ORIGINAL PAPER

Effects of Rubric-Based and Detailed Peer Feedback on University-Level English as a Foreign Language Students' Writing Self-efficacy and Subsequent Revisions

不同型態之同儕寫作回饋對於大學生寫作自我效能感與寫作修改之影響

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Abstract

A rubric is one method by which students provide feedback to their classmates, especially in large writing classes. However, limited research has examined the effect of this form of feedback on students' confidence in writing—their writing self-efficacy—in the context of English language learning. Moreover, previous studies have failed to emphasize the association between peer feedback and writing self-efficacy in the context of different forms of feedback. To fill this knowledge gap, we investigated changes in students' writing self-efficacy and the revisions they made to their work after they received either rubric feedback or feedback with detailed comments. Seventy university students in Taiwan participated in this study. Both a questionnaire on writing self-efficacy and a framework for assessing writing revisions were employed before and after the provision of the two forms of peer feedback. Paired-samples t testing suggested that detailed feedback positively influenced students' writing self-efficacy. This study challenged the effectiveness of rubric-based feedback in developing writing self-efficacy. Further studies should address whether different writing tasks are similarly influenced by the form of peer review.

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摘要

評分指標(rubrics)是一種給予同儕回饋(peer feedback)的常用形式，尤其在大型的寫作課當中更為常見。然而，既有的研究未能強調不同形式的同儕回饋，與學生寫作自我效能感 (writing self-efficacy)的關係。為了補足既有研究的不足，本研究調查了70名大學生在收到不同形式的同儕回饋後，是否會產生不同的寫作自我效能以及隨後的寫作修訂。研究結果指出，與評分指標性的同儕回饋相比，當同儕給予詳細的文字回饋時，學生能夠發展出較高的寫作自我效能。此研究結果提醒寫作教師在使用同儕回饋時，除了使用評分指標性的回饋方式外，應多訓練學生給予文字性的回饋。另外，也可邀請學生一起制定評分指標性回饋的內容，以利於幫助學生更加了解與學習寫作的標準。

Introduction

In many English as a foreign language (EFL) writing courses, instructors employ peer feedback as a part of a teaching strategy [1, 2]; such feedback is primarily provided with rubrics or detailed responses to create a collaborative context within which students can develop new ideas by reading the works of others. With the pre-established criteria, rubrics provide holistic assessments of written work. By contrast, detailed responses require the reviewer to give specific and clear comments or suggestions according to guidance from the instructor.

Both forms of feedback are commonly used tools for peer review, a learning process in which students provide comments on the initial or final version of an oral or written academic work [3]. This process is considered a type of instructional scaffolding for both reviewers and reviewees [4]. Some studies have assessed the influence of peer feedback on subsequent revisions (e.g., [5, 6]), and others have investigated student attitudes toward providing and receiving such feedback (e.g., [7]). These studies have obtained diverse results and instigated a debate regarding the extent to which language learners benefit from peer feedback.

Other studies have unfortunately neglected the importance of students' writing self-efficacy in teaching writing. Writing self-efficacy is a strong predictor of writing performance [8, 9], writing apprehension ([10]; Kirmizi & Kirmizi, 2015; [11, 12]), and academic motivation ([13]; Pajara, 2003); thus, students' writing self-efficacy, especially that of L2 learners, should be emphasized [14]. In addition, both rubrics and detailed peer reviews have been widely used in EFL contexts [1, 2]; consequently, greater knowledge on the relationship between writing efficacy and peer review would benefit writing instructors' understanding of the importance of writing self-efficacy and the effects that these two types of peer review have on learners' writing confidence and later revisions. More importantly, few studies have investigated the associations among peer feedback, subsequent revisions, and writing self-efficacy. Therefore, to bridge this knowledge gap and enrich the knowledge on peer feedback, the current study investigated whether students' writing self-efficacy and subsequent revisions to their

work differ depending on the form of feedback they receive from their peers. The results of this study may raise awareness of the importance of writing self-efficacy and enhance the knowledge of the connections between different forms of peer feedback and writing self-efficacy.

