A Model Of Critical Peer Feedback To Facilitate Business English Writing Using Qzone Weblogs Among Chinese Undergraduates

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ABSTRACT

The purpose of this study was to explore critical thinking skills in peer feedback for Business English writing in order to facilitate the quality of peer feedback and quality of Business English writing. "Critical peer feedback" was conceptualized with the integration of "critical thinking" and "peer feedback" in order to improve the quality of peer feedback. This study explored the process, content and factors of critical peer feedback through Qzone weblogs, and summarized the model of critical peer feedback. A qualitative case study was conducted with a group of six junior students majoring in Business English for one semester in a Chinese university. Three models of critical thinking including Revised Bloom's Taxonomy, Paul-Elder Model and Reichenbach's Six Steps Model, were transferred to the participants in the workshops. Three kinds of data including semi-structured interview transcripts, six writing assignments and artifacts of critical peer feedback, were analyzed by QSR NVivo 8. The findings revealed that the Revised Bloom's Taxonomy is more acceptable for the beginners of critical peer feedback which provides a six-step model of critical thinking. The process of critical peer feedback in online context was summarized as four steps- "intake", "critical thinking", "output", and "post-output". Each of the four steps had several mental processes in critical peer feedback. This study may be significant for the knowledge of higher-order peer feedback to facilitate the quality of higher-level writing.

Keywords: *Critical peer feedback; critical thinking; Business English writing; online feedback; Qzone weblog*

INTRODUCTION

Peer feedback is referred under different names such as peer response, peer review, peer editing, and peer evaluation (Bijami, 2013). It emphasizes the activity of peer involvement in learning. Peer feedback in EFL writing has been regarded as time-consuming, and inefficient (Song, 2010; Zhang, 1995). Peer feedback needs to be specific, appropriate, high-quality, timely, accurate, constructive, outcome-focused, encouraging, positive, understandable and focused on what is done correctly and what needs to improve (Gielen & De Waver, 2015; Konold & Miller, 2005). Peer interaction is cardinal to improving students' learning, because it allows students to construct knowledge through social sharing and interaction (Lin, Liu, & Yusanet, 2001).

There are arguments on the positive and negative effects of peer feedback. Mory (2003) summarized four perspectives on how feedback supports learning: 1) an incentive for increasing response rate and/or accuracy; 2) a reinforcer that automatically connects responses to prior stimuli (focused on correct responses); 3) Feedback can be considered as information that learners can use to validate or change a previous response; 4) Feedback can be regarded as scaffolding to help students construct internal schemata and analyze their learning processes. Peer feedback can generate more comments on the content,

organization, and vocabulary (Paulus, 1999). Yang, Badger, and Yu (2006) articulated that peer feedback can develop critical thinking, enhance learner autonomy and social interaction among students. Peer feedback allows students to receive more individual comments as well as giving peers opportunities to practice and develop different language skills (Lundstrom & Baker, 2009). Lange (2011) believed that students should be allowed to give feedback without constraints, and explore their ideas without fear of criticism from the teacher. In addition, Nicol and Macfarlane-Dick (2006) articulated that peer feedback enhances the students' sense of self-control over their learning.

The major criticism of peer feedback is that although students express positive attitudes toward using peer feedback, they tend to significantly favor feedback by teachers (Yang et al., 2006; Zhang, 1995). Saito and Fujita (2004) found that a number of studies indicated that a number of biases were associated with peer feedback including friendship, reference, purpose (development or grading), feedback (effects of negative feedback on future performance), and collusive (lack of differentiation) bias. Another issue is that most peer feedback focus on products rather than the process of writing, and many students in L2 contexts focus on sentence-level errors rather than the content and ideas (Storch, 2005).

Peer feedback is mainly aimed at improving writing with high quality feedback. A basic research question is how to produce high quality peer feedback in writing and what is the strategy to produce higher-order peer feedback. There are few studies on how to improve the quality of peer feedback and improve the ability of writing. In this study, critical thinking skills will be conducted in peer feedback to produce higher-quality peer feedback.

Process, Content and Factors of Peer Feedback

Peer feedback holds the four theoretical frameworks including social constructivism, sociocultural theory, Vygotsgy's Zone of Proximal Development, and interaction in second language acquisition (Hyland & Hyland, 2006; Lai, 2016). These theories emphasize the role of "peer" in different perspectives. For the perception of peer feedback, peer feedback is identified as a valuable approach in higher education (Lai, 2016). Some researchers believed that peer feedback can promote in-depth learning, the development of professional practice and self-praise skills (Hyland & Hyland, 2006; Lai, 2016; Morris, 2001). However, some pointed out the drawbacks such as the high cost of organizing and supervising the peer feedback process, students' lack of trust in peer feedback, low efficiency and time-consuming (Hovardas et al., 2014; Llado et al., 2014; McGarr & Clifford, 2013). Recent studies indicated that peer feedback can be associated with a larger degree of student autonomy (Yang et al., 2006). The self-efficacy of students and knowledge foundation is the basis of peer feedback.

Although the broad studies of effectiveness of peer feedback are conducted in different settings and participants on the content, forms and error analysis of peer feedback, the positive and high-qualified performance (or result) of peer feedback cannot be generated automatically. The generation of positive results and high-qualified performance of peer feedback, like teachers and experts, depends on the peers' psychometrical and cognitive process of thinking. The systematic, logical and comprehensive critical thinking process is a crucial strategy to improve the quality of effective peer feedback; yet very few studies have been done in this area, which is a gap in the literature on peer feedback.

