific words from the original.” Finally, Lisa said she “read[s] over and over then select[s] main points.”
Like Lisa, two of the L2 participants, Namie and Nozomi, emphasized the importance of catching the gist of an excerpt before paraphrasing it. Namie said, “[I] usually try to grab the broad context of the original paragraph; if I memorize it, I cannot paraphrase anymore,” and Nozomi added, “read the whole sentences and think about the main idea. Generalize and change important parts to words.”

In contrast to the L1 participants’ emphasis on reading and use of synonyms, some L2 participants acknowledged the importance of overall comprehension and getting an impression from context. For instance, Aya said, “I try to make sentences easier to understand. Also, I try to understand why authors really want to say.” Like Elizabeth, Yukari was more aware of syntactical changes in her approach: “[I] try to change the subject, then it’s easy to change the structure. [I] try not to use word that I don’t fully understand.” Megumi agreed, saying that she “find[s] synonyms and change[s] the order.”

All L1 and L2 participants agreed that paraphrasing is an important skill to learn in English. Camille rationalized this by describing the importance of textual ownership, saying that paraphrasing helps people “avoid using too many quotations” and that a text becomes “yours rather than repeating someone else’s words.” Yukari felt the same, suggesting that “People have to protect one’s intellectual property right.” Namie said that paraphrasing is “an effective way to avoid plagiarism,” and Chris said that paraphrasing “keeps you from copying directly” and “makes sure you understand.” Camille showed an awareness of audience, stating that “[paraphrasing is] a way to simplify [an original text] in order to help your own readers better understand the meaning.”
Megumi, Aya and Yukari all observed that they believe paraphrasing will help them improve, increase, or expand their vocabulary. Elizabeth agreed with this lexical component, suggesting that paraphrasing “helps with reading skills and extracting what is important from a body of text.” Lisa interpreted the purpose more holistically, saying that paraphrasing “allows people to share important facts.”

All L1 participants claimed that paraphrasing was a relatively easy writing skill for them. When asked to rank the perceived difficulty of paraphrasing on a scale of zero to 10, with 10 being very easy, the responses ranged from a 7 (“somewhat easy”) to 9 (“very easy”).

By contrast, the L2 participants showed more range in their responses. Namie said that paraphrasing in general was “somewhat easy” (choosing 6 out of 10), whereas Nozomi said it was “very difficult” (2 out of 10) and Aya, Yukari and Megumi selected “difficult” (3 out of 10) as their response.

**Strategies for Paraphrasing: Research Question 2**

**Time of task completion.**

Some participants articulated a readiness to complete the task at a time of their choosing by showing satisfaction with their paraphrases; Namie, for instance, said, “It’s okay. I cannot improve this,” and Lisa said, “I think I’m comfortable with my summary.” Namie said, “it sounds kind of awkward but I think I’m done.” In these instances, these participants indicated that they completed the task at a time of their choosing, focusing primarily on the content of their paraphrases even though the words “I think” may reveal some uncertainty about the quality or appropriateness of their paraphrases. Figure 5 shows the time taken to
complete Paraphrase 1 and Paraphrase 2 by the 3 L1 and 3 L2 participants who produced the verbal reports successfully.

As shown in Figure 5, Elizabeth’s first paraphrase took her over 3 minutes to complete (388 s), the fastest time of all participants for both paraphrases, whereas Megumi required the longest time on the first paraphrase, taking nearly 19 minutes. Nozomi spent the longest time out of the 6 participants, finishing her second paraphrase in 19 minutes 42 seconds (1182 s).

All L1 participants required less than 10 minutes of time per paraphrase, whereas all L2 participants required more than 10 minutes, with the exception of Namie, who took about 5 minutes to complete her first paraphrase. For the second paraphrase task, all L2 participants also required more time than all the L1 participants, with Nozomi’s paraphrase requiring two times as long as any of the L1 participants. Finally, everyone required more time to complete their second paraphrase except for Megumi, who required 7 fewer minutes on paraphrase 2.
Table Q1 and Table Q2 in Appendix Q show the completion time (in minutes) for 3 L1 participants and 3 L2 participants, respectively.

On average the L2 participants required nearly twice the amount of time of L1 participants to complete their first two paraphrases. Figure 6 outlines the mean completion time for both language groups. The L1 participants required about 6 minutes (362 s) on average, and the L2 participants required nearly 14 minutes (836 s) to complete their paraphrases.

![Figure 6. Mean completion time (in seconds) for paraphrases 1 and 2 between language groups.](image)

*Note.* L1 (n=3), L2 (n=3).

**Total number of units of analysis per participant per paraphrase.**

Considering the differing lengths of time taken by each of the 6 participants to complete their paraphrases, I calculated the sum for each of the types of verbalized units (e.g., verbalizations of typing, reading and decision-making episodes) according to my operational
definitions. Figure 7 shows that the number of measurable units identified in participants’ 
(n=6) verbalizations increased from their first to their second paraphrase. For everyone but 
Megumi, their total number of verbalized units doubled, and in some cases tripled, from the 
first to second paraphrase. Figure 7 also shows that the total number of operational units 
uttered corresponded, in most cases, to task duration. Megumi’s uttered units increased from 
the first paraphrase to the second, even though her time decreased dramatically, suggesting 
that her verbal protocol in the second paraphrase contained fewer meaningless utterances than 
the verbalized thoughts in her first paraphrase. For all other participants in this analysis (n=5), 
the number of verbalized units corresponded to the duration of their verbalizations during both 
paraphrases, increasing in all cases except for Megumi’s. For a detailed breakdown of the 
number of verbalized units per participant, see Appendix R.

Figure 7. Total verbalized units of analysis for paraphrases 1 and 2 for L1 and L2 
participants.
Note. L1 (n=3), L2 (n=3).
I calculated the mean number of verbalized units for paraphrases 1 and 2 for each language group. Figure 8 shows that for each group the average number of verbalized units more than doubled from the first to the second paraphrase task, a finding which corresponds to each language group’s mean task completion time, which also increased between the two tasks. Also supporting the L2 participants’ longer task duration time for paraphrases 1 and 2 is the mean number of episodes which was double that of the L1 participants.

![Figure 8. Mean number of episodes in concurrent verbal reports for paraphrases 1 and 2 per language group.](image)

*Note.* L1 participants (n=3), L2 participants (n=3).

The external rater and I coded each episode within participants’ verbal reports (n=6) for verbalized occurrences of reading (R), typing (T), decision-making episode (DME) and other (O). As defined in Chapter 3, DMEs were categorized as verbalized choices or opinions
related to the linguistic and strategic elements connected to a writing task such as a paraphrase. To determine the proportion of DMEs among the entire verbal report compared to other verbalized units (i.e., reading, typing and “other”), I divided the number of DMEs per participant per paraphrase from the total number of units within the entire verbal report for each paraphrase. As shown in Figure 9, the mean percentage of DMEs was approximately the same for both language groups, with the L2 group uttering a larger percentage of DMEs on average, nearly half of all uttered episodes constituting DMEs. The L1 group’s mean percentage of DMEs was slightly lower but overall supporting the tendency of both groups to make strategic decisions directly related to paraphrasing less than half of the time of their verbal reports.

Figure 9. Mean percentage of decision-making episodes (DME) within verbal reports for paraphrases 1 and 2 per language group.

Note. L1 group (n=3), L2 group (n=3).

Figure 10 demonstrates the individual DMEs in percentages for both language groups. Chris, for example, uttered the lowest proportion of DMEs in relation to all other participants.
in both language groups (all were females), and nearly 20% fewer DMEs compared to the other L1 participants, Lisa and Elizabeth. Chris, then, was not only the least verbal of all participants in all instances, but he also produced the least amount of meaningful, decision-based utterances in both of his verbal reports. As a consequence, Chris verbalized fewer strategies than the other participants as he completed both paraphrases.

**Figure 10. Percentage of decision-making episodes (DME) in L1 (n=3) and L2 (n=3) verbal reports for paraphrases 1 and 2.**

Whereas Elizabeth and Nozomi uttered a consistent percentage of DMEs overall, Lisa’s, Megumi’s and Namie’s percentage of DMEs declined as they moved from paraphrase 1 to paraphrase 2, despite the fact that Lisa and Namie increased the number of utterances from their first to their second verbal reports. Tables S1 and S2 in Appendix S show the individual percentages of DMEs per participant per paraphrase.
**Verbalized paraphrasing strategies.**

The following analysis describes the characteristics of the DMEs made by the participants collectively. To do this, I observed trends, repetitions, incongruities, inconsistencies, or unique strategic or stylistic approaches to the first two paraphrasing tasks, as evident in participants’ concurrent and post-task verbal report data.

**References to main idea or “gist” of the original excerpt.**

None of the L2 speakers explicitly stated the main idea or gist of either excerpt from the source text, but all L1 participants verbalized the excerpts’ underlying themes early on in their paraphrases. In his first concurrent verbal report, Chris said “Um…the gist of the first sentence is…” while Elizabeth claimed, “So the main idea here is that colleges are changing,” later repeating “the main thought here is that colleges are transforming.”

Lisa also noticed an underlying theme within the first excerpt, indicating some possible reactivity in her verbalization by explaining or justifying her reasoning for her observations or setting tentative goals for herself:

So…some of the most important points that I can see in this paragraph are… I feel like the most important point is probably that colleges are undergoing huge changes and I would say that since the- a decade is such a small amount of time, I’d wanna focus on that.

About one minute into her second paraphrase Lisa made note of key points: “So I’ve read it again…and…some of the things that are standing out to me is the idea of lifelong learning as well as the desire for things like higher credentials.”
References to syntax and structure.

In his post-task interview for the second paraphrase, Chris mentioned the need to break up longer sentences from the excerpt in his paraphrase, but he also expressed uncertainty about doing this. Elizabeth was more certain in her decision. Upon recognizing the main idea of the second excerpt for paraphrase 2, Elizabeth said, “So here I could flip this sentence.” In the post-task interview I asked her what she meant by “flip.” Table 3 shows a sample of our exchange.

Table 3
Excerpt from Post-task Interview with Elizabeth

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Speech Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lara</td>
<td>Why did you say “flip it?”</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>Um, just in school I was taught a lot, like if you need to rephrase something, sometimes, and you’re stuck just like finding like synonym after synonym it helps to invert the sentences, like so putting that part at the beginning and then…</td>
</tr>
<tr>
<td>Lara</td>
<td>Do you see [the flip] structurally, like grammatically, or is it more of a conceptual flip?</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>Ah, I'm not- I'd say conceptual but now, now that I'm talking about it I’m seeing it like more grammatically, well not extremely grammatically but just the fact that the main idea’s at the end and then all reasons behind it at the beginning…but in terms of clauses I didn’t really think about that.</td>
</tr>
</tbody>
</table>

Note. Reflecting on concurrent verbal report for paraphrase 2.

