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**THE USE OF PROCESS WRITING AND INTERNET TECHNOLOGY
IN A TAIWANESE COLLEGE ENGLISH WRITING CLASS:
A FOCUS ON PEER REVIEWS**

A Thesis in
Curriculum and Instruction

by

Mei-ching Huang

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The thesis of Mei-ching Huang has been reviewed and approved* by the following:

Lourdes Diaz Soto
Professor of Education
Thesis Adviser
Chair of Committee

Jamie M. Myers
Associate Professor of Education

Grant H. Henning
Professor of Speech Communication

Edgar Paul Yoder
Professor of Agricultural Administration

Patrick W. Shannon
Professor of Education
Coordinator of Graduate Programs in Curriculum and Instruction

*Signatures are on file in the Graduate School.

ABSTRACT

The purpose of this action research was to evaluate the effectiveness of using process writing and Internet technology for helping Taiwanese college students overcome the difficulties they encounter in learning to write in English. This study also examined the attitudes of the students and their teacher towards the implementation of the On-line Writing Project, which were on-line English writing lessons I created, integrating process writing and the Internet, as well as the influence of Chinese/Taiwanese culture on the implementation of the On-line Writing Project. In this semester-long study, I implemented the On-line Writing Project as the co-teacher of an English writing class at a university in Taipei, Taiwan. The teacher and his 16 students participated in this study.

I collected nine kinds of data, using both qualitative and quantitative research methods. The results of the quantitative analysis showed that both the On-line Writing Project and the peer reviews were effective, that the students responded positively to process writing, peer reviews, and the use of Internet technology in their English writing course, that the students liked teacher feedback on their writing better than peer feedback and thought that teacher feedback was more helpful than peer feedback, and that the On-line Writing Project decreased the value the participating students placed on searching the World Wide Web but increased their excitement about e-mailing and the trust in their partners' efforts in peer reviews.

The pre-interviews revealed the difficulties the participating students encountered in learning to write in English and their hopes for an effective, interesting, and interactive

English writing class. Accordingly, the On-line Writing Project was designed, implemented, and evaluated.

I generated several assertions after cross-referencing both the quantitative data and the qualitative data. Generally speaking, the On-line Writing Project was helpful, and process writing and the Internet technology helped the students in several ways. The On-line Writing Project did not change the students' attitudes towards English writing to a great extent; nor did their knowledge of basic English writing principles improve to a great extent; however, their attitudes and behaviors in relation to the course transformed radically. Specifically, their excitement for the WWW cooled because of the slow connecting speed, the malfunction of the server, and the difficulty of finding what they needed; nonetheless, they maintained their enthusiasm for e-mailing native English speakers. They were motivated to come to class more often, work harder, write better, and participate in the On-line Writing Project actively. They also cooperated and helped each other.

Although the students were equipped with basic English writing knowledge and were capable of indicating their partners' weaknesses related to content/organization, they were not skilled at giving specific suggestions on how to revise content/organization. However, they were critical of their peers' comments: they adopted few incorrect comments even though they revised a great deal and incorporated considerable peer feedback.

Chinese/Taiwanese culture influenced the implementation of the On-line Writing Project in several ways. Specifically, the participating students were eager for negative feedback, especially from the teacher. Their belief in the teacher as the authoritative

and single carrier of knowledge, as derived from Chinese/Taiwanese culture, resulted in their lower evaluation of peer feedback, despite the fact that teacher feedback was seldom given and more difficult to understand. Feeling a lack of authority in students, the students did not completely trust their own and their partners' abilities as peer reviewers, either. On the other hand, although the students were not one hundred percent honest to their peers because they considered themselves to be lacking in authority and avoided hurting their peers, they gave their peers considerable negative feedback, contrary to the speculation that Chinese/Taiwanese students may sacrifice honest feedback to maintain group harmony because of the influence of collectivist culture.

The participating teacher had not thought highly of using the Internet technology in English writing classes before he participated in the On-line Writing Project; however, his evaluation of the Internet technology was greatly enhanced. He developed a positive attitude towards process writing, especially when it was combined with Internet technology. On the whole, the participating teacher gave a high commendation to the On-line Writing Project and was impressed with its motivating effects on his students.

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Chapter 1

INTRODUCTION

The purpose of this action research was to understand how the integration of process writing and Internet technology into the English writing curriculum could help students in an English writing class in Taipei, Taiwan. To address many of the major difficulties encountered by English writing learners in Taiwan, I have proposed to implement an On-line Writing Project, which followed the guidelines of process writing and integrated the use of Internet technology. Even though I believe that the integration of process writing enhanced by Internet technology into the English writing curriculum in Taiwan would provide many advantages for the students, an examination of how the proposed project (henceforth called “the On-line Writing Project” or “the Project”) work in the real context was needed. I also found it necessary to study the beliefs, values, and attitudes of Taiwanese students and teachers to see whether they would facilitate or constrain the process as well as the results of the implementation of the On-line Writing Project.

There is a profound need to study the integration of process writing into the Taiwanese educational system. Unresolved conflicts and important gaps remain in the literature concerning the use of process writing in Taiwan, especially regarding the relationship between Chinese/Taiwanese culture and peer review— an especially important process writing activity (Adams, 1995) in which students read or listen to a peer’s writing drafts and make oral or written comments for the writer to revise.

Studies investigating the effects of integrating Internet technology into the Taiwanese English writing curriculum are also warranted. Despite the fact that the

Internet is embraced by the education as well as by the business and is integrated into more and more kinds of curricula, it has not been widely used yet in English writing classes in Taiwan; barely has it been researched. Therefore, we need explore whether teachers and students in Taiwan would like using this new tool in English writing, whether it will help the students, and what problems it may create. As Green (1997) notes, when language teachers plan to incorporate the Internet into the classroom, they should realize the strengths and limitations of its resources.

To evaluate the effect of the On-line Writing Project in the real context, I designed and constructed a webpage for an English writing class and volunteered to be the co-teacher of an English writing class at a university in Taipei, Taiwan. I assisted the teacher of the class with conducting the On-line Writing Project while collecting qualitative and quantitative data with regard to the research questions of this study.

1.1 Research Context and Motivation

As a Taiwanese English teacher at the college level, I have always been concerned with facilitating Taiwanese students' learning of English. From my personal experience as a student and then as a teacher and the understanding of the subject that I have developed from reading the literature, I have become especially sensitive to the ways in which students in Taiwan experience special difficulties in the process of learning English, and most particularly, in writing English.

In my opinion, the difficulties Taiwanese students face in learning how to write in English can be best understood in terms of the following factors: language and rhetorical

patterns, the English as a Foreign Language (EFL) environment, Chinese culture and traditions, and curriculum and instruction.

First, aside from the obvious differences in the syntactic structure and expressions between Chinese and English, the writing or rhetoric pattern of Chinese also differs greatly from that of English. According to Cheng (1985) and Wang (1994), Chinese writing is arranged in the sequence of the beginning, the following, the introduction of a contrasting sub-theme, and a closing. Hence, most Chinese or Taiwanese students are not accustomed to following the three basic steps of English compositions: an introduction, the development, and a conclusion. Also, in Chinese writing, the main idea is usually stated at the end of a paragraph or an essay instead of at the beginning, as is the usual case in English.

In addition, the general norms associated with a well-written English essay deviate a great deal from those of a good Chinese essay. For example, a successful piece of Chinese writing is characterized by long-windedness, repetition, subtlety, indirectness, and literary allusions (Cheng, 1985; Wang, 1994). Chinese writing also seeks to invite the reader to interpret what the writer tries to convey (Wang). Therefore, Taiwanese or Chinese learners may find it difficult to achieve the conciseness, clarity, and specificity demanded of English writing. They suffer from the fact that what is lauded in Chinese writing is often seen as a weakness or negative feature of English in the written form.

Second, the EFL environment makes it more difficult for Taiwanese students to master English writing. Since English is studied as a foreign language in Taiwan, the students can learn English writing only in the classroom. Outside the classroom, the students find little to no opportunity to practice English writing and are exposed to little

comprehensible input (Krashen, 1982), which is the paramount factor in promoting second language acquisition (Krashen, 1994) and writing proficiency (Reid, 1993).

Therefore, it requires much effort for Taiwanese students to learn to write well in English.

Third, Chinese culture and traditions play important roles in orienting the educational system in Taiwan. Of singular importance is the way in which the Chinese government system has been selecting government officials by means of examination ever since the Chou Dynasty (1122-249 B.C.). In the past, to become one of those fortunate enough to attain a career in government service, a Chinese person had to work hard at memorizing classical texts that they may not have fully understood. This test-oriented culture has had profound influences on the educational system and school culture. What is worse, during the Ming Dynasty (1368-1644 A.D.), an essay genre with a rigid format that included eight parts called Ba Gu Wen became the favored form of the test. As a result of this rigid format, instead of writing with substance, students were trained to write in a mechanical fashion following the fixed patterns. The test-oriented culture in general and the Ba Gu Wen in particular, served as invisible shackles that stiffened the minds of Chinese scholars for centuries, and their influence has continued to the present day (National Institute for Compilation and Translation, 1982).

Inherited from Chinese culture, the Chinese personality also influences learning behavior. The Chinese are inclined to obey conventions and rarely participate. They tend to be passive and silent. As reflected in their learning, Chinese or Taiwanese students usually sit quietly in class, passively following whatever the teacher says (Wei, 1995).

The distance between Taiwanese students and their teacher also exacerbates the difficulty for the former to learn. In a society based on a relatively stringent code of social ethics (Hsu, 1953), each Chinese individual sees himself or herself as being nothing but a dependent in the network of normal interpersonal relations. Hence, Taiwanese students tend to be shy and avoid approaching their teacher, since seniors are considered to be authoritative. Consequently, when students have questions or need help, instead of consulting the teacher, they usually keep their questions and problems to themselves.

Fourth, the current English or English writing curriculum and instruction in Taiwan help little to obviate the existing difficulties, if not create additional difficulties, for the students to learn English writing. For example, in spite of the recent promotion of the communicative approach in an attempt to enhance Taiwanese learners' communicative competence in English (Chen & Huang, 1999), the long-term influence of the Grammar-Translation Method (see Richards & Rodgers, 1986) remains deep-seated. The English curriculum in middle and high schools continues to emphasize correctness of forms and grammar at the sentence level (Wei, 1995) while tending to overlook the development of broader ideas that go beyond this rudimentary level. As a result, students may be able to fill in the blanks in exercises or tests or produce some isolated simple sentences, but when they enter college and take an English writing class for the first time, many of them are not able to express themselves meaningfully in written English (Babcock, 1987, Huang, 1997; Kao, 1993; Wei, 1995). Furthermore, the emphasis on accuracy often increases writers' anxiety.

In accordance with the principles of the Grammar-Translation Method (see Larsen-Freeman, 1986), English writing classes in Taiwan are mostly teacher-centered (Wei, 1995) and devoid of interaction (see students' description in Jones, 1999); thus, many of the students lose interest and have a hard time finding a subject to write about. The teacher, who is seen as the authoritative carrier of knowledge (Wei, 1995), usually concentrates on depositing or filling students' minds with knowledge of writing or grammar rules in the manner of "banking" as described by Freire (1985), while the students passively receive the instruction (Wei, 1995). By this teaching method, little dialogue is produced in the traditional Taiwanese classroom and the students seldom participate in discussions, oral or written (Wei, 1995). Often, the dull, lecture-style monologue is lost on the students (see students' description in Jones), and many of them secretly devote their attention to other things and pay as little attention as possible to the teacher. Typically, after a teacher lectures on grammar or writing principles, the students are given a topic and asked to write compositions on their own. Working alone, the students often spend much time just struggling to come up with ideas, and writer's block is a common phenomenon (Chen, 1996).

Moreover, teachers of English writing in Taiwan bear a heavy load for commenting on students' writing because most English writing classes in Taiwan are large (Tu, 1997; Wei, 1995), usually more than 40 students, and the teacher is the only person who reads the homework other than the writers themselves. In order to manage such a huge work load for correcting and commenting on homework, the teacher is usually reduced to being able to make only limited corrections, provide some short

comments, and assign the grade (Wei). Hence, the students receive little feedback and limited assistance with respect to learning how to improve their writing.