On the study of the peer feedback process, Topping (1998) identified the explaining, simplifying, clarifying, summarizing, reorganizing and cognitive restructuring in the activities of peer feedback. Most researchers studied the activity process of peer feedback such as error correction, first peer feedback, revision, second peer feedback and third peer feedback (Hyland & Hyland, 2006; Liang & Tsai, 2016). However, there was limited study on the mental or psychological process of peer feedback.

Feedback content and feedback form are the main recognized types of feedback. Strijbos, Narciss, and Dunnebier (2010) investigated two types of feedback: simple feedback type providing outcome-related information, and elaborated feedback type providing additional information besides outcome-related information. Simple feedback components are knowledge of performance, knowledge of result, and knowledge of correct response. An elaborated feedback component is dependent on the elaborated information provided, which might address: a) knowledge on task constraints (provides information on task rules, task constraints and task requirements); b) knowledge about concepts (provides information on

conceptual knowledge); c) knowledge about mistakes (provides information on errors or mistakes); d) knowledge on how to proceed (know how) (provides information on procedural knowledge); and e) knowledge on meta-cognition. The knowledge of feedback is crucial for the effectiveness of feedback.

The question of which feedback content is most efficient (i.e., which has the most beneficial effects on performance), has received much attention in prior feedback research. Several authors have emphasized the "mindful processing" of feedback as a critical factor for feedback efficiency (Narciss, 2008; Poulos & Mahony, 2008). Unfortunately, the results of a large body of feedback researches are mixed. Only some studies support the common sense assumption that elaborated and specific feedback affects performance more positively than concise general feedback (Mory, 2003; Narciss, 2008; Shute, 2008). Ilgen, Fisher, and Taylor (1979) considered expertise as one of the most important factors for feedback acceptance. Expertise of feedback source is expected to depend on factors such as training, experience, competence level, and familiarity with the task domain (Birnbaum & Stegner, 1979).

Ellis (2003) recognized four types of factors for individual differences in learning - ability (intelligence, working memory, and language aptitude), propensities (learning style, motivation, anxiety, personality, and willingness to communication), learner cognitions (learner belief) and learner actions (learning strategies). Allen and Katayama (2016) summarized a range of potential factors which can influence the peer feedback process: the use of first or second language, language proficiency of peers, gender, the language of the reviewer, learner's motives, and shared cultural background.

According to the sociocutural theory, sociocultural factors are crucial in peer feedback. "Collectivism", "group harmony", "face-saving ", and "power distance" were critical cultural factors among Chinese students (Yu, Lee, & Mak, 2016).

Critical Peer Feedback and Writing

According to the previous literature, Pearlman (2007), based on the critical pedagogy, studied to transcend peer feedback through critical collaborative assessment, and articulated the importance of the critical peer collaborative learning process. Li (2007) realized the effects of critical assessment training on quality of peer feedback and quality of students' final projects in peer assessment, but "critical assessment" is not further discussed. Cox et al. (2013) reviewed the "ideal preceptor qualities" in peer assessment, one of which is to encourage critical thinking and problem solving. Ruggiero (2012) made an empirical study of critical reading and critical writing, but he does not define what is "critical" in reading and writing. Forster (2007) studied using critical feedback to improve research writing. However, he does not further even define "critical feedback" and the mechanism of "critical feedback". "Critical feedback" is still a vague definition in his writing. Therefore, there are few researchers definitely defining "critical" and "critical feedback" in education.

Most of the studies concerning "critical" are based on the individual experiences -- the perspective of empiricism. Zhao (1996) studied "the effects of anonymity on critical feedback in computer-mediated collaborative learning" and gave a definition of "critical feedback" based on the foundation of "evolutionary epistemology". He defined critical feedback as "an essential mechanism in the process of learning, which helps the learner to realize the inadequacies of his present knowledge" (Zhao, 1996, p. 13). This is the rarely definite definition of critical feedback, which emphasizes the mechanism is essential to knowledge growth, and the existed knowledge needs reconsideration to construct better theories. Zhao (1996) emphasized the construction process of knowledge growth and individual role in learning, and anonymous assessment to reduce the influenced factors of peer feedback in a computer-mediated platform.

In this study of conceptual framework, "critical peer feedback" is different from the term "peer feedback" in "critical". "Critical" refers to a deep and comprehensive judgment which comes from the concept of "critical thinking" in psychology. Based on the previous explanation of critical thinking in education, critical peer feedback is constructed as a constructive learning method, based on the purposes of: 1) emphasize the constructive process of language acquisition; 2) highlight the individual mental and psychometrical development in higher education; 3) summarize the effectiveness study of peer feedback and advocate a systematic and comprehensive process of feedback; 4) explore the effective methods to improve the quality of peer feedback.