For Paraphrase 2, Megumi had difficulty with the author’s habit of using recursion by adding long lists of examples punctuated with dashes, as illustrated in the excerpt from the
source text immediately below. Megumi expressed concern about this type of syntactic arrangement:

Driven by a variety of factors – demand by students and professional associations for higher credentials, government agendas, the increased cost of education infrastructure and an overall shift toward a culture of lifelong learning – colleges across Canada are offering baccalaureates in all shapes and sizes (Noble, 2006, p. 28).

During the post-task interview, Megumi said, “This kind of structure … it describes the factors, right? It’s not like when we speak in conversation, so when I read it the first time, it’s not what I understand so I need to go over it twice or three times.” Here, Megumi is showing awareness that written English does not always correspond with spoken English, particularly in journalists’ use of complicated syntax and highly parenthetical structures.

Nozomi was the only participant to verbalize any concern for grammar structures. For Paraphrase 2 she used the dictionary for the word choices, not for the definition, but to see which preposition followed. She also looked up the word expectation to determine its grammatical properties after asking, “Is it plural or uncountable?”

Retaining all key points in a paraphrase.

In the post-task interview Chris stated “I wanted to paraphrase each [original] sentence into an equal sentence,” implying that syntactical or content-based similarities should exist between the article excerpt and the paraphrase. Chris further explained that such equality was important because it would enable him to finish faster and get his ideas out quicker. A few minutes later in the post-task interview he verbalized a conscious effort to not leave out key points from the original excerpt if he “followed the same format…the same form of ideas as [the author] did…[he] wouldn’t miss anything.”
By contrast, while attempting to retain the key idea about government agendas from the original text, Elizabeth wondered if this exact key idea could be generalized: “So...I don't think I need to get that specific for paraphrasing.” Lisa also expressed interest in retaining all key points: “Now I’ve thought that I want to make sure I’m including everything I want to say but I’m keeping it brief enough. Later on, Lisa said, “Ok. Now I realize that maybe I’m trying to include too much information?” Upon finishing her first paraphrase, Lisa said, “I considered that maybe I wasn’t being clear…but I think with just the paragraphs that are here, or just the few sentences that I have to paraphrase I think that I did capture all the information.”

Chris twice mentioned how his daily academic activities and exposure to academic English influenced his word choice. His use of the low frequency word stakeholders in Paraphrase 2 was influenced by a conscious recall of this word in his daily schooling. He suggested that the term stakeholders was “ingrained in my head from a course at school.” He claimed that using the word student in a paraphrase was acceptable because it was difficult for him to think of another word for it: “there’s really not much you can change…like students is hard to…uh…paraphrase.” Here, Chris was showing awareness that Keck’s (2006) claim that general links are acceptable because of their highly frequent usage in the English lexicon.

Avoiding direct copying.

Of the L1 participants, Chris verbalized no explicit effort to avoid copying, but Elizabeth and Lisa verbally demonstrated a conscious awareness of implicit rules they had been taught in the past about borrowing indirectly from an original source. For paraphrase 1, Elizabeth questioned the appropriateness of directly copying strings of words from the original excerpt. For instance, she verbalized the desire to copy purely vocational from excerpt one into her own paraphrase, but she then rethought this decision: “Purely vocational. Should I rephrase
that? Hm. Well, using two words is not...yeah...using two words isn’t plagiarism...so [types purely vocational].” During the post-task interview, when I asked her about this rule she believed to be true, Elizabeth recalled a moment in high school when her English teacher taught her about quoting:

Yeah well [my teacher] was just saying...um...I was asking...I needed to...uh...quote two words. It was for a literary essay and I needed to quote two words...and I asked her if I needed to do...if I needed to like an embedded citation...just for two words...and she said ‘no’ but that I should put it in quotation marks.

Elizabeth later remarked, once I prompted her during the post-task interview, that she remembered she was supposed to put quotation marks around purely vocational:

But now that I think about it I only remember that she told me to put the quotes around it now. All I remembered was that I didn’t need an embedded citation for using two words, so that’s why I kept going.

In her second paraphrase, Elizabeth chose to copy the term toward (instead of towards) because it existed in the original, and therefore seemed to be more correct. In other words, she viewed the original text as an authority on grammar, and so chose to keep that word form in order to be grammatically correct in her paraphrase.

Lisa also verbalized an effort to avoid direct copying. During her first paraphrase, she said, “So...as I’m going through I wanna indicate that these programs come in all shapes and sizes but I definitely don’t wanna say all shapes and sizes just because that would be one hundred percent taking the words of the original author.” When I asked Lisa to explain this statement, she replied “I often feel that if I was actually writing this, and I thought that shapes and sizes was the only way to say it, I would quote it, but I thought that since this was
paraphrasing specifically I wanted to stay away from adding in quotes, so I wanted to have it all my own words.”

For her first paraphrase, Namie debated between copying the term “Canada’s college sector” in her paraphrase, adding it to “not the same as it used to be” but then she questioned her decision to copy: “I don’t think I can use this.” When I asked her in the post-task interview why she said that, Namie replied, “Um – cause…um…it sounds too similar or something?”

References to plagiarism or plagiarism avoidance.

The term plagiarism was never uttered by a participant during his or her verbal report. However, when prompted during the posttest interview, some participants acknowledge that they had used plagiarism avoidance as part of their strategy for particular word choices during the writing task. Elizabeth, for example said:

If you’re having trouble because -- well, this is -- would be in grade school, I mean…and we were taught “plagiarism is wrong” you shouldn't be plagiarizing so what a lot of people would do is just write out the sentence and then go thesaurus, switch, thesaurus, switch, so like, “driven by a bunch of causes” so you could really tell [that students are copying] so my teacher called us out on it and said, instead of just substituting try flipping the sentence and you might find it easier to rephrase everything.

When Namie began her first paraphrase, she repeated the mantra “um, paraphrase, paraphrase,” explaining to me later that she had to remind herself to do this “just to avoid plagiarism.” Later on, Namie verbalized a desire to directly copy from the original excerpt, typing “Once purely vocational institutions” in her paraphrase. I asked her if she had planned to go back and change it later, upon which she replied “Um, yeah. If I’m not sure, I’m just
gonna leave it. I know teachers don’t like it, but I couldn’t think of, like, any other way, to, to say it in my own words….it’s better than nothing, right?”

During Nozomi’s concurrent verbal report, she expressed concern about using the term further in her paraphrase. When I asked her afterwards why she preferred to not use this term, she stated, “Well, because of plagiarism,” adding, “I learned in [my college essay writing ESL course] they say we can’t use the same words. We have to use different words.” She later admitted that “every single word should be different” within a paraphrase.

**Uses of electronic reference tools.**

All the L2 participants and 1 L1 participant (Lisa) stumbled over the pronunciation and meaning of the word baccalaureate. For example, Lisa said, “Actually I feel like this word’s probably pronounced ‘baka lioreets?’ But I’m not even sure,” but all L2 participants elected to look up the term in the dictionary. Namie used her own English-English electronic dictionary to find the definition, and so did Nozomi, who discovered that it meant “bachelor’s degrees” but avoided using the term or a synonym for the term altogether in her paraphrase. Megumi, who failed to find synonyms for the word in the Word thesaurus, discovered through her English-English dictionary the meaning of the term. In the post-task interview she revealed that “‘bachelor degrees’ I found in the English-English dictionary. It’s more helpful for me.” In her completed paraphrase Megumi elected to use the original excerpt’s baccalaureate despite the fact that she had learned of a suitable term to replace it.

The L1 participants did not experience as many problems with vocabulary. Chris, for instance, said he was familiar with the term baccalaureate and chose to use the term degree instead. Lisa directly copied baccalaureate in her paraphrase despite the fact that she earlier
acknowledged she should avoid “taking one hundred percent the words of the original author.”

She justified this decision with the following rationale:

I was feeling that that specific idea is from my understanding the baccalaureate is like a series of years that you would take to do a program, right? So I was thinking that this was probably, the one - I thought it was key information because I felt like it was talking about this type of learning. I felt like, in my mind, there’s probably not another word for this.

Not one L1 participant used the thesaurus or dictionary functions that were available to them. Their verbal reports reaffirmed that accessing their lexical schema was a less demanding cognitive task than it was for L2 participants, as they spent less time searching for a new word cognitively and no time searching for a word literally in a dictionary.

Of all participants in both language groups, Megumi used the electronic tools the most often. Such dependence on these tools likely accounted for her longer task completion times. She was also the only participant to verbalize any dependence or reliance on her L1, a technique that also might have contributed to the lengthy duration she spent on the task, particularly her first paraphrase. For example, she used the Word translator dictionary to define further. She successfully found the definition and was able to back-translate into English: “Translate! That’s good! [Japanese: sara ni motto saki ni] So, further [repeats Japanese translation]. So it’s already further. I didn’t know that! It’s already further. Jyanma! [reads] Are ready to go further.” Megumi also checked the Microsoft Word thesaurus to find synonyms for purely, vocational, once and no longer. She rejected all suggested synonyms for purely, including merely, only and simply, deciding to directly copy purely into her paraphrase. Later she deleted purely from her paraphrase altogether. She struggled over the term no longer,
as indicated by a repetition of the term at least four times slowly in her verbal report (she confirmed this lack of clarity in the post-task interview). When she discovered no alternative synonyms in the Word thesaurus, she told me she guessed that it meant “different than before.”

For the term poised, Megumi found the Japanese definition and then verbalized “prepared” in English to indicate she understood not only the straight translation but the importance of context. Nozomi also looked up poised in her English-English dictionary, but she considered the most frequent definition of the term “to put in a balanced position,” and she became confused, not realizing that an alternative definition of “prepared” might have fit this context of the excerpt more appropriately. Nozomi also used her dictionary to help her with concerns about language structures. She looked up the term teach to see if it required a direct or indirect object, and she also looked up expectations and aspects to confirm their grammatical forms.

**References to synonyms or synonym use.**

Megumi uttered the word synonym 13 times, nine times without prompting, and four times during the post-task interview. This high occurrence correlated with her high reliance on the thesaurus and translator, both of which prompted her to either read aloud while including the term, or to verbalize her desire to replace a term with which she was unfamiliar: “I’m going to use translator to find synonyms.” In her post-task interview for paraphrase 1, Megumi claimed the paraphrasing task was “so difficult for [her]” because “like no longer could I find…find…any synonyms and how can I change this. Although she did not utter the word synonym in her verbal reports, Nozomi showed familiarity of the purpose of doing so: “I learned in [my college essay writing ESL course] they say we can’t use the same words. We have to use different words.
None of the L1 participants verbalized the term *synonym*, except for Elizabeth, who, when prompted in the post-task interview, did refer twice to the importance of using synonyms while paraphrasing. Even though none of the L1 participants explicitly uttered the word *synonym* in his or her concurrent verbal reports, they actively considered different, alternative word choices. For example, while writing her second paraphrase, Elizabeth said, “Due to many factors? Reasons? Causes?” and she later added, “Due to many reasons including the want? Demand? Hmm. I’m not sure if want and demand are referring to the same thing in this context.”

