Using a two-tier test in examining Taiwan graduate students' perspectives on paraphrasing strategies

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Abstract This study examines Taiwanese English as a foreign language (EFL) graduate students' perspectives on paraphrasing strategies. A two-layer scenario survey was developed to identify the reasoning behind students' judgments that certain paraphrasing is appropriate or inappropriate. The first-layer scenario survey is in a true–false format that consists of nine paraphrasing scenarios and that served to elicit from students their declarative knowledge of appropriate paraphrasing strategies. The second-layer scenario survey is in an open-ended question format that explores students' explanatory knowledge underlying their first-layer choices. In addition, an attitude survey and a demographic survey were designed and implemented to explore learner variables in relation to the learners' perspectives on paraphrasing strategies. A total of 141 EFL graduate students participated in the study. The results shed considerable light on students' diverse perceptions and reasoning regarding paraphrasing strategies. More than half of the students considered surface-level paraphrasing (patchwriting) to be acceptable strategy use. Significant correlation was found between students' responses to the acceptability of paraphrasing strategies and the following factors: (1) perceived difficulty in paraphrasing, (2) perceived value of appropriate source use, (3) perceived competence in overcoming the temptation to plagiarize, (4) perceived disadvantage as a foreign-language learner with paraphrasing, (5) gender, and (6) paraphrasing-related training. Pedagogical implications of the results are discussed.

Introduction

The issue of plagiarism has attracted considerable attention in higher education in recent years owing to the growing numbers of cases involving inappropriate source use. The advent of the Internet has made the cases of plagiarism even more prevalent and serious (Bloch 2001; Flowerdew and Li 2007a). Plagiarism is generally defined as the reproduction of source materials in terms of both ideas and language without sufficient attribution to the source (Abasi et al. 2006; Pecorari 2003). In order to avoid potential plagiarism, appropriate paraphrasing and acknowledgment of the source are required. These requirements mean that one should integrate different sources and interpret them in one's own words (Ballard and Clanchy 1991). Writers should not only reproduce and extend the ideas, but also reflect upon and reiterate the meanings in innovative ways (Ballard and Clanchy 1991). As Sperber and Wilson (1995) pointed out, effective paraphrasing is not only a faithful reproduction of the ideas of source text but also a technique involving the writer's ingenuity in interpreting the meaning of the text.

Related studies have differed from one another in their definitions of appropriate paraphrasing. A common definition is that paraphrasing involves restating the ideas, information, or language of a source text in *one's own words* with documentation of the source (Keck 2006; Pecorari 2003). As Hacker (1998) stated, plagiarism involves documenting the source but paraphrasing the source's language too closely, without using quotation marks to indicate that words and phrases have been borrowed. However, studies have again differed from one another considerably

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in their operational definitions regarding the closeness or the distance that should stand between a paraphrased text and the original source (Campbell 1990; Pecorari 2003; Shi 2004; Sutherland-Smith 2005; Yamada 2003). Some studies have imposed a rigid prohibition on any trace of the source text. For example, Benos et al. (2005, p. 62) defined plagiarism as any situation in which the "duplication of words and phrases, however brief, may be indicative of plagiarism." Oshima and Hogue (1999, p. 90) defined inappropriate sourcing thus: "a paraphrase is unacceptable when it contains the same vocabulary and sentence structure as the original." Shi (2004) defined a total paraphrase as "no trace of direct borrowing of two or three consecutive words from source texts" (p. 178–179).

However, several studies that allow a certain degree of text borrowing in paraphrasing have defined appropriate paraphrasing in terms of the percentage of words borrowed from the source, and have accounted for other factors such as the frequency of the words or phrases in question, genre, and the writing tasks at hand. For example, Pecorari (2003) defined plagiarism as a passage in which 40% or more of the words are exact copies from source texts, and commented that issues such as word or phrase frequency also merit our attention. Keck (2006) considered "Near Copy" textual borrowing (50% or more) to be unacceptable and textual borrowing in the 20–49% range to be debatable. In addition, she highlighted the distinction between frequent and infrequent phrase borrowing. That is, it is more acceptable to borrow commonly used English phrases from the source than uncommon phrases. Besides, she also noted that paraphrased texts grammar of which is similar to the grammar of the source text are more unacceptable than paraphrased texts words of which are both similar to the words of the source text and "highly frequent in English" (p. 276).