RESEARCH QUESTIONS

The four research questions addressed in this study are:

1. What is the process of critical peer feedback to facilitate Business English writing through Qzone weblogs?

2. What is the content of critical peer feedback to facilitate Business English writing through Qzone weblogs?

3. What are the factors affecting critical peer feedback to facilitate Business English writing through Qzone weblogs?

4. What is the model of critical peer feedback to facilitate Business English writing through Qzone weblogs?

METHODOLOGY

Research Design

This study was carried out in two phases. The first phase focused on the two workshops on the introduction of critical peer feedback and Qzone weblog for online peer feedback in Business English writing. Each three-hour workshop was conducted twice. In the two workshops, three kinds of critical thinking model were introduced to the participants including the Paul-Elder Model (2012), Reichenbach's Six-step Model (Reichenbach, 2001), and the Revised Bloom's Taxonomy of critical thinking (Forehand, 2005). Qzone weblog was explored to the participants to conduct online feedback and comments. The objectives of the two workshops are to make the participants grasp the knowledge and skills of critical peer feedback on Qzone weblog. The second phase focused on data collection and data analysis. This study was conducted over one semester during the first semester of 2015-2016. Three kinds of data including semi-structured interview transcripts, six writing assignments and artifacts of critical peer feedback, were analyzed by QSR NVivo 8.

Participants

A large class of 42 students was selected for the research population who were divided into 7 groups for online critical peer feedback in their course of *Business English Writing* in a Chinese university. Business English has been a discipline in this university for 15 years. A group of 6 students were chosen as the case group. The six case participants (CP) were coded as CP1 to CP6 for anonymous online peer feedback. They have no knowledge of critical thinking and critical peer feedback in English learning. They will have the course of Business English Writing based on the syllabus. The lecturer conducted the course and critical peer feedback among groups on Qzone weblog, and the researcher was only the observer.

Data Collection and Data Analysis

Three kinds of data were collected including semi-structured interviews, artifacts of Business English writing, and artifacts of critical peer feedback. During the second phase, the semi-structured interviews were conducted three times among the six case participants, which were based on the interview protocol (see Appendix). Each interview lasted 30 to 45 minutes. The six Business English writing assignments were written by the case participants based on the syllabus and uploaded on their Qzone for critical peer feedback. The three interviews with each case participant were recorded and transcribed. These qualitative data were analyzed by QSR NVivo 8 with free nodes, tree nodes, and models (see Figure 1). By QSR NVivo 8, 116 free nodes, 4 tree nodes and five models are categorized in this study.
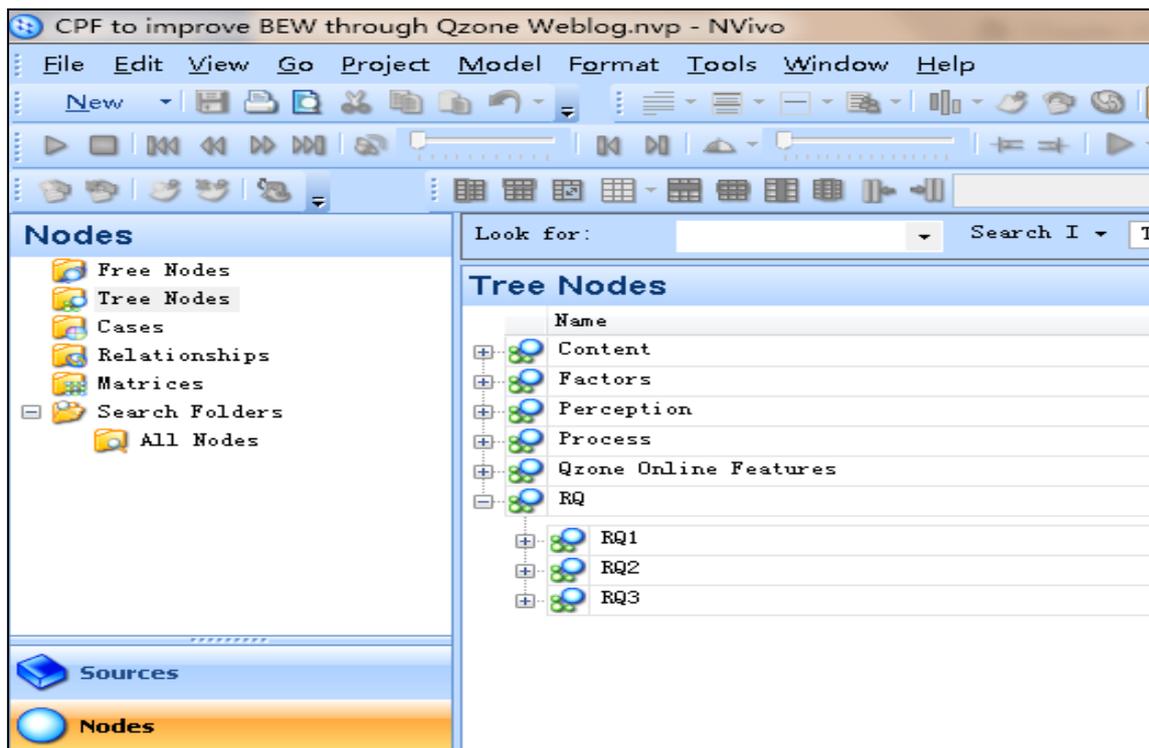
Figure 1: The Tree Nodes of Critical Peer Feedback in QSR NVivo 8

FINDINGS

RQ1: Process of Critical Peer Feedback to Facilitate Business English Writing Using Qzone Weblogs

Based on the data analysis by QSR NVivo 8, the case participants indicated that they adopted the Revised Bloom's Taxonomy for critical peer feedback. The activities of critical peer feedback included three main parts including "analyzing, evaluating and creating". However, before the critical peer feedback, they used their prior knowledge of Business English writing for "remembering, understanding and applying" their peers' writing. Then they attempted to offer their critical peer feedback on their peers' writings on Qzone.