**References to summarizing.**

In her second paraphrase, Nozomi looked at the list of factors determining colleges’ decisions to offer “baccalaureates of all shapes and sizes” (Noble, 2006, p.28) and then decided to avoid paraphrasing all key elements in the list. During the task she asked herself, “How can I summarize these five factors?” I later asked her if she felt it was necessary to include all factors in her paraphrase, to which she answered “No, I don’t think so.” This statement reinforces her questionnaire response, in which she defined paraphrasing as “write the main ideas in my own words.” When I asked her why she decided to summarize these factors, she replied “It’s like examples. And it’s hard to include all of [those factors] because of my grammar ability.” Interestingly, Nozomi’s attempt to summarize was reflected in the decreased word count (30 words compared to the original text’s 44), yet she inadvertently changed the meaning of the original excerpt by ignoring neighboring words and directly copying what remained. Figure 11 shows an example of Nozomi’s paraphrase of the original excerpt.
Driven by a variety of factors – demand by students and professional associations for higher credentials, government agendas, the increased cost of education infrastructure and an overall shift toward a culture of lifelong learning – colleges across Canada are offering baccalaureates in all shapes and sizes. (word count: 44)

Nozomi’s Paraphrase

More numbers of Colleges in Canada have a lot of choices of Bachelor’s degrees due to the expectations of development from many aspects such as students, professionals, and the government. (word count: 30)

Figure 11. Nozomi’s (L2) paraphrase 2 compared against the original excerpt.

Nozomi was aware that she should “use different words” when paraphrasing. In the post-task interview Nozomi attributed her preference for summarizing here because of her limited grammar ability, but in fact lexical problems sometimes prevented her from recognizing that the meanings of copied words became more vague and essentially meaningless in the paraphrase. For example, the original excerpt stated that “demand by students” (Noble, 2006, p. 28) influenced Canadian colleges to offer bachelor’s degrees, but Nozomi directly copied the term students without recognizing that it was students’ overt actions that forced colleges to reevaluate what kind of certification should be offered. A similar lexical problem appeared in Nozomi’s choice to keep the term professionals while dropping associations. This lack of emphasis on associations implied that Nozomi did not fully grasp the lexical complexity of the listed factors.
In contrast, Elizabeth showed a heightened awareness of subtle lexical complexities in the original text excerpt. In the post-task interview, she discussed the importance of retaining the original meaning of *demand* while contemplating *need* as an appropriate synonym: “Just because, well, when they say demand it’s not, they don’t say necessity and when they say necessary and I associate need with necessity, like, you must do it, so, demand that’s just when someone wants to do it that’s why I was, yeah.”

Like Nozomi, Lisa was not sure if every factor mentioned in the list should be retained in Paraphrase 2. In the post-task interview she said, “The list [of factors] had so many different things, I was wondering if I should take them out? I wasn’t sure how to summarize such a variety of things.”

Lisa showed concern that she was including too much information. At one point she stated, “And I think I feel comfortable with my summary” when she completed her first paraphrase. Upon hearing this in the stimulated recall, I asked Lisa if brevity was important to her while she paraphrased, and she said “right,” but she wasn’t able to recall why she felt it was important to be brief: “I can't remember if I’ve been taught that. In my mind I’m thinking ‘Ok, I’m going to paraphrase it, I’m gonna make it really simple for the reader by cutting down what they have to read.’”

**References to knowledge of topic.**

The issues described in the article were written from a Canadian perspective about colleges in a Canadian context. Not surprisingly, the L1 participants who had completed their education in Canada were more attuned to culturally specific references to the educational system in Canada. For this reason, they could more easily infer and expand upon certain facts
and assumptions mentioned in the article. Chris, for example, revealed a unique insight to the article in two ways: First, he said he had read many articles similar to Noble’s (2006) description of the transitioning role of colleges in Canada. Conversely, Megumi admitted in her post-task interview that she was unfamiliar with the term *guidance counselors*, but she did not check a dictionary or thesaurus for its definition or synonym.

**Awareness of audience.**

Elizabeth showed concern that a section of her second paraphrase appeared “too corny,” and worried if it was “too wordy” at times. No other participant showed any concern about stylistic or audience effects of their writing in this way.

**Meta-references to paraphrasing strategies.**

During the concurrent verbal report and the recall interview, Elizabeth referred to being taught about paraphrasing rules before college, but only within a heavily contextualized writing assignment in English class: “Well, not- I mean, we didn’t have, we didn’t sit down and say…like here’s how you paraphrase but I mean when we were doing essays [teachers] did mention it.”

Chris viewed paraphrasing as a process rather than a product. This might have accounted for his relatively fast completion time for Paraphrases 1 and Paraphrase 2. In the stimulated recall, he showed awareness of the hypothetical purpose of the task, stating that “rewording can happen later” during editing stages of a research paper. He said in the post-task interview, “Um, I like to rewrite things, where I make jot notes and make a sentence out of the jot notes, and then I’ll look at the original sentence and then try to reword it on the fly.” Going sentence by sentence allowed Chris to keep focus and not lose his train of thought. Within the
first minute of his second paraphrase, for instance, Chris had already written *in order to meet the needs of its stakeholders*, and more than two minutes later he listed specifically what stakeholders he was referring to, namely *students, industry* and *government*.

Additionally, in our post-task interview Chris showed confidence in his performance of the writing task, claiming that he “paraphrased appropriately.” Later he mentioned that as a peer tutor in the writing centre, he had just “helped two students with a paraphrasing exercise” that morning. He claimed that although the standards, guidelines and expectations of his students’ teachers were quite different from what Chris had learned himself in his writing courses, he was able to follow instructions about “something with the main thesis” and so help his students create paraphrases this way.

_Verbalized restatements._

Two participants used restatements to verify their comprehension of the original excerpt. In other words, the participants who verbally paraphrased to indicate cognitive processes were also the ones who elected not to write down what they were concurrently verbalizing, almost seeming as if they weren’t aware that they were paraphrasing at all. Restatement, then, proved to be a unique strategy to facilitate the cognitive processes during the writing task. For example, Megumi first read aloud from the first original excerpt (“no longer, no longer... guidance counselor think it is”) and then immediately rephrased it in her own words: “So it’s different from what we think…they’re different from what we think.” She then began typing what she had verbalized, leaving the written segment for editing later on: [types] “Canada’s colleges are different from what.” On one occasion, Elizabeth restated automatically as well: “So I have to talk about how they’ve already changed but are still going to keep changing.”
Quality of Paraphrases: Research Question 3

I created the term *paraphrase quality* and defined it as the percentage of words within a paraphrase that had been directly copied from the original, either as individual words or strings of words, both defined as words in *unique links*. This definition does not take into account the appropriateness of each paraphrase. For example, if all key points were not retained, less direct copying may have taken place, but this cause-effect relationship was not the focus of these measures. I attempted to account for these omissions by later measuring paraphrase appropriateness holistically. The term *quality* comes from my attempts to replicate aspects of Keck’s (2006) study. To do so, I calculated the percentage of *unique links* by dividing the number of borrowed words from the total number of words in the paraphrase, while discounting *general links* from the total word count.

For the first paraphrase (as shown in Figure 12), the percentage of unique links borrowed from the original passage ranged from 0% to nearly 27% for all participants (*N*=9). All L1 participants directly copied at least one word from the original excerpt. Lisa directly copied words the most often, with a percentage of unique links of 26.6%, constituting a Minimal Revision according to Keck’s (2006) *Taxonomy of Paraphrase Types*. By contrast, only 2 of the 5 L2 participants, Megumi and Namie, copied directly from the excerpt, with Namie producing the highest percentage of words within unique links, at 25%.
As in the first paraphrase task, Lisa contributed the highest percentage of words in unique links in her second paraphrase, with a third of her paraphrase directly copied from the original. Figure 13 provides a detailed look at the percentage of unique links in the second paraphrase.

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**Figure 12.** Paraphrase 1: Percentage of words within unique links per L1 participant \((n=4)\) and L2 participant \((n=5)\).

**Figure 13.** Paraphrase 2: Percentage of words within unique links per L1 participant \((n=4)\) and L2 participant \((n=5)\).
Lisa’s paraphrase differed from the other L1 participants, whose paraphrases contained fewer than 12% unique links in their paraphrases. In most cases, the L1 and L2 participants copied more often in the second paraphrase than they had in the first, with Camille’s, Chris’, Lisa’s and Aya’s paraphrases containing a range of unique links from 7.69% to 33.33%. Like her first paraphrase, Nozomi’s second paraphrase contained no unique links at all.

For the third paraphrase (see Figure 14), all participants except for Nozomi directly copied words from the original text. Yukari’s paraphrase contained the highest percentage of words within unique links (23%), with Namie and Elizabeth contributing the second and third highest percentages, respectively. Nozomi, Chris, Camille, Megumi and Lisa’s paraphrases contained less than 6.25% borrowed words from the original.

![Figure 14. Paraphrase 3: Percentage of words within unique links per L1 participant (n=4) and L2 participant (n=5).](image)

For the fourth and final paraphrase (shown in Figure 15), all participants copied directly from the original excerpt in some way, ranging from over 3% (Camille) to just over
24% (Namie). Megumi and Namie directly copied the most out of all participants. Chris remained consistent in being one of the least likely participants to copy directly, and Nozomi was the least likely of the L2 participants to copy, with only 3.7% of her paraphrase containing words within unique links.

\[ \text{Figure 15. Paraphrase 4: Percentage of words within unique links per L1 participant (n=4) and L2 participant (n=4).} \]

On average the L1 participants showed more consistency in their direct copying, whereas for L2 participants there was higher variability. The extent of borrowing was not consistent with variability, however. For instance, Lisa was the only participant to write a paraphrase that constituted more than a third of directly borrowed material from the original text. Conversely, Nozomi consistently copied the least in her paraphrases, borrowing directly from the source text only in her final paraphrase attempt.
As shown in Figure 16, as well as Figure 17, all participants copied to some extent in at least one paraphrase attempt. Out of all participants’ paraphrases, Namie’s contained the highest percentage of directly copied words (unique links) out of all participants in both language groups, whereas on average, Nozomi copied the least often. For the L1 group Chris copied the least often, with an average 6.06% words in unique links, and Lisa contributed the second highest mean copying percentage of all participants in both language groups.