Literature Review

Peer Feedback on Writing

Peer feedback—also known as peer critique, peer review, peer revision, peer response, peer editing, and peer evaluation [2]—is a dialogic process [15]. Research investigating this process has drawn support from various theories, such as collaborative learning theory and sociocultural theory (e.g., [16, 17]), which describe the key elements during this process: collaboration and interaction. The peer collaboration and interaction that occurs during reading the work of others and making suggestions can create both social and cognitive gains. Researchers have suggested that peer feedback benefits both the giver and receiver of comments in the following aspects: quality of academic writing [16], sense of audience [18], awareness of readers [19], evaluative skills ([15, 20]), and ownership of text [21]. When students are responsible for commenting on and correcting their peers' writing, they become competent in noticing flaws [4] in their own writing and develop stronger feelings of ownership over their own work. Other studies have reported the positive effect of peer feedback activities on writing confidence and motivation [1, 2]. However, several studies have also raised concerns regarding peer feedback. Such concerns relate to students' linguistic proficiency [22] and review skills [2], as well as their competency [1] in performing feedback tasks. In the EFL context, teachers are generally perceived as authority figures, and students may prefer teacher feedback to peer feedback because they distrust or do not understand the comments of their peers [19, 20]. In summary, a review of the literature on peer feedback indicates the need for prior training and more teacher guidance when students participate in collaborative feedback activities to make them more beneficial for students [21, 23].

Rubrics and detailed feedback—in which students respond to guided questions—are typical peer review tools in EFL writing courses. Rubrics are especially popular in large writing classes and are used to determine whether a writing sample meets certain criteria; proponents of rubrics praise their clear demonstration of evaluative criteria and the reliability of scoring [24]. Rubrics also facilitate the provision of comments and enhance students' understanding of the elements of fluent and clear writing [7]. For teachers facing numerous student essays, rubrics enable high-efficiency evaluation. When using rubrics, reviewers provide feedback on the basis of set criteria and bear in mind the question "what is the document's quality" when evaluating a writing sample [25]. By contrast, detailed feedback requires students to respond to guided questions that direct them to reflect and provide detailed comments on particular areas of a peer's writing. Feedback in this form is reader based and usually indicates the effects of a piece of writing on a particular reader [25]. Writing detailed suggestions yields comments that are personalized and integrate communicative

writing tasks into the peer feedback process [26]. Requiring students to offer detailed suggestions for improvement can enhance the effectiveness of peer feedback [27].

These two peer review tools are commonly employed in foreign language writing classes, but empirical studies have hardly investigated them; studies have primarily addressed the main topics of, for example, subsequent revisions, student attitude, and the nature of peer interaction during the review process [18]. Limited research has been conducted regarding the association between peer review and writing self-efficacy in EFL writing courses. Moreover, few empirical studies have compared different feedback tools [18], and such studies have mostly compared online and face-to-face peer review (e.g., [28, 29]). Therefore, the effect of different tools of peer feedback on writing self-efficacy must be determined. The following literature review reveals the crucial effect of writing self-efficacy on writing outcomes and highlights aspects that writing instructors should consider when aiming to enhance students' writing self-efficacy.

Writing Self-efficacy

Writing self-efficacy is a person's self-perceived or self-evaluated belief in his or her ability to successfully perform particular writing tasks at a certain level [10]. It thus describes an individual's confidence in performing writing tasks within a certain context and writing demand. This psychological construct is "…not a global trait but a differentiated set of self-beliefs linked to distinct realms of functioning" ([14], p. 914). Therefore, an individual's writing self-efficacy varies depending on both the contextual and cognitive factors involved in a writing task. Students have differing levels of writing self-efficacy when writing a familiar genre of essay in an unfamiliar context or an unfamiliar genre of essay in a familiar context. The dynamic construct of writing self-efficacy plays a crucial role in learning how to write, especially in the EFL context [9] in which second language (L2) learners encounter challenges in both linguistic and knowledge fluency [14]. The writing difficulties faced by L2 writers can result from an insufficient level of writing self-efficacy [12]. When performing writing tasks, numerous EFL learners struggle to find and sort ideas or to state their ideas with the correct choice of words and sentence pattern. This struggle easily leads to doubt regarding their ability to meet the criteria established for the writing task, even if they are actually able to successfully complete the task. Therefore, enhancing writing self-efficacy should be the priority when teaching L2 students [14].