I adopt the six steps of Revised Bloom's model. As my understanding, critical peer feedback has a step-by-step process. My critical peer feedback is at the low level from "remembering, understanding and applying". I still cannot reach the higher level of "analyzing, evaluating and creating". (Cited from Interview Transcript/CP2/23 Oct., 2015)

To be detailed, their mental process of critical peer feedback could be categorized into three steps. The first step is to "intake" the writing according to their actual performance of Business English writing. This actual ability of "intake" is different among the peers. The second step is "critical thinking" in which the peers adopt Revised Bloom's Taxonomy of "analyzing, evaluating and creating" to assess the writing. The third step is to write their critical peer feedback on the Qzone. However, the third step is the output of critical peer feedback which display the contents of their critical peer feedback. The output of critical peer feedback is the process of assessment and creation which follows the logical process of praising, error correcting, analyzing the Business English writing tasks, evaluating the writing and creating opinions.

After the process of critical peer feedback, case participants discussed the further activities to react to critical peer feedback. Based on the model of post-activities in critical peer feedback (see Figure 2), the post-activities include proofreading, re-editing, self-reflecting, rewriting and re-uploading for further critical peer feedback. The case participants indicated the post-activities are the actual practice of facilitating Business English writing.
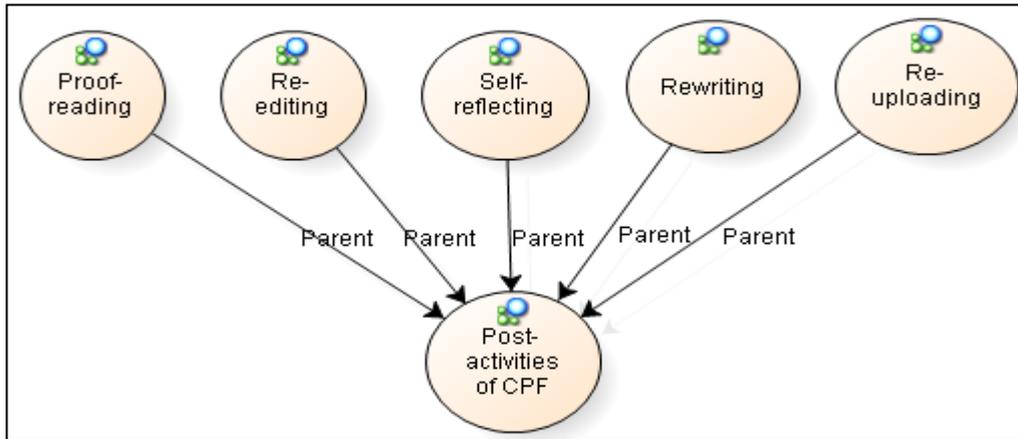
Figure 2: Nodes of Post-activities in Critical Peer Feedback

After the uploading of the rewriting, there is a new turn of critical peer feedback for the rewriting which may make the rewriting reach a higher level with more critical peer feedback. However, the rewriting and re-uploading depends on the first writing quality and the writer's option. In conclusion, the process of critical peer feedback can be concluded with the mental process of critical peer feedback and the post-activities of critical peer feedback. The process of critical peer feedback can be illustrated in the following figure (Figure 3).
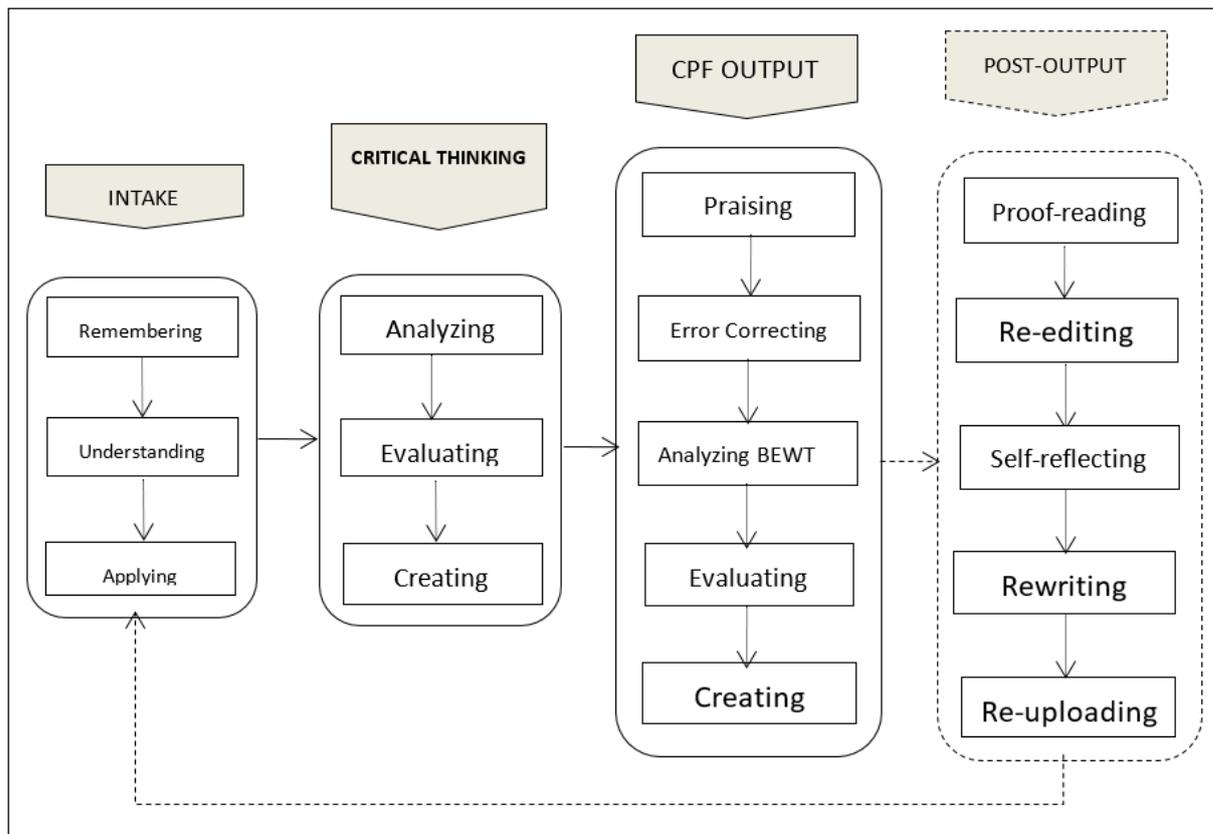