**Figure 16. Mean percentage of words in unique links per participant.**

Figure 17 highlights the percentage of words in unique links within all participants’ four paraphrase attempts combined, separated into language groups. In the L1 group, Elizabeth, Camille and Chris showed some consistency in their borrowing habits, and Lisa was more inconsistent, showing different borrowing patterns from those of her counterparts. Of the L2 group, Nozomi showed consistently low percentages of borrowed words, a trend which differed from the highly variable borrowing habits of her fellow L2 participants.
Figure 1. Percentage of words within unique links per paraphrase per L1 participant \((n=4)\) and L2 participant \((n=5)\).

I replicated the portion of Keck’s (2006) study in which each attempted paraphrase was categorized according to the percentage of unique links within a *Taxonomy of Paraphrase Types*. The extent to which a participant borrowed directly from the source text during the paraphrase determined what I labeled the *quality* of the paraphrase. For example, the highest
quality paraphrase was considered a Substantial Revision (see Keck, 2006), the next highest quality paraphrase was what Keck had called a Moderate Revision, followed by a Minimal Revision, or a Near Copy. Figure 18 outlines the percentage of paraphrase types produced by each participant. None of the 9 participants wrote a Near Copy paraphrase, so I did not include this category in Figure 18. The highest quality paraphrases (Substantial Revisions) were produced by Aya, Nozomi, and Yukari, 3 of the L2 participants.

Of Aya’s three paraphrases, one was a Substantial Revision (33.33%). Out of Yukari’s four paraphrases, one was a Substantial Revision (25%). Nozomi produced the most high quality paraphrases: Three of her four paraphrases (75%) classified as Substantial Revisions.

Most of the L1 participants’ paraphrases were moderately revised. All of Chris’ and Elizabeth’s paraphrases fell within this range. Camille also produced many Moderate Revisions: Half of her paraphrases (two out of four) classified this way.

Namie was the only participant out of the 9 participants to produce more low quality paraphrases than high quality paraphrases. Three out of four of her paraphrases (75%) were Minimal Revisions. In other words, Namie directly copied more often, and in more of her paraphrases, than all the other participants. Half of Megumi’s and Lisa’s paraphrases were Minimal Revisions, and the other half were Moderate Revisions. Only Yukari wrote paraphrases that met the criteria for all paraphrases, excluding Near Copies. Finally, Nozomi avoided minimal revisions altogether, which suggests that by these measures she provided the highest quality paraphrases out of all participants.
Figure 18. Percentage of paraphrase types for each participant (N=9) for all completed paraphrases.

Note. Aya produced three paraphrases whereas everyone else produced four.

Appropriateness of Paraphrases: Research Question 4

As my replication of Keck’s (2006) shows, Nozomi avoided direct copying for her first three paraphrases, suggesting that she successfully avoided plagiarism. This may have been true, but this absence of directly copied words did not immediately suggest that her paraphrases were more or less appropriate than others, for a variety of reasons. In other words, the extent of copying or not copying does not always determine if a paraphrase is appropriate or not. This was the reason I created criteria for judging the relative appropriateness of paraphrase attempts, regardless of their categorization of high or low quality.
As mentioned in the Methods chapter, I recruited an external rater to verify the reliability of my list of criteria. After determining insufficient inter-rater reliability for four of the seven criteria, I determined that it would be worth investigating the appropriateness of 35 paraphrases based on the remaining categories. An attempted paraphrase would be considered appropriate if it met all of the following criteria: (a) if the paraphrase included a reference to the original author, (b) if the paraphrase retained all key points of the original excerpt, and (c) if the paraphrase attempt was not a summary.

Not one participant referred to the original author in any way. No participant made any reference to Kimberly Noble, the author, in his or her verbal report or in writing, neither through a reporting verb (e.g., “Noble claimed that”) nor by citing Noble in parentheses at the end of the paraphrase. Consequently, no paraphrase produced by any participant could be deemed appropriate with these constructs in mind. Whereas this criterion was consistent for all participants for each of their paraphrases, the application of the other two criteria led to highly variable results.

Figure 19 outlines my evaluation of overall appropriateness for each participants’ paraphrases: The higher the percentage of criteria met, the more appropriate the paraphrase. In view of these criteria, Camille created the most appropriate paraphrases: three-quarters of her paraphrases included all key points from the original text excerpt, and all of her paraphrases avoided summary status. By contrast, Lisa’s paraphrases did not fulfill any of the criteria set out; by these standards, all of her paraphrases were the most inappropriate of all participants. After Camille, Megumi and Aya produced the most appropriate paraphrases according to these criteria. Camille and all the L2 participants provided paraphrases that fulfilled more than half of the two criteria. With respect to individual criteria, Nozomi, Elizabeth and Lisa failed to
include all key points in any of their paraphrases. Aside from Lisa, the rest of the participants managed to avoid summarizing in at least one of their paraphrases, but only Camille avoided it in all of her paraphrases. Of the participants who fulfilled the criteria at least once, only Namie tended to retain all key points rather than to avoid summarizing.

Figure 19. Paraphrase appropriateness based on met criteria per participant (N=9).

Differences in Perceptions, Strategies, Quality and Appropriateness: Research Question 5

Figure 20 shows that for the second, third and fourth paraphrases, the L2 participants’ paraphrases contained a higher percentage of unique links than did the L1 participants’ paraphrases. However, the L1 participants produced more unique links for the first paraphrase.
Figure 20. Mean percentage of words within unique links in L1 and L2 paraphrases.

This consistent discrepancy in unique links between language groups for Paraphrases 2, 3 and 4 might suggest an increased tendency for L2 participants to create lower quality paraphrases according to Keck’s (2006) Taxonomy of Paraphrase Types. However, this is not the case. In fact, as Figure 21 shows, only the participants from the L2 language group successfully produced Substantial Revisions, suggesting that only the L2 group produced paraphrases with no unique links at all.

The L2 group, then, copied at least one word within unique links in all paraphrases. This finding also suggests that certain participants in the L2 group copied less consistently than some L1 participants. Figure 21 also shows that L1 participants produced more Moderate
Revisions, meaning that their paraphrases were more likely to contain up to 19% of directly copied material most of the time.

![Figure 21](image)

**Figure 21.** Percentage of paraphrase types out of all paraphrase attempts for L1 (n=4) and L2 (n=5) language groups.

On the other hand, the L2 participants produced more Minimal Revisions, suggesting that when they copied, their paraphrases were more likely to contain a larger percentage of directly copied material than the L1 participants’ paraphrases did.

Figure 21 reveals that neither language group was more likely to produce paraphrases that contained more than half directly copied material from the original excerpt, implying that blatant copying never occurred despite many occasions where some copying did take place.
On average, the L2 participants’ copying habits were almost equivalent to the L1 participants, producing on average 2% more words with unique links than the L1 group did (see Figure 22).

Figure 22. Mean percentage of words in unique links per language group.

Despite L2 participants directly copying text from the source reading more often on average, they actually produced paraphrases which consistently met my criteria for appropriateness more often than the L1 participants did. Figure 23 shows that the L2 participants were 10% more likely to produce paraphrases which retained all key points from the original excerpt, and which avoided summarizing only the main idea from the original.
Figure 23. Mean percentage of criteria met to determine appropriateness of paraphrases per language group.
Chapter 5
Discussion

This chapter takes into account participants’ perceptions of appropriate paraphrases and links these perceptions to the strategies I analyzed from the verbal report data of three L1 and three L2 participants. This discussion also offers an overview of the relationships between four L1 and five L2 participants’ perceived appropriateness with the quality and actual appropriateness of their paraphrases. I then address the limitations of this study, and finally, I recommend what can be modified in the classroom and L2 research with respect to textual appropriation practice.

Summary of Findings

Through concurrent and post-task verbal reports I attempted to gather, explore and analyze the decisions made by three L1 and three L2 participants while they completed two of four paraphrases. I then evaluated the quality and appropriateness of 35 paraphrases produced by four L1 participants and five L2 participants. In doing so I discovered that participants used a variety of strategies which did not always conform to their self-reported perceptions of what constitutes effective and appropriate paraphrasing. For example, some L1 and L2 participants verbalized an effort to avoid direct copying but resorted to copying individual words or strings of words to varying degrees. Such direct copying occurred more for the L1 participants than the L2 participants. Additionally, strategies that were verbalized during the task were not always evident in the written product, revealing a disconnect between perceived and actual appropriateness.

Some participants’ recalls of explicit paraphrasing instruction in their schooling directly influenced the standards which guided their decisions as they wrote, particularly
for strategies such as syntactical reorganization and the use of synonyms. Yet despite this influence and awareness, some participants in both language groups failed to follow through on what they had intended, on some occasions giving up because they did not want to (or were not able to) access a vocabulary schema extensive enough to provide synonyms. For example, Namie was one of the L2 participants to directly copy strings of words (such as “once purely vocational institutions”), but this action conflicted with her acknowledgement that “teachers don’t like it.” She justified this direct copying because she “couldn’t find the words.” Interestingly, her completion time for this task was very brief compared to the other L2 participants, suggesting that she might have given up instead of putting in the amount of mental effort required to complete the task appropriately.

On average the L2 participants required more time to complete their first two paraphrasing tasks than did the L1 participants, but the extra time spent did not always correlate with a higher quality or more appropriate paraphrase. There were some exceptions, however. Of the six participants who completed the verbal report for the second paraphrase, Megumi and Nozomi (along with Namie) took the longest time, and they both contributed paraphrases with the least amount of direct copying. Namie contributed the same percentage of borrowed words in her first and second paraphrase, despite the fact that she spent twice the amount of time on her second paraphrase as her first.

The L2 participants produced a high percentage of decision-making episodes during their first two paraphrases; they also produced more appropriate paraphrases than the L2 participants did, and they were the only participants to contribute substantially
revised (i.e., higher quality) paraphrases compared to their L1 counterparts. Nonetheless, the least verbal of the participants did not necessarily contribute poorer quality or less appropriate paraphrases.

Although direct copying from the original source might suggest a poorly written (or poor quality) paraphrase, it was not necessarily the only determinant. Nozomi, for example, remembered being explicitly taught to avoid direct copying, and for her first, second and third paraphrases, she successfully avoided doing so, but other factors such as a lack of familiarity with highly contextualized, low frequency vocabulary, as well as an accidental misuse of her dictionary, led her to create more inappropriate paraphrases nonetheless.

The higher quality paraphrases (i.e., paraphrases with less directly borrowed material) were rarely deemed the most appropriate by raters. In fact, the paraphrases with the lowest percentage of directly borrowed words were also the least appropriate when taking into account criteria such as “Avoided Summarizing.” Also, not one participant acknowledged the original author in their paraphrases, and although many participants recalled being taught explicitly how to paraphrase in their English classes, no one mentioned being taught to attribute the source or the original author.