. These factors outlined above are interwoven and constitute a difficult context in which Taiwanese students learn to write in English. In the process of searching for solutions to the problems I have just delineated, I found that combining process writing and Internet technology could be helpful to the students. Process writing activities are likely to help Taiwanese students learn to write in English by providing peer feedback, alleviating writer's block and writer's anxiety, and promoting interaction and participation; the motivating effect of Internet technology could also be conducive to the student writers.

1.2 Research Questions

Since this was an action research, the purpose of this study was to find out how the use of process writing and Internet technology in the English writing curriculum in Taiwan could help the participating students learn to write in English, hence the overarching research question: How does the use of process writing and the Internet technology in a Taiwanese college English writing class help the students?

The sub-questions were aimed at finding out what learning difficulties the participating students encountered in taking English writing courses and what kind of English writing class they hoped for in the pre-interview first, and then centered on the effectiveness of the Internet, process writing, peer feedback, the whole project, and the advantages and disadvantages of them. Hence the sub-questions for the action research portion of this study:

1. What difficulties did the participating students encounter in learning English writing?
2. What kind of English writing class did the students hope for?
3. How did Internet technology help the students with English writing? What were its advantages and disadvantages in relation to English writing?
4. How did process writing activities help the students? What were their advantages and disadvantages?
5. How helpful was peer feedback?
6. How did the On-line Writing Project help the students?

In addition to the fact that both process writing and Internet technology are new in Taiwan and need investigating, there are unsettled issues and gaps in the literature especially about peer reviews or peer feedback. The controversial relationship between Chinese/Taiwanese culture and peer reviews made the investigation urgent if we are going to implement process writing in Taiwan. Therefore, this study was also guided by ethnography to collect and analyze data regarding the attitudes and behaviors of the participating students and their teacher with regard to the integration of process writing and Internet technology. Hence, the sub-questions for the ethnography portion of this study:

7. What were the participating students' attitudes and knowledge system in relation to English writing before and after they attended the On-line Writing Project? That is, how did the Project affect their attitudes towards or perceptions of English writing and their basic knowledge of English writing?

8. What were the attitudes of the students and their teacher towards Internet technology in relation to English writing?
9. What were the students' behaviors in using Internet technology for writing in English?
10. What were the attitudes of the students and their teacher towards process writing activities?
11. What were the students' behaviors in relation to using peer feedback?
12. How did Chinese/Taiwanese culture impact the implementation of the On-line Writing Project?
13. What were the attitudes of the students and their teacher towards the On-line Writing Project?

1.3 Significance of the Study

The results of this study can provide insight into how process writing and Internet technology can help Taiwanese students learn to write in English, how Chinese/Taiwanese culture can impact the integration of process writing and Internet technology into the Taiwanese college English writing curriculum, and how they can be incorporated into the Taiwanese English writing curriculum if they are helpful and welcomed. The results of this study are also intended to contribute to filling the gaps in the literature regarding peer reviews, which are controversial with respect to ESL (English as a Second Language)/EFL students, especially Asian/Chinese. Since this study has investigated many aspects of peer reviews with regard to Taiwanese students-- such as the effects of peer reviews, student perceptions of and attitudes towards peer

reviews, the quality of peer feedback, the extent to which they trusted themselves and their peers as reviewers, and the ways Chinese/Taiwanese culture influences their interaction in and attitudes towards peer reviews--this research represents one of the most comprehensive studies of peer reviews in English writing with regard to Taiwanese students. Moreover, the results of this study can also contribute to the body of literature on Taiwanese students' reaction to and use of Internet technology.

1.4 Overview of Dissertation

Chapter 1 is an introduction to how this research originated, delineating the difficulties that Taiwanese students encounter in learning how to write in English. It also presents the research questions, the purpose, and the significance of this study. Chapter 2 provides the reasons why it is necessary to investigate process writing, peer reviews, and Internet technology in Taiwan. It also introduces process writing and the Internet, their benefits for Taiwanese students to learn English writing, as well as some possible hindrances to using them in the Taiwanese context. Issues regarding process writing, peer reviews, and Internet technology in ESL/EFL contexts and Taiwan are also revisited. Chapter 3 details the methodology used in this study, including the research design, sampling methods, data collection, data analysis, and validity. It also expounds on the design of the On-line Writing Project I created. Chapter 4 presents the results of my quantitative data, the findings of my qualitative data, and a discussion of my results and findings. Chapter 5 discusses the implications of the findings, the contribution of this study, the limitations of the research, and suggestions for English writing teachers and researchers.

1.5 Abbreviation of Terms

1. CALL: Computer-Assisted Language Learning
2. ESL: English as a Second Language
3. EFL: English as a Foreign Language
4. L1: first language
5. WWW: World Wide Web

Chapter 2

REVIEW OF THE LITERATURE

In this chapter, I introduce the process writing approach and the Internet technology along with their potential advantages for Taiwanese learners of English writing and certain possible challenges to incorporate them into the Taiwanese educational system. I recapitulate several studies dealing with either of them in ESL/EFL or Taiwanese context and focus on issues involving peer reviews.

2.1 The Process Writing Approach

Writing begins with thinking about problems and then evolves to applying strategies for the potential resolution of the problems in question, a process that involves complicated cognitive operations (Flower & Hayes, 1977). Therefore, to fully and effectively express oneself through appropriate words and expressions, one has to utilize a combination of all sorts of intellectual capacities. This means that there are generally a series of obstacles that student writers need to overcome throughout the writing process.

Traditionally, writing teachers have adopted a product-oriented writing approach (Applebee, 1986): they give lectures concerning writing conventions or norms, analyze sample writing, assign topics, and grade final products. As a reaction to product-oriented writing approach, process writing, the writing process approach, the process-oriented writing approach, or the process approach to writing is intended to arouse student awareness that writing is often a process of discovering ideas and making meaning itself, rather than emphasizing the importance of a final product (Emig, 1971; Susser, 1994; Zamel, 1983). Instead of asking the teacher to simply correct or grade the final product,

this approach emphasizes the importance of the teacher helping or working with the students to overcome difficulties encountered during the writing process, to provide them with the tools and encouragement needed to overcome the obstacles that confront them. Thus, many activities in the writing process approach involve students and teacher working together and are designed to help student writers generate and organize ideas, express themselves, and revise their writing through multiple drafts (Scane, Guy, & Wenstrom, 1991; Susser).

The writing process approach highlights sharing within groups, peer reviews, revision, discussion, and finally publication. Many of the activities proceed on the basis of pairs or groups. In practice, the process is generally divided into five stages: pre-writing, drafting, revising, editing, and publishing (Bello, 1997; Dupuis, Lee, Badiali, & Askov, 1989; Scane, Guy, & Wenstrom, 1991); these stages are recursive but not linear (Applebee, 1986; Emig, 1971; Scane, Guy, & Wenstrom; Susser, 1994; Zamel, 1983).

At the stage of pre-writing, a variety of activities such as brainstorming are suggested to help writers generate ideas, find a topic, organize information, or develop an argument. At the drafting stage, writers are advised to focus on expressing their ideas and not to focus on grammar mistakes, spelling, and other mechanical weaknesses or errors, leaving those for the later stages of revision and editing (Bello, 1997; Scane, Guy, & Wenstrom, 1991). If writer's block occurs, writers can return to pre-writing activities for resources. For the stages of revision and editing, students are usually divided into groups or pairs and asked to review their partners' work. They are generally given a checklist so that they can focus on one point at a time (Bello; Scane, Guy, & Wenstrom; Susser, 1994). Students are supposed to cooperate and collaborate, helping each other

through discussion in peer reviews. A student-teacher conference is often seen as beneficial prior to writing the third or final draft. After each discussion or conference, writers should revise their draft. Finally, writers can "publish" their revised products on the bulletin board, in anthologies, in newsletters, or on web sites so as to display and share their work with others (Bello; Scane, Guy, & Wenstrom). Publication is seen as an integral part of the entire process, serving to encourage and help motivate the students from the very beginning of the process.

As has been outlined above, the writing process approach is student-centered and characterized by interaction. It endorses flexible instruction to suit students' needs, emphasizes active learning to empower students, encourages discussion, and advocates meaning-making.

Based on the assumption that the writing process for native speakers of English and ESL learners are similar and that ESL students use similar writing strategies to those employed by native speakers (Zamel, 1982, 1983), the writing process approach was introduced to the ESL /EFL field from L1 writing in the 1970s (Applebee, 1986; Susser, 1994) and has been widely used in ESL writing classrooms since the late 1980s (Susser). Process writing has not yet been widely adopted, however, in Taiwan, where, as argued here, the approach might be especially useful for overcoming learning difficulties encountered by English writing learners in Taiwan.

2.1.1 Potential Advantages of Process Writing for Taiwanese Learners

In light of the above description, process writing has great potential for helping Taiwanese students learn to write in English in many ways. First, collaboration between students in reviewing each other's writing may enable them to receive more feedback that

will likely increase their chances for improvement and reduce the teacher's load.

According to Engler (1998), Mittan (1989), and Nelson & Murphy (1992), peer reviews help the student writers to see where the mistakes or areas of confusion are, give helpful ideas at a level that the writers can understand, and make the writers more aware of audience needs.

Second, the interaction that takes place during peer reviews and group pre-writing activities can not only create opportunities for shy learners to be helped by their peers but can also activate all students as a result of the stimulation that results from group dynamics. As mentioned in the first chapter, Chinese or Taiwanese students are mostly shy and reticent to ask their teachers questions. This issue might be addressed by arranging activities for the students that give them the opportunity to discuss each other's writing. Through interactive dialogues in the peer review sessions or pre-writing activities such as group brainstorming, the general level of passiveness is reduced. The role of the students is thus transformed gradually from receivers to participants.

Third, process writing increases the possibility for Taiwanese students to enjoy the writing process. Oftentimes, the students do not know where to start. According to Chiang (1999), at an initial stage of the writing process, Taiwanese writing learners often feel frustrated by feeling of inadequacy while organizing their ideas for English compositions. They also often fail to express themselves meaningfully in their writing because of the curricular emphasis on how to organize the composition and what is grammatically correct. Process writing is potentially instrumental in freeing Taiwanese students from these stiff shackles. Pre-writing activities can help them overcome writer's block; publishing their writing can excite and encourage them; the emphasis on

expressing themselves at the drafting stage also helps them concentrate on the development of their ideas and helps alleviate their anxiety about making mistakes; discussion in peer reviews can inspire them to think and write. In fact, Holladay (1981) has articulated that students automatically reduce writing anxiety under instruction of the writing process approach, while they increase anxiety under instruction of traditional teaching method.

Fourth, the activities built into process writing can help the students gain in cognitive skills and hence become more successful writers. Victori (1999) suggests that the EFL writing learners should be taught strategies such as planning ideas, organizing ideas, and evaluating to write successfully. The pre-writing activities in process writing are beneficial to planning and organizing ideas, and peer reviewing activities in process writing are conducive to organizing ideas and evaluating. Engaged in these activities, the students will learn to write more effectively.

2.1.2 Process Writing and Peer Reviews Issues

Although process writing seems helpful in addressing the difficulties encountered by English writing learners in Taiwan, there is a need to better understand it from the literature before it is implemented. In addition, peer review, an integral process writing activity, should also be scrutinized as there are doubts about whether this activity is suitable for ESL/EFL writing learners.

2.1.2.1 Process writing in ESL/EFL writing classrooms

The primary complaints about process writing come from limited-English-proficient or minority students and teachers in the United States. Although process writing advocates claim many benefits for mainstream, native English learners, Delpit

(1986, 1995) found that bilingual students improved much more slowly than native English students in her process writing classrooms. Reyes (1991) reported that in spite of the fact that the teachers she observed worked hard at practicing process writing and whole language pedagogies, the bilingual students were neither correct in their form nor fluent in their writing after two years. Some did write with more fluency and more length when they wrote informal journals in Spanish; however, they experienced frustration when writing formal, academic literature logs in English. The failure of these students to improve was ascribed to four assumptions inherent in the process approach to writing and whole language: “English is the only legitimate medium for learning and instruction; linguistic minorities must be immersed in English as quickly as possible if they are to succeed in school; a ‘one size fits all’ approach is good for all students; error correction in process instruction hampers learning” (Reyes, 1992, p. 431).