In addition to defining the extent of source borrowing, previous studies have identified various types of inappropriate paraphrasing strategies, such as a reliance only on synonym substitution (Angélil-Carter 2000; Shi 2004), on adding or deleting some words from the source (Shi 2004), on changing the syntax of the source (Shi 2004), or on reordering of the words or phrases of the source (Keck 2006). Even though writers who use the above-mentioned surface-level modifications of source texts are risking accusations of plagiarism, these writers are actually, according to Howard (1999), engaged in patchwriting, a crucial developmental stage for novice writers and deserves a pedagogical rather than a punitive response.

Even though plagiarism is prevalent in higher education, several studies have reported apparent, unintentional textual plagiarism in students' academic writing (Flowerdew and Li 2007a; Pecorari 2003; Pennycook 1996; Spack 1997). Researchers have indicated that the major

factors leading to L2 writers' inappropriate textual borrowing usually result from the writers' language proficiency, identity, educational background, and knowledge about plagiarism (Abasi et al. 2006; Chandrasoma et al. 2004). In order to demonstrate solidarity with a culture or a group, writers are inclined to read and write in a specific genre that helps the writers develop an identity consistent with that of a particular social group (Abasi et al. 2006). Several researchers have addressed issues surrounding various culture attitudes toward the use of source texts (Chandrasoma et al. 2004; Ha 2006; Pennycook 1996). For those cultures that highly value rote learning and memorization, students are more likely to repeat source texts.

There are a number of dimensions to paraphrasing that should be explored in greater depth. First, the findings of previous studies have already reported English as a second/foreign-language (ESL/EFL) students' perceptions of plagiarism, as in Deckert's (1993) study on Hong Kong ESL university students' performance in detecting plagiarism. Nevertheless, as mentioned by Deckert (1993), using a paragraph-length text to examine students' perceptions of plagiarism might be too complex if each sample features more than one kind of source misuse. The misuse of multiple instances of source, perhaps, makes it difficult for researchers to rigorously interpret students' exact perceptions of plagiarism or of paraphrasing.

Second, using only fixed response options (e.g., Likert-scale responses) to explore students' diverse assumptions about plagiarism or paraphrasing could fail to represent the possible variation of the responses.

Third, numerous previous studies on L2 writers' paraphrasing practices relied chiefly on either text analysis of students' writing or interview techniques. These techniques limit the number of assessable students owing to the time consuming nature of the techniques. Consequently, the techniques might limit the scope and the range of the learners' revealed perceptions.

Fourth, most studies on paraphrasing have focused on L2 writers in an ESL context. Few studies have addressed the issues concerning students learning EFL, who have never immersed themselves in a linguistically and culturally diverse Western environment; even fewer studies have investigated EFL graduate students who are expected to publish papers in international scholarly journals. For the reasons mentioned above, the current study aims to identify and to illuminate various perspectives on plagiarism. The study uses a two-tier test (Chou et al. 2007; Wandersee et al. 1994) to examine, in the first layer, students' detection of discrete varieties of patchwriting attempts and, in the second layer, the students' elaborated reasoning for each of their own first-layer responses. The research questions for this study are as follows:

1. What are learners' judgments on the acceptability of various types of paraphrasing strategies?
2. What is the learners' reasoning for their judgments of the paraphrasing strategies?
3. What are the learners' attitudes toward plagiarism and paraphrasing?
4. Do learners with different backgrounds differ in their judgments on the acceptability of paraphrasing strategies?