The three L2 speakers who completed the verbal report had difficulty interpreting holistically the gist, or main idea, of the original. They stumbled on less frequent vocabulary early on. This may have interfered with their ability to consider the excerpt as a single thought unit, leading them to interpret it instead word by word, or sentence by sentence. These findings are consistent with those summarized by Campbell (1987, p. 6).
The L2 participants were more likely to use language tools available to them, but the use of such tools (e.g., an English-English dictionary) did not always contribute to higher quality or more appropriate paraphrases. In contrast to the English-English dictionary, the L2 participants’ translation dictionaries, although possibly contributing to a longer task completion time, might have led participants to understand more precisely unfamiliar vocabulary in some instances.

**Limitations**

This study encountered a few noteworthy challenges that might have influenced the interpretation of data. First, the sample size was small. Moreover, out of the nine participants, I was only able to analyze verbal report data for six people, a small portion of a sample that was already too small to make consequential generalizations for each language group. Nonetheless, the extensive verbal data, both concurrent and retrospective, provided in-depth descriptive information about the participants’ paraphrasing strategies and processes. So I was able to document and evaluate these processes rather than having to infer them based solely on their written work. In doing so I was able to “explain the textual choices students made” (Shi, 2004, p. 190), an approach that Keck (2006) and Shi (2004) both called for in their related, previous studies.

Secondly, the controlled task conditions and verbal reports may have influenced people’s performance of the task, leading to reactivity (see Ericsson & Simon, 1984, 1993) and influencing the overall quality and appropriateness of the task. To attempt to counter this limitation, I had asked all participants to verbalize their thoughts during all paraphrases, regardless of whether both digital recorders were functioning, so they did not know exactly which two paraphrase reports I would analyze. This way, all
paraphrases were written under the same conditions and could be compared accordingly. Nonetheless, the L2 participants found the task difficult, and as evidenced by their longer task completion time, the quality of their writing may have been more affected by their verbalizations compared to the L1 group.

Also, the intended purpose of the task might have been unclear for some participants. Most participants seem to have interpreted the task instructions as final written drafts. For example, in contrast to the others, when Chris read the instructions, “Pretend that you are incorporating these statements into a research essay entitled ‘The Benefits of Going to College in Canada,’” he viewed the task as a draft which could later be revised. He made this clear to me during the post-task interview when he alluded to his usual paraphrasing strategy: “[I] can have it on paper and then reword it properly later.” The other participants may have viewed the task as a completed version, which was my original intent, which I articulated to all participants during the training sessions.

I noticed a striking trend in the participants’ omission of a reporting phrase or acknowledgement of the original author in their paraphrases. This lack of attention to the original author of the source text can be explained with a few speculations. First, in my verbal report demonstration video I began the sample paraphrase having purposefully avoided influencing the participants’ behavior by not mentioning any reporting phrase or adding one myself. Although I did not finish the task during my demonstration, and I hypothetically could have added a reporting phrase at the end, the participants did not see me acknowledge the original author in any way. I attempted to compensate for this omission by reminding participants that they were to complete the task pretending that this was to be written under authentic, conditions, as if they were completing a high-stake
writing assignment. But of course the task conditions were experimental, designed for purposes of this research, rather than naturally writing in a real academic context.

The “pretend” aspect of this task could be viewed as problematic. I attempted to isolate and control a situation in which a student would be likely to paraphrase from a current events magazine, but it could be argued that the task itself was artificial and not sufficiently contextualized within a real research essay or summary task. One of my goals, however, was to separate the concept of summary from paraphrase, and in doing so I was able to observe the number of occasions in which participants (namely Lisa and Nozomi) interchanged the terms or merged the two concepts together with inappropriate results.

The subjective nature of evaluating appropriateness was also a challenge. Many researchers (Currie, 1998; Keck, 2006; Pennycook, 1996; Thompson & Pennycook, 2008; Shi, 2004) have commented on the inconsistent definitions of plagiarism within the academic community, which might lead to inconsistent punishments and rewards in L2 writing classrooms. These comments were indeed reflected in the low inter-rater reliability scores I and my colleague obtained when evaluating the appropriateness of the paraphrases. As a result of this low reliability, I was forced to reduce the number of criteria and variables on which I evaluated paraphrase appropriateness. Performing a reliability analysis after a longer training session prior to the research might have narrowly defined the parameters through which appropriateness was assessed.
Implications for Teachers and L2 Learners

The verbal report data from three L1 and three L2 participants highlighted students’ misconceptions and inconsistencies about the ways to paraphrase effectively and appropriately. Although many participants articulated that one of the purposes of paraphrasing was to avoid direct copying from source materials, this belief was not always evident in their writing practices. To avoid such disconnects between students’ perceptions and their actual writing, teachers should consider that (a) these misconceptions may not be particular to L2 or L1 language groups, and (b) paraphrasing is a skill whose purpose extends beyond plagiarism avoidance. If taught consistently and practiced repeatedly, paraphrasing should contribute to improved lexical, syntactical and overall linguistic proficiency for L1 and L2 English learners alike.

From an academic writing standpoint, one goal of paraphrasing is to borrow someone else’s ideas while attributing it to the original author but avoiding copying words directly from the source text. From a pedagogical standpoint, Keck (2006) argued that English and ESL instructors need to learn methods which “help students to move beyond a reliance on copying from source texts” (p. 262). The findings in my study suggest that teachers should not make assumptions about what students already know about paraphrasing, and that what students know is not necessarily what they practice. It is essential, then, to determine individual students’ background knowledge and needs before implementing lessons on paraphrasing. For instance, preparing a lesson which encourages students to compare summaries from paraphrases might be appropriate for both L1 and L2 classes. For L2 students, introducing paraphrasing at beginner levels and reinforcing this skill throughout all levels, progressively building in complexity and
sophistication, may help to automatize the purpose and characteristics of appropriate paraphrasing. Moreover, it could facilitate language learning by encouraging learners to seek low-frequency synonyms within an academic context.

Teachers need to consider the relative broadness of the term plagiarism as well as the subjective nature of judging the quality and appropriateness of paraphrases. One teacher’s rating of “appropriate” on a student’s successful paraphrase might be another teacher’s rating of “inappropriate” depending on the teacher’s perceived importance of certain criteria over others. Establishing a consistent institutional policy supported by many examples of appropriate and inappropriate paraphrases would ensure consensus and clear expectations for teachers and students alike.

L2 learners should be aware that paraphrasing is not an easy skill to master for any learner at any level, and it may be just as challenging for L1 learners of English. In fact, the L2 learners in my study were more willing than their L1 counterparts to consult language tools which in some cases contributed to more appropriate paraphrases with less directly copied material. By contrast, the L1 learner who had difficulty with vocabulary (e.g., baccalaureate) did not make use of these additional resources and consequently directly copied the word in her final paraphrase. For pedagogical purposes, following a list of tips or steps might be helpful in some cases, but focusing only on such guidelines may overlook the complex cognitive processes involved in paraphrasing and so should not be relied upon as the only instructional approach.

Language learners must be aware that paraphrasing is a language skill that, to be done correctly, requires extensive practice and time. Although some L1 participants in
my study required less time and produced moderately revised paraphrases than their L2 counterparts, the L2 participants who required more time produced paraphrases which copied fewer words from the original excerpts.

A further point is that language learners may copy text in different ways and for a variety of reasons (Pennycook, 1996). For instance, an ESL student with many writing assignments and poor time management skills might copy and paste from an article on the Internet if he or she wants to save time. Such blatant textual borrowing might stem from a lack of language proficiency, but it may not. As many teachers observe, for each student who blatantly copies, there is another student who submits a written assignment filled with copied words placed within a copied syntactical structure. Both of these examples of academic misconduct can be prevented with paraphrasing, but the examples do not necessarily imply that the student who plagiarized does not know how to paraphrase. Conversely, as my findings show, awareness of plagiarism and plagiarism avoidance does not always lead to a more appropriate or high quality paraphrase.

Finally, and most importantly, the quality and appropriateness of paraphrases written by participants in this study were not dependent upon advanced English proficiency. For instance, the L1 participants with a tendency to copy were highly motivated students with a vested interest in English and above average grades in their writing courses. This tendency to copy seems to have had little to no bearing on participants’ overall success in their academic careers, despite the fact that receiving explicit paraphrasing instruction in college could have led them to write higher quality and more appropriate paraphrases in this study. Additionally, the L1 participants who had largely misinterpreted the purpose of paraphrasing in this study (e.g., by confusing it with
summarizing) also performed well in their English courses. These trends suggest that summarizing and paraphrasing are important skills to learn explicitly, but other factors such as quality of content may take precedence in the eyes of most English teachers in an English-dominant context.

If it is true that content takes precedence over meta-linguistic awareness for L1 writing teachers, perhaps L2 students’ tendency to copy should be held to the same standards as for L1 students. Unfortunately this is often not the case in an L2 writing context, in which a learner might be accused of cheating despite an obvious but failed effort to avoid copying, similar to an L1 student. In my thesis study, L2 participants’ verbal reports showed a higher percentage of DMEs, revealing a higher meta-linguistic awareness and less likelihood to copy directly to the text than their L1 counterparts. But because their paraphrases lacked the extent of appropriateness displayed by the L1 participants, and because their writing exhibited grammar errors typical of L2 language learners, they might be more likely to be accused of plagiarizing in their writing classes.

Writing teachers should impart to their learners an awareness of appropriateness in paraphrasing. Incorporating consistent, explicit paraphrasing instruction (e.g., contrasting summaries with paraphrases,) into low-stakes writing activities in the L1 and L2 writing classroom might influence the quality of students’ paraphrases. More importantly, though, it might encourage teachers and students alike to focus more on the quality of ideas in academic writing and less on apparent attempts to cheat, thus promoting positive attitudes and practices in language and literacy learning. Using a checklist similar to the one I used in this study would be helpful in allowing learners from
L1 and L2 backgrounds to recognize the reasons why their teachers might be unfairly focusing less on a student’s ideas and more on cheating.

**Implications for Researchers of L2 Writing**

The apparent disconnect between participants’ perceived appropriateness of their paraphrases and the actual appropriateness of their paraphrases suggests that researchers need to consider that the written product of an L1 or L2 student does not always reveal the thinking or composing strategies they have used to create a text. In my study, the “appropriate” strategies verbalized by a participant, regardless of language background, did not always translate into an “appropriate” paraphrase. Defining and using reliable appropriateness scales for paraphrases for both L1 and L2 students on a larger sample would be worth pursuing in future research.

Many researchers (e.g., Shi, 2004; Keck, 2006) have found that some L2 participants’ lower proficiencies in English might contribute to their frequency of direct copying from source texts. This was not always the case in my study, notably for Nozomi, who contributed the highest number of substantially revised paraphrases, but who also required more time to complete the task than most of the L1 participants did. Conversely, the L1 participants, all of whom were highly proficient in English, tended to copy directly from source texts, with Lisa copying the most often out of all participants. For these reasons future research questions might impose a time-limit for a controlled paraphrasing task, and examine this variable between language groups. L2 writing researchers need to create a variety of measures for analysis of this type of writing, particularly to refine the construct of, and the complex factors that contribute to, what a good paraphrase is.
References


Appendix A
Participant Background Questionnaire

Part I: Language Background Educational Background

1. What is your pseudonym for this study? ________________________________

2. What is your birth date? ________________________________

3. a) In what country were you born? ________________________________
    b) How many years did you live (or have you lived) in the country from 3a? ______

4. a) Please list the languages you speak and listen in proficiently:
    b) Please list the languages you read in proficiently:
    c) Please list the languages you write in proficiently:
    d) Which of the above languages do you consider your dominant/first language?