Research on writing self-efficacy has revealed its connection with several other factors such as writing anxiety ([10, 30]; Kirmizi & Kirmizi, 2015), writing self-regulatory behaviors ([31, 32]), writing strategies [9], and academic performance [8, 13]. The findings of studies have implied that students with high levels of writing self-efficacy tend to apply effective writing strategies when completing writing tasks and have low writing anxiety, high self-regulatory skills, and high performance in writing tasks. For example, in a study of writing among college students, Woodrow [11] investigated self-efficacy and anxiety and discovered that students with low levels of writing self-efficacy typically

became anxious when performing writing tasks and were unlikely to perceive, or actually exert, effort. Conversely, students who were more confident in their writing ability felt less stressed when asked to perform different writing tasks; this confidence also led to a willingness to actually exert more effort during a writing task. Zabihi [12] investigated the effect of working memory capacity and affective variables (writing anxiety and writing self-efficacy) on the complexity, accuracy, and fluency (CAF) of L2 learners' narrative writing and discovered that writing self-efficacy was significantly positively correlated with the CAF of writings. Thus, students who have a positive view of their writing ability generate more complex, accurate, and fluent narratives; they also tend to feel less anxious while writing.

Researchers have proposed various methods for improving students' writing self-efficacy. Bandura [33] maintained that self-efficacy is influenced by the expectations of and feedback from others. He further identified that vicarious experience, such as peer feedback, is necessary to increase students' self-efficacy [34]. Similarly, scholars such as Ruegg [9] have suggested that students be provided opportunities to evaluate their own writing performance. Researchers have also proposed that successful writing experiences and vicarious experience should be fostered by encouraging students to interact [35, 36]. Researchers believe students acquire efficacy information by comparing their performance with that of others in diverse ways; the various models used for comparison and feedback are crucial ([37]; Mascule, 2013), and these models can provide realistic expectations for students' own writing that consequently enhance their level of writing self-efficacy.

As suggested by this literature review, peer review is critical for enhancing writing self-efficacy [9]; however, limited research has investigated the effects of peer review on the development of writing self-efficacy [9, 14]. Furthermore, whether different forms of feedback, such as rubrics versus detailed written reflections, have differing effects on writing self-efficacy is unclear. Previous studies have indicated that detailed feedback can improve the effectiveness of peer feedback because it involves interactions between the feedback providers and recipients. Moreover, vicarious experience, such as peer feedback, is essential for increasing students' self-efficacy, and successful writing experiences and vicarious experiences should be fostered by encouraging student interactions [35, 36]. Therefore, we hypothesized that students receiving detailed feedback would exhibit more greatly improved writing self-efficacy than students receiving rubric feedback because of the additional information and guidance provided to them before making revisions. The results of this study could help raise teachers' awareness of the importance of writing self-efficacy and how each type of peer review could influence the development of self-efficacy.

Research Questions

(a) Do rubrics and detailed feedback affect the development of college students' writing self-efficacy?

(b) To what extent do rubrics and detailed feedback influence the types of revisions that students make?

Methodology

Participants

In total, 70 non-English majors who were enrolled in a freshman English course at a private university in northern Taiwan participated in this study. In the freshman English course, students were assigned to different classes according to their scores on the standardized national English exam for university admissions. Participants were recruited from two freshman English classes, which were classified on the basis of the national English exam to be at the intermediate level.

The two freshman English classes emphasized reading and writing skills. Students in one class were assigned to the rubric-based peer feedback group, whereas those in the other class were assigned to the detailed feedback group. Each class consisted of 35 students from various non-English majors, and students had been randomly assigned to one of the classes by the school system. Enrollment in freshman English was a requirement for students to be recruited into this study, and freshman English was the only course being taken by the students in which they were trained in English language skills. At the beginning of the course, the study was explained to the students and a consent form was distributed. All students were aware that participation in the study would have no effect on their final score, and they all agreed to participate.

Experimental Procedure and Writing Tasks

A training session on the peer review tools was conducted during the week preceding the experiment. The students wrote one short passage and practiced commenting on each other's writings with the peer review tool they had been assigned. The instructor then read the students' comments aloud. The feedback was presented to the class, and adherence to the instructions for performing peer review was enforced.

The actual experiment began the week after the training session. The students composed six passages and conducted one revision of each passage. A new passage was composed every other week, and revision of that passage was performed in the following week. The students were directed to write about their opinions on topics provided in the textbook. This ensured that the students had some vocabulary and information that they could use. The topics of each passage related to aspects of daily life. Such topics included favorite colors and what students had learned about advertisement. Because of time limitations, the students were asked to write only one paragraph that consisted of 8–10 sentences. The writing task was completed within 15–20 min in each class. The paragraphs were reviewed using the assigned peer feedback tool in the week after the writing task was completed. The students then revised their writings in accordance with the comments they received. During the experiment, this write-then-review process was performed six times over 12 weeks, and the students wrote and commented on six topics.

Peer Feedback Tools

The students were assigned either detailed or rubric-based feedback. The content of both peer feedback tools was written in the students' native language (i.e., Mandarin Chinese) because the native language is "an essential tool for … exploring and expanding content, guiding their (students') action through the task, … In contrast, L2 may pose difficulties for L2 learners especially EFL learners as they may lack communication and pragmatic skills for successful interaction" ([38], p. 28). Thus, the use of their native language facilitates and improves the peer review process. Additionally, feedback through both tools was provided anonymously to encourage honest responses from reviewers [39].

Detailed Feedback In some writing classes, students provide written feedback by responding to guided questions; however, in the current study, the written feedback was in letter form to personalize the feedback and motivate the reviewers to make comments. Thirty-five students were tasked with providing comments by writing a letter to the peer whose writing they had reviewed (Appendix 1 presents a translated sample). After writing their paragraphs on the assigned topic, the students were randomly given the paragraphs of another student. The students were requested to use pseudonyms at the end of their letters; thus, none of the students knew who had read or commented on their work. This arrangement gave the students the freedom to make both positive and negative comments without the fear of giving negative comments to a friend.

In their letters, the students were required to state clearly in their native language the strong and weak points of the writing and to provide reasons for such assessments (see Appendix 2 for a sample of a student's work). The students were allowed to use their native language to ensure that the comments were effectively communicated [38]. On the basis of their general knowledge of the English language and composition, they also were required to offer suggestions on how the writer could improve their writing and underline any parts that appeared to be incorrect (e.g., grammatical errors or ambiguous wording). However, the student reviewers did not need to correct these parts.

Rubric-Based Feedback The writing rubric adopted in this study was originally used as the evaluation tool for grading students' English writings on the Taiwan National College Entrance Exam [40]. Therefore, it is representative of those used in most English writing classes in Taiwan. Students were tasked with evaluating a piece of writing in accordance with the items on the rubric. The rubric required the students to grade the work of their peers according to five aspects of writing, namely content, organization, grammar, and sentence structure, word choice and spelling, and conventions. Grades were given on the basis of a scale ranging from 4 (excellent) to 1 (very poor). For example, "This paragraph uses different kinds of complete sentences that flow together" is the description for excellent quality (level 4) in the category of grammar and sentence structure whereas "Little or no evidence of correct writing" describes the very poor quality (level 1) in the same category (see [40], p. 10 for the complete rubric).

The students were randomly assigned the writing of two of their peers each week and had to select the appropriate number in the rubric after reading their works. They also had to underline any parts containing ungrammatical language or an ambiguous message. Similar to the detailed feedback group, the students signed the rubrics with a pseudonym to ensure that they felt free to accurately grade their peers without the fear of providing negative comments to a friend.

Data Collection and Analysis

Two instruments, a writing self-efficacy questionnaire and a framework for revision, were adopted.

Writing Self-efficacy Questionnaire To answer the first research question, the Questionnaire of English Self-Efficacy [41] was selected and developed into the writing self-efficacy questionnaire used in the present study. The original questionnaire measures English learning self-efficacy through four skills; however, we selected items related only to writing skills (Appendix 3). The selected items asked students to evaluate their self-efficacy in performing various writing tasks that require the ability to write one or two paragraphs; such tasks are exemplified by writing a short email or Facebook or Twitter post. Such writing tasks are similar to the writing assignments issued in the present study, which are nonacademic and short and contain messages related to personal opinions.

In addition to investigating the students' level of self-efficacy in performing writing tasks related to daily life, six items describing writing techniques for composing the short paragraph assignments were included in the questionnaire (e.g., "Can you choose appropriate words to express your thoughts when writing in English?" and "Can you use correct words to express your thoughts in writing?"). Pajares [36] suggested that the content of a writing self-efficacy questionnaire should match the results of respondents' written works. Additionally, questionnaire items should range from addressing lower-level concepts (e.g., sentence construction) to higher-level concepts (e.g., expressing abstract ideas) and should assess writing at a particular juncture. Presented in Appendix 3, our 13-item questionnaire examined the students' sense of self-efficacy at both the sentence and discourse levels. The Cronbach's alpha of the scale was calculated to be .89.

The students completed the questionnaire twice: before and after performing all the writing tasks. That is, the students completed the questionnaire before assignment of the peer feedback tool and again after completion of several peer reviews. A paired-samples t test was conducted to determine intergroup differences in the changes in students' writing self-efficacy.