Although the writing process approach is concerned with final written products as well as the writing process itself (Delpit, 1995; Susser, 1994), minority teachers have expressed a serious objection to the insistence on fluency in writing before the mastery of technical aspects. In Delpit (1986, 1995), some black teachers view the process approach to writing as racist and detrimental to black children in spite of process writing adherents’ good intention to give the students voice. These black teachers think process writing ignores cultural difference: black children already possess fluency and creativity but need skills to use the correct forms of the language of power to get into college and succeed in life. If they are not taught writing technicalities, the status quo will be maintained, and power will remain in the hands of those with cultural capital. In the meantime, some black students also think that teachers adopting a process approach to writing are wasting

their time and teaching nothing. Hence, Delpit (1986, 1988, 1995) appeals for the consideration of the students' culture so that the pedagogy may be adjusted to their needs. She also calls for a balance of the writing process approach and skills approach, which features skills acquisition and form, so that the students may learn formal language codes within meaningful, communicative contexts.

On the other hand, Gutierrez (1992) examined the writing process instruction with Latino/a children from a different perspective. In this two-year study, the researcher examined the writing curricula of five writing process classrooms in an elementary school to investigate the effects of writing process instruction on the literacy development of Latino/a children. Data were obtained from observation, videotapes, interviews, and the written products of the students. The results revealed that the differences in the writing instruction and in the effects on the students were subject to the nature of the classroom discourse, the social roles teachers and students undertook or were appointed, and the physical arrangements for their interaction. Three types of instructional scripts were recognized: recitation, responsive, and responsive/collaborative. The natures of writing instructions in the recitation classrooms and the responsive/collaborative classrooms were described and discussed. It was argued that the way that the writing process instruction was implemented played an important role in whether it would be likely for the students to acquire basic writing skills that many mainstream students already possessed.

2.1.2.2 Process writing related to Chinese/Taiwanese

Two studies investigating process writing were found to be specifically related to Chinese/Taiwanese learners. In Tsui (1999), 273 ESL students from seven classes of

Grades 7 to 9 in Hong Kong participated in a process-oriented writing project to find out how they reacted to teacher and peer comments and whether they acted upon peer comments. A questionnaire was administered to the whole subject population and five of the participants were interviewed. The results showed that the participants welcomed the multiple-draft approach to writing and thought that they had improved on both content and language. For the one-third of the participants who were afraid of writing prior to the project, about two thirds became less afraid; for the two thirds of the participants who were not afraid of writing, over two thirds of them became fonder of writing. It's worth noting that the youngest (Grade 7) participants liked the multiple draft approach significantly better than the participants from Grades 8 and 9. The study relied primarily on the participants' response without actually inspecting their writing drafts.

Kao (1993) conducted a study to investigate whether Taiwanese students welcomed the process-oriented writing approach. Two classes of first-year English majors, 32 in total, were involved. After a semester, a survey was administered. The results showed that 93.8% of the students thought the multiple-draft approach helpful.

2.1.2.3 Peer reviews in ESL/EFL writing classrooms

The question as to whether peer-review sessions should be used in ESL/EFL writing classrooms has precipitated much controversy. There are several lines of investigation as follow.

Issue 1: Do ESL/EFL students and teachers like peer reviews?

Results were inconsistent regarding whether ESL students and teachers like peer reviews. Several studies reported that their participants have generally positive feelings about peer reviews. For example, Nelson and Murphy (1992) interviewed a group of four

intermediate ESL writing students and found that, in spite of the displeasure during the peer-review process, three of the participants expressed positive attitudes toward peer responses and indicated that they had benefited from the process. According to these three participants, the peer reviews increased their sense of audience, caused them to work harder, increased their vocabulary, improved their spoken English, and made them familiar with other styles of writing as well as more aware of the need to revise. Only one of the four did not like to work in groups and felt disappointed when hearing critiques of his writing. The researchers attributed the quite different attitude of this student to his lower status, as he was often criticized and interrupted during the review sessions and was referred to as the weakest writer by his partners.

In Mendonca and Johnson (1994), all 12 participants responded positively to the peer-review activity. They claimed that peer reviews helped them identify both clear and unclear points so that they knew what to revise in order to be understood. They also found reading their peers' essays enjoyable because they could compare their writing with their peers' and learn new ideas.

However, in Chaudron's study (1983), 28 ESL students were given teacher feedback for one composition and peer feedback for the other to compare the effects of the treatments on the students' revision. The results of a questionnaire administered after the treatments showed that the students perceived that peer feedback was not helpful for grammar, organization, and development, and did not want their peers to read their papers for mistakes.

Issue 2: Do ESL/EFL students and teachers find peer reviews helpful?

As can be seen from Chaudron's work (1983), the question as to whether ESL/EFL students like peer reviews is closely related to the question of whether peer reviews are helpful to the quality of ESL/EFL learners' writing. Engler (1998) interviewed four participants about their perceptions of peer reviews. Three of them felt that peer reviews were helpful overall. They indicated that peer reviews helped them see the mistakes they did not see by themselves and gave them helpful ideas because their peers were about their age and had similar ideas. They also indicated that reviewing their peers' writing was also helpful. On the other hand, they spoke of their lack of trust in their peers and themselves as qualified reviewers, and their concern about hurting their partners' feelings by making negative comments.

Even though Mangelsdorf (1992), Mendonca and Johnson (1994), and Nelson and Murphy (1992) revealed that most of their participants felt that peer reviews were helpful overall, some of the students in Mangelsdorf's study reacted negatively to the question of whether they found peer reviews useful. In that study, 40 ESL writing students and their 5 teachers were asked to write their perceptions of the usefulness of peer reviews. While 34 of the students expressed completely positive or mixed comments in terms of overall perception, 6 students gave completely negative comments about the value of peer reviews. Notably, 5 of the 6 students were Asians.

The teachers' responses were also divided into communication units. Of the 28 units, almost half (40%) were negative. The negative teacher comments were either about the limitations of the students as reviewers or of the peer review task itself. Whichever view ESL/EFL students or teachers hold about peer reviews, studies

comparing drafts before and after peer reviews are warranted to determine the effects of peer feedback. A major flaw of Mangelsdorf's study was that the five classes were lumped together, and no observation was involved to ensure the similarity among the processes.

Issue 3: What kind of peer suggestions do ESL/EFL students find most helpful?

Two studies showed that ESL students generally thought their peers helped them most on content. In Mangelsdorf's study (1992), 40 participants responded that their peers' suggestions related to content were most helpful. Comparable to Mangelsdorf's study, Engler (1998) administered a questionnaire to 51 ESL writing learners and found that they perceived their peers' comments on content and organization to be most helpful, and those on mechanics and grammar to be least helpful.

Issue 4: Do ESL/EFL students like teacher feedback better than peer feedback?

As just described, the Asian students' antipathy to peer reviews as found by Mangelsdorf (1992) is unmistakable. The aversion to peer feedback could be due to their view of the teacher as an authority figure and as the single most reliable resource in the classroom (Wei, 1995). Thus, they value teacher feedback but do not trust peer feedback.

Similar results were found by Zhang (1995), who investigated the relative affective appeal of teacher feedback, peer feedback, and self-feedback in ESL writing. Eighty-one intermediate to advanced ESL writing students who had experienced the three types of feedback were asked to choose between teacher feedback and non-teacher feedback, and again, between peer feedback and self-directed feedback for their final drafts. Among the 81 participants, 61.7% were males, and notably 86.4% were from East or Southeast Asia. The results showed that 93.8% of the participants preferred teacher

feedback to non-teacher feedback and that 60.5% preferred peer feedback to self-feedback as far as non-teacher feedback was concerned. Based on these ESL learners' obvious preference for teacher feedback, Zhang proposed that ESL writing researchers, theorists, and instructors should not readily take for granted that techniques effective for L1 writing learners would also be effective for ESL writing learners, and that techniques not suitable for L1 writing learners should not be applied to ESL writing learners.

Actually, the preference for teacher feedback over peer feedback is not uncommon in ESL writing studies. For example, Engler's study (1998) showed that learners liked teacher feedback the most and peer feedback the least, if they could choose only one among teacher feedback, tutor feedback, and peer feedback. However, if these three types can be combined, they prefer using all three to using only one or two of them. In fact, it was found that teacher feedback combined with peer feedback is significantly preferred to teacher feedback alone.

According to Mendonca and Johnson (1994), while all 12 participants liked peer reviews, some of them mentioned that teacher feedback was as important as peer feedback and was more helpful for grammatical correctness.

Issue 5: Is teacher feedback more helpful than peer feedback on ESL writing learners?

Nonetheless, is teacher feedback more helpful than peer feedback? Two studies showed that teacher feedback was not more effective than peer feedback and vice versa. Jacobs and Zhang (1989) studied whether peer feedback was more effective than teacher feedback. Eighty-one ESL college students were randomly assigned to receive corrective feedback from teachers, peer readers, or the student writers themselves for an essay they

wrote in class. The evaluation of the final version showed that feedback type did not significantly affect the adequacy of content, organization, and vocabulary. With regard to grammatical accuracy, the researchers found that teacher feedback was not significantly more effective than peer feedback, but that it was significantly more effective than self-correction.

Chaudron's study (1983) showed a similar result. Twenty-eight ESL students received teacher feedback for one composition and peer feedback for the other to compare the effect of the treatments on revision. Although the participants made significant improvement on the second draft, there was no significant difference in the effects of treatments between teacher feedback and peer feedback on revision.

Issue 6: Do ESL/EFL students and teachers trust the students as peer reviewers?

As revealed by Engler (1998), ESL students do not trust their peers. It is a common phenomenon in ESL/EFL writing studies. For example, Leki (1991) discovered that the ESL participants mistrusted their peers' ability to help them with errors in English. In Mangelsdorf's study (1992), the participants' answers to the question of whether they thought peer reviews useful were divided into communication units. Twenty-six out of the 83 communication units were negative, and 77% of the negative units referred to the incompetence or apathy of their peer reviewers. One interesting incident was reported by Mendonca and Johnson (1994): one student did not follow his peer's advice to change the phrase 'as you can see in the above,' but did change it later because his teacher said that it was too informal in academic writing, which was the same reason his peer gave. The student's mistrust of his partner was obvious.

On the other hand, ESL/EFL students also lack trust in their own ability to give quality comments. For example, the ESL students in Engler's research (1998) feel that they themselves are not qualified reviewers. Along the same line, Mangelsdorf's (1992) participants mentioned that they themselves or their peers were unable to make good comments because they were unqualified, not familiar with the subject matter, or unwilling to help each other. In a study by Nelson and Murphy (1992), all four participants agreed that they did not feel competent as reviewers and that they would have liked the teacher to join them in discussion.

Actually, ESL teachers are also suspicious of ESL/EFL students' ability to offer effective peer feedback. For example, Mangelsdorf (1992) mentioned that some ESL teachers responded negatively to peer reviews partly because of the limitations of the student reviewers. Personally, I was told by an ESL high school teacher in Pennsylvania that she did not think her students had the ability to review each other's writing.

Issue 7: Do ESL/EFL peers give incorrect feedback?

So far, only one study was found to address this question. Jacobs and Zhang (1989) indicated that few of the comments their participating student reviewers gave were incorrect. Eighteen third-year English majors at Chiang Mai University in Thailand served as their participants. Focusing on grammatical mistakes, they were asked to correct their partner's drafts before and after a discussion with the writer. Analysis of the drafts and the feedback indicated that about 80% of the student corrections were acceptable. Unfortunately the study only focused on grammatical mistakes.

Issue 8: Can ESL/EFL students tell quality feedback from inappropriate feedback?

What is also worthy of research is the question: Would ESL/EFL students be able to discern inappropriate or incorrect feedback from their peers? Only one study showed that most of the EFL participating students were able to distinguish good or correct comments from irrelevant or incorrect ones. In Jacobs and Zhang's study (1989), only 1 of the 18 participants used incorrect suggestions on grammar and changed her originally correct text.

Issue 9: To what extent do ESL/EFL students incorporate peer feedback?

In spite of ESL/EFL students' lack of trust in each other's peer review ability, the rates of incorporation of peer feedback, strange to say, are seldom low. For example, in Mendonca and Johnson's case (1994), the participants used their peer's suggestions in 53% of the revisions; in Jacobs and Zhang's (1989), the participants adopted 68 out of the 79 comments their peers gave; in Nelson and Murphy's (1993), 50% of the final drafts accepted all or nearly all of the peers' comments; and in Engler's (1998), the participants used 58 out of 80 peer comments.