5. Is there anything else that you want to tell me about your language background?

Educational Background

6. a) Are you an Ontario high school graduate? (please circle “yes” or “no”)

   Yes  No (if “no” jump to question 7)

   b) If you answered “yes,” how many years did you spend at the Ontario high school from question 6a)? ______

   c) If you answered “yes,” what was the dominant language of instruction at this high school? (What language did your teachers speak while they taught you?) ______
7. a) Please provide details about your post-secondary education by filling in the chart:

<table>
<thead>
<tr>
<th>Brief Description of College/University (e.g., large private university, large urban community college)</th>
<th>College/University #1</th>
<th>College/University #2</th>
<th>Other?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country of this college/university</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year(s) at this college/university (e.g., 2001-2004)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you graduate from this college/university? (circle yes or no)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Main language(s) spoken by mainstream teachers at this college/university (e.g., English)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you learn how to paraphrase in English at this school? (circle yes or no)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

8. a) Do you remember ever being taught how to paraphrase in a language other than English (at anytime in your educational background)?

Yes  No  *If “yes,” what language(s)________________________?*

b) Do you remember ever being taught how to paraphrase in English (at anytime in your educational background)?

Yes  No

c) If you answered “yes” in 8b, how many hours of paraphrasing instruction did you receive, and how many hours of practice did you do in school? What kinds of tips were you taught?
Please fill in the chart below to answer the above questions.

<table>
<thead>
<tr>
<th>Type of education</th>
<th>Before secondary school (e.g., elementary school, junior high school)</th>
<th>During secondary school (high school)</th>
<th>After secondary school (Community College)</th>
<th>After secondary school (University)</th>
</tr>
</thead>
</table>

**HOURS:**
Number of estimated hours, practice, or instruction on paraphrasing in English (e.g., 5 hours)

**TIPS:**
Paraphrasing tips/information taught about paraphrasing in English

9. a) What’s your definition of “paraphrasing?”
   b) When you paraphrase while writing, what do you usually do? What are your strategies?
   c) In your opinion, what is the goal of paraphrasing?
   d) Do you think that paraphrasing is a beneficial skill to learn?
      Yes  No  Somewhat
   e) If you answered “yes” to 9d, why is it beneficial?
      If you answered “no” to 9d, why is it *not* beneficial?
      If you answered “somewhat” to 9d, please explain.
   f) On a scale of 1 to 10, how easy do you think paraphrasing is? (please circle)
      
      ![](Very difficult - Somewhat easy - Very easy)
      1  2  3  4  5  6  7  8  9  10

10. Do you wish you learned more about paraphrasing before you came to this college?
    Yes  No  I don’t know

a) What program are you studying in at the college?
b) Have you completed COMM 200 or ESL 200 at this college?
   Yes  No

c) If “yes” what was your numerical grade? _________

d) Do you feel that COMM 200 or ESL 200 offered enough instruction and practice on paraphrasing and summarizing skills?
   Yes  No  Why or why not?

Part II. This next section is for participants who did not complete high school in Ontario

1. If English is not your first language, how many years of formal English instruction have you had? ______________ years (please include all countries)

2. How many hours per week of English instruction did you receive? (Fill out the chart)

<table>
<thead>
<tr>
<th>Number of hours per week of English instruction (on average)</th>
<th>Elementary school</th>
<th>Middle/Junior High School</th>
<th>Secondary School</th>
<th>Other:</th>
<th>Other:</th>
</tr>
</thead>
</table>

3. Before you came to Canada, did you ever attend a school where English was the language of instruction for subjects other than English (For example, were you ever taught a subject such as math or science where the teachers used English?)
   Yes  No

4. How would you characterize how English was taught to you before you came to Canada? What aspects of English did you learn in your schools? (check ✓ to all that apply)
   ☐ grammar translation
   ☐ oral communication (speaking and listening)
   ☐ “English-only” rule in the classroom
   ☐ English for college/university entrance tests
   ☐ listening practice
   ☐ reading practice
   ☐ writing practice

5. a) Have you ever taken the TOEFL test?
   Yes  No  If “yes” what was your score (or best score)? ___

   b) Have you ever taken the IELTS test?
   Yes  No  If “yes” what was your score (or best score)? ___

Thank you very much for completing this questionnaire and participating in this study.
Appendix B
Recruitment Flyer

Request for Volunteers

Are you interested in improving your writing skills for research essays?

I’m seeking the following students from X College who would like to participate in my Master’s research project on writing strategies in English:

- International students who speak a language other than English as a first language and who have completed [essay writing course*]. Japanese speaking students are encouraged to participate because I have lived in Japan and I am familiar with the Japanese language.

This study requires about 1-1.5 hours of your time and will be scheduled at a day and time of your convenience. Your identity will be concealed, and all efforts will be made to preserve your confidentiality. In exchange for your time, I will offer you a tutorial session on how to improve your writing at the college level (i.e., research essays).

Thank you for your interest in this project. To volunteer, or to ask any questions, please contact Lara McInnis:

* information revealing details of the institution or contact information the researcher has been removed
Appendix C

Information Letter for Participants

Dear Madam/Sir,

I am requesting your voluntary participation in my research project, which is entitled Analyzing L1 and L2 Paraphrasing Strategies through Concurrent Verbal Report and Stimulated Recall Protocols.

My name is Lara McInnis and I am a Master’s student in the department of Curriculum, Teaching and Learning at the Ontario Institute for Studies in Education (OISE) at the University of Toronto (UT).

I am independently conducting a qualitative research project, which will fulfill partial requirement for my Master of Arts degree. This research project is supervised by my advisor, Dr. Alister Cumming, who is professor in the Second Language Education Program at OISE/UT. Professor Cumming can be reached at anytime during this research project to verify everything that I outline in this information letter, to answer any questions about the project that you may have, and verify that I have received ethical review approval from my home institution for this project. His contact information is listed at the end of this letter along with my contact information and the University of Toronto Research Ethics Office.

In addition, I have been granted approval to conduct this research by X Research Ethics Board, which you may verify through X Research Department. You may also contact X Research Department, whose contact information is provided below, to discuss any issues or concerns that may arise regarding your participation in this project.

The purpose of my research project is to learn more about how similarly or differently native and non-native speakers of English use paraphrasing strategies in their writing. You have been asked to participate in this study because you are a) a native speaker of English or b) a native speaker of Japanese. I have chosen to work with Japanese speakers because I lived in Japan for two years and am familiar with conversational Japanese.

What I learn as a result of this research may benefit English instructors who teach research writing skills such as summarizing and paraphrasing in order to help their students avoid plagiarism in their writing. If teachers become better at teaching paraphrasing skills, then their students will improve their understanding of research writing and their ability to recognize plagiarized material. I hope to contribute suggestions to educators in the field of English instruction on how they can become better teachers of paraphrasing.

I intend to accomplish the goal(s) of the research by asking ten participants to explain what is going on in their mind while they complete a one-hour long paraphrasing task in a private one-on-one setting. I also intend to conduct a post-task interview with each participant to inquire about their paraphrasing strategies and their educational and language backgrounds.

The project will begin in March, 2009, and end in June, 2009.
As indicated in the opening sentence above, participation in this research project is voluntary and not binding. If you choose to participate, you may decline or withdraw from further participation at any time during the research project without negative consequences.

As a participant in this research project, you will be asked to do the following:

1. Complete a questionnaire to provide background information (age, language, gender, education). I plan to take this information and find relationships between your background and the strategies you use while writing.

2. Read a 1900-word article from a current issues magazine and make some notes if you choose and take as long as you need to get an understanding of the article’s main idea and important points.

3. Complete a paraphrasing task on a computer. In this task, you will be asked to paraphrase four excerpts from the article you just read.

4. While you are completing the task, you will be asked to describe all of the thoughts that are going through your mind as you type. You may use whatever language you feel most comfortable with to describe your thoughts. At this time, the verbalization of your thoughts will be digitally recorded and later played back to you. This task will be followed by a 15-minute break.

5. Finally, I will conduct an interview with you in which we will look at your writing together and listen to portions of your verbalized thoughts.

6. If you have any questions or concerns at this time, please don't hesitate to ask.

Your participation in all of these activities will take at least one hour, depending on how long it will take for you to read the article and complete the paraphrasing task. The final interview will last at least 20 minutes.

On a rare occasion, you may feel as if the task is challenging. My goal is to make you feel as comfortable as possible, and I will not be grading you or making judgements or assumptions about your writing. I will take any measure necessary to reduce the stress in this situation.

Please be aware that although you will be audio recorded, all of the records and information about you will be kept confidential. All data that I collect will be locked in a safe location at OISE and/or in a password-protected computer. In addition, all data will be systematically destroyed after seven years.

I will also make every effort to conceal your identity and preserve confidentiality. To do this, I ask that you create a pseudonym for yourself. I will use this pseudonym as soon as you sign the consent form, and only this pseudonym will be used for all collection, handling and storing of, and reporting of data.

As mentioned above, you are under no obligation to agree to volunteer in this research project, and if you do agree to volunteer, please feel free to express any doubt, misgivings or inquiries you may have about the study at anytime. Should you agree to volunteer, please complete the attached consent form below with your signature, printed name and date.

To compensate you for donating your time and efforts, I would like to offer you a 1.5 hours of tutorial, in which I can review with you the writing you completed during the paraphrasing task. In addition, I will address any specific questions you may have about your writing, and I can suggest ways in which your writing can be improved upon. I will be happy to give specific advice about grammar, research skills and other aspects of writing.
Once my thesis has been accepted, you can obtain a free copy of it by contacting me at the email address or phone number below. Should you choose to participate in the research, you can contact me at any time during the research project with any questions that you have not yet considered. Also listed is the contact information for my Research Supervisor, Professor Alister Cumming, whom you can contact at any time to verify the accuracy of this information letter.

Thank you for considering participation in my research project.