Revision Changes To answer the second research question, we employed the framework proposed by Min [42], using it to determine the effects of trained peer review on revision type. Specifically, the framework was used to analyze the types, extent, and functions of revisions. Revisions were categorized into the following three types: surface, microlevel, and macrolevel changes. When surface changes had been made, the writer had retained the meaning of the original words, sentences, and overall text.

For example, students might substitute words or phrases with synonyms or similar phrases; the structure and meaning of the sentences remained the same after these surface changes. By contrast, microlevel changes were changes that affected parts of a sentence or paragraph but not the overall meaning of the text, and macrolevel changes were those that altered the overall meaning of the text. Each category had the same subcategories: addition, deletion, substitution, permutation, distribution, consolidation, and re-ordering. The extent of revision referred to the linguistic unit of change (i.e., punctuation, word, phrase, clause, sentence, or paragraph). Finally, the function of a revision referred to a writer's purpose for making the revision (e.g., grammatical, cosmetic, texture, unnecessary expression, or explicature), as interpreted on the basis of contextual clues [42].

This framework was used to code the drafted and revised paragraphs written by participants. Two experts with extensive experience in teaching and grading writing in university settings were invited to serve as external raters. The two raters and the researcher attended a calibration session, during which they coded three randomly selected pairs of drafted and revised paragraphs. The interrater reliability was .95, .96, and .93 regarding the type of revision, extent of revision, and function of revision, respectively. Additionally, the Mann–Whitney U test was used to identify any significant differences between these two forms of feedback.

Results

Writing Self-efficacy

Descriptive statistical analysis indicated that writing self-efficacy had improved by the posttest among the students receiving detailed feedback (pretest mean [M] = 2.97, standard deviation [SD] = 0.70; posttest M = 3.22, SD = 0.72; mean difference = 0.25; effect size = 0.9) but not among those receiving rubric feedback (pretest M = 3.09, SD = 0.81; posttest M = 3.07, SD = 0.84; mean difference = −0.02; effect size = 0.05). Notably, the paired-samples t test result suggested that the improvement in the detailed feedback group was significant (Table 1). Moreover, the effect size (Cohen's d) in the detailed feedback group was considered large, indicating a meaningful improvement. Therefore, the type of peer feedback

Table 1 The effect of different types of peer feedback on writing self-efficacy

	Paired differences			t	df	Sig. (2-tailed)
	Mean[1]	Std. deviation	Std. error mean			
Detailed feedback	0.25	0.38	0.06	4.21	34	**0.00***
Rubric feedback	−0.02	0.49	0.09	−0.21	34	0.84

Note. [1] Mean score = (mean score of writing self−efficacy after the peer review activity) − (mean score of writing self−efficacy before the peer review activity)

*p<.05

influenced students' writing self-efficacy, and detailed feedback was associated with an improvement in writing self-efficacy. A similar effect was not associated with rubric-based feedback, indicating that this feedback tool was less effective at developing students' writing confidence.

Revision Changes

As detailed in Table 2, the most frequent changes made by students in both groups were surface changes (rubric-based feedback group = 66%; detailed feedback group = 63%), followed by microstructure changes (rubric-based feedback group = 33%; detailed feedback group = 35%). This indicates that both groups primarily made revisions that retained the original meaning of the text, only making minor changes in the summary of the text. In particular, the students tended to replace words with synonyms or include new words that slightly altered part (rather than all) of the text. By contrast, changing the overall message of the text was uncommon when the students revised their

Table 2 Comparison on type of changes in revisions (rubric feedback/detailed feedback) (this table shows the numbers of changes with the percentage of some changes noted in the parentheses)

Number of revision by type[2]: 252/304			
Surface changes: 167 (66%)/193 (63%)			
1. Addition	30 (18%)/36 (19%)	2. Deletion	20 (12%)/14
3. Substitution	96 (58%)/107 (55%)	4. Permutation	11/26 (13%)
5. Distribution	1/1	6. Consolidation	3/4
7. Re-order	6/5		
Microstructure changes: 83 (33%)/106 (35%)			
1. Addition	32 (39%)/45 (42%)	2. Deletion	12 (4%)/8 (2%)
3. Substitution	18 (21%)/18 (17%)	4. Permutation	14 (16%)/25 (24%)
5. Distribution	4/7	6. Consolidation	1/2
7. Re-order	2/1		
Macrostructure changes: 2 (1%)/5 (2%)			
1. Addition	0/2	2. Deletion	0/0
3. Substitution	0/1	4. Permutation	1/0
5. Distribution	0/1	6. Consolidation	0/1
7. Re-order	0/0		
Number of revision by size: 249/301			
1. Symbol	1/6	2. Word	155 (62%)/159 (53%)
3. Phrase	38 (15%)/40 (13%)	4. Clause	24 (9%)/15 (4%)
5. Sentence	31 (12%)/82 (27%)	6. Paragraph	0/1
Number of revision by function: 248/298			
1. Grammatical	140 (56%)/142 (48%)	2. Cosmetic	30 (12%)/33 (11%)
3. Texture	12/22	4. Unnecessary expression	15 (6%)/14 (4%)
5. Explicature	51 (21%)/87 (29%)		

Note: [2] This represents the sum of meaning-preserving, microstructure, and macrostructure types of changes in revision

paragraphs. A large proportion of the revisions were at the sentence level and related to grammatical aspects of the text. This interpretation is supported by the most frequently performed subcategory of surface and microlevel changes being substitution (rubric-based feedback group = 58%; detailed feedback group = 55%) and addition (rubric-based feedback group = 39%; detailed feedback group = 42%), respectively; the most frequent extent of revision was at the word level (rubric-based group = 62%; detailed feedback group = 53%). Regarding the functions of revision, grammatical (rubric-based group = 56%; detailed feedback group = 48%) and explicative (rubric-based group = 21%; detailed feedback group = 29%) modifications were found most frequently in the students' revised paragraphs. In summary, our preliminary analysis revealed that the revisions made by both groups were largely word-level changes that emphasized the preservation of meaning and focused on correcting grammatical errors with some intention to retain the coherence of the text.

Additionally, we compared the revisions to determine whether the type of peer feedback was associated with any differences in student incorporation of peer comments into revisions (Table 2). Our analysis suggested that the students in the detailed feedback group made more changes than did their counterparts in the rubric-based feedback group (types of revision: rubric-based feedback group = 252 and detailed feedback group = 304; number of changes: rubric-based feedback group = 249 and detailed feedback group = 301; functions of revision: rubric-based feedback group = 248 and detailed feedback group = 298). Specifically, the students in the rubric-based feedback group made more surface changes than did those in the detailed feedback group (66% vs. 63%, respectively), whereas the students in the detailed feedback group made more micro- and macrolevel changes than did those in the rubric-based feedback group (37% vs. 34%, respectively). However, the inferential statistical analysis results of the Mann–Whitney U test indicated that the type ($U = 164$, $p = .126$), size ($U = 164$, $p = .117$), and function ($U = 164$, $p = .117$) of revisions did not differ significantly between groups. Therefore, the differences in revisions may be unrelated to the type of peer feedback received.

Discussion

The current study investigated the effects of two peer review tools, rubrics and detailed feedback, on students' writing self-efficacy and the types of subsequent revisions. The results revealed that detailed feedback was particularly effective for improving the writing self-efficacy of students. As for subsequent revisions, although the results were not statistically significant, the students in the detailed feedback group made more types of changes. In addition, the students in the rubric-based feedback group exhibited a lower level of writing self-efficacy and produced fewer changes in each type of revision.

The results obtained in this study could be explained by the nature of peer feedback. In many EFL writing classes, rubrics are useful for providing clear evaluative criteria and are generally easier and less time consuming for assessors to employ than other tools of evaluation are. Some researchers, such as Quinlan [43], have claimed that when students can focus on particular aspects of writing, they become more confident in those aspects. However, Andrade, Wang, Du, and

Akawi [44] argued that the empirical evidence supporting such claims is weak. In their own research on rubric-referenced self-assessment and self-efficacy in writing, they obtained partial support for these claims but discovered that students developed their writing self-efficacy regardless of the type of feedback or assessment method employed. Moreover, both the assessors and writers appeared to be limited by the criteria in rubric-based peer reviews, which entail standardized, not personalized, comments.

Indeed, as suggested by Andrade et al. [44], the only comments that a writer receives from rubrics are the corresponding description that accompanies their grade. The reviewers "translate" their reactions to the writing into a formulated category with predetermined criteria that may have no relevance to their impressions of the reviewed work. Although the rubric-based description makes students aware of their writing weaknesses, it does not provide explanatory information that can aid improvement. As suggested by Elbow [25], "…you are asking them to translate those perceptions and reactions into a judgment about what is good or bad in the writing. That act of translation is tricky" (p. 246). Individuals may interpret the same description differently. Moxley [24] argued, "Some assessment experts and distinguished writing professors fault rubrics for oversimplifying or confounding the process of interpretation and response" (para. 4). Thus, rubric-based feedback can only provide partial and unclear information that may not be a sufficient basis for students to effectively revise their writing and that does not allow assessors to explain the reason for certain scores.

By contrast, detailed feedback gives assessors interpretive and expressive freedom because they are authentic readers who can express their impressions in writing and share with the writers their experience and interpretation. Such reader-based feedback tends to be less evaluative and judgmental and can lead to more learning [25]. Gielen et al. [45] suggested that feedback should have sufficient frequency and detail; additionally, "…it is more important for a peer assessor to provide justification rather than accurate critique in the form of negative comments" (p. 312). Mascle [35] contended that feedback should be meaningful and provide appraisal and guidelines for improvement.

In the present study, the students in the detailed feedback group were required to clearly explain why certain parts of the reviewed writing were considered to be well or poorly written. They also had to identify the reasons for their praise or criticism and provide suggestions for revision. The students were encouraged to include as much detail as possible, particularly because they would receive feedback that would explain the strengths and limitations of their own writing. Thus, the detailed feedback provided justification and meaningful information that clearly helped the students understand their writing's strengths and weaknesses. Additionally, peer feedback can sometimes be more helpful than teacher feedback, which can induce confusion and anxiety in students when they are revising their writing and can even reduce their writing confidence, motivation, and engagement [18, 19, 21]. When comments were provided by someone with a similar level of writing proficiency, the motivation and confidence to revise appeared to be stronger.

Regarding subsequent revisions, the students in both groups made surface changes most frequently; these changes made sentences more grammatically correct and more explicitly conveyed information [42]. Such results are consistent with those obtained in previous studies (e.g., [15, 19]), which also discovered that

when doing peer review, students provide more form-related feedback, and more revisions are made on form than on content. The results detailed herein echo the difficulties faced by EFL students when writing in a foreign language [27]. When writing in L2, learners must draw information from their long-term memory and search for linguistic knowledge when composing their ideas. Such effort makes writing in L2 more challenging than in L1. In addition, searching for and sorting ideas and then logically presenting them in writing is a great challenge for some L2 writers. Consequently, when making revisions, form-based revisions appear to be more feasible and easier for L2 writers.

The results did not indicate that the type of feedback significantly affected later revisions. However, the rubric group made more changes than the detailed group to words, phrases, and clauses (size of revision) as well as to unnecessary expression (function of revision). Such findings could be explained by (1) the use of L1 and (2) the descriptions on the rubric used in the study. As Yu and Lee [38] suggested, feedback given in the native language may focus more on content and organization than that given in the target language. Such claims are supported by the suggestions many students in the detailed feedback group made. With more suggestions relating to content and organization, students may exert greater effort to examine and modify the text for coherence and logic. However, students in the rubric group could rely on only the descriptions in the rubric and their linguistic knowledge when making revisions. For example, descriptions such as "The sequence of ideas is often confusing or apparently random, or paragraphing is inadequate" (under the organization category), "Some portions of content do not fit the assignment" (under the content category), or "This paragraph has significant mistakes in word choice and spelling" (under the word choice and spelling category) ([40], p. 10) may emphasize linguistic elements more than overall content and lead students revise or delete words, phrases, or clauses.

Conclusion

The current study revealed the importance of the quality and methods of providing and receiving feedback. Although rubrics are time and energy efficient when giving comments on student writing, the present findings indicate that rubrics are insufficient for helping develop writing self-efficacy. The interactions between students and active student involvement are essential to the feedback process. Such interaction and involvement were discovered to be crucial in enhancing the level of writing self-efficacy among the students in this study. Therefore, to achieve greater writing improvements, providing both detailed comments and holistic assessments—such as through the use of a rubric, as suggested by Huisman et al. [20]—is optimal.

Before concluding, a few limitations and future directions must be discussed. Notably, the current study was limited by the design of the freshman English course. We could not investigate the effects of the peer review tools on essays of five paragraphs or more, which require substantially more effort for both feedback and revision. Moreover, the current study could not address issues relating to feedback on different genres of writing, especially those genres that require some level of training when performing peer review. Inconsistency in the quality of peer feedback could also have been a limitation. Although all feedback followed the review guidelines, some feedback was inevitably

longer and more in-depth. Future studies on advanced writing courses would be helpful to examine the effect of reviews in more advanced writing tasks. Last, the results of the current study only reflect the capabilities of adult learners. Different ages are associated with various levels of cognitive development and writing proficiency. Addressing the issue of age in future research on peer review would be informative.

To conclude, pedagogical implications for English writing instruction and assessment can be drawn from this study. Our findings indicate that interactions, explanations, and guidance from peers are crucial factors that result in higher levels of writing self-efficacy. Therefore, writing instructors should enable more interactions when peer reviews are being performed. When a rubric is adopted, discussion of the "purpose" and "appropriateness" of criteria in the rubric is recommended to promote more interaction between students and the writing instructor. Additionally, the discussion could help the students reach a certain level of agreement, improving rater reliability. In advanced writing classes, students and the instructor could even co-construct a rubric on the basis of the goals and preferred content of the writing tasks. Compared with rubric-based feedback alone, which involves only numbers related to an essay's weaknesses, the combination of rubric-based and detailed peer feedback could better benefit writers because the information on how to improve the essay would be more constructive. In this sense, the skills and techniques required to make suggestions and provide information for subsequent revisions should be emphasized in peer review training. Finally, the results of this study suggest that students tend to provide more form-related feedback, and more revisions are made to form than to content. Therefore, in addition to training students to be more skillful in providing comments, training in critical and logical thinking should be provided to assist students in providing content-related feedback.
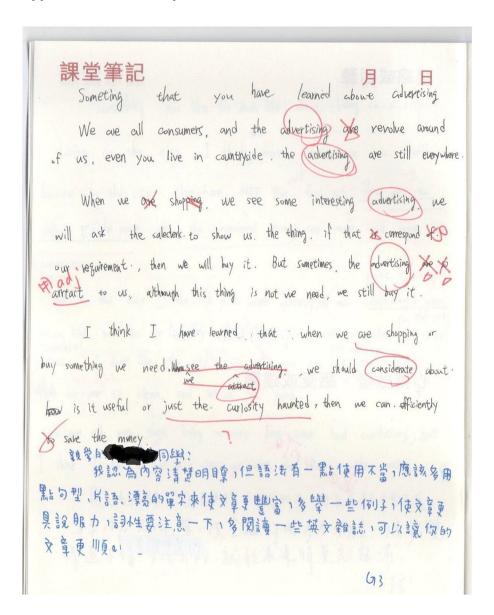
Appendix 1. Peer review sheet

I. Underline the parts/words that you believe are incorrect in your peer's writing.
II. Please answer the following questions after carefully reading your peer's draft:

1. What do you like most about the writing? Select the most interesting idea and explain why.
2. What is the main idea? What is the writer trying to tell readers?
3. Which parts of the writing seem unclear?
4. How could the writer make the writing clearer? Please provide specific advice.

III. Write a letter to the writer describing how you feel about the piece and what you like about his or her writing.
   Review Sheet Template:
   Date (Feb. 27, 2016)
   Dear ____,
   1. Interesting and good examples, ideas you like.
   2. Unclear points and errors.
   3. Advice.
   Sincerely,

Appendix 2. A real sample of detailed feedback

Appendix 3. English writing self-efficacy questionnaire

1 = I am totally unable to do this	4 = I am able to do this
2 = I am unable to do this	
3 = I am possibly able to do this	5 = I am able to do this well

1. Can you compose messages in English on the Internet (Facebook, Twitter, and blogs)?	1	2	3	4	5
2. Can you write in English?	1	2	3	4	5
3. Can you adequately express your thoughts when writing in English?	1	2	3	4	5
4. Can you use appropriate words to express your thoughts in writing?	1	2	3	4	5
5. Can you use correct grammar when writing a paragraph?	1	2	3	4	5
6. Can you think of ideas when writing about an assigned topic?	1	2	3	4	5
7. Can you logically organize and express your thoughts when writing a paragraph?	1	2	3	4	5
8. Can you use correct punctuation when writing a paragraph?	1	2	3	4	5
9. Can you form new sentences from words you have just learned?	1	2	3	4	5
10. Can you write emails in English?	1	2	3	4	5
11. Can you produce English sentences with idiomatic phrases?	1	2	3	4	5
12. Can you write diary entries in English?	1	2	3	4	5
13. Can you write a two-page essay on your lecturer in English?	1	2	3	4	5

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