Figure 3: Critical Peer Feedback Process for BEW on Qzone

In Figure 3, the flow chart starts from "intake" to "critical thinking", and then "CPF output", which are the indispensable three parts of critical peer feedback. The post-activities of "CPF output" is a supplement of critical peer feedback. In this flow chart, the solid line of each box represents an actual part, which cannot be omitted in the process of critical peer feedback, while the dotted line represents the optional part. The solid

arrow represents the indispensable flow of the process, while the dotted arrow represents the optional flow of the process.

This mental process of critical peer feedback is based on the model of Revised Bloom's Taxonomy (Bloom et al., 1956), which illustrates the mental process of critical thinking. This mental process of critical peer feedback also demonstrates the statements of "intake", "reaction", "input" and "output" in second language acquisition (Pawlak, 2011; Zhang, 2009). This process of critical peer feedback emphasizes the mental and psychological "thinking" activities during feedback, while most previous studies focus on the activities of "doing something" in feedback such as reading, commenting, discussing, and writing, and so forth (Asikainen, 2014; Lai, 2016; Lee, 2015; Pol et al., 2008). Different models of critical thinking could involve conducting different processes of critical peer feedback.

RQ2: Content of Critical Peer Feedback to Facilitate Business English Writing Using Qzone Weblogs

Before this study, the case participants insisted their content of peer feedback is error correction. Their only activity in peer feedback is error correction on grammar, spelling and punctuation. Some studies argued that error correction is ineffective, even harmful to students' fluency and their overall writing quality (Hyland & Hyland, 2006).

"Generally, when I evaluate a writing, the first viewed in my eyes is grammar error, the second is style, and the third is wording, and then rhetoric like parallelism, affective language. The last is special feature which can attract me." (Cited from Interview Transcript/ CP3/ 09 Oct., 2015)

"At the beginning of this study, I pay much attention to grammar errors, and not check the sentence logic. But now, I prefer to study its sentence logic, cohesion and coherence. Whether or not they are clear, is very important to a writing." (Cited from Interview Transcript/ CP2/ 23 Oct., 2015)

With the study of critical peer feedback, the participants realized that there are other aspects to be assessed except error correction. Based on the data analysis by QSR NVivo 8, the main contents of critical peer feedback in Business English writing contain the following seven parts such as error correction, discourse analysis, pragmatic functions, rhetoric features, affection, style, and syntax (see Table 1).

Table 1: Contents of Critical Peer Feedback for Business English Writing

Contents of Critical Peer Feedback in Business English Writing	
Error Correction	Grammar
	Spelling
	Punctuation
Discourse Analysis	Cohesion
	Coherence
	Logic
Pragmatic Functions	Completeness
	Conciseness
	Expressiveness
	Attractiveness
Rhetoric Features	Parallelism
Affection	Thanks
	Congratulation
Style	E-mail
	Resume
	Business Card
	Memo
	Business Letter
	Business Report
Syntax	Cohesion
	Coherence

The seven parts of contents in critical peer feedback were concluded by data of Business English writing artifacts and their critical peer feedback, which are decided by the syllabus of Business English Writing and the writing assignments in the course. In this study, the contents cannot all be concluded in the practice of their critical peer feedback, which are only parts of it. The content of critical peer feedback includes not only error correction of language, but also every aspect of Business English writing, in addition to the consideration of successful business communication. However, it extended their feedback of error correction from language to writing mechanism.

On the content of peer feedback in L2 writing, some studies focus on error correction (Storch, 2005; Nicol & Macfarlane, 2006); some focus on the functions such as clarity, completeness and expressiveness of writing (Caulk, 1994; Konold & Miller, 2005; Nelson & Schunn, 2009); while some focus on the linguistic features (Paulus, 1999; Ferris & Roberts, 2001; Lundstrom & Baker, 2009). There are few studies on the content of peer feedback in Business English writing. This finding implied that concrete contents and points of critical peer feedback in language and writing mechanism are more helpful and specific to the peer's writing and editing, which point out the places of correcting and editing.