Only Connor and Asenavage (1994) disclosed the opposite result. They audiotaped the peer response sessions of two groups of ESL writing students (N=8) to find out to what extent peer comments were incorporated compared to teacher comments and self/other comments. In the review sessions, the participants read their first draft aloud for their partners to give oral comments. The second draft was given both oral peer comments and written teacher comments. After the teacher returned their second drafts, the students wrote the third draft. Analysis of the transcripts and the drafts indicated that both Group 1 and Group 2 had very few instances of revisions resulting from discussions

with peers in the second drafts (3 out of 81 revised cases for Group 1, and 9 out of 78 revised cases for Group 2). The rate of incorporation of peer comments was also low in the third draft.

A major flaw of the study lies in its small number of participants. Also, the participants were not interviewed or asked variables that influenced their revision. In terms of the drawback of the design of the peer review activity, the reviewers only heard their partners' drafts without actually reading them.

Issue 10: What stances do ESL/EFL reviewers take?

Mangelsdorf and Schlumberger (1992) investigated the stances 60 ESL student reviewers took toward an essay written by an ESL student in a previous semester. The participants were given 30 minutes to review the essay and write a letter to the writer, whom they did not know, to tell the writer how well he/she followed the English writing conventions, and to give suggestions for revision. According to the dominant stance of each reviewer, three categories of stances were observed and established: interpretive, prescriptive, and collaborative. By interpretive, the researchers meant that the reviewer ignored what the writer wanted to say, but elaborated on the topic according to his or her own interpretation. By prescriptive, the researchers meant that the reviewer imposed what he or she thought to be the right form of English writing on the writer and focused on identifying faults instead of giving concrete suggestions. By collaborative, the researchers meant that the reviewer recognized the writer's intention and gave constructive suggestions to help the writer convince the intended audience or achieve his purpose, without changing the writer's focus or argument. Twenty-seven out of the 60

reviewers adopted the prescriptive stance, 19 the collaborative stance, and 14 the interpretive stance.

Also, according to a free writing done as homework after the reviewers wrote the letter, significantly more reviewers from an Asian rhetoric tradition than those from an Anglo-European tradition report that the reviewing task was difficult for them.

Issue 11: What actually happens during the ESL peer reviewing process?

Three studies showed that the peer reviewing process was complex. Villamil and De Guerrero (1996) explored the kind of revision activities that occur in the process of revision, the strategies which students utilized to promote the process, and significant aspects of social behavior characterizing dyadic peer revision. The participants were 54 Spanish-speaking college students of ESL in Puerto Rico. The results showed that the behavior was very complex, dynamic, interactive, and recursive. In terms of social-cognitive activities, the participants engaged in acts of reading, assessing, dealing with trouble sources, composing new text, writing comments, copying the corrected version onto a revision sheet, and discussing task procedures. In terms of mediating strategies, the participants utilized symbols and external resources, such as dictionaries and teachers, used much of their native language, provided support, exercised inter-language knowledge, and spoke to themselves. In terms of social behavior, the students displayed various kinds of behavior with regard to management of authorial control; they collaborated most of the time; most of them showed camaraderie, empathy, and concern for not hurting each other's feelings; and they did not overtly mention whether they should adopt the role of the writer or the reader.

Mendonca and Johnson (1994) focused on the types of negotiations that occurred during peer reviews. Twelve advanced ESL writing students participated in their study. The negotiations found during the process were classified into the following categories: questions, explanations, restatements, suggestions, and grammar corrections. Some categories were further subcategorized. “Restatement” occurred most often (28%), “explanation for opinion” the second most frequently (22%), and “request for explanation” the third most frequently (15%). All of the categories and subcategories except “explanation for content” were mostly reviewer initiated or in response to what the reviewer had said. It was discovered that pairs composed of students from different fields of study tended to ask more questions and use fewer restatements.

Nelson and Murphy (1992) examined students’ task and social dimensions during peer reviews, using a group of four intermediate ESL writing students, two males and two females from four different countries. To see if the students were discussing each other’s papers and to determine how they interacted with one another, the group’s in-class interactions were videotaped once a week for six consecutive weeks. Then the videotapes were transcribed. The utterances of the students were coded and divided into thought groups. The results showed that the greatest number (73%) of thought groups were “the study of language”, which meant that they were usually on task, talking about their drafts. However, they were not an ideal community of writers helping writers. One of the members made negative comments all the time, usually dominated the discussion, and caused the other members of the group either to defend themselves, criticize this member’s draft without offering helpful comments, or withdraw from the discussion. The authors thought that the roles that emerged during the process for everyone in the

group might be one of the reasons for these phenomena. A major flaw of the study was that it had only four participants.

2.1.2.4 Peer reviews related to Chinese/Taiwanese students

In the literature, Asian or Chinese/Taiwanese participants stand out with regard to peer reviews. Because of the influence of the regard for the teacher as the authority and the influence of collectivism, most Asian students seem to dislike peer reviews.

In this section, I present some ESL studies investigating issues concerning peer reviews involving Chinese or Taiwanese participants and some studies conducted in the local context by Chinese/Taiwanese researchers.

Issue 1: Do Taiwanese learners welcome peer reviews?

Two studies showed that Taiwanese learners welcomed the peer reviewing activity. Huang and Tang (1997) conducted a writing project with 10 female eleventh graders. The participants went through two student-teacher conferences and one peer group review. The results showed that the participants welcomed peer reviews. Since the participants improved significantly after the conferences and peer reviews, the authors recommended that peer reviews be used as an additional classroom practice. However, the participants needed more instruction on how to evaluate their peers' writing and how to give comments. The study involved a small number of participants and the effects of student-teacher conferences and peer reviews were intermingled.

Chen (1998) investigated whether gender and learning styles played roles in students' attitudes towards the peer review activity. The 102 third-year students from a business junior college participated in the practice of peer reviews for one semester. At the end of the study, they were surveyed and interviewed. Their writing assignments

were also collected and analyzed. The results demonstrated that regardless of their personal learning styles, most of the students preferred the peer review sessions to traditional English classes. The results showed they had more fun and worked harder in doing peer reviews.

Issue 2: Is the peer reviewing activity effective with Taiwanese learners?

The positive effects or helpfulness of peer reviews with Taiwanese learners prevail in the literature. Kao (1993) conducted a study to investigate whether Taiwanese university students welcomed the process-oriented writing approach, peer feedback, and teacher feedback. Two classes of first-year English majors, 32 in total, were involved. After a semester, a survey was administered, and the results showed that 78.1% of the students thought peer reviews effective.

To improve his writing instruction, Jones (1999) conducted an action research over a five-year period, administering open-ended surveys to help him understand the learning needs of his writing students. His participants were 166 English majors taking his advanced English writing course at a university in Taiwan. The results of the analysis of the pre- and post-course surveys, based on the constant-comparison method, showed interesting differences between the expectations of the students at the beginning of the semester and their perceptions at the end of the semester. According to the pre-survey, most of the students expressed expectations of receiving teacher lectures, teacher corrections of all grammar, spelling, and punctuation errors, and models of good writing. The teacher-researcher then developed instructional strategies in accordance with the students' expectations and their learning style preferences that were identified through the Perceptual Learning Style Preference Questionnaire. In light of the post-survey, the

students thought the most helpful activities were, starting from the highest frequency, the teacher-student conferences (35/189), small-group discussions (31/189), peer reviews (24/189), models of good writing for them to emulate (23/189), practice in writing a research paper (22/189), multiple revisions (18/189), and several other activities. All of these highly helpful activities, except for emulating models of good writing, were not among the expectations of the students. On the other hand, teacher correction of grammar errors did not seem highly helpful (frequency being 9/189), at least not as the students had expected at the beginning of the semester. Teacher lectures were not deemed helpful at all.

Chou (1998) carried out a study to explore the influence of peer negotiations on subsequent revision. Fourteen college juniors majoring in English formed groups of 2 or 3. After they did three peer reviews, as their midterm exam, they were asked to write a first draft, review their partners' drafts, and revise their former product in class. The peer reviewing process was tape recorded and transcribed. A comparison of the scores of the first and second drafts revealed that all except one student had higher scores after peer reviews. The student whose score was not higher got the same score for his second draft as for his first.

To study whether inter-group reviews for group projects are more effective than peer reviews in dyads, Huang, Huang, and Chen (2000) experimented with these two ways of doing writing reviews with 21 freshmen in an English department at a university in Taiwan. The students wrote and revised based on one peer's feedback in the first three weeks and wrote a joint assignment and revised collectively based on another group's feedback in the following three weeks. The results from two surveys and one interview

show that most of the participants regarded both activities as useful for revision. In giving peer feedback individually, almost half of them were not confident; in contrast, only one third were unconfident to review another group's joint assignment as a group. However, it was found that group reviews cannot substitute for peer reviews because the students liked the latter better, probably because they were easier to do and took less time.

Two studies also verified the effects of peer reviews statistically. To learn whether peer reviews are helpful for English writing learners in Taiwan, Wei (1995) and Wei (1996) designed a study to collect data through questionnaires, the participants' written reflections, and their writing drafts. Twenty-nine advanced English majors of a sophomore English composition class in a university were involved. Each of the students wrote five essays, each of which were revised twice through two peer reviews. After the researcher administered peer reviews for a semester, one essay consisting of three drafts was randomly chosen from the five essays written by each student, for hypothesis testing. The results from Wei's (1995) questionnaires showed that most of the participants agreed that peer reviews helped them improve content, organization, grammar, and spelling. Most of the participants also indicated that it was a pleasure to give and to receive comments, that they trusted their peers, that they were less afraid of English writing, and that peer reviews helped them think more critically. The paired t-tests in Wei's study (1996) comparing the pre- and post-peer review drafts showed that peer reviews helped the students write better, and comparisons of the numbers of words and sentences between the drafts showed that peer reviews helped the students write more words and that the first peer review task helped them write more sentences.

Chen (1998) examined whether gender and learning styles played roles in students' attitudes towards the peer review activity. One hundred and two third-year students from a business junior college participated in the practice of peer reviews for one semester. A paired t-test comparing writing samples from the beginning and end of the semester showed that the peer review tasks significantly enhanced the quality of the students' writing no matter what learning styles the students belonged to. However, it seemed strange that writing drafts from the beginning and the end of the semester were used instead of pre- and post-peer review drafts.

Issue 3: Do Chinese/Taiwanese learners resist making negative comments?

There is conflicting evidence in the literature as to whether Chinese/Taiwanese learners tend to withhold negative comments from their partners in peer reviews to avoid creating arguments. It has been suggested by Carson and Nelson (1994) that students from collectivist or Confucian cultures such as Japan or China may sacrifice giving honest, negative feedback to their partners to maintain group harmony and avoid confrontation. This tendency follows these principles: "Confucianism considers balance and harmony in human relationships to be the basis of society" (Jandt, 1998, p. 32) and collectivism values interpersonal relationships. Therefore, to establish harmony and to avoid loss of face with others and oneself are more important than exchanging critical information (Jandt).

Carson and Nelson (1996) and Nelson and Carson (1998) examined Chinese/Taiwanese students' interactive styles and their perceptions of ESL peer response group interaction. The authors videotaped six revision sessions of three groups of advanced ESL writing students, each group consisting of a female student from

Taiwan or the People's Republic of China. Every Chinese speaker was individually interviewed six times while watching the video together with one of the researchers. Two Spanish speakers, one male and the other female, were also interviewed for the purpose of comparison. The interviews were then transcribed.

The results showed that although both the Chinese/Taiwanese students and the Spanish-speaking students hoped to receive negative comments, the three female Chinese/Taiwanese informants were reluctant to criticize the drafts in order to maintain group harmony. They were afraid to initiate argument or create conflict within the group, so they tried to avoid disagreeing with other members. In addition, they withheld comments if they believed that no one would listen to them, or if they feared their group members would seek revenge. They often used questions to soften the criticism and make it indirect, or under-specified the writer's problems. In contrast, the two Spanish-speaking informants were more task oriented, focusing on helping their group members improve their essays. They gave honest opinions and did not fear disagreement.

Similarly, in Min's study (1998), when 16 participants were asked in a questionnaire about what kinds of feedback they usually got from their reviewers, 10 of them replied, "usually comments on grammar and sometimes praise." The participants thought their partners were trying not to hurt them; however, the participants complained about rather than appreciated the good intention.