Sincerely,

Lara McInnis
Principal Researcher:
Master’s Degree Candidate
Department of Curriculum, Teaching and Learning, OISE/UT

[College Name and Contact Information of Research, Supervisor and Ethics Review Boards removed]
Appendix D
Agenda

1. Read information letter and consent form (any questions?).
2. Sign consent form.
3. Choose pseudonym.
4. Introduce verbal reports: What’s a verbal report?
5. Watch and listen to demonstration of verbal report on the computer using screen recorder.
6. Practice verbal reports together (ask questions).
7. Go over task instructions together.
8. Participant records thoughts (verbal reports) while she/he completes the paraphrasing task.
   *when participant completes task, he/she should not touch anything on the computer
   *participant notifies researcher when task is complete
9. Post-task session: listening to some of recorded verbal reports.
10. Questionnaire: can be taken home or completed on the spot.
11. Book a time for tutorial session.
I, ________________, have carefully read the attached Information Letter for the research project **Analyzing L1 and L2 Paraphrasing Strategies through Concurrent Verbal Report and Stimulated Recall Protocols**. Lara McInnis has explained this project to me and has answered all of my questions about it. I understand that if I have additional questions, I can contact Lara McInnis at any time during the research project. I also understand that I may decline or withdraw from participation at any time without negative consequences.

My signature below verifies that I have agreed to participate in the **Analyzing L1 and L2 Paraphrasing Strategies through Concurrent Verbal Report and Stimulated Recall Protocols** as it has been described in the Information Letter. My signature below also verifies that I am fully competent to sign this Consent Form and that I have received a copy of the Information Letter and the Informed Consent Form for my files.

**Agreement to Participate**

__________________________________  ____________________
Participant’s Signature  Date

__________________________________
Print Name

[contact information has been removed]
Appendix F
Verbal Report Training Session Instructions

Practicing Verbal Reports

Please watch and listen to the video demonstration in which I attempt to paraphrase a paragraph from the information letter I gave you. Watch how I try to describe all the thoughts going on in my mind as I complete the paraphrase.

Next, please try to put the next paragraph into your own words as you type. While you type, try to tell me all the thoughts going through your mind as you complete the paraphrase.

I will not judge you on the quality of your paraphrase or how effectively you describe your thoughts to me.

Remember, this is just practice. You may use the language that feels most natural to you.

Please watch the demonstration:

What I learn as a result of this research may benefit English instructors who teach research writing skills such as summarizing and paraphrasing in order to help their students avoid plagiarizing in their writing.

Now, try your own verbal report:

If teachers become better at teaching paraphrasing skills, then their students will improve their understanding of research writing and their ability to recognize plagiarized material.
Appendix G
Paraphrasing Task Instructions

Instructions for paraphrasing assignment

1. READ THE ARTICLE: You will be given as much time as you need to read the following article from *MacLean’s* entitled “College or University?” by Kimberly Noble. Feel free to make brief notes while you read.

2. ON THE COMPUTER: After you finish reading the article, please paraphrase the following four sections taken from article. Pretend that you are incorporating these statements into a research essay entitled “The Benefits of Going to College in Canada” for one of your Humanities teachers. Remember that you are merely pretending. Your writing professors will not know about your involvement in this project. You may use the spell-check, grammar check, thesaurus or dictionary functions on Microsoft Word if you want.

3. PARAPHRASING TASK: The sentences on the next page are taken directly from the article. You will be given as much time as you need to complete this paraphrasing task. As you are typing, please speak loudly into the microphone and explain everything you are thinking about while you write. Please think/speak in any language you feel most comfortable. If you would like to change from Japanese to English, or vice versa, please feel free to do so. Your typing and voice will be recorded by special computer recording software.

4. BREAK: One you complete the task, feel free to take a 10-15 minute break.

5. POST-TASK INTERVIEW: After the break, you will meet with the researcher and listen to some of the recorded material together. The researcher will ask you questions about what you were thinking while you paraphrased from the article.

6. QUESTIONNAIRE and FEEDBACK: Please fill out the attached questionnaire about your language and educational background. You will then have an opportunity to ask any questions or voice any concerns you may have about the procedure.
Appendix H
The Paraphrasing Task

Please paraphrase the five sections below which are taken from article “College or University” (2006) by Kimberly Noble. Pretend that you are incorporating these statements into a research essay entitled “The Benefits of Going to College in Canada” for one of your Humanities teachers. You may use spell check, grammar check, the thesaurus, or any electronic tool that you think will help you.

Note: Your teacher will not actually know of your participation in this study.

Please remember to describe your thoughts at the same time you are thinking them. When you are finished, please do not touch anything on the computer. Just inform the researcher that you are finished.

Canada’s college sector is no longer what you, your parents and even some of your guidance counsellors think it is. Once purely vocational institutions, colleges have undergone a dramatic evolution in the past decade, and are poised for further – some even say transformational – change.

Type paraphrase here:

Driven by a variety of factors – demand by students and professional associations for higher credentials, government agendas, the increased cost of education infrastructure and an overall shift toward a culture of lifelong learning – colleges across Canada are offering baccalaureates in all shapes and sizes.

Type paraphrase here:

“Students graduating from high school don’t understand the tremendous range of programs available to them,” says David Thomas, vice-president, academic, at Malaspina University University-College in Nanaimo, B.C. “The system for informing high school students of their choices has not kept up with the times.”

Type paraphrase here:
You can’t always count on smooth sailing when moving between colleges and universities. British Columbia and the Atlantic provinces are by far the most advanced when it comes to inter-institutional agreements that allow seamless transfer, the experts say. Alberta is next in line. Ontario is making progress.
### Appendix I

**Transcribed Verbal Data: Key and Examples**

<table>
<thead>
<tr>
<th>Symbol/Marker</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, etc.</td>
<td>Each unit of analysis</td>
<td>1. Unit of analysis 1 2. Unit of analysis 2 3. Unit of analysis 3</td>
</tr>
<tr>
<td>[ ]</td>
<td>Participant undertakes an action</td>
<td>[read] <em>Driven by a variety of factors</em>… or This is specific to Canada [mouse clicks].</td>
</tr>
<tr>
<td><em>italics</em></td>
<td>Participant reads aloud from the original excerpt or refers to words from the original excerpt.</td>
<td>[read] <em>Driven by a variety of factors</em></td>
</tr>
<tr>
<td><strong>bolded</strong></td>
<td>Participant increases volume and stress to emphasize a word.</td>
<td>she told me to put the quotes around it <em>now</em></td>
</tr>
<tr>
<td>“verbalization”</td>
<td>Participant verbalizes typing.</td>
<td>[types] “Government influences”</td>
</tr>
<tr>
<td>, (comma)</td>
<td>Participant pauses for less than one second</td>
<td>Anyway, I don’t know what this means.</td>
</tr>
<tr>
<td>…</td>
<td>Participant pauses for three seconds or less.</td>
<td>So… in this case… I’m gonna wanna talk about</td>
</tr>
</tbody>
</table>
Appendix J
Transcribed Verbal Data: Samples

Sample from L1 Participant (Lisa, Paraphrase 1)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>So…as I’m going through… I wanna indicate that these programs come in</td>
</tr>
<tr>
<td>2</td>
<td><em>all shapes and sizes</em></td>
</tr>
<tr>
<td>3</td>
<td>but I definitely don’t wanna say</td>
</tr>
<tr>
<td>4</td>
<td><em>all shapes and sizes</em></td>
</tr>
<tr>
<td>5</td>
<td>just because that would be one hundred percent taking the words of the original author.</td>
</tr>
</tbody>
</table>

Sample from L2 Participant (Megumi, Paraphrase 2)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[reads] <em>Driven by a variety of factors</em></td>
</tr>
<tr>
<td>2</td>
<td>I don’t get it</td>
</tr>
<tr>
<td>3</td>
<td>[reads] <em>Driven by a variety of factors… demand by students… demand by students and professional associations for higher cre- credentials… credentials</em></td>
</tr>
<tr>
<td>4</td>
<td>I don’t know this word [refers to <em>credentials</em>]</td>
</tr>
<tr>
<td>5</td>
<td>Ok. Just look up. [checks <em>credentials</em> in Microsoft Word translator dictionary]</td>
</tr>
</tbody>
</table>
Appendix K

Sample Transcription Codes and Verbal Report Excerpts

Codes:

D = verbalized decision-making episode (DME)
T = typing
R = reading
O = other (e.g., inaudible utterance, off-topic utterance)

Sample from L1 Participant (Lisa, Paraphrase 1)

<table>
<thead>
<tr>
<th>Lara</th>
<th>Rater</th>
<th>Code</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>D</td>
<td>D</td>
<td>So…as I’m going through…I wanna indicate that these programs come in</td>
</tr>
<tr>
<td>2</td>
<td>R</td>
<td>R</td>
<td>all shapes and sizes</td>
</tr>
<tr>
<td>3</td>
<td>D</td>
<td>D</td>
<td>but I definitely don’t wanna say</td>
</tr>
<tr>
<td>4</td>
<td>R</td>
<td>R</td>
<td>all shapes and sizes</td>
</tr>
<tr>
<td>5</td>
<td>D</td>
<td>D</td>
<td>just because that would be one hundred percent taking the words of the original author.</td>
</tr>
</tbody>
</table>

Sample from L2 Participant (Megumi, Paraphrase 2)

<table>
<thead>
<tr>
<th>Lara</th>
<th>Rater</th>
<th>Code</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>R</td>
<td>[reads] Driven by a variety of factors</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
<td>D</td>
<td>I don’t get it</td>
</tr>
<tr>
<td>3</td>
<td>R</td>
<td>R</td>
<td>[reads] Driven by a variety of factors…demand by students…demand by students and professional associations for higher cre-credentials…credentials</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>D</td>
<td>I don’t know this word [refers to credentials]</td>
</tr>
<tr>
<td>5</td>
<td>D</td>
<td>D</td>
<td>Ok. Just look up. [checks credentials in Microsoft Word translator dictionary]</td>
</tr>
</tbody>
</table>
Appendix L
Inter-rater Reliability Scores for Verbal Report Coding

<table>
<thead>
<tr>
<th>Participant</th>
<th>Language</th>
<th>Paraphrase</th>
<th>Rater Agreement (%)</th>
<th>Rater Agreement (Kappa)</th>
<th>Strength of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chris</td>
<td>L1</td>
<td>1</td>
<td>92.86</td>
<td>0.88</td>
<td>Very good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>95.24</td>
<td>0.94</td>
<td>Very good</td>
</tr>
<tr>
<td>2. Elizabeth</td>
<td>L1</td>
<td>1</td>
<td>91.67</td>
<td>0.86</td>
<td>Very good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>89.23</td>
<td>0.84</td>
<td>Very good</td>
</tr>
<tr>
<td>3. Lisa</td>
<td>L1</td>
<td>1</td>
<td>96.15</td>
<td>0.93</td>
<td>Very good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>93.94</td>
<td>0.91</td>
<td>Very good</td>
</tr>
<tr>
<td>4. Megumi</td>
<td>L2</td>
<td>1</td>
<td>93.81</td>
<td>0.90</td>
<td>Very good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>77.52</td>
<td>0.68</td>
<td>Good</td>
</tr>
<tr>
<td>5. Namie</td>
<td>L2</td>
<td>1</td>
<td>100.00</td>
<td>1</td>
<td>Perfect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>88.89</td>
<td>0.85</td>
<td>Very good</td>
</tr>
<tr>
<td>6. Nozomi</td>
<td>L2</td>
<td>1</td>
<td>87.18</td>
<td>0.79</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>91.13</td>
<td>0.86</td>
<td>Very good</td>
</tr>
</tbody>
</table>

\[ M = 91.47 \quad SD = 5.62 \quad Min = 77.52 \quad Max = 100.00 \]

\[ M = 91.47 \quad SD = 5.62 \quad Min = 77.52 \quad Max = 100.00 \]
Appendix M
Sample Analysis for Paraphrase Quality

Key:
Strikethroughs indicate general links considered acceptable in paraphrase
Bolded/underlined lexical words indicate unique links

Participant 1 (Camille, L1) Paraphrase #2:

Driven by a variety of factors – demand by students and professional associations for higher credentials, government agendas, the increased cost of education infrastructure and an overall shift toward a culture of lifelong learning – colleges across Canada are offering baccalaureates in all shapes and sizes.