RQ3: Factors Affecting Critical Peer Feedback to Facilitate Business English Writing Using Qzone Weblogs Among Chinese Undergraduates

Many factors affect the effectiveness of peer feedback in second language writing. Ellis (2003) recognized four types of internal factors such as ability, propensities, learner cognitions and learner actions. Bassham (2009) argued the factors of relevant knowledge information, bias, prejudice, peer pressure, perception, and face-saving. Yu, Lee, and Mak (2016) found the "collectivism and group harmony", "face-saving", and "power distance" factors among Chinese undergraduates, but they argued that these factors were not effective in small group peer feedback. In this study, the case participants clearly indicated they were influenced by many factors in critical peer feedback.

According to the data analysis by QSR NVivo 8, the finding of factors in critical peer feedback among Chinese undergraduates could be grouped into two categories: internal factors and external factors. The

internal factors, based on Ellis (2003), were further categorized into four aspects including ability, propensity, peer cognition and peer action. The external factors were also categorized into four aspects of factors including pedagogy, culture, LSP register and environment. The detailed internal and external factors are illustrated in the following Table 2.

Table 2: Factors Affecting Critical Peer Feedback for BEW on Qzone

Factors Affecting Critical Peer Feedback on Qzone in Business English Writing		
Internal Factors	Ability	Business English Writing Ability
		Critical Thinking Ability
		Peer Feedback Ability
		Language Proficiency
	Peer Cognition	Cognition of Critical Thinking
		Cognition of Peer Feedback
		Cognition of Critical Peer Feedback
		Cognition of Qzone for Education
		Cognition of Qzone for Critical Peer Feedback
	Peer Action	CPF Strategy
		Self-autonomy
		Self-reflection
	Propensities	Personality
		Motivation
		Willingness
		Anxiety
		Inter-language
External Factors	Pedagogy	Teaching Strategy
		Learning Strategy
	Culture	Confucianism
		Collectivism
		Face
	LSP Register	Lexicon
		Style
		Syntax
	Environment	Internet Environment
		Technique Environment
		Place
		Time

Among the findings of internal factors, the abilities include Business English writing ability, critical thinking ability, peer feedback ability and language proficiency. The ability factors are the "remembering" basic in critical thinking, which directly influence the effect of critical peer feedback. However, according to the theory of ZPD, the peers' abilities are different at various "zones". The higher-ability peers can help the lower-ability peers to develop their ZPD (Vygotsgy, 1978). That statement was confirmed by the participants in this study that the higher-ability peers can help the lower-ability peers to develop their writing (Hsia, Huang & Hwang, 2016; Mintzes, Wandersee, & Novak, 2005). The participants insisted that they preferred to read "good" writings and welcome "good" critical peer feedback.

The peer cognition includes the cognition of peer feedback, critical thinking, critical peer feedback, Qzone, and Qzone for critical peer feedback, which influence the cognition of this study and their actual practices of critical peer feedback. Peer action refers to the peer performance in critical peer feedback such as critical peer feedback strategy, self-autonomy and self-reflection on Business English writing and critical peer feedback. The peer action refers to the actual activities during critical peer feedback, which is also the internal factor of critical peer feedback. The propensities refer to the peer's preferences in critical peer

feedback such as personality, motivation, willingness, anxiety and inter-language in critical peer feedback. The case participants have the personality of modesty, shyness, timidity and politeness. They insisted that online critical peer feedback is more suitable to their personality compared with face-to-face critical peer feedback, which reduces the face-to-face conflict, embarrassment, and nervousness, and keeps each other's "face". The five participants all have instrumental motivations, three for examination, two for jobs. They have weak and unsure integrative motivation for cross-cultural communication. This means that they learn Business English writing for examination (60%) and career (40%), but not for communication. However, the research found that integrative motivation is more active and motivated for learning (Gardner, 2010). Under the supervision of lecturer, the case participants insisted that they were willing to participate in this study and improve their ability in Business English writing. They had little anxiety at online critical peer feedback. They were adapted to apply English for online critical peer feedback, but Mandarin Chinese (mother language) for interviews. This strategy of inter-language indicated that they lack confidence in oral English, but not for written English.

Among the findings of the external factors, the pedagogy included the teaching strategy and learning strategy. In this study, the teaching strategy includes teacher-centered teaching, summative assessment and large class teaching. The participants argued that they need more writing practice and time for critical thinking in Business English writing classes. The present teaching strategy negatively affects critical peer feedback in Business English writing. The participants' learning strategy included reciting, little interaction, low self-autonomy, inefficient peer feedback, no BEW sharing, and surface writing and learning in Business English writing. The present learning strategy also negatively affects critical peer feedback in Business English writing. This implies the urgent transformation of teaching strategy and learning strategy in Business English writing.

Regarding the factor of culture, the participants insisted that they are affected by Confucianism, collectivism and "face-saving" in the Chinese environment. Under Confucianism, the participants argued that they are modest and polite, and unwilling to argue and discuss among peers. This is a negative factor for critical peer feedback in Business English writing. This is consistent with the statement that Asian students are widely regarded as quiet, polite and modest in class as in China, Japan and Korea (Hyland & Hyland, 2006; Yu, Lee & Mak, 2016). This proved the situation why there was little discussion, argument and communication in critical peer feedback among Chinese undergraduates. Collectivism is defined as a "social pattern of closely linked individuals who see themselves as parts of one or more collectives...and emphasize their connectedness to members of these collectives" (Triandis, 1995, p. 2). The participants are collective members who will do their best to complete the tasks of critical peer feedback for the group benefit and glory. This is a positive factor for critical peer feedback in Business English writing among Chinese undergraduates. "Face-saving" in Chinese culture emphasizes "the harmony of individual conduct with views and judgments of the community" (Liu & Hansen, 2001, p. 205) and "maintaining of group harmony and mutual face-saving to maintain a state of cohesion" (Carson & Nelson, 1994, p.23). "Face-saving" negatively affects critical peer feedback in Business English writing, in which the participants focused more on face-saving than the criticism and "critical" peer feedback in the group work.

Business English writing has a clear register in lexicon, style and syntax (Carter & Nunan, 2001). The participants insisted that specific register of Business English Writing positively offers them a concrete target for critical peer feedback. The environment factor includes technique environment, Internet environment, place and time for critical peer feedback. The environment factors take the positive functions on critical peer feedback in the research setting.

RQ4: Model of Critical Peer Feedback to Facilitate Business English writing Through Qzone Weblogs

According to the theoretical framework of SCT and ZPD, this study defined "critical peer feedback" with the concepts of "critical thinking" and "peer feedback", focused on the "peer" mental activities in Business English writing at online situation, and studied the mechanism of "critical peer feedback" from the perspectives of process, content and factors in Chinese culture. The "Critical Peer Feedback Model" was concluded based on the mechanism of critical peer feedback in this study.

Based on the process of critical peer feedback at Figure 3, the content of critical peer feedback in Table 1, and the factors affecting critical peer feedback in Table 2, "Critical Peer Feedback Model" in this study can be modeled with the combination of the three parts (see Figure 4). Figure 4 illustrates the four steps of mental activities for critical peer feedback, the content of critical peer feedback in Business English writing, and factors in this study.
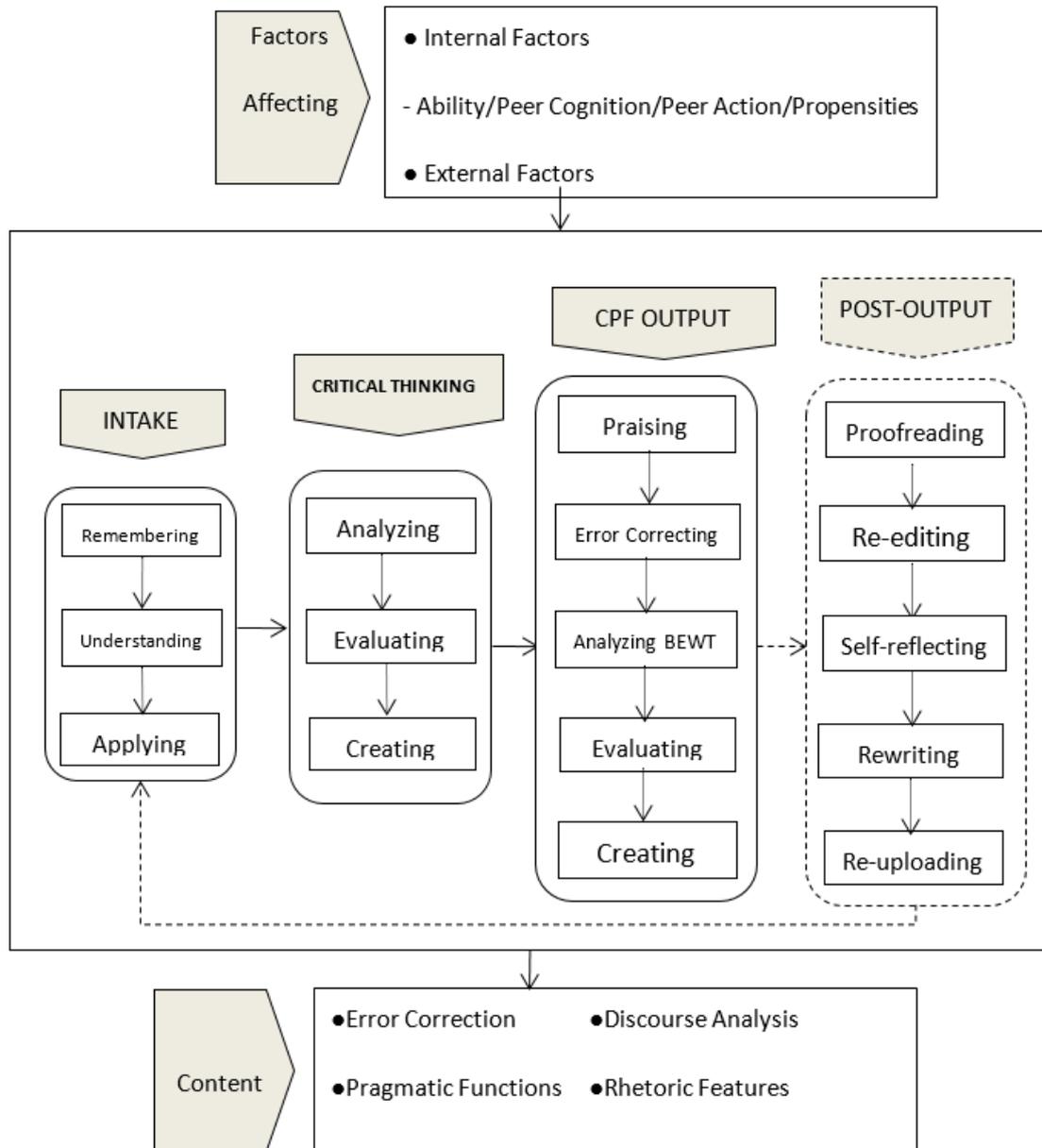

Figure 4: Critical Peer Feedback Model for Business English Writing on Qzone Weblog

In this figure of "Critical Peer Feedback Model", the flow chart starts from "intake" to "critical thinking", and then "CPF output", which are the indispensable three parts of critical peer feedback. The post-activities of "CPF output" is a supplement of critical peer feedback. In this figure, the solid line represents actual activities in the process of critical peer feedback, while the dotted line represents the optional ones. The solid arrow represents the indispensable flow of the process, while the dotted arrow represents the optional flow of the process.