On the contrary, in Nelson and Murphy's research (1992), to see if the students were on task and to understand how they interacted with one another during peer reviews, a group of four intermediate ESL writing students, two males and two females from four different countries, were videotaped once a week for six consecutive weeks. A

Taiwanese female was found to function as an attacker in her response group: she constantly gave negative comments and dominated most of the discussion. Since it has been suggested that resistance to peer feedback might be culture-specific (Allaei & Connor, 1990; Carson & Nelson, 1994), research involving more Chinese/Taiwanese participants is needed to determine whether Taiwanese students view “honest” feedback in peer reviews as acceptable in terms of their need to maintain group harmony.

Among studies conducted in Taiwan, two addressed this issue. Unlike the general impression that Chinese usually avoid criticizing others, 79% of the participants in Wei’s study (1995) agreed with the statement in the questionnaire that they liked criticizing their peers.

In research by Huang (1995), 22 college students in a freshman English class were divided into two groups, one of which used Mandarin Chinese and the other English to do peer reviews. After eleven 50-minute classes, the students were surveyed. It was discovered that most of the participants (60%) in the Chinese language group were uncertain about whether they liked to provide feedback to their peers, whereas most of the participants (58%) in the English language group agreed that they liked to give feedback to their peers.

Issue 4: Do Chinese/Taiwanese learners have confidence as peer reviewers?

In Carson and Nelson’s study (1996), the Chinese/Taiwanese participants perceived that they lacked both the authority of a teacher and the expertise of a reviewer to assess their peers’ essays. Similarly, in Min’s study (1998) one Taiwanese participant admitted that she did not comment on her peers’ writing because she lacked the

confidence to do so. Many students, according to studies by Huang (1995) and Huang et al. (2000), also had little confidence to give their peers facilitative feedback.

Apart from examples in the literature, an ESL writing teacher at Penn State University also told me that her Chinese/Taiwanese students told her that they did not think that they had the ability or the authority to review their peers' papers. Therefore, she did not like to use peer reviews when Chinese or Taiwanese students constituted the majority of her class.

Issue 5: Do Chinese/Taiwanese learners trust their peers as reviewers?

Only two studies were found that investigated this issue. Huang (1995) divided 22 college students in a freshman English class into two groups, one of which used Mandarin Chinese and the other English to do peer reviews. After eleven 50-minute classes, the students were surveyed. It was discovered that in the Chinese language group, the participants who agreed that their peers were competent reviewers and those who were uncertain about this were about half and half (50% versus 40%), whereas in the English language group, most of the participants (73%) were uncertain about their peers' ability.

Most of the students surveyed by Wei (1995) agreed that they trusted the comments from their peers.

Issue 6: What factors influence Taiwanese peer reviewing behavior?

Min (1998) conducted a study to investigate variables impacting peer reviews among Taiwanese writers at a local university. Sixteen students in groups of three or four were observed in class for eight weeks by the teacher researcher. At the end of the semester, the participants also responded to several open-ended questions in a

questionnaire. The results revealed that whether peer reviews are effective or not are subject to such factors as the peers' knowledge of the topics and writing, the role of the teacher, and the influence of cultural socialization.

Specifically, the students did not know enough about their partners' writing topics to give constructive suggestions; instead, the majority either made no comment or gave suggestions related to grammar or spelling. The researcher also found that the teacher should assume an active role of a collaborator instead of a passive role of an observer to facilitate the peer reviewing process. The former role is also what the students expected. Socioculturally, because of the tendency for the students to appeal to authority, they did not value feedback from their peers, especially when the English proficiency level of their peers was only on a par with theirs. Moreover, the participants liked to stay with the same partners as in the first peer review, usually their friends, for subsequent sessions. Their explanation was that they would be more honest with their friends without having to worry about hurting them with negative comments. It was strange that the participants gave few comments; however, they were not asked their reasons.

Issue 7: Do Chinese/Taiwanese learners use peer comments?

Two studies showed that Chinese/Taiwanese learners acted on few peer comments. Tsui (1999) showed that the participants put more value on teacher comments than on peer comments and adopted significantly more teacher comments than peer comments. The phenomenon that the participants did not appreciate peer comments could arise from the fact that some of them received few peer comments. A major flaw of the study was that some of the research questions, for example, whether they improved and how often they tried to incorporate peer feedback and teacher feedback, should be

explored by examining the drafts for analysis instead of just consulting the participants about their perceptions.

Chou (1998) discovered that the writers in her study used their peers' feedback in only 22% of their revisions, 83% of which were correct. The writers initiated many more revisions by themselves than followed their peers' comments. In doing so, the writers made mistakes in 43 % of their own revisions. Since neither the writers nor the reviewers paid attention to approximately 35% of the mistakes in the first drafts, Chou claimed that teacher feedback is indispensable. The revisions were further categorized into several types, and revisions at the phrase and lexical levels were found to constitute the majority. The major flaw of the study was that the drafting-reviewing-revising process happened at a rather unnatural time—midterm, which could have made the students extremely nervous and fail to behave as usual.

However, Tu's study (1997) yielded different results. Half of the 46 third-year English majors in the study received peer feedback. They were asked to write an essay in class for 50 minutes without dictionaries. Then each student of them was allotted two essays to give written comments to at home without knowing who the writers were or having talked to them face to face. The response of the students to a questionnaire with open-ended questions indicated that 95% (18/19) of the respondents did adopt comments from their peers and thought peer feedback helpful. Most of them also thought peer feedback on punctuation, spelling, word usage, and grammar to be most helpful. The study did not follow the process-oriented writing approach but focused only on the written peer feedback of one essay. A major flaw of the research design was in the

procedures: the students wrote their first draft in class without using dictionaries, which would certainly have led to many surface mistakes.

The students in Huang et al. (2000) also reported using their partner's feedback for revision.

Issue 8: Do Chinese/Taiwanese learners value peer feedback?

As can be seen from Min's report (1998) above, the participants did not highly regard feedback from their peers. Nelson and Carson (1998) and Tsui (1999) also concluded that the participants put more value on teacher feedback than on peer feedback. On the other hand, most of the participants in Huang et al.'s study (2000) regarded it as useful to have their peer's or another group's suggestions for revision. Most of the peer revision participants according to Tu (1997) thought peer feedback helpful, too.

It is interesting that whether the students use their mother tongue in peer reviews seems to play a role in their perceptions of the value of peer feedback. Huang (1995) divided 22 college students in a freshman English class into two groups, one of which used Mandarin Chinese and the other English to do peer reviews. After eleven 50-minute classes, the students were surveyed. It was discovered that most of the participants (80%) in the Chinese language group thought peer feedback helpful while only half of the participants (50%) in the English language group agreed that peer feedback was helpful.

Issue 9: What do Chinese/Taiwanese learners mainly discuss in peer reviews?

Chou (2000) studied how Taiwanese college students negotiated during peer reviews. Thirty-seven English majors in a college in Taiwan participated in the study in groups of 3 or 4. Their discussions were recorded, transcribed, and categorized. The results showed that the participants were on task most of the time, discussing various

topics related to their writing assignments through different language functions. The two topics most often talked about were the contents of essays and grammatical problems by way of the function of informing. These peer reviewers were apparently “more collaborative and responsive than authoritative and prescriptive,” as Chou suggested (p. 96). When it comes to form, 95% of the talk pertained to sentence and lexical problems, whereas only 5% of the discussion was related to the structure of a paragraph or the whole essay.

Issue 10: What factors influence Chinese/Taiwanese attitudes towards peer reviews?

Chen (1998) examined whether gender and learning styles such as extroversion/introversion, tolerance/intolerance of ambiguity, auditory/visual, reflectivity/impulsivity played roles in students’ attitudes towards peer reviews. One hundred and two third-year students from a business junior college participated in peer reviews in groups of six for one semester. At the end of the study, the participants were surveyed and interviewed. Their writing assignments were also collected and analyzed. The results demonstrated that regardless of their personal learning styles, most of the students preferred the peer review sessions to traditional English classes. Only tolerance/intolerance of ambiguity and gender made a difference in their attitudes towards peer reviews. Those who were less tolerant of ambiguity were fonder of peer reviews than those who could endure ambiguity. This is so probably because the former could benefit from the immediacy of peer feedback. More male students than females were not sure about the helpfulness of peer reviews, although most of them stated that they learned a lot. Chen hence asserted that the peer reviewing activity was appropriate

to students of diverse learning styles, especially for those with a low tolerance for ambiguity.

2.2 The Internet Technology

In this section I focus on World Wide Web (WWW), E-mail, and Chat among the software applications which constitute the Internet.

2.2.1 Potential Advantages of the Internet

The uppermost reason why I chose to incorporate the Internet into this study is that computers and the Internet are so popular that I felt they might help arouse the students' interest and motivation for learning English writing (Harris, 1996; Lee, 1997). As noted by Scane, Guy, and Wenstrom (1991), it has been found that the use of computers can highly motivate adult learners because most of them realize that computer literacy predominates in education and life in general. According to Ching, Mckee, and Tooker (1990), the utilization of computers in ESL writing classes can even reduce writing anxiety.

In addition, the incorporation of the Internet into the English curriculum can do Taiwanese learners many favors. For example, the interactivity of using the web, e-mail, and chat rooms can develop the five goal areas of foreign language education proposed in *Standards for Foreign Language Learning* (1996): communication, cultures, comparisons, connections, and communities. In terms of communication, chat rooms built into web sites serve as an excellent forum for Taiwanese students to practice communicating in writing instead of just learning the grammatical elements of English. E-mail exchanges with other students can also achieve the same purpose (Chen, Kao, Shih, & Li, 1997). In

terms of cultures, many web sites on the World Wide Web offer virtual examples of the target culture, and through interaction with hypertext, learners are able to go on a virtual tour of the districts where the target language is spoken in order to vicariously experience a culture (Brandl, 2002). Additionally, the WWW contains information about the learner's native culture and provides opportunities to compare their own with other cultures. E-mail exchange and chat, when used cross-culturally, can also foster users' knowledge of the other culture(s) and increase their opportunities for comparison. Chen et al. (1997) have confirmed this beneficial function of e-mail exchange. In terms of making connections and communities, by exploring the Web, the learners have more opportunity to read various kinds of information in the target language and are more apt to connect the target language with other disciplines, authentic tasks in daily life, authentic people, and the global community (Chen et al.). Because the Internet provides the learners with opportunities to reach outward beyond the physical environment, it can accomplish what Babcock (1987) suggests, in that the curriculum in Taiwan should be related to daily life and that "the materials should cover the events of the home country and the foreign country" (p. 9).

In addition to all these functions, the Internet has some other advantages. First, the WWW is like a textbook but can be more. Specifically, the writing materials uploaded onto the WWW by writing centers at colleges and universities around the world contain, among other things, rich information about the rhetorical conventions or norms of English writing. However, the WWW is better than the traditional textbook, which is static and has a single perspective, in that it is more interactive and stimulating (Huang,

1999) and the students can choose different web sites for different purposes. The use of the World Wide Web is also free.

Second, owing to the extensive reading available through the Web, the amount of comprehensible input will be increased, which in turn will foster English acquisition in Taiwanese students. As Green (1997) noted, the immediate connection of the Internet provides the language classroom with an effect similar to that of immersion, heightens students' exposure to the target language and culture, and promotes their language skills. It is also possible that extensive reading of information on the Web and the opportunity to practice written communication in e-mails or chat will help Taiwanese students improve their writing (Chen et al., 1997).

Third, the use of Internet technology can easily be combined with process writing. For one thing, it can offer students abundant up-to-date and multi-perspective resources (Bauman, 1999), which might help them find ideas to write about in the pre-writing stage (Chen et al., 1997; Huang, 1999) and to overcome writer's block. That is why Green (1997) stated that the application of the Internet is most effective in helping students improve their reading and writing skills along with their cultural knowledge. Lee (2000) also indicated the listed important functions of the Internet, which are valuable for students: (a) search for and receive, (b) publish and provide, (c) talk to and reply, and (d) collaborate and learn. Corroborating Lee's points, Krajka (2000) notes that writing learners can procure an enormous amount of information from the WWW, communicate with each other in real writing tasks, and publish their writing pieces on the class website. These functions enrich process writing activities: the information received by searching or browsing the WWW can be used for ideas in writing; the students' works can also be

published on the Internet; and the “talk to and reply” or communication function in e-mails or chat can even be used for students to collaboratively review each other’s drafts.

Fourth, as Braine (1997) posits, the atmosphere in a networked writing class gives rise to less anxiety in learners than the one in a traditional writing class. E-mails are especially capable of producing an environment where students can communicate in a meaningful and relaxed way (Lee, 1997; Chou, Li, & Sheu, 1998). An environment that lowers the learners’ affective filter is not only conducive to second language acquisition (Krashen, 1982) but has also been validated as a way to help the learners write more and generate writing products of better quality in Taiwan (Cheng, Horwitz, & Schallert, 1999) as well as in other ESL writing classrooms (Braine).

Fifth, the Internet, especially the use of e-mail, is individualized (Lee, 1997): it is so flexible that it can be specifically tailored to the class being taught and individual learners. For example, the Internet can be so designed as to display individuals’ learning processes, prompt them to explain or evaluate their own decisions, compare them with the strategies experts apply in solving the same or similar problems, and reflect on their own learning experience through a community-based discourse (Lin, Hmelo, Kinzer, & Secules, 1999). Without having to respond and react immediately in class, the learners can progress at their own pace.

These features and the benefits of CALL (Computer-Assisted Language Learning) activities are well summarized by Egbert, Chao, and Hanson-Smith (1999):

1. Learners have opportunities to interact and negotiate meaning.
2. Learners interact in the target language with an authentic audience.
3. Learners are involved in authentic tasks.
4. Learners are exposed to and encouraged to produce varied and creative language.

5. Learners have enough time and feedback.
6. Learners are guided to attend mindfully to the learning process.
7. Learners work in an atmosphere with an ideal stress/anxiety level.
8. Learner autonomy is supported. (p.4)

Since the Internet has the potential to provide so many advantages to learners, it is worth our time and effort to investigate how well the ever better technology can assist learning and language learning.

2.2.2 Potential Challenges to Incorporating Internet Technology

The first potential challenge to incorporating the Internet into English classes in Taiwan is that some of the teachers and the students may have “computer phobia.” According to my knowledge of Taiwan, some elderly people and women are resistant to machines and they might think they are too computer illiterate to learn how to use this technology, or that it is a waste of time. Second, there are not only valuable resources but also much unsuitable and even nonsensical material (Green, 1997) on the Web. While surfing the Internet, students might waste their time reading extraneous or inaccurate material.

2.2.3 Studies Investigating the Effects of the Internet in Taiwan

In this section, I focus on studies investigating the effects of integrating the Internet into the English curriculum in Taiwan. Chou et al. (1998) conducted a study in an English class in Taiwan to investigate whether using the WWW in EFL classrooms would make learning English more interesting, whether student-student and teacher-student interaction would be promoted, and whether the students would perceive the improvement of their communicative ability after the project. Two classes of first-year junior college students (N=90) taught by the same teacher participated in the project,

which lasted for eight weeks. The researchers used questionnaires, interviews, and classroom observations to show that the students were positive about the use of the WWW in EFL classrooms. The students thought it was innovative, fun, and conducive to learning. The WWW also facilitated interactions among the students and between them and the teacher, as well as the students' communicative ability. However, technical problems such as insufficient computers, slow transmission speed, and deficient class time needed to be overcome.

To research the effectiveness of e-mail as a medium for fostering opportunities to interact in English outside of classrooms, Chiu (1998) conducted an e-mail dialogue journal project in Taiwan. Thirty sophomores participated in the project by e-mailing their teacher about a topic they liked each week for eight weeks while the teacher responded with comments. The results of a survey with six open-ended questions showed that the students liked the project because it was interesting and related. The study also demonstrated that writing dialogue journals via e-mail was an effective way to promote the communicative and thinking skills of the students.

Hsu (2003) used a case study to observe and interview 12 freshmen English majors at a university in Taiwan to understand the learning process of Taiwanese college students in summary writing activities using web-based reading as well as their responses to the activities. Questionnaires, evaluation guidelines, and a composition-scoring scheme were used as supplementary data collection tools. The results indicate that reading web-based hypertext helped the students generate ideas for their compositions interactively and that the students learned to use top-down cognitive strategies in reading web-based hypertext. The students responded favorably to the summary writing

activities employing web reading. Although the students were involved in complex cognitive activities during the writing process, they were not affected by writing anxiety. Conversely, they felt a sense of achievement and were willing to meet challenges in the learning activities.

Chen et al. (1997) conducted a study to investigate how well the WWW and e-mail exchange can assist students in learning English writing and about the target culture. Three classes of English writing students (N = 41) taught by two different teachers served as the participants. The study lasted two semesters. The classes followed the process-oriented writing approach while incorporating Internet technology. The students surfed the WWW to collect information and exchanged e-mail with e-pals in the United States. The results of the pre- and post-surveys and the analysis of the students' writing samples showed that their overall writing performance improved significantly. They also improved significantly on content, organization, and diction; whereas their performance on spelling, capitalization, and punctuation worsened significantly. The majority of the participants agreed that e-mail exchange was a direct way to learn about another culture.

2.3 The Need to Study Process Writing and Internet Technology in Taiwan

To sum up, theoretically, process writing and Internet technology can provide many advantages that could help Taiwanese students conquer their difficulties in learning to write in English; however, there are also potential challenges, unsettled issues, and gaps in the literature. According to the literature regarding Chinese/Taiwanese using peer reviews in process writing, most of the students in research by Huang et al. (2000), Jones (1999), Kao (1993), Tu (1997), and Wei (1995) thought this activity was helpful,

and Chen (1998) and Wei (1996) statistically verified the effects of peer reviews. Most of the participants in the research of Chen (1998), Huang and Tang (1997), and Min (1998) liked peer reviews. Most of the students studied by Huang et al. (2000) and Tu (1997) regarded peer feedback as useful, while those in Nelson and Carson (1998) and Tsui's research (1999) did not. The participants in the studies of Chou (1998) and Tsui (1999) used few comments from their peers, whereas the students in Huang et al. (2000) and Tu (1997) acknowledged that they used their peers' comments. More challenges were evident in the fact that students were not confident in their abilities as reviewers (Carson & Nelson, 1996; Huang, 1995; Huang et al., 2000; Min, 1998), that they did not trust their peer reviewers (Huang, 1995), and that they gave few peer comments, especially about content (Chou, 1998; Chou, 2000; Min, 1998; Tsui, 1999). There also seems to be a tendency for Chinese/Taiwanese to avoid giving their peers negative comments to avoid social conflict (Carson & Nelson, 1996; Min, 1998; Nelson & Carson, 1998), but there were conflicting reports regarding negative feedback in the work of Nelson and Murphy (1992) and Wei (1995). Only one study, Chou's (2000), examined what stance the students took towards their peers as reviewers. Only one study, namely Tu's (1997), revealed that most of the participants thought that peer feedback on punctuation, spelling, word usage, and grammar was most helpful. Other issues that have been raised in ESL/EFL studies that have not been explored with regard to Chinese/Taiwanese learners include whether these students give incorrect feedback and whether they can tell correct comments from incorrect ones.

In addition, there were some flaws or inadequacies in the methods or designs of the studies in the literature just reviewed. For example, Tsui (1999) relied primarily on

the participants' responses without actually inspecting their writing drafts; Connor and Asenavage (1994) and Nelson and Murphy (1992) recruited fewer than 10 participants; Connor and Asenavage (1994) and Min (1998) did not investigate why their participants gave or adopted little feedback; Mangelsdorf (1992) included 5 classes taught by 5 teachers, but did not employ observation to ensure the similarities among the modeling and training processes for peer reviews. Tu (1997) did not follow the process-oriented writing approach but only focused on the written peer feedback for one essay. Furthermore, no mention was made as to whether the students received training on how to do peer reviews.

Apparently, more studies focusing on Chinese/Taiwanese with respect to peer reviews in the real context are needed. Especially, elements of Chinese/Taiwanese culture need to be considered to see whether they facilitate or constrain the implementation of process writing since culture seems to play an important role in these students' attitudes towards the peer review activity (Allaei & Connor, 1990; Carson & Nelson, 1994).

The Taiwanese students' culture has implications for their use of peer reviews in process writing. According to Merriam (1998), culture "essentially refers to the beliefs, values, and attitudes that structure the behavior patterns of a specific group of people" (p. 13). However, Dana (1991, p.18) gives an expanded definition of culture:

Culture becomes an all encompassing term to describe what people do, what people know, and things that people make and use. Applied to education, school culture may be viewed as the tapestry formed by the interwoven threads of belief, value and knowledge systems (Ponder, 1990), as well as cherished myths and sacred rituals. (Deal, 1990)

The beliefs, values, attitudes, behaviors, and knowledge system of the English writing teacher and students in this study, as well as the culture of the larger society, would determine whether process writing and peer reviews could successfully help the students learn to write in English. As Morgan (1986) asserted,

Attitudes and values that provide a recipe for success in one situation can prove a positive hindrance in another. Hence change programs must give attention to the kind of corporate ethos required in the new situation and find how this can be developed. (p. 33)

Patton (1990) says that “the culture affects both program processes and outcomes” (p. 68).

There is also a need to examine the possibilities for incorporating Internet technology into English/English writing classrooms in Taiwan because few teachers do have done so (Chen, Liang, & Chang, 2001), and even fewer researchers have explored how Internet technology would fit into the English writing curriculum in Taiwan. Chen et al. developed a virtual EFL language center for a university in Taiwan to help students improve listening, speaking, reading, and writing through many online functions or resources. They also incorporated a web-based language testing system. However, in terms of improving English writing, only an online concordance was provided for searching the usage of English words or phrases, and no research was done on its effect.

Chen (2000) constructed a six-week online English writing course for Taiwanese learners in continuing education. According to the course design, students could read information on the electronic bulletin board, have conferences with the instructor or each other in the electronic forum, and interact in real time in chat room discussions. They could also use the virtual campus and the Internet to collect information. Course content, assignments, a syllabus, supplementary materials, the students’ grades, and background

information on the students and the instructor were also uploaded onto the website for the course. Students could also consult electronic multilingual dictionaries. After completing the course, the students were able to respond electronically to a survey regarding the course. Part of the course design followed the guidelines of the writing process approach, and peer reviews were featured. However, this was only a design of an online English writing course, and no research was conducted on it.

The only study that I found that was similar to mine had been done by Chen et al. (1997). However, it was different from my study in that it used questionnaires with written feedback and the students' writing assignments to study the influence of using the Internet, especially e-mail exchanges, on the students' writing ability and knowledge of American culture.

The present study differs from existing studies in that it drew on participant observation, ethnographic interviews, along with analysis of writing assignments and questionnaires to study process writing, focusing on peer reviews, and the students' use of the Internet, including the WWW, e-mails, and a chat room, as resources for developing their writing. Additionally, several questions regarding the peer review activity were investigated, including its effectiveness, the attitudes of the students towards it, their behaviors during the process, their confidence in their peers and themselves as reviewers, the quality of peer feedback, the extent of the incorporation of the peers' comments, and the influence of Chinese/Taiwanese culture on the students' behaviors and attitudes related to peer reviews. Hopefully, this study would provide insight into many aspects of peer reviews with respect to Chinese/Taiwanese learners, which has been lacking in the literature.

Chapter 3

RESEARCH PROCEDURES AND METHODOLOGIES

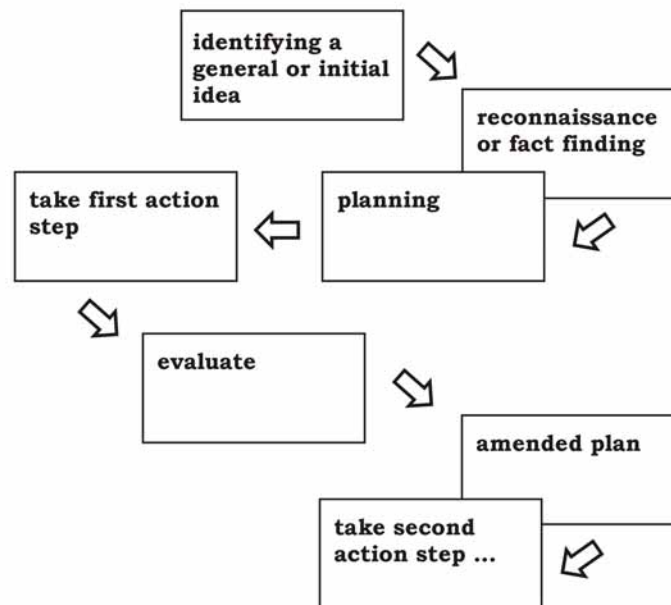
This chapter presents the design of the research, the procedures for conducting the On-line Writing Project, the outline of the website for the On-line Writing Project, and the methods for collecting and analyzing the quantitative and qualitative data for this study.

3.1 Design of the Research

This study involved action research and an educational ethnography. Action research attempts to link theory and practice and pertains to the direct participation of the participants, who are “the cultural experts in their own settings” (Stringer, 1996, p. 8). Community-based action research, according to Stringer (1996), originates in concerns about the problems and stresses of a group that make the group of people suffer in their everyday lives and work contexts, and helps them find effective and sustainable solutions to enhance their lives. That is, action research is “an approach to research that is oriented to problem-solving in social and organizational settings” (Smith, 2001, p. 11). Elliot (1988) describes action research as a series of spirals constituted of data-driven action with critical reflection (Dick, 1999; Johnson, 1993), which draws lessons from the results of the action (Dick, 1999). Each spiral contains:

1. Clarifying and diagnosing a practical situation which needs to be improved or a practical problem which needs to be resolved.
2. Formulating action-strategies to improve the situation or resolve the problem.
3. Implementing the action-strategies and evaluating their effectiveness.
4. Further clarification of the situation resulting in new definitions of problems or of areas for improvement (and so on to the next spiral of reflection and action). (p. 163)

Figure 3.1 The Basic Cycle of Action Research



Source: Smith(2001, p. 10)

According to Figure 3.1, the first step in a spiral is to identify an initial idea and find out the fact. In the action research portion of this study, I identified the initial idea in the section of Research Context and Motivation in Chapter 1 according to my experience in leaning as well as teaching English writing in Taiwan. The pre-interview of the participating students confirmed their problems with learning English writing in Taiwan. According to the expectations of the participating students expressed in the pre-interview and my experience in taking an English writing class in the United States, I proposed action strategies, namely implementing the On-line Writing Project, which incorporated process writing and Internet technology, to help the participating students with learning

English writing. I subsequently put the On-line Writing Project into practice, evaluated its effects, and located resulting problems.

According to action research procedures, I purposefully included a Taiwanese teacher and his students, people who were affected by this research, as active participants in the research process. I myself also participated actively throughout this process, trying to comprehend the participating students' writing difficulties and to accommodate their learning needs (McNiff, 1988). The research relationship I established with the participants was intended to initiate changes that would heighten the quality of their lives, i.e., to help the students learn to participate in the learning process, express themselves meaningfully in English writings, and connect what they learned in class to their daily lives; as well as to help reduce the teacher's workload and improve his practice. Therefore, there was reciprocity between myself and my participants, as I gave them some learning experiences and tools in exchange for the information they gave me regarding their learning to write English, as suggested by Creswell (1998).

This study was also an educational ethnography. "An ethnography is a description and interpretation of a cultural or social group or system" (Creswell, 1998, p. 58). According to Goetz and LeCompte (1984), "Ethnographies recreate for the reader the shared beliefs, practices, artifacts, folk knowledge, and behaviors of some group of people" (p. 2). The purpose is to find out general patterns and cultural themes, reconstruct the characteristics, and finally, propose a holistic cultural portrait of the social group. "An educational ethnography typically deals with the culture of a school community . . . or the culture of a specific group within an educational community" (Merriam, p. 14). It aims to study problems and processes in education and "provide rich,

descriptive data about the contexts, activities, and beliefs of participants in educational settings” (Goetz & LeCompte, 1984, p. 17)

In this study, I observed and interviewed a college English writing class in Taipei, Taiwan, for a semester, which is a bounded learning cycle in most English writing classes in Taiwan. I also gathered artifacts produced by the students--their writing assignments, reflection journals, and peer review response sheets. After I collected the data, I read them, made sense of them, immersed myself in them, analyzed them, and described in detail the beliefs, values, knowledge, and attitudes embedded in the language, behavior, and documents of the class with regard to the research questions for this study.

The reasons for my decision to use ethnography were sufficient, as follows. First, process writing classrooms are characteristic of social interactions that are complex and dynamic (Villamil & De Guerrero, 1996) and can be best captured by the extensive fieldwork involved in conducting ethnography. Since writing is a process, what happens during the process and the relationships between the learners, and between the learners and the teacher, can have a tremendous impact on the results of this study. The effects of process writing or peer reviews cannot be fully understood simply by having participants fill out questionnaires or giving interviews. This is especially true when some self-alleged process writing teachers are reported to have disobeyed process writing principles in practice (Susser, 1994). In addition, as referred to in Chapter 2, the culture of the larger society must be considered because it plays a decisive role in the implementation of peer reviews in process writing. Furthermore, the methods and techniques primarily used by community-based action research also attend to people’s culture as well as to their history, interactional styles, and emotions. Ethnography is most suitable for studies

involving a culture (such as Chinese/Taiwanese in this study) since it is intended to describe and interpret data from a cultural perspective.

This study was also process-oriented (Patton, 1990) in that the perceptions of the participants were regarded as important as the effects of the implementation of the On-line Writing Project with the class. This process approach enabled us to understand the dynamic process of the participants undergoing the implementation of the On-line Writing Project throughout the semester. It also allowed us to determine the strengths and weaknesses of the On-line Writing Project and the elements that led to its successes and failures.

3.2 Gaining Access

In late December 1999, the end of the fall semester was approaching, so I started to look for an English writing class in Taipei, Taiwan, in which to conduct my research on process writing and Internet technology, in the role of a cooperating teacher. I called several English writing teachers and English departments at colleges or universities in Taipei, but since no one knew me, none of them agreed to work with me. Therefore, I had to turn to my alma mater for help. Since I was a graduate from the English department, I was immediately given the names of the English writing teachers and the locations of their offices. I hoped to work with an English writing teacher who had taught English writing for at least two years and was not familiar with process writing nor Internet technology. I talked to 14 teachers in person, showing them a written description of my proposed research study and a sample on-line writing lesson. A female teacher explained honestly to me that one of the reasons that she hesitated to incorporate the

Internet into her teaching was that she was not good at computers; nor did she use e-mail at all. Among the 14 teachers, 5 expressed interest. One of the teachers who was interested in the On-line Writing Project said that it was a good idea to use the Internet because, as a native English speaker, he was not satisfied with many textbooks, which he thought were “garbage.” But the timing for the research was not good for him. Another American teacher was so interested that he asked me to call his students, who almost unanimously refused to be observed and interviewed by a stranger. Fortunately, before I made the calls, another English teacher was recommended.

The teacher, henceforth known as Mr. Yu, had taught English writing for more than 10 years, but he was familiar with neither Internet technology nor process writing. He was reserved about the effect that using the Internet would have on his English writing classes and thought that traditional pedagogy, which consists primarily of lecturing, correcting students’ essays, and individual conferencing, should be the priority. Though hesitant, he kindly agreed to work with me.

Soon after, we obtained approval from the department head and reserved a computer lab for class use. We subsequently talked to both of Mr. Yu’s classes, one of which met on Monday and the other on Wednesday. Because we could only use the computer lab for class on Monday, we asked the interested students to come to class that day.

When meeting with the two classes before the On-line Writing Project began, some interesting concerns arose. For example, one of the students was worried if she would be tested on the computer. Another wanted to know if the content of the Project would be tested and if the midterm and the final would be the same as that of the other

class. Another student hesitated because of her poor computer skills. Finally, 24 of the 38 students in the two English writing classes chose to participate in this study.

On the other hand, 11 days later, having found that most of his students were positive about the proposed On-line Writing Project, one of the interested teachers called, expressing the desire to work with me. But I decided to study one of Mr. Yu's classes since many things were planned and under way.

In the meanwhile, to increase the opportunities for the participating students to practice written communication, I posted a notice on a website called *e-pals.com classroom exchange*, soliciting American classes to exchange e-mails with the students in this study. Two American high school teachers responded and consented to work with me. Both had twelfth grade classes, one of which had 15 students, the other 30. To ensure that every participating student had the opportunity to work with an e-pal, I accepted both American classes.

3.3 The On-line Writing Project

After discussing my plans with Mr. Yu, I started to construct the on-line lessons for the students in this study. The lessons were designed to combine handouts of information and interactive activities, including information on English grammar, process writing, peer reviews, and rhetorical conventions, norms, and modes of English writing. I also integrated writing samples, links to web pages related to the lesson topics, and interactive self-practice tests. WWW searching and e-mail exchange with English native speakers were parts of the lessons. An on-line chat area offered by a commercial organization was provided for student publishing and written communication. The chat

room was incorporated so that student publishing would look more formal. It would also be easy to keep track of topics and systematically show the development of an issue. In addition, the participating students could use nicknames instead of their real names and see their own posts right away. A post in the member discussion area in the chat room is shown in Figures 3.2 and 3.3.

Figure 3.2 The Chat Room of the On-line Writing Project



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Chatchat

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 [Member Discussion](#)

[Threads](#)

[Member Discussion: politeness](#)

politeness

Started by [ecfem](#) <mxh244@ms45.hinet.net>
on Thu Feb 10 01:21:45 PST 2000

Politeness Across Cultures: The Chinese Way and the American Way

Mei-ching (April) Huang 2/23/99

Although we Chinese claim to value courtesy, compared with Americans, we are polite in a more passive and reserved way. For example, we seldom greet people unless they are our friends; however, Americans do not seem to distinguish. When my husband, my son, and I first arrived in the U. S., we were impressed that many people smiled warmly at us; some even said "Hi" to us. In Taiwan, we only greet and smile at people we know. If we meet our neighbors in the neighborhood without saying something or nodding our head, we are considered impolite. But if we smile at or greet strangers, people will think either that we mistake them for some other people, or that we are in an unusually good mood.

Chinese generally hesitate about helping people, but Americans seem more willing to do so. When we first came here, we used to search the campus for a certain building, with or without a map. More often than not, strangers voluntarily came to offer help. In Taiwan, we are mostly told to be alert when strangers approach to ask directions. Consequently, few people will offer to help people who are astray. Another example. One time, my bike was broken on Penn State campus when I tried to go from one building to another. I rode it on and off, fixing it when it went down. Many people came trying to help. One girl was eager to help although she did not know anything about bikes. I was really touched. This certainly happens much less often in Taiwan because we were taught to let alone others' business. It also makes us feel good when people here usually hold the door for us when entering a building especially because the door is usually heavy. In Taiwan, we seldom hold doors for people after us unless they are very old or enjoy a respectable status.

Americans are more willing to help kids and disabled people. When we just came here three and a half years ago, my son was only almost two. I used to push him around in a stroller. American hands of strangers always readily provided help when we needed to go on or off stairs or enter buildings. It also impressed us that here there was so much parking space reserved for handicapped

Figure 3.3 The Chat Room of the On-line Writing Project (continued)

people everywhere. Although younger people in Taiwan are more ready to give up seats to the elderly, the pregnant, and the little ones on the bus, most Chinese seem rather indifferent.

All these seem rather contradictory to the fact that Chinese actually emphasize brotherhood: every person is addressed as Uncle, Aunt, Brother, Sister, Grandma, or Grandpa. But evidenced by the above examples, brotherhood apparently does not apply to strangers.

One will also feel strange seeing people drive in Taiwan: no politeness exists. People drive like crazy. Pedestrians have to take good care of themselves. It is absolutely impossible for vehicle drivers to wait for them. Even between cars there is strong competition. Surpassing, horn honking, cursing. I could not help but feel nervous driving in Taiwan. However, it is comfortable driving and walking here at State College. Pedestrians are always privileged. Drivers are more polite to both pedestrians and other drivers. Hand gestures signaling "after you" are often seen.

I do not admire everything in the U. S., but with regard to politeness, I think there are some strengths we Chinese can draw from.

[EDIT](#) [DELETE](#)

There are currently no replies to this topic.

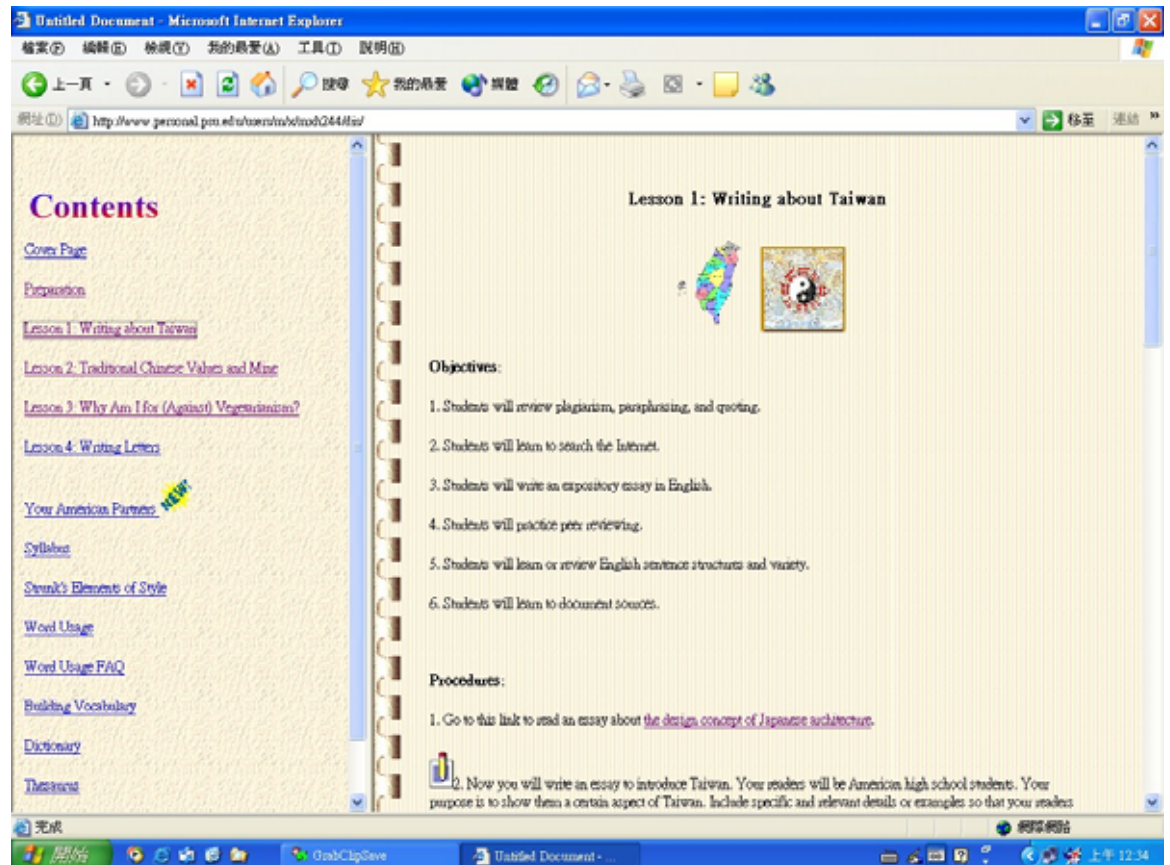
[REPLY TO TOPIC](#) [START NEW TOPIC](#) [ALL TOPICS](#)

[START YOUR OWN COMMUNITY](#)

[VISIT ANOTHER COMMUNITY](#)

Specifically, the lessons were uploaded onto the following website address: <http://www.personal.psu.edu/mxh244/dis/index.html>. The website was called Write On Line. The pages were divided into two vertical frames. The right-hand frame appeared in the form of a spiral notebook and contained the website's contents that were listed in the left-hand frame. The links or table of contents on the left included preparation, a listing of four different lessons, the syllabus, and so on. The second link listed was preparation; this link opened the page in the right-hand frame where the students could read the lesson objectives and instructions on how to prepare for the course work by learning basic computer word processing and e-mail skills, etc. The preparation unit also directed the students to the chat room to learn how to post their writing pieces and display their photographs or other images. This unit also introduced process writing to the students and taught them how to avoid plagiarism and how to paraphrase and quote written material. In the preparation unit, they were then asked to write an essay to introduce themselves, post it to the chat room prior to a due date, read their American partners' self-introduction, and e-mail their American partners. Part of Lesson 1 is shown in Figure 3.4.

Figure 3.4 The On-line Writing Project Course Web at <http://www.personal.psu.edu/mxh244/dis/index.html>



Four lessons followed the unit of preparation. Lesson One was Writing about Taiwan; Lesson Two: Traditional Chinese Values and Mine; Lesson Three: Why Am I for (Against) Vegetarianism? and Lesson Four: Writing Letters. Typically, the students did a pre-writing activity in class, were given time in class to search for information related to the topic on the WWW, organized the information and ideas, and wrote an essay at home. According to the syllabus, they had to bring their first draft to the next class for a peer review; however, because there was insufficient class time, they ended up

meeting outside the class. To keep them on task (Freedman, 1992) and to aid them in reviewing their peers' drafts more objectively and efficiently (Watkins-Goffman, 1989), I provided a response sheet with a set of guiding questions for each peer review session. Then they had to revise their first drafts, hand in the first draft and the completed response sheet, and have a conference with Mr. Yu. Unfortunately the conferences were seldom held also because of insufficient class time. If they did meet with the teacher, they were supposed to revise again and turn in the third draft. After the teacher's instruction or their self-study on certain points of style, grammar, and mechanics, they were supposed to peer edit each other's draft and revise again. However, because there was not enough class time, for the first two lessons the students were told to do the peer reviews on content, meaning, and organization, and the peer editing on certain grammar points at the same time. That is, when they met, they were expected not only to discuss the content, meaning, and organization but also the grammar in the draft. It turned out that few pairs did peer editing. When asked why they did not, some of them answered that they forgot, some of them did not know that they were supposed to, some of them said that they felt incapable of doing it, and some of them did not have the time to do it. Subsequently they had to post the revised version to the chat room, read the posts by the Americans, interact with their American friends in the chat room or through e-mails, write the final draft, and send it to me by attachment through e-mail. Discussions of sample articles and participating students' drafts and the practice of paraphrasing and writing techniques were also inserted into the course work. To save the participating students' time surfing the boundless Internet, I sifted out the extraneous information on topics and posted selected information as useful links.

Take Lesson One as an illustration: after reading a sample essay on the design concept of Japanese architecture, the students did a pre-writing activity and were taught how to search the topic in Yahoo!. Working on categorized sites on this relatively fixed Internet directory (Green, 1997) is one way around some of the inferior material on the Internet. After they organized the information they collected from the WWW and ideas they generated in the pre-writing stage, I showed them three peer response letters, representing the prescriptive, the interpretive, and the collaborative stances, respectively, as delineated by Mangelsdorf and Schlumberger (1992), and taught them to adopt a collaborative stance. They also practiced peer reviews as a class on seven essays. Then they went home, wrote the first draft for the assignment of Lesson One, and did a peer review along with a peer editing outside of class. Because the participating students came from several different departments, this may be the only class in which they saw each other. Some of them already knew each other, but the others were strangers to each other. For the first peer reviews, most of them chose their neighbor to be their partner. I found that most of them stayed with their first partner in the second reviews, as found by Min (1998) and Reid (1987), so I assigned a different partner for them in the third reviews. After peer reviews, they revised the first draft and posted it in the chat room before a certain due date. By this time, some of the American students had also written about a certain aspect of the United States and posted the essay in the chat area for the participating students to read. After they read their American partners' posts, they were encouraged to ask them two questions or answer their questions in the chat area or in e-mails. Finally, they sent their final draft on Taiwan to me by attachment through e-mail.

Lesson Three did not include interactions with the American students because the American teachers told me that they would only be on line until May. Lesson Four was Writing Letters. This lesson was included because the students had been told at the beginning of the fall semester that they would be taught how to write letters. Because the assignments for Lesson Four did not follow process writing and did not use WWW searching, only the drafts for the first three lessons were used as data.

The On-line Writing Project web page was revised constantly but did not stay static from the beginning to the end of the Project. For example, the list of the pair up with American students was uploaded onto the web page and was accessible from the table of contents after the pair-up was done with the two American high school classes. Moreover, to meet the teacher's and the students' concerns as revealed in the pre-interviews, such links as Strunk's Elements of Style, word usage, building vocabulary, dictionary, and thesaurus were also included on the Project web page.

The On-line Writing Project lasted a semester, from late February to mid June. All the sessions were done in the computer lab. To avoid the disadvantages of process writing mentioned by Reyes (1992) and to help the participating students transfer their writing knowledge (Cummins, 1979), the participating students' native language, which is Mandarin Chinese, was allowed to be used in class as well as outside of class.

3.4 Sampling

The class was selected by purposive or criterion-based sampling (Merriam, 1998) because I purposefully looked for an English writing teacher who had taught English

writing for at least two years and was not familiar with process writing nor Internet technology.

After the spring semester began, 19 students registered for the studied class; the other 5 students had either withdrawn from the school, dropped the course, or chose the other class taught by Mr. Yu. Each one of the 19 participating students was assigned 2 to 3 e-mail partners from the two American high school classes. Since 3 of the 19 students seldom came to class, they were excluded from this study. The 16 participating students were from different departments and different levels of the university. Among them, 12 were girls, and 4 were boys. The gender distribution was normal in typical English writing classrooms in Taiwan.

In a follow-up interview, the 16 participating students were asked why they participated in the On-line Writing Project. Fourteen reported that they chose to participate in the Project because they were curious about it and wanted to try out this new way to learn English writing. They expected to learn more than what they had from the traditional, non-interactive way. Two of the 16 explained that they could attend the Monday class but not the Wednesday class. The incorporation of computer and Internet technology also attracted most of the participating students. Four of the participating students said that they came because they wanted to learn skills related to the computer or Internet technology. Eight participating students said that the incorporation of computer and Internet technology increased their interest in joining the On-line Writing Project.

In the first class meeting, I gave a pre-survey to the students to find out their characteristics. I also conducted a pre-interview with the students and the teacher to find out their past learning/teaching experiences, their knowledge and feelings about English

writing, and so on. According to the results of the pre-survey and the pre-interview, three students, namely Eva, Sharron, and Gwen, were chosen for outside-class observations guided by typical case sampling to highlight what is normal (Creswell, 1998).

At the end of the semester, I gave a post-survey to the students. For answers that were different from most of the other students, an item was assigned one unique score. Students whose unique scores were the lowest, representing typicality, and the highest, representing uniqueness, were selected as respondents for post interviews. The selection was guided by maximum variation sampling to yield “important shared patterns that cut across cases and derive their significance from having emerged out of heterogeneity” (Patton, 1990, p. 172). Because there were many low scores, other factors were considered such as attendance rate, gender ratio, completion of assignments, and performance in class. Accordingly, six respondents were selected: Joanne, Karl, and Peggy were the three with the highest unique scores, and Charles, Sharron, and Gwen were the three with the lowest.

The English writing class under study was typical because with the national entrance examination for admission to colleges and universities, the student population of any college or university represents all parts of Taiwan.

3.5 Data Collection Instrumentation

In this study, both qualitative and supplemental quantitative data were gathered. Qualitative data, according to Patton (1990), are especially suitable for process studies because they are highly descriptive and capable of capturing the dynamic process. The qualitative data for this study were primarily assembled from my fieldwork at the

university. During the fieldwork, I spent time in the setting under study observing the activities firsthand, interviewing people formally or informally about their experiences and perceptions, and examining relevant documents including the students' journals, writing assignments, and peer review response sheets. More data were procured through audiotape recordings of peer reviews and videotape recordings for class sessions. I also kept a researcher's journal to keep track of my research process, decisions on research methods, and events during the research process. Quantitative data came from comparisons of the ratings of the writing drafts and the pre- and post-surveys. Hence, the following nine kinds of data were collected: (a) the writing assignments by the students of the participating class and the other class from the semester prior to the On-line Writing Project (henceforth called "the previous semester") and the semester that the On-line Writing Project was implemented in (henceforth called "the current semester"), (b) the participating students' responses to pre- and post-surveys, (c) notes of my participant observation in class and of the three participating students outside of class, (d) transcripts for pre-interviews of all the participating students, post-interviews of six of the participating students, during-the-semester interviews of some of the participating students, follow-up interviews of all the participating students, and pre- and post-interviews of the participating teacher, (e) the participants' reflection journals, (f) completed response sheets for the three peer reviews, (g) transcripts of audiotape recordings of the peer reviews, (h) transcripts of in-class video recordings, and (i) my researcher's journal.

3.5.1 The Writing Drafts

The drafts before and after peer reviews were collected, rated, and compared to assess the effects of the peer reviews. In addition, from each participