# University Students' and Instructors' Paraphrasing and Citation Knowledge and Practices

# Krista Schwabl, Marian Rossiter, Marilyn Abbott

University of Alberta

Plagiarism is a widespread concern at post-secondary institutions (Perry, 2010). University students are expected to avoid plagiarism by citing sources and paraphrasing appropriately. Their written work, however, often contains "patchwriting" (a type of plagiarism) that involves deleting/replacing words and/or altering structures in copied texts (Howard, 1995). Nine university instructors and 66 of their students responded to surveys addressing perceptions of paraphrasing and citation and recommendations for developing these skills. Responses revealed variations in perceptions of acceptable paraphrasing, particularly for patchwriting. Participants recommended paraphrasing workshops or online courses to provide more explicit instruction and guidance for both instructors and students.

Le plagiat constitue une préoccupation de taille dans les institutions postsecondaires (Perry, 2010). On s'attend à ce que les étudiants à l'université évitent le plagiat en citant leurs sources et en paraphrasant de façon appropriée. Toutefois, leurs travaux écrits contiennent souvent des bouts de textes recueillis ici et là dont et on enlève ou remplace des mots et des structures, un rapiéçage du style 'couper-coller' qui constitue un type de plagiat (Howard, 1995). Neuf professeurs d'université et 66 de leurs étudiants ont répondu à des enquêtes portant sur les perceptions de la paraphrase et de la citation, et sur des recommandations visant le développement de ces habiletés. Les réponses révèlent une variation dans les perceptions quant à ce qui est acceptable comme paraphrase, notamment dans le contexte du rapiéçage couper-coller. Les participants ont recommandé que l'on offre des ateliers ou des cours enligne de sorte à fournir des directives plus explicites sur la paraphrase, tant pour les professeurs que les étudiants.

Plagiarism, which involves "submitting the words, ideas, images or data of another person's as one's own" (Eerkes, 2012, p. 3), is a pervasive issue at academic institutions (Franklyn-Stokes & Newstead, 1995; Hale, 1987; McCabe & Trevino, 1993; Perry, 2010). In a survey of 83 North American campuses (McCabe, 2005), 38% of undergraduate and 25% of graduate students admitted to "copying a few phrases or sentences from a source without footnoting it" (p. 6) in their written work. According to Pickard's (2006) study of students from the United Kingdom "up to one in three students pass off the work of others as their own" (p. 221). Pickard suggested, however, that both instructors and students may be unaware of the full extent of the problem. Hughes and McCabe (2006) claimed that, despite "a dearth of similar research" (p. 49), it is likely that plagiarism is an issue at many institutions of higher learning in the Canadian context.

A recent study conducted by Jurdi, Hage, and Chow (2012) at the University of Regina in Saskatchewan revealed that undergraduate students were more accepting of plagiarism-related behaviors than expected. Specifically, fewer than 50% of the students agreed that "using sources not included in the references [was dishonest, and only 65% felt that] using direct quotes without giving proper references [was deceitful]" (p. 10).

Awareness of acceptable paraphrasing and citation practices is important, given the number of written assignments required in post-secondary programs. To determine the extent to which written assignments were required at the University of Alberta, Graves, Hyland, and Samuels (2010) surveyed instructors of 179 first- and second-year courses. They found that 75% of the instructors gave written assignments, of which term papers and essays were the most common. Students tend to do more specialized types of writing as they progress in their fields of study, according to Graves, Parker, and Marcynuk (2010). Students, therefore, need to be informed about textual borrowing practices, such as paraphrasing, as "even the most original academic paper integrates facts, ideas, concepts, and theories from other sources" (Campbell, 1990, p. 211).

At many universities, instructors discuss plagiarism and its consequences with students (Abasi & Graves, 2008). At the University of Alberta, for example, students are informed that sanctions for violations can range "from a reprimand to grade reductions, suspension, and expulsion" (Eerkes, 2008, p. 2). Students are also referred to websites (e.g., University of Alberta, 2013) featuring strategies to avoid plagiarism (Abasi & Akbari, 2008; Abasi & Graves, 2008; Yamada, 2003). In addition, seminars may be offered to teach appropriate textual borrowing practices, including paraphrasing (the restatement of an original source in other words).

Despite the resources available to them, some university students fail to avoid plagiarism as their written work often contains unacceptable paraphrases or "patchwriting" (Abasi & Akbari, 2008; Howard, 1992, 1995; Li & Casanave, 2012; Ouellette, 2008; Pecorari, 2003, 2006; Pecorari & Shaw, 2012; Shi, 2012; Walker, 2008). Findings from previous studies (Deckert, 1993; Roig, 1997, 2001) indicated that both university students and instructors may not be aware of what constitutes acceptable paraphrasing. These studies, however, focused on the perceptions of either students or instructors (not both), were conducted in non-Canadian contexts, did not require participants to rate definitions or to justify their perceptions of acceptable paraphrasing, and/or did not solicit recommendations for improving students' paraphrasing and citation skills. In addition, students were not asked how they had learned to paraphrase or how confident they were of their paraphrasing skills. The current study was designed to explore the perceptions of acceptable paraphrasing and citation held by both instructors and second-year students at a western Canadian university. From all participants we solicited (a) judgments of definitions of acceptable paraphrasing, (b) explanations for participants' judgments of paraphrased passages, and (c) recommendations for supporting the development of acceptable paraphrasing and citation skills. From the students, we also solicited background information on their knowledge of paraphrasing, as well as their reported confidence in their paraphrasing skills. The instructors were requested to report the procedures they used to address intertextual borrowing.

# **Literature Review**

In the following section, we present definitions of plagiarism and its forms, and possible

attributions for inappropriate citation. We also review research that has investigated students' and instructors' perceptions of acceptable paraphrasing, along with the underlying reasons for their perceptions. Finally, we provide an overview of recommendations identified in the literature to develop students' paraphrasing skills.

# Forms of Plagiarism

Many different definitions of plagiarism have been proposed in the literature over the years. Howard (1995) defined plagiarism as:

the representation of a source's words or ideas as one's own [which] occurs when ... [writers] fail to supply quotation marks for exact quotations, fail to cite the sources of [their] ideas; or [adopt] the phrasing of [sources], with changes in grammar or word choice. (p. 799)

She linked these to three distinct forms of plagiarism: cheating, non-attribution of sources, and patchwriting. Cheating, which represents an intentional act of plagiarism, involves "submitting under one's own name" (p. 799) written work that has been borrowed, purchased, or obtained from another individual. Non-attribution of sources occurs when students include verbatim passages from sources in their own writing and neglect to "include footnotes, endnotes, or parenthetical notes that cite the source and quotation marks or block indentation to indicate precisely what has been copied from the source" (p. 799). Sherman (1992) found that students in Italy neglected to identify their sources in academic written work and "quoted [verbatim] the words of others without acknowledgement" (p. 191), insisting that the original author's words or preferable. Non-attribution may also entail "paraphrasing acknowledgement" (Franklyn-Stokes & Newstead, 1995, p. 10). This can be either intentional or unintentional with the latter potentially occurring because students lack awareness of acceptable citation practices (Bennett, 2005; Campbell, 1990; Franklyn-Stokes & Newstead, 1995; Hale, 1987; Howard, 1995; Love & Simmons, 1998; Park, 2003; Perry, 2010). Howard (1992) described patchwriting as superficial paraphrasing, by which students merely "[copy] from a source text and then [delete] some words, [alter] grammatical structures, or [plug in] one-forone synonym substitutes" (p. 233). Patchwriting represents unacceptable paraphrasing in a final written draft (Howard, 1992, 1995) even if the original source is acknowledged in "footnotes, endnotes, or parenthetical notes" (Howard, 1995, p. 799). Online resources or writing style manuals emphasize that a passage that has not been sufficiently reworded is plagiarized (Henderson, 2008; Kennedy, Kennedy, & Muth, 2008; Powell & Teare, 2010; University of Alberta, 2013); nonetheless, patchwriting continues to be found in university students' written work (Li & Casanave, 2012; Pecorari, 2003, 2006). In the past, plagiarism was placed on a continuum encompassing both intentional cheating and unintentional textual borrowing. According to more recent views (e.g., Abasi & Graves, 2008; Chandrasoma, Thompson, & Pennycock, 2004; Pecorari & Shaw, 2012), patchwriting should be classified as plagiarism only if it is intentional.

Howard's (1995) assertion that patchwriting is a writing strategy used by writers who lack familiarity with the language and content of academic genres has been supported by a number of other researchers (Abasi & Akbari, 2008; Angelil-Carter, 2000; Campbell, 1990; Chandrasoma, Thompson, & Pennycock, 2004; Howard, 1992, 1995; Li & Casanave, 2012; Ouelette, 2008; Percorari, 2003, 2006; Pecorari & Shaw, 2012). Abasi and Graves (2008)

explored the writing activities of four international graduate students enrolled in Communication and Education courses at a Canadian university. In interviews, the students' instructors stated that the patchwriting in the students' written work reflected "their socialization into academic disciplines and their gradually taking up disciplinary ways of speaking and writing" (p. 225).

Both native speakers (NS) and nonnative speakers (NNS) of English use patchwriting as a writing strategy (Campbell, 1990; Keck, 2006; Myers, 1998). Campbell (1990) reported that NNS efforts to blend patchwriting into their compositions tended to be "less academic than those of the NS" (p. 224) and suggested that lower English language proficiency was a contributing factor. Weak reading comprehension also impacts NNS' ability to reword source information (Angelil-Carter, 2000; Abasi & Akbari, 2008; Keck, 2006; Li & Casanave, 2012; Ouellette, 2008; Pecorari, 2003, 2006; Shi, 2012). Furthermore, NNS may not have been taught acceptable paraphrasing practices.

# **Perceptions of Acceptable Paraphrasing**

Several studies have explored university students' perceptions of paraphrasing (Deckert, 1993; Li & Casanave, 2012; Roig, 1997). Deckert (1993) was interested in determining the ability of 170 first-year students in Hong Kong to identify plagiarism "by Western standards" (p. 133); however, he did not provide a clear definition of plagiarism. Students compared six excerpts of writing based on an original source and "assess[ed] the presence and degree of plagiarism, or wrong use of the source" (p. 134). Four of the excerpts contained varying degrees of plagiarism. The participants achieved a mean score of 3.5 (out of 6) correct answers based on their assessments of the passages. Deckert (1993) consequently concluded that this group of English as a foreign language (EFL) students was unable to detect plagiarism in excerpts of writing.

Roig (1997) conducted studies to determine whether American undergraduate students could distinguish between plagiarized and acceptably paraphrased texts. In the first study, 316 undergraduate students completed a Plagiarism Knowledge Survey (PKS) and compared an original paragraph with 10 rewritten versions, eight of which represented varying degrees of plagiarism. In the second study, 231 new undergraduate students completed a modified PKS. Results from both studies indicated that many students lacked the knowledge necessary to determine whether a passage had been acceptably paraphrased or not. However, Roig did not explore the underlying reasons for their perceptions, nor did he solicit feedback on recommendations for developing the paraphrasing skills of university students.

Instructors' perceptions of acceptable paraphrasing may also vary, both within and across academic fields (Pecorari & Shaw, 2012; Roig, 2001; Shi, 2012; Sutherland-Smith, 2005). Flowerdew and Li (2007) stated that "applying the criteria for 'plagiarism', as practiced in the Humanities, to the Natural Sciences can be problematic" (p. 461), as language is a higher priority in the Humanities. Instructors in university English classes, for example, might expect a paraphrase to vary considerably from the original text. In the sciences, however, the authors note that more of an emphasis is placed on "content' (the work reported) [so there is] the potential room... allowed for language re-use in scientific writing" (p. 462).

Shi (2012) conducted research to investigate if the underlying criteria for identifying acceptable paraphrasing were common across disciplines. Forty-eight students and 27 instructors in a variety of Canadian post-secondary fields were asked to examine four examples of student texts; the first two were paraphrases, the third a summary based on several unknown

sources, and the fourth a translation from a book. The results of this study revealed that "different beliefs and perceptions about citation practices" (p. 145) can exist within and across disciplines. Specifically, perceptions varied regarding how many words could be borrowed when paraphrasing and whether student writers needed to use quotations for the borrowed words.

Varying perceptions of acceptable paraphrasing may be attributed to the fact that "expectations for writing within the disciplines have been codified unevenly" (Pecorari, 2006, p. 10). Pecorari (2006) explained that

[while] MLA and APA guides offer clear and detailed explanations of how to cite source information [that] are ... accepted as authoritative within the Humanities and social sciences, the sciences and engineering lack [such a] guide. This leads to some disagreement about general principles and how to apply them in practice. (p. 10)

Further confusion may result because of the lack of established, common standards for acceptable paraphrasing (i.e., the degree to which a passage needs to be reworded and the number of consecutive word strings allowed) (Henderson, 2008; Kennedy, Kennedy, & Muth, 2008; Powell & Teare, 2010; University of Alberta, 2013).

To explore professors' perceptions of acceptable paraphrasing and plagiarism, Roig (2001) conducted a study at several academic institutions in New York. Instructors from fields such as Business, Humanities, Professional Studies, Science, and Social Sciences were given an original two-sentence paragraph and six paraphrased versions (four acceptable, two unacceptable). The 138 instructors were asked to read the modified versions and to rate them (as 'Plagiarized', 'Not Plagiarized', or 'Cannot Determine'). The inconsistent results suggested that "a significant proportion of professors [maintained] criteria for correct paraphrasing that may be viewed by some of their colleagues as plagiarism" (p. 313). Percorari and Shaw (2012) assert that it may be misleading or "potentially dangerous for [students' academic status] that teachers hold significantly diverse views about the sorts of intertextuality that are, and are not acceptable" (p. 150).

### **Recommendations for Developing Acceptable Paraphrasing Skills**

Three key recommendations were identified in the literature for developing students' paraphrasing skills. The first encouraged instructors to establish a classroom climate with a focus on academic integrity (Eerkes, 2012; Hughes & McCabe, 2006; McCabe & Trevino, 1993). Specifically, students need opportunities to discuss and evaluate the ethics of textual borrowing (Hughes & McCabe, 2006; Jurdi, Hage, & Chow, 2012; Love & Simmons, 1998; Perry, 2010) and the diversity of practice, both within and across academic disciplines (Hyland, 2001; Myers, 1998; Ouellette, 2008; Pennycock, 1996; Yamada, 2003). Hyland (2001) recommended having students analyze and discuss their reactions to university documents addressing plagiarism.

The second recommendation was that instructors explain their paraphrasing expectations clearly and provide resources (e.g., websites, handouts) to support them (Eerkes, 2012). First-year students (Perry, 2010), second-year students, international students, and NNS of English, in particular, could benefit from specialized seminars (Hughes & McCabe, 2006).

Explicit paraphrasing instruction was another key recommendation (Abasi & Akbari, 2008; Abasi & Graves, 2008; Angelil-Carter, 2000; Howard, 1992, 1995; Jurdi, Hage, & Chow, 2012; Keck, 2006; Li & Casanave, 2012; Ouellette, 2008; Roig, 1997; Sherman, 1992; Walker, 2008;

Wette, 2010; Yamada, 2003). Keck (2006) emphasized that "first-year composition and [Intensive English Program] IEP writing courses could serve students well by addressing paraphrasing when summary skills are introduced" (p. 275), as did Howard (1992, 1995). Walker (2008) found that explicit instruction was especially beneficial for paraphrasing complex texts.

In summary, researchers have identified several forms of plagiarism and reasons for committing it, including lack of understanding of acceptable citation practices. Patchwriting, in particular, has been recognized as a strategy employed by some NS and NNS writers as they acquire academic writing conventions. The literature has also indicated that instructors' and students' perceptions of acceptable paraphrasing differ within and among disciplines. Finally, three key recommendations have been suggested in the literature for enhancing the paraphrasing skills of university students, i.e., encouraging academic integrity, clarifying expectations, and providing explicit instruction.

We conducted the following study to further explore instructors' and students' perceptions of acceptable paraphrasing and citation, to discover the underlying reasons for their perceptions, and to solicit participants' feedback on recommendations for developing students' paraphrasing skills.

### Method

# **Participants**

To ensure that students and instructors from a variety of fields were represented in this study, an online search engine was used to identify instructors teaching second-year undergraduate classes in the Faculties of Arts, Education, Engineering, and Science at a western Canadian University. These faculties were selected because (a) they had been the focus of other paraphrasing studies (Deckert, 1993; Roig, 1997, 2001; Shi, 2012) and (b) previous research emphasized that the paraphrasing perceptions of both students and instructors in different faculties could vary. All 71 instructors were invited to participate, and nine of these (12.6%) accepted. Eighteen instructors of second-year courses agreed to facilitate in-class recruitment of students, 66 of whom agreed to participate in the study (see details in the Data Collection section). Sixty-one of these students were Canadian-born and five were international students from China, Georgia, India, Russia, and South Africa. The nine instructors who took part in this study taught courses in the Faculties of Arts and Science (Departments of Biochemistry, Economics, History and Classics, Political Science, Psychology, and Women's and Gender Studies).

### **Instruments**

One student survey and one instructor survey were designed, piloted, and uploaded to SurveyMonkey. Both surveys solicited participants' background information and all participants were asked to complete four tasks. In Task 1, participants were instructed to read six definitions of paraphrasing (adapted from Powell & Teare, 2010). They were asked to indicate if they thought each definition was/was not acceptable or if they were unsure. Task 2 (see Appendix) consisted of three original passages (Augusta State University, n.d.; Purdue University, 2012; University of Victoria Libraries, 2012), each of which was followed by a paraphrase. Participants

rated the paraphrases as "acceptable," "somewhat acceptable," or "not acceptable," then selected an explanation for "not acceptable" or "somewhat acceptable" ratings from a list of five provided. Participants' results on Tasks 1 and 2 were used to calculate paraphrase knowledge scores (described below). In Task 3, two options were presented for improving students' paraphrasing/citation skills. Participants indicated their preference(s) for attending a workshop, completing an online course, and/or other recommendations that they provided for developing university students' skills. Task 4 of the student survey asked participants if they had learned to paraphrase (and, if yes, how and where) and how confident they felt with regard to their paraphrasing skills. In Task 4 of the instructor survey, participants were asked how they informed students about what constituted plagiarism at the university, and if and how they provided them with information or instruction on appropriate textual borrowing practices (including paraphrasing and academic citation conventions).

### **Procedure**

**Data collection.** The instructors of the second-year classes received a recruitment email, consisting of an information letter, consent form, survey link, and a request to allow a researcher to recruit student participants from their classes. Following a brief presentation of the project by the first author, instructors forwarded the information letter, consent form, and survey link to their students, requesting that they complete the survey on their own time.

**Data analysis.** Survey data were summarized using descriptive statistics and responses to open-ended questions were thematically analyzed (Cresswell, 2012). Paraphrase knowledge scores were calculated for each participant using the data from Tasks 1 and 2. For the six paraphrase definitions (Task 1), 1 point was given for each definition correctly answered, 2 points for "unsure" responses, and 3 points for incorrect answers. For the three paraphrase tasks (Task 2), participants received 1 point for each correct rating, 2 points for items that were assessed as "somewhat acceptable," and 3 points for tasks that were incorrectly rated. Scores had the potential to range from 9 (best) to 27 (worst). A Mann-Whitney Test was conducted to test for significant differences between student and instructor paraphrase knowledge scores and a Kruskal-Wallis Test was used to compare student scores across faculties.

### **Results and Discussion**

# **Responses to Paraphrasing Definitions (Task 1)**

Participant responses to one correct and five incorrect definitions of paraphrasing (adapted from Powell & Teare, 2010) are reported in Table 1.

**Instructor responses.** Only 38% of instructors provided correct responses to all six definitions. Ninety percent correctly identified the only acceptable definition of paraphrasing (Definition d). Definitions (a), (e), and (f), which represented exact or near copying, were rated as unacceptable paraphrases by 100%, 88%, and 100% of instructors, respectively. The patchwriting example (Definition c), was correctly rated by 75% as unacceptable. This lower accuracy rate could be related to differences across disciplines in interpretations of acceptable textual practices.

**Student responses.** Correct responses to all six definitions were provided by 33% of the student participants. Similar to the instructors, the vast majority of students (98% and 86%)

respectively) correctly identified Definition (a) as unacceptable and Definition (d) as acceptable. There was, however, greater variation in their responses to the other definitions. Sixty-three percent and 64%, respectively, correctly identified Definitions (e) and (f) as unacceptable. In contrast, 25% felt that stringing together short phrases from several sources, Definition (e), was acceptable, and 27% felt that copying and reordering sentences (f) was acceptable, provided that the references were in the text and in the reference list. Definition (c), the patchwriting example, was correctly rated by 70% as unacceptable, while 19% of the students incorrectly rated the definition as acceptable. The students in our study thus responded more accurately to the definitions that represented "superficial paraphrasing" and "exact copying" than did those in Deckert (1993). In his study, 34% and 52% of students felt there was "no wrong use" or "some wrong use" (respectively) of source information with "much insertion of slightly altered strings of text" (p. 138). Furthermore, fewer than half of the EFL students in his study were able to correctly identify "the worst case" (p. 139) of plagiarism.

Table 1

Instructors' (I) (n = 9) and Students' (S) (n = 64) Judgments of Accuracy of Paraphrasing Definitions (%)

Definitions (%)	N	0	I'm no	t sure	Ye	es
Definition	I	S	1	S	1	S
(a) Word for word, not referenced (Incorrect definition)	100	98	0	2	0	0
(b) Block format, referenced in text and in reference list (Incorrect definition)	100	70	0	16	0	14
(c) A few small changes in wording, referenced in reference list (Incorrect definition-Patchwriting)	75	70	25	11	0	19
(d) Extensive changes in wording and structure, referenced in text and reference list (Correct definition)	11	9	0	5	89	86
(e) Strings of short phrases copied from several sources referenced in text and in reference list (Incorrect definition)	88	63	13	13	0	25
(f) Sentences copied from a source, reordered, referenced in text and reference list (Incorrect definition)	100	64	0	9	0	27

Note. All nine instructors (I) completed Definition (d), but only eight completed Definitions (a)-(f). Of 66 student (S) respondents, 64 completed Definitions (a), (c), (d), (e), and (f), and 63 completed Definition (b).

### Responses to Example Paraphrases (Task 2)

The instructors' and students' responses to the three paraphrase tasks (see Appendix) are summarized in Table 2. Paraphrase 1 represents patchwriting, while Paraphrase 2 is an acceptable paraphrase, and Paraphrase 3 is an acceptable paraphrase with missing source information.

**Instructor responses.** Eight of the nine instructors completed the paraphrasing tasks. They all correctly identified Paraphrase 2 as an acceptable paraphrase. Paraphrase 3, which was acceptably paraphrased but lacked a reference to the original source, was incorrectly rated as acceptable by 38% of respondents. Another 38% assessed it as not acceptable. Twenty-five percent responded that it was somewhat acceptable, indicating that the source information was missing. The patchwriting example, Paraphrase 1, included a string of 10 words copied without quotations; however, only 38% correctly rated it as not acceptable. Half incorrectly assessed it as somewhat acceptable, and 12% incorrectly evaluated it as acceptable. When asked to explain their response, most (88%) instructors in our study recognized that the style of the patchwriting passage was too similar to that of the original. A participant in Shi (2012) "stressed the need for a quotation when taking more than three words from the source" (p. 141); this comment may reflect that different disciplinary practices influence perceptions of acceptable paraphrasing (Bouville, 2008; Flowerdew & Li, 2007). As in Roig (2001), acceptability ratings varied for patchwriting; however, in his study a greater percentage (44%) of the American instructors (vs. 12% in this study) incorrectly rated patchwriting as acceptable. Clearly, instructors differ in their views of acceptable paraphrasing.

**Student responses.** Paraphrase 1 (patchwriting) was correctly rated by 35% of student participants as not acceptable and incorrectly assessed by 23% as acceptable and by 42% as somewhat acceptable. Ninety-eight percent of the 77% who rated it as not acceptable or somewhat acceptable recognized that the style was too similar to the original quote, 12% indicated that the length of the paraphrase was too short/long, 9% perceived that some of the key details were missing or inaccurate, and 5% responded that the source information was missing.

Although 73% of students correctly identified Paraphrase 2 as acceptable, it was incorrectly rated by 21% as somewhat acceptable and by 5% as not acceptable. Of those who incorrectly assessed Paraphrase 2 as somewhat acceptable or not acceptable, 53% selected the explanation that some of the key details were missing or inaccurate, while 20% indicated that the style was

Instructors' and Students' Responses (%) to the Three Paraphrase Tasks

Table 2.

	% Not Acceptable		% Somewhat Acceptable		% Acceptable	
	Instructors	Students	Instructors	Students	Instructors	Students
Paraphrase 1 (Not acceptable– Patchwriting)	38	35	50	42	12	23
Paraphrase 2 (Acceptable)	0	5	5	21	100	73
Paraphrase 3 (Not acceptable)	38	53	25	23	38	24

*Note.* Instructors, n = 8. Students, n = 55 for Paraphrases 1 and 3 and n = 56 for Paraphrase 2.

too similar to the original passage, 13% perceived that the length of the paraphrase was problematic, and 7% responded that the source information was missing.

Twenty-four percent of the students correctly rated Paraphrase 3 as somewhat acceptable. It was incorrectly assessed by 53% as not acceptable and by 24% as acceptable. Of those who rated the paraphrase as not acceptable or somewhat acceptable, 85% selected the explanation that the source information was missing, 30% indicated that some of the key details were missing or inaccurate, and 5% perceived that the paraphrase was too long or short.

In our study, 73% of students were able to identify the acceptable paraphrase (Paraphrase 2), similar to findings summarized in Roig (1997). Roig found that 70% of American undergraduate students were able to identify acceptable paraphrases, compared with 52% of Deckert's (1993) participants in Hong Kong. The contexts in which these studies were conducted may have influenced the findings. Deckert concluded that the Asian students in his study may have been "[unfamiliar] with the Western conception of plagiarism" (p. 142) and that their "past educational experience simply had not exposed them to a Western conception of the broader consequences of misusing source materials" (p. 142). The Canadian students in our study, on the other hand, were enrolled in second-year courses at an academic institution where instructors are expected to explain their paraphrasing expectations clearly to students.

# Paraphrase Knowledge Scores Calculated from Tasks 1 and 2

Means, standard deviations, and ranges for instructors' and students' paraphrase knowledge scores are provided in Table 3. To determine whether the differences in knowledge scores between groups (i.e., Arts instructors and students; students from different faculties) were significant, two nonparametric tests were conducted. A Mann-Whitney Test used to compare the scores of the Arts instructors with those of the Arts students showed no significant difference in paraphrase knowledge ( $U_2 = .125$ , p > .05, Z = -1.54). A Kruskal-Wallis Test conducted to compare the paraphrasing knowledge scores of Arts, Education, Engineering, and Science students revealed no significant differences in knowledge across faculties ( $H_4 = .288$ , p > .05, Chi-Square = 3.77, df = 3).

Table 3

Instructor and Student Paranhrasa Knowledge Searce: Descriptives

Instructor and Student Paraphrase Knowledge Scores: Descriptives SD Range Instructors Arts 7 12.1 2.7 9-16 Students Arts 28 14.1 3.1 9-21 7 13.4 2.9 9-17 Education Engineering 5 13.8 5.7 11-19 9-14 Science 10 11.9 1.6

*Note.* Instructors, n = 7; students, n = 50; not all participants completed all of the items in Tasks 1 and 2. Lower scores represent higher paraphrase knowledge.

# Participants' Recommendations for Developing Paraphrasing Skills (Task 3)

We solicited feedback on recommendations for developing university students' paraphrasing skills. Two options were given and participants were encouraged to provide other suggestions. The first option, a paraphrasing workshop offered by the university before the start of term, was based on a recommendation made by Hughes and McCabe (2006), who emphasized the importance of "focused educational programming for younger (e.g., first and second-year) students" (p. 59). This option was chosen by 29% of instructors and 57% of the students in our study. The second option, an online course with paraphrasing exercises, was selected by 100% of the instructors and 61% of the students. Such online courses are available to students through some university libraries and writing centers (Yamada, 2003). One student suggested that "online resources like this" (i.e., Tasks 1 and 2 of this study) should be provided. An instructor commented that an online course with examples of acceptable paraphrases and practice exercises should be available for students not only before the start of the term but whenever needed, "[for example] if a student shows poor paraphrasing skills in a course." One undergraduate felt that "many students [were not] enthusiastic enough about school... [to] bother [enrolling] in a workshop or online course [before the start of a term]." However, this student indicated that a library website with "a very visible link to an explanatory page complete with examples" would be helpful, emphasizing the need for better instructional resources.

Five students asserted that instructors should explain paraphrasing expectations to their classes, in addition to reading the mandatory Plagiarism and Cheating clause in their course outlines. Explicit explanations were also recommended in the literature (Eerkes, 2012; Hughes & McCabe, 2006; Jurdi, Hage, & Chow, 2012). Two students felt that such explanations were crucial in courses with written assignments. Another student requested that "proper examples [be] presented to students [and] not just the abundant general rules." These comments demonstrate that students expect extensive guidance from instructors.

Six students suggested that instructors provide paraphrasing instruction in class, a recommendation made by many researchers (Abasi & Akbari, 2008; Abasi & Graves, 2008; Angelil-Carter, 2000; Howard, 1992, 1995, 2002; Jurdi, Hage, & Chow, 2012; Keck, 2006; Li & Casanave, 2012; Ouellette, 2008; Roig, 1997; Sherman, 1992; Walker, 2008; Wette, 2010; Yamada, 2003). One respondent suggested that paraphrasing be taught in high school, while another stated that it "should ALWAYS be taught in all first-and second-year classes involving writing." Yet another student commented that "classes that require any form of essay should spend 1-2 classes on paraphrasing, even [at] [senior undergraduate] levels, so ... it would be ingrained in your brain!" Clearly, some students believe that explicit instruction would lead to better paraphrasing skills. The improvement in students' paraphrasing skills, as noted in Walker's (2008) study, lends credence to this possibility.

# Paraphrasing Policy and Instruction (Task 4)

When the instructors in our study were asked how they informed students about plagiarism and its consequences at their university, all stated that they referred to the mandatory Plagiarism and Cheating clause in their course outline at the beginning of term and read it aloud to students. In addition, 50% directed students to the university's library webpage where additional information was available. Seventy-five percent reported that they provided explicit paraphrasing instruction and 80% required students to complete paraphrasing activities in

class. In Deckert's (1993) Hong Kong study, only 2% of "170 incoming students claimed to have ever been given an explanation of the English term plagiarism" (p. 137), suggesting that they had not been taught acceptable paraphrasing practices. Instructors at Western universities, therefore, must ensure that international students in their classes, in particular, are provided with adequate information and support.

Sixty-two percent of the students in our study indicated that they had learned how to paraphrase source information in various settings: 72% of them in high school, 59% in a university English class, and 64% in another university course. When asked how confident they were in their ability to paraphrase, 28% were very confident, 61% somewhat confident, and 11% not very confident. Overall, despite instruction in multiple contexts, the majority of students did not have extensive confidence in their ability to create acceptable paraphrases.

Overall, the findings from this study indicated varying degrees in instructors' and students' understanding of acceptable and unacceptable paraphrases. Although all instructors accurately identified the acceptable paraphrase in Task 2, perhaps surprisingly, over one quarter of the students failed to do so. Only 38% and 35% of instructors and students, respectively, correctly recognized patchwriting as not acceptable. The majority of participants expressed the need for explicit paraphrasing instruction and responded favorably to suggestions of a paraphrasing workshop at the start of the term and/or an online course with exercises for developing students' paraphrasing skills.

### **Conclusions**

The current study was designed to explore the paraphrasing and citation knowledge and practices of both instructors and second-year students at a western Canadian university. Earlier research differed in context and/or was more limited in scope (e.g., number and type of tasks). In our study, we administered tasks to solicit judgments of definitions of paraphrasing; judgments of acceptable paraphrasing and explanations for responses; information on procedures used by instructors in class to address intertextual borrowing; students' acquisition of and confidence in their paraphrasing skills; and participants' recommendations for supporting the development of acceptable paraphrasing and citation skills. If the students' paraphrasing knowledge scores in this study are a reflection of their own paraphrasing practices, then patchwriting could be found in their written work and may be perceived as acceptable paraphrasing both by the students and by some of their second-year instructors. Although most students had learned to paraphrase in high school, and the majority of the instructors provided explicit paraphrasing instruction in their university classes, only 28% of second-year students reported that they were very confident in their ability to paraphrase appropriately. The most popular recommendation for enhancing students' paraphrasing and citation skills was an online course with exercises such as those found in the current study.

Despite decades of research and the development of strategies for addressing patchwriting (see Howard, 1992), patchwriting continues to be found in post-secondary students' written work. More extensive exploration of acceptable textual practices is needed to understand the knowledge and expectations of instructors and students in a wider variety of disciplines. Mixed methods research would provide a useful means for addressing this issue in greater depth. The instruments in this study could be used to gather empirical data from a larger number of instructors and their students in a wider variety of academic institutions. It would also be useful to recruit a greater number of non-native English-speaking students educated either in Canada

or internationally. Qualitative data from focus groups or individual interviews, in addition, would provide more detailed accounts and recommendations for enhancing students' paraphrasing and citation skills. Instructors' expectations of paraphrasing, as well as their instructional practices and rationale, could also be documented. In addition, longer, more contextualized, discipline-specific instructional resources might enhance participants' text-level comprehension and their ability to incorporate paraphrasing more appropriately into their own writing. More focused research on instructional initiatives, both online and in-class, needs to be designed, delivered, and evaluated to determine differential outcomes.

Echoing Sutherland-Smith (2005), instructors should be encouraged to examine their paraphrasing practices more closely. As one student in this study stated, "If professors themselves had a consistent understanding of the acceptable rules for paraphrasing ... there might be less ambiguity." They could then work together to develop more informed approaches to help university students acquire these skills. With the development of clearer, evidence-based instruction in paraphrasing and citation, forms of plagiarism, such as patchwriting, could be more effectively addressed across faculties and universities (Pickard, 2006).

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Krista Schwabl is an ESL instructor at NorQuest College in Edmonton, Alberta, and is a recent graduate of the Masters in Teaching English as Second Language (TESL) program at the University of Alberta.

Marian Rossiter is Associate Professor and Coordinator of the Teaching English as a Second Language Program in the Department of Educational Psychology, University of Alberta.

Marilyn Abbott is Associate Professor in the Teaching English as a Second Language Program in the Department of Educational Psychology at the University of Alberta.

# **Appendix**

# **Answer Key for Task Two (Paraphrase Tasks)**

# 1. Original quote1:

Bourgeault, Benoit, and Davis-Floyd (2004) explained:

Canadian midwives and their supporters are being watched with great interest. Both at home and abroad, midwives, social scientists, health policy analysts, health care advocates, child-bearing women, and their partners are asking how this new conception of the midwifery profession has evolved, how it has become integrated into provincial healthcare systems that have until recently excluded midwifery care, and what integrating midwifery practice will do to help improve maternity care more broadly. (pp. 3-4)

### Student's paraphrase<sup>2</sup>:

Bourgeault, Benoit, and Davis-Floyd (2004) mentioned:

Midwives from Canada are being looked at with keen interest. Here and internationally, midwives, health care advocates, health policy analysts, social scientists and families are wondering how this new conception of the midwifery profession has evolved, how-when so recently left out-it became part of health care systems in the provinces, and how midwifery will cultivate better maternal care as a whole. (pp. 3-4)

<ul><li>a) Please rate this paraphrase:</li><li>X not acceptable</li></ul>	somewhat acceptable	□ acc <b>eptable</b>
b) If you rated the paraphrase	as not acceptable or somewhat accep	table, please indicate why
choosing one or more of the re		· ·
☐ Length of paraphrase is too		
☐ Some of the key details are	_	
•	/syntax) is too similar to the orig	ginal quote. Please
	aphrase that you felt were too si	_
☐ The source information is n	•	
Other (please		
explain)		
•		

# 2. Original quote<sup>3</sup>:

Of the more than 1000 bicycling deaths each year, three-fourths are caused by head injuries. Half of those killed are school-age children. One study concluded that wearing a bike helmet can reduce the risk of head injury by 85 percent. In an accident, a bike helmet absorbs the shock and cushions the head. (Bike Helmets, 1990, p. 348)

# Student's paraphrase4:

The use of a helmet is the key to reducing bicycling fatalities, which are due to head injuries 75% of the time. By cushioning the head upon impact, a helmet can reduce accidental injury by as much as

by

Helmets, 1990, p. 348).	areas of victims annually, han of with	om are school children (Bike
a) Please rate this paraphrase:		
not acceptable	☐ somewhat acceptable	X acceptable
b) If you rated the paraphrase as choosing one or more of the reas	s not acceptable or somewhat accepta	able, please indicate why by
Length of paraphrase is too sh		
Some of the key details are m	_	
	(a) is too similar to the original quote.	Dlease underline parts of
the paraphrase that you felt were		ricase under fine parts of
The source information is mis		
Other (please	ssing.	
explain)		
3. Original quote <sup>5</sup> :		
Williams, Smithburn, and Peters	son (1981) explained that:	
laborers, and provided jobs fo	can landscape in the East, they transforr or a rising tide of immigrants. With in all River, Massachusetts, where the Bor of commerce and trade. (p. 1)	dustry came urbanization the
Student's paraphrase <sup>6</sup> :		
nineteenth century. Steam-pow and as immigrants arrived in th	n family lived, was typical of northeavered production had shifted labor from the US, they found work in these new factorse. Fall River was one of these manufactors	agriculture to manufacturing, tories. As a result, populations
a) Please rate this paraphrase:		
not acceptable	X somewhat acceptable	acceptable acceptable
b) If you rated the paraphrase as choosing one or more of the reas  Length of paraphrase is too sh	s not acceptable or somewhat accepta	able, please indicate why by

### **Notes**

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5 Williams, J. G., Smithburn, J. E., & Peterson, M. J. (Eds.). (1981). *Lizzie Borden: A case book of family and crime in the 1890s.* Virginia, MA: TIS Publishing.

6 Augusta State University. (n.d.). A note on plagiarism. Retrieved from

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