This model contains the main four parts of the mechanism of critical peer feedback. It points out the concrete aspects for the practice of critical peer feedback. It provides a recommendable model of higher-order peer feedback for higher-level writing. From this study, it can be concluded that this model is an ideal model for the beginners of critical peer feedback in higher-level writing or vocational writing instruction. It is

also valuable for the practice in other subjects for critical peer feedback.

CONCLUSION

Critical peer feedback is a higher-order assessment by peer feedback with critical thinking skills of "analyzing", "evaluating" and "creating", which is based on lower-order thinking skills of "remembering", "understanding" and "applying" of the writing. The Revised Bloom's Taxonomy of critical thinking is accepted as the skill for critical peer feedback. The students believed that their ability of critical peer feedback could be cultivated by teaching and practicing. Critical peer feedback is accepted as an efficient way to improve Business English writing by collaborative learning in this study. Critical peer feedback provides a strategy of higher-order mental activity to assess the higher-level writing.

On the study of the process of critical peer feedback, the case participants experienced a serial mental activity to 1) "intake" the writing by remembering, understanding and applying with lower-order thinking, 2) use "critical thinking" for analyzing, evaluating and creating the writing, 3) and finally to "output" their "content" of critical peer feedback in written form. After the output of critical peer feedback, these were some post-activities in order to improve their writing and also for further critical peer feedback. The post-activities of critical peer feedback have been categorized into five parts including proofreading, re-editing, self-reflecting, rewriting and re-uploading on their Qzone. After re-uploading the rewriting, the next turn of critical peer feedback might be conducted to assess the rewritten writing. Logically, this process can be repeated until the satisfaction of the writing. However, the demonstration of post-activities is depends on the condition of the writing quality and the writer's preference.

The content of critical peer feedback has been summarized at Table 1. Based on the data analysis by QSR NVivo 8 in this study, the content of critical peer feedback includes error correction, discourse analysis, pragmatic functions, rhetorical features, affection, style and syntax. During the process of critical peer feedback, the students' mental activities of critical peer feedback were affected by many internal and external factors. These factors have been explored in this study (see Table 2). The internal factors are: ability, peer cognition, peer action, and propensities. The external factors are categorized into pedagogy, culture, LSP register, and environment factors.

Many studies on peer feedback model in EFL writing. Nelson and Schunn (2009) discussed the five feedback features in a proposed model of peer feedback. The five features are divided into two parts: 1) cognitive feature including summarization, specificity, explanation, and scope; and 2) affective feature with affective languages such as praise, and criticism. Timms et al. (2015) studied the feedback model in the intelligent learning environment, which represents how learners notice, process, and understand feedback in the processing of feedback from cognitive psychology and neuroscience perspective.

RECOMMENDATION

In this study of critical peer feedback in EFL writing, critical thinking skills were explored in the process of higher-order peer feedback in order to facilitate higher-level writing. The Revised Bloom's Taxonomy is accepted in critical peer feedback, which emphasizes the six steps of critical thinking. The critical peer feedback model has **four steps** including **"intake", "critical thinking", "critical peer feedback output" and the "post-output".** This model is concluded in this qualitative case study; it cannot be used for generalization. However, it is valuable for the further study of critical peer feedback in other settings.

Many recommendations are given for further study. First, the concept of "critical peer feedback" may be explored from other aspects to understand "critical", and to find other strategies for "critical peer feedback". Even in the aspect of critical thinking, the strategy of "critical thinking" could be different from the Revised Bloom's Taxonomy. Second, a quantitative study could be conducted to study the effectiveness of critical peer feedback. The quantitative study of the effectiveness is necessary for reliability, validity and generalization (Lincoln & Guba, 1985; Shenton, 2004). The effectiveness of critical peer feedback could be studied in any courses and cases by a quantitative study. Third, during the conduct of critical peer feedback, the rubrics of critical peer feedback could be further researched to study whether the peers' critical peer

feedback are indeed critical peer feedback and could achieve the requirements of the critical peer feedback rubrics. Fourth, for modeling critical peer feedback, this study could be extended in other settings. The critical peer feedback model may be different in other settings such as different levels of education, different courses and different places.

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APPENDIX

INTERVIEW PROTOCOL FOR THE PARTICIPANTS

1. How do you understand critical thinking?

2. How do you understand critical peer feedback?

3. How do you use critical peer feedback in Business English Writing?

4. What are your focuses (or preferences) in offering critical peer feedback in Business English Writing?

5. How does critical peer feedback improve your quality of feedback in Business English Writing?

6. What are the advantages and disadvantages of critical peer feedback in Business English Writing?

7. What is your process of critical peer feedback?

8. What kinds or types of critical peer feedback are more helpful to your Business English writing?

9. What are your contents of critical peer feedback in Business English writing?

10. What are the factors affecting critical peer feedback in Business English writing?

11. Will you revise or rewrite your writing based on your peer's feedback?