Method

Participants

A total of 141 graduate students (105 males and 36 females) participated in the study. These students came from five academic-writing courses in one research-oriented university in Taiwan. The participants' ages ranged from 22 to 45 years with a mean of 26.97. Among them, 81 were in master's programs and the other 60 were in doctoral programs. The participants represent four broad disciplinary areas: the sciences, engineering, the humanities, and business. Scholarly publication is central for the participants in the current research context. For most doctoral students and some master's students in the study, getting published is a requirement for graduation. Students have to get published in international journals, preferably under the Science Citation Index (SCI) or the Social Sciences Citation Index (SSCI), and most of those journals publish only English-language articles.

Regarding their training and publication experience, only 9.2% of the 141 participating students had ever received formal instruction on plagiarism, and only 18.4% of the participating students had ever received instruction on paraphrasing skills. Regarding their scholarly publication experience, 13.5% of them had published in an international journal, whereas 16.3% of them had published in a domestic journal. Only 13.1% of them had ever presented at international conferences and 27% of them had presented at domestic conferences.

Instruments

This study employed three specially developed survey instruments. The first instrument was a Two-layer Paraphrasing Survey that consisted of nine paraphrasing scenarios (see Appendix). Each scenario represented one paraphrasing strategy (see Table 1). The paraphrasing scenarios were developed by adopting paraphrasing strategies identified in related literature on plagiarism and paraphrasing (e.g., Campbell 1990; Keck 2006; Pecorari 2003; Shi 2004).

Students had to judge the appropriateness of each scenario and to explain their own reasoning. The participants first responded to the "first-layer scenario" questions in a yes-or-no format. If the participants considered the paraphrasing strategy appropriate, they would respond, "Yes." Alternatively, if they considered the scenario inappropriate, they would respond, "No." The second-layer questions asked students to explain their reasons for choosing Yes or No in the first layer. The data analysis of the paraphrasing survey was conducted by identifying students' degree of strictness regarding the appropriateness of the paraphrasing strategies as identified in the first layer of the Two-layer Paraphrasing Survey. For each response marked as "inappropriate," one point was awarded. The total score was calculated by adding up the total number of responses marked as 'inappropriate' paraphrasing strategies in the survey. That is, the higher the total score was, the stricter the students' were on their judgment of acceptable paraphrasing strategies.

The second instrument consists of a 12-item five-point Likert-scale questionnaire examining students' perceptions of paraphrasing and covering the following four themes: (1) students' perceptions of the degree of difficulty of appropriate paraphrasing (two items, e.g., "It is difficult for me to use my own words to express the same meanings as the source author"); (2) students' perceptions of the value of appropriate paraphrasing (two items, e.g., "Plagiarizing is serious ethical misconduct in academia"); (3) students' perceptions of their own ability to overcome the temptation to plagiarize (four items, e.g., "I think it is worthy not to copy, even though I might get a lower grade"); and (4) students' perceptions of the advantages or the disadvantages that accompany foreign-language learners' efforts to paraphrase (four items, e.g., "Because I am writing in a foreign language, it should be acceptable if I borrow some words or phrases from the sources").

The third instrument for the study was designed to collect students' background information. The questions cover the themes of gender, years in school, field of study, paraphrasing- and plagiarism-related training, and publication experience. The aim of the questionnaire was to identify whether or not students' diverse backgrounds would influence their perspectives on the acceptability of paraphrasing strategies.

Results

Research question 1: What are learners' judgments on the acceptability of various types of paraphrasing strategies?

In the first-layer paraphrasing-strategies survey covering the nine paraphrasing strategies, the study's respondents

Table 1 Types of paraphrasing strategies

Type	Paraphrasing strategies
Quotation	Use quotation marks to cite another's words verbatim and cite the source
Thorough rewriting	Paraphrase the source text by using one's own words to express the ideas of another's work and cite the source
Reordering	Paraphrase by reordering word(s) or phrase(s) of source texts and cite the source
Using synonyms	Paraphrase by substituting synonyms for word(s) of source texts and cite the source
Inserting	Paraphrase by inserting word(s) or phrase(s) of source texts and cite the source
Deleting	Paraphrase by deleting word(s) from source texts and cite the source
Syntactic change	Paraphrase by changing the syntax of the source texts and cite the source
Combining	Paraphrase by combining sentences from different source texts, verbatim, and cite the source
Copy verbatim	Copy, verbatim, from source texts and cite the source