**Type paraphrase here:** A variety of **baccalaureates** are now being presented in **Canadian colleges**. There are many reasons for this: **college students**, as well as staff, have requested them; the funding for **education** has gone up, so standards for **education** must also be improved; society has a growing desire to improve their knowledge throughout their lifetime; also, government now requires **baccalaureates** as part of the post-secondary education system.

1. Identify the total number of words for each paraphrase
2. Exclude proper nouns (such as place names, personal names and personal titles, colleges, students) from total word count
3. Identify all unique links that were borrowed from the excerpt (excluding proper nouns such as place names, personal names and professional titles)
4. Determine the percentage of unique links used in each paraphrase
5. Classify the type of paraphrase according to Keck’s (2006) Taxonomy of Paraphrase Types

<table>
<thead>
<tr>
<th># Number of words in paraphrase (excluding proper nouns, etc.)</th>
<th>Number of Unique Links (word number)</th>
<th>% of Unique Links</th>
<th>Type of Paraphrase (Quality)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-4=61</td>
<td>7</td>
<td>11.48</td>
<td>Moderate Revision</td>
</tr>
</tbody>
</table>

-excluded 4 general links: **Canadian, college, colleges students**

*note: government and the second education are not counted because their parts of speech changed from the original to the paraphrase.
Participant 6, Namie (L2) Paraphrase #2:

Driven by a variety of factors – demand by students and professional associations for higher credentials, government agendas, the increased cost of education infrastructure and an overall shift toward a culture of lifelong learning – colleges across Canada are offering baccalaureates in all shapes and sizes.

Type paraphrase here: All sizes and shapes of baccalaureates are offered by Canadian colleges because factors surrounded the environment of schools are changing, such as demand, cost, and culture.

<table>
<thead>
<tr>
<th># Number of words in paraphrase (excluding proper nouns, etc.)</th>
<th>Number of Unique Links (word number)</th>
<th>% of Unique Links</th>
<th>Type of Paraphrase (Quality)</th>
</tr>
</thead>
<tbody>
<tr>
<td>26-2=24</td>
<td>7</td>
<td>29.1</td>
<td>Minimal Revision</td>
</tr>
</tbody>
</table>

-excluded 2 general links Canadian, colleges,
Appendix N
Sample of Original Appropriateness Chart for Two Raters:

Reliability Measures Round 1

<table>
<thead>
<tr>
<th>LARA</th>
<th>Paraphrase</th>
<th>Level of Appropriateness</th>
<th>Appropriate</th>
<th>Somewhat Appropriate</th>
<th>Somewhat Inappropriate</th>
<th>Inappropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris (L1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elizabeth (L1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td></td>
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<table>
<thead>
<tr>
<th>RATER</th>
<th>Paraphrase</th>
<th>Level of Appropriateness</th>
<th>Appropriate</th>
<th>Somewhat Appropriate</th>
<th>Somewhat Inappropriate</th>
<th>Inappropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris (L1)</td>
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</tr>
<tr>
<td>1</td>
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<td>✓</td>
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<tr>
<td>4</td>
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<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elizabeth (L1)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>4</td>
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<td></td>
<td></td>
<td></td>
<td>✓</td>
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</tbody>
</table>
Appendix O

Sample of Modified Appropriateness Chart for Two Raters:

Reliability Measures Round 2

<table>
<thead>
<tr>
<th>LARA</th>
<th>Paraphrase</th>
<th>Level of Appropriateness</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Appropriate</td>
<td>Inappropriate</td>
</tr>
<tr>
<td>Chris (L1)</td>
<td>1</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Elizabeth (L1)</td>
<td>1</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>✓</td>
<td>✓</td>
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<table>
<thead>
<tr>
<th>RATER</th>
<th>Paraphrase</th>
<th>Level of Appropriateness</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Appropriate</td>
<td>Inappropriate</td>
</tr>
<tr>
<td>Chris (L1)</td>
<td>1</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Elizabeth (L1)</td>
<td>1</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>✓</td>
<td>✓</td>
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<tr>
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<td>3</td>
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<td>✓</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Criterion</td>
<td>Rater Agreement (%)</td>
<td>Rater Agreement (Kappa)</td>
<td>Strength of Agreement</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>-------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>1. *Attributed source to original author</td>
<td>100</td>
<td>1</td>
<td>Perfect</td>
</tr>
<tr>
<td>2. Appropriate/Sufficient use of synonyms</td>
<td>62.86</td>
<td>0.28</td>
<td>Fair</td>
</tr>
<tr>
<td>3. *All key points of the original excerpt are retained</td>
<td>82.86</td>
<td>0.60</td>
<td>Good</td>
</tr>
<tr>
<td>4. Sufficient syntactical shift (word order, active to passive, etc.)</td>
<td>65.71</td>
<td>0.33</td>
<td>Fair</td>
</tr>
<tr>
<td>5. *It is not a summary</td>
<td>82.86</td>
<td>0.66</td>
<td>Good</td>
</tr>
<tr>
<td>6. Word form changed</td>
<td>54.29</td>
<td>0.14</td>
<td>Poor</td>
</tr>
<tr>
<td>7. Participant’s opinion is not reflected</td>
<td>74.29</td>
<td>0.03</td>
<td>Poor</td>
</tr>
</tbody>
</table>

\[
M = 74.70 \\
SD = 15.34 \\
\text{Min} = 54.29 \\
\text{Max} = 100
\]

Note. *Sufficient reliability for analysis.
Appendix Q
Task Completion Times

Table Q1

*Time of Task Completion* L1 Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Paraphrase 1</th>
<th>Paraphrase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chris</td>
<td>5 min 37 s</td>
<td>6 min 41 s</td>
</tr>
<tr>
<td>2. Elizabeth</td>
<td>3 min 19 s</td>
<td>6 min 28 s</td>
</tr>
<tr>
<td>3. Lisa</td>
<td>4 min 24 s</td>
<td>9 min 46 s</td>
</tr>
<tr>
<td>M</td>
<td>4 min 27 s</td>
<td>7 min 38 s</td>
</tr>
<tr>
<td>SD</td>
<td>1 min 9 s</td>
<td>1 min 51 s</td>
</tr>
</tbody>
</table>

*Note.* *Time shown in minutes (min) and seconds (s).*

Table Q2

*Time of Task Completion* L2 Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Paraphrase 1</th>
<th>Paraphrase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Megumi</td>
<td>18 min 54 s</td>
<td>11 min 52 s</td>
</tr>
<tr>
<td>2. Namie</td>
<td>5 min 20 s</td>
<td>15 min 28 s</td>
</tr>
<tr>
<td>3. Nozomi</td>
<td>12 min 22 s</td>
<td>19 min 42 s</td>
</tr>
<tr>
<td>M</td>
<td>12 min 10 s</td>
<td>15 min 40 s</td>
</tr>
<tr>
<td>SD</td>
<td>6 min 47 s</td>
<td>3 min 55 s</td>
</tr>
</tbody>
</table>

*Note.* *Time shown in minutes (min) and seconds (s).*
Appendix R
The Number of Verbalized Units per Participant

Table R1
Total Episodes (Units) of Analysis in Concurrent Verbal Reports

<table>
<thead>
<tr>
<th>L1 Participant</th>
<th># Episodes Paraphrase 1</th>
<th># Episodes Paraphrase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chris</td>
<td>14</td>
<td>42</td>
</tr>
<tr>
<td>2. Elizabeth</td>
<td>24</td>
<td>65</td>
</tr>
<tr>
<td>3. Lisa</td>
<td>26</td>
<td>65</td>
</tr>
<tr>
<td>(M)</td>
<td>21.3</td>
<td>57.3</td>
</tr>
<tr>
<td>(SD)</td>
<td>6.43</td>
<td>13.28</td>
</tr>
</tbody>
</table>

Table R2
Total Episodes (Units) of Analysis in Concurrent Verbal Reports

<table>
<thead>
<tr>
<th>L2 Participant</th>
<th># Episodes Paraphrase 1</th>
<th># Episodes Paraphrase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Megumi</td>
<td>97</td>
<td>129</td>
</tr>
<tr>
<td>2. Namie</td>
<td>21</td>
<td>126</td>
</tr>
<tr>
<td>3. Nozomi</td>
<td>39</td>
<td>124</td>
</tr>
<tr>
<td>(M)</td>
<td>52.3</td>
<td>126.3</td>
</tr>
<tr>
<td>(SD)</td>
<td>39.71</td>
<td>2.52</td>
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Appendix S
The Percentage of DMEs per Language Group

Table S1
*Percentage of Decision Making Episodes for L2 Verbal Reports*

<table>
<thead>
<tr>
<th>Participant</th>
<th>% DME Paraphrase 1</th>
<th>% DME Paraphrase 2</th>
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</thead>
<tbody>
<tr>
<td>Megumi</td>
<td>50.52</td>
<td>37.98</td>
</tr>
<tr>
<td>Namie</td>
<td>47.62</td>
<td>34.92</td>
</tr>
<tr>
<td>Nozomi</td>
<td>51.28</td>
<td>50.81</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>49.81</td>
<td>41.24</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>1.93</td>
<td>8.43</td>
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*Note.* For paraphrases 1 and 2.

Table S2
*Percentage of Decision Making Episodes (DME) for L1 Verbal Reports*

<table>
<thead>
<tr>
<th>Participant</th>
<th>% DME Paraphrase 1</th>
<th>% DME Paraphrase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris</td>
<td>21.43</td>
<td>26.19</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>50.00</td>
<td>50.77</td>
</tr>
<tr>
<td>Lisa</td>
<td>57.69</td>
<td>47.69</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>43.04</td>
<td>41.55</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>19.11</td>
<td>13.39</td>
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</tbody>
</table>

*Note.* For paraphrases 1 and 2.