considered the use of quotation marks (89.3%) or thorough rewriting (88.5%) to be the two most acceptable paraphrasing strategies. That is, the majority of students could successfully identify the use of quotation marks and thorough rewriting as appropriate paraphrasing strategies. The seven surface-level paraphrasing strategies, or the so-called patchwriting strategies, received varied degrees of acceptability, ranging from 39.3% (copy verbatim from the source) to 72.3% (reordering words in the source). Table 2 summarizes students' responses to each paraphrasing strategy.

The variation in students' perceptions of the acceptability of the seven patchwriting strategies indicates that, according to the students, keeping the source as intact as possible while making some mechanical changes such as reordering, using synonyms, and inserting is more acceptable than making a more global, extensive modification, such as making syntactic changes and combining. However, as noted by Pecorari (2003), paraphrased texts that share syntactic structures with the source text are considered to be more unacceptable than are paraphrased texts that share frequently used words or phrases. Hence, the findings of the study suggest that EFL writers are at risk of engaging in unintentional plagiarism owing to their judgments of paraphrasing.

Table 2 Percentages of "Yes" responses in the first-layer paraphrasing scenario

Type	Percentage
Quotation	89.3
Thorough rewriting	88.5
Reordering	72.3
Using synonyms	68.8
Inserting	57.6
Deleting	50.4
Syntactic change	49.3
Combining	41.0
Copy verbatim	39.3

Research question 2: What is the learners' reasoning for their judgments on the paraphrasing strategies?

The analysis of the second-layer scenario centered on students' reasoning concerning the acceptability of various paraphrasing strategies.

Use of quotation marks and thorough rewriting as inappropriate

For those students who considered the use of quotation marks and thorough rewriting to be inappropriate, 10.7% and 11.5%, respectively, their reasoning can be attributed to their insufficient knowledge of citation. For example, one student responded, "When quoting a passage, it is unnecessary to provide citation of the source work." Or "If you have used your own words and ways of expression to rewrite the source text, the re-written text is your own words. You do not have to acknowledge the source." In addition, the students' reasoning could also be attributed to a lack of authorship, as one student's comments suggested: "As long as you borrow from the source, you should not change any part of the text because the source author might not agree with the ways you restated his or her words." The reasoning could also indicate students' lack of confidence in their paraphrasing skills: "Using one's own words to express another's work is inappropriate because you might falsify the meaning of the original author."

The results indicate that even though the majority of graduate students in the study identified the quotation strategy or the thorough-rewriting strategy as the most acceptable strategies, about 10% of the students failed to legitimate these strategies. As indicated in the survey results, only 18.4% of the students had ever received paraphrasing-related training. The results indicate that not all students have readily acquired fundamental knowledge about quoting and paraphrasing source text, even in the advanced levels of higher education.

Patchwriting strategies as appropriate

Table 3 illustrates the reasoning attributable to those participants who considered the seven patchwriting strategies to be appropriate. Among them, the top four types of reasoning accounted for 86.9% of the responses, including no modification is needed as long as the source is cited (37.12%), as long as the meaning is not falsified (19.65%), as long as some modification is made (15.72%), and as long as the paraphrasing author understands the meaning of the source text (14.41%).

The results reveal students' lack of understanding about the potential risks of language plagiarism, the extent to which writers should modify the source, and worries about falsifying the source's meaning. Students' misconception about language borrowing echo the findings of the previous studies, which students shared the misconception that language can be re-used as long as the idea is original (e.g., Flowerdew and Li 2007a). The findings are also in line with previous studies that reported students' worries about inadvertently altering the meaning of their sources (e.g., Angélil-Carter 2000). Students' worries about accuracy are also consistent with previous findings about L2 writers' tendency to overemphasize the importance of accuracy in writing (Hyland 2003) and their lack of authorial selves (Shi 2008; Thompson 2005).

Patchwriting as inappropriate

Table 4 illustrates the reasoning of the participating students who considered the patchwriting strategies inappropriate. Of the seven types of reasoning that emerged from the second-layer scenarios, five referred to the concept of keeping the source completely or largely intact (type 1, type 2, type 3, type 6, and type 7). Of these five types of reasoning, the first type and the second type, together, accounted for 90.20% of students' reasoning. The most prominent reasoning type was identified by 72.55% of the students who believed that making any changes to the source text runs the risk of falsifying the author's meaning. The second most prevalent reasoning (17.65% of the students) was the belief that if authors cite another's work, they should make no change to the source text.

Again, the concern about both accuracy and keeping the source intact seemed to dominate the students' reasoning regardless of whether the students considered the paraphrasing scenarios acceptable or unacceptable. Unlike a previous study that characterized plagiarism as a compensatory strategy (Bloch and Chi 1995), the current study has found that the major reasons for Taiwanese students' perspective on patchwriting appear to be due mainly to the students' concern about inadvertently falsifying the meaning of the source. This finding corroborates the finding revealed from research question 3: participating students who perceived paraphrasing to be difficult tended to consider patchwriting an appropriate strategy.

Research question 3: What are the learners' attitudes toward plagiarism and paraphrasing?

The current study examined students' attitudes toward paraphrasing in terms of their perceptions of (1) the difficulty of paraphrasing, (2) the value of paraphrasing, (3) the temptation to copy the source, and (4) students' identity as foreign-language learners. The results indicate that students varied widely in their perceptions of these four categories. Table 5 summarizes the percentages of students' "Yes" responses to the attitude survey in which 1 means *strongly disagree* and 5 means *strongly agree*.

Correlations were conducted to analyze the relationship between learners' perceptions and their scores on the first layer of Two-layer Paraphrasing Survey. First, students who perceived paraphrasing to be difficult tended to be more amenable to paraphrasing strategies than were students who considered paraphrasing to be easy ($r = 0.23$), with the significance level at 0.05. Second, students who

Table 3 Reasoning of those students who considered the patchwriting strategies to be appropriate

Types of reasoning	Percentage
(1) It is unnecessary to paraphrase the source text if the source is cited.	37.12
(2) The paraphrased text does not change the meaning of the source text.	19.65
(3) Some modification has already been made.	15.72
(4) The paraphrased text has reflected the paraphrasing author's understanding of the source text.	14.41
(5) The major sentences or words from the source text remain intact.	5.68
(6) To show respect for the source author(s), writers should modify none of the original text.	3.06
(7) There is no need to change any words if the source text contains no grammatical errors.	2.62
(8) If the paraphrased text follows the APA style of citation, it does not matter whether or not the source text is restated or not.	0.87
(9) As long as the source text contains no grammatical errors, it can be cited.	0.44
(10) Because paraphrasing is common in others' writing practices, it is appropriate.	0.44

Table 4 Reasoning attributed by students who considered the patchwriting strategies to be inappropriate

Types of reasoning	Percentage
(1) Paraphrasing might distort the source text author's original meaning.	72.55
(2) One is not allowed to change any part of the source text.	17.65
(3) The scenario presents evidence of incomplete knowledge about how to cite a source text.	3.92
(4) Paraphrased text that does not include the paraphrasing writer's own opinion constitutes inappropriate paraphrasing.	3.27
(5) If the syntax of the paraphrased text does not differ from the syntax of the source text, then the paraphrased text constitutes inappropriate paraphrasing.	1.31
(6) Any changes to the source text need the original author's permission.	0.65
(7) The source text is good enough. It is not necessary to make any modification.	0.65

held relatively positive attitudes toward the importance of appropriate paraphrasing tended to hold stricter standards than did students who held relatively negative attitudes toward the importance of appropriate paraphrasing ($r = 0.37$), with the significance level at 0.01. The findings corroborate previous studies that viewed attitudes as reasons for text borrowing (Devlin and Gray 2007; Leki and Carson 1997; LoCastro and Masuko 2002).

Third, students who perceived themselves as being relatively capable of resisting the temptation to plagiarize received higher scores on the first layer of Two-layer Paraphrasing Survey than did students who perceived themselves as being relatively incapable of resisting the temptation to plagiarize ($r = 0.49$), with the significance level at 0.05. The finding is in line with previous studies' findings that plagiarism is a short cut for people who violate academic codes (Devlin and Gray 2007; LoCastro and Masuko 2002). Finally, the current study identified a significant correlation between students' identity as

foreign-language learners and their scores on the first layer of Two-layer Paraphrasing Survey ($r = 0.35$), with the significance level at 0.05. That is, students who stated that their "non-native speaker" role disadvantaged them regarding paraphrasing tended to be more amenable to the paraphrasing-scenario strategies than were students who stated that their "non-native speaker" role did not disadvantage them regarding paraphrasing. Overall, the results of the current study suggest that learners' attitudes toward plagiarism play a significant role in learners' judgments regarding the acceptability of paraphrasing strategies.

Research question 4: Do learners with different backgrounds differ in their judgments on the acceptability of paraphrasing strategies?

Among the six aspects of students' background, years in school, publication experience, and self-perceived writing proficiency yielded no significant correlation with students'

Table 5 Percentages of 5-point Likert scale responses regarding students' attitudes toward paraphrasing

Item description	1	2	3	4	5
Perceived difficulty					
1. It is difficult for me to use my own words to express the same meanings as the source.	3.6	6.5	15.8	45.3	28.8
2. My English is not good enough to enable me to use my own words to express the exact meaning of the source.	0.7	14.2	30.5	37.6	17.0
Perceived value of appropriate paraphrasing					
3. Inappropriate source use would threaten academic standards.	0	2.1	10.6	32.6	54.6
4. It is unwise to copy someone else's words because it weakens your opportunity to learn to write.	0.7	7.9	35.7	35.0	20.7
Temptation to plagiarize					
5. I am tempted to copy things from the Internet owing to its convenience and availability.	0	2.1	12.1	30.7	55.0
6. I am tempted to copy to get higher grades.	17.0	35.5	27.7	14.2	5.7
7. I am tempted to copy from sources because I cannot write as well as the sources' authors.	13.0	18.8	26.1	29.0	13.0
8. To copy from sources is a time-efficiency strategy.	24.8	26.2	26.2	19.9	2.8
Identity as a foreign-language learner					
9. It is unfair to apply the same standards for paraphrasing to both native speakers and non-native speakers.	3.6	29.3	29.3	21.4	16.4
10. Plagiarism is more excusable for non-native speakers than for native speakers.	18.6	37.9	27.9	13.6	2.1
11. Language learning itself is an imitation process; therefore, it should be acceptable if I borrow some words or phrases from the sources.	5.0	17.7	19.9	44.7	12.8
12. As long as the content is original, it is appropriate to copy others' language use.	12.8	35.5	20.6	24.8	6.4

perceptions of paraphrasing strategies, whereas gender, paraphrasing-related training, and field of study exhibited statistically significant correlations with students' perceptions of the paraphrasing strategies.

Regarding gender differences, the results of a *t*-test indicate that the female students exhibited a significantly higher mean score on the first layer of the Two-layer Paraphrasing Survey ($M = 6.27$, $SD = 2.21$) than the male students ($M = 5.32$, $SD = 1.88$), $t(130) = -2.40$, $p < 0.05$. The results seem to corroborate previous studies that identified gender differences in writing. That is, females have tended to outperform males in writing (Berninger and Fuller 1992; Walberg and Ethington 1991).

Regarding previous training, the results of a *t*-test suggest that students who had received paraphrasing-related training exhibited a significantly higher mean score on the paraphrasing-strategy survey ($M = 6.77$, $SD = 2.11$) than did students not receive paraphrasing training ($M = 5.78$, $SD = 2.12$), $t(126) = 1.20$, $p < 0.05$.

In addition, the results of the study indicate that students from different fields of study varied in their perceptions of the acceptability of paraphrasing strategies. Students in the field of ESL or EFL instruction received the highest score on the survey ($M = 7.13$, $SD = 1.2$). That is, they were stricter than students from other fields in terms of acceptance of the paraphrasing strategies. The results of a *t*-test suggest that students from the language-teaching discipline exhibited a significantly higher mean score on the paraphrasing-strategy survey than did students from the management field $t(90) = -2.23$, $p < 0.05$ and the engineering field $t(30) = 2.84$, $p < 0.05$. This finding echoes previous studies which a call for "more awareness of potential disciplinary differences regarding textual borrowing practices" in that humanities and social science students were more aware of textual borrow than science students (Flowerdew and Li 2007a, b). In addition, disciplinary variations also occurred in perceptions of lecturers from different fields about appropriate intertextuality (Borg 2008).

The findings of previous research and the findings of the two-layer paraphrasing survey seen together reveal that numerous factors underlie L2 writers' reasoning and paraphrasing practices (see Fig. 1).

Conclusion

The results of the current study indicate that participating students' previous learning experience may not have adequately prepared them for the requirements of scholarly publication in graduate school. The students seemed to give privilege to reproducing a source text and to fear transforming the meaning of the source text. Regarding
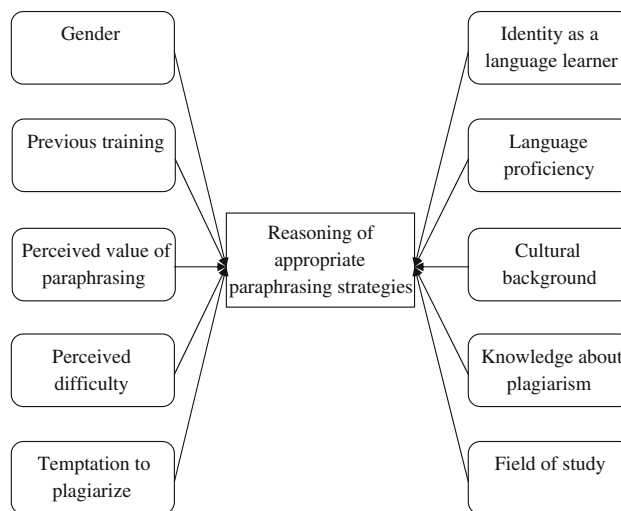
Fig. 1 Factors contributing to the perceptions on appropriateness of paraphrasing strategies

paraphrasing, the graduate students in the study seemed to consider patchwriting a solution to the paraphrasing dilemma, insofar as the students accurately represent the source text's meaning.

The current study has implications for writing pedagogy. As suggested by Yamada (2003), to avoid debatable paraphrasing, writers must undertake highly extensive revisions of source texts. It is critical that those students who are learning to write scholarly papers, even those among them who have successfully published in international journals, learn how to transition from surface-level patchwriting to thorough rewriting. In other words, students writing for academic purposes, especially for scholarly purposes, need to employ a more scrupulous rewriting strategy to safeguard themselves from potential accusations of patchwriting or plagiarism.

As previous studies have suggested, efforts to teach students about plagiarism or to label students' inappropriate text borrowing as plagiarism have shed little light on either what plagiarism is or how students can avoid this amorphous concept in their writing (Pennycook 1994). As previous studies have noted, professional academic writing is a process of knowledge transformation (Charles 2003) in which the writer can "extend, apply, challenge, and update" the work of others, (Hess 2006, p. 294), rather than a process of knowledge transmission (Abasi et al. 2006) in which the writer reproduces the source text without contributing to it any new interpretation or meaning. Instruction that stresses students' use of summarizing rather than students' use of literal paraphrasing could reduce the students' temptation to simply borrow text from the source.

The results of the study show that even those students with rich academic literacy experiences could have still received insufficient training in paraphrasing strategies and

source-use strategies. This study suggests that early writing instruction should include paraphrasing-skills training so that students will be more familiar with paraphrasing strategies. Another suggestion is that students perhaps would benefit from instructors' application of different approaches to writing for general purposes and to writing for specific purposes, such as scholarly writing, so that the students, once they are publishing academic writing, can meet different expectations from academia's various discourse communities.

The adage that one should use "one's own words" in paraphrasing could be problematic. For practical reasons, classroom teachers need to help students build their own vocabulary and identify formulaic patterns in writing (Flowerdew and Li 2007a; Jones and Freeman 2003). With the advent of the computer and the Internet, tools like concordancer and Google can yield many examples of language use that could be very applicable in students' efforts to paraphrase. Further studies investigating the corpus-based pedagogy related to paraphrasing could be promising in extending instructors' understanding and the practice of paraphrasing training.

There are some limitations of the current study. First, there might be a difference between learner perceptions and actual learner use of strategies. Future research is needed for verification of both students' perceptions of paraphrasing strategies and students' actual use of source texts. Second, the current study did not examine paraphrasing scenarios under the context of specific tasks required. The scenarios were limited to sentence level, out of context examples. Source overuse in one context might be more acceptable than source overuse in another context. Examples of context include writing genre, writing purpose, and the borrowed source itself. Further research that rigorously differentiates these contexts from one another could shed more light on the concept of paraphrasing and on the contexts' pedagogical implications.

Appendix: Sample two-tier paraphrasing survey

1. To paraphrase the source text by using one's own words in expressing the ideas of another's work and to cite the source constitute an appropriate paraphrasing strategy.

Source	Motivation is commonly thought of as an inner drive, impulse, emotion, or desire that moves one to a particular action.
Paraphrase	Motivation is considered to be the driving force that stimulates people to do something (Brown, 1987).

☐ Appropriate ☐ Inappropriate

My reason: _____
_____

2. Using a synonym to replace words or phrases in source texts is an appropriate paraphrasing strategy.

Source	Two different clusters of attitudes divided two basic types of motivation: instrumental and integrative motivation.
Paraphrase	Two different clusters of attitudes separated two basic types of motivation: instrumental and intrinsic motivation (Brown, 1987).

☐ Appropriate ☐ Inappropriate

My reason: _____
_____

3. Paraphrasing by inserting word(s) or phrase(s) of source texts and citing the source constitute an appropriate paraphrasing strategy.

Source	Motivation is commonly thought of as an inner drive that moves one to a particular action.
Paraphrase	Motivation is commonly thought of as an inner drive, impulse, emotion, wish or desire that moves one to a particular action (Brown, 1987).

☐ Appropriate ☐ Inappropriate

My reason: _____
_____

4. Paraphrasing by deleting word(s) from source texts and citing the source constitute an appropriate paraphrasing strategy.

Source	Motivation is commonly thought of as an inner drive that moves one to a particular action.
Paraphrase	Motivation is commonly thought of as an inner drive (Brown, 1987).

☐ Appropriate ☐ Inappropriate

My reason: _____
_____

5. Changing the grammatical structure from, for example, the active voice to the passive voice is an appropriate paraphrasing strategy.

Source	One of the best-known studies of motivation in second language learning was carried out by Robert Gardner and Wallace Lambert (1972).
Paraphrase	Robert Gardner and Wallace Lambert (1972) carried out one of the best-known studies of motivation in second language learning.

☐ Appropriate ☐ Inappropriate
My reason: _____
_____

6. Paraphrasing by combining sentences from different source texts, verbatim, and citing the source constitute an appropriate paraphrasing strategy.

Source 1	Motivation is commonly thought of as an inner drive, impulse, emotion, or desire that moves one to a particular action.
Source 2	Six desires or needs of human organisms are commonly identified.
Paraphrase	Motivation is commonly thought of as an inner drive, impulse, emotion, or desire that moves one to a particular action and six desires or needs of human organisms are commonly identified (Brown, 1987).

☐ Appropriate ☐ Inappropriate
My reason: _____
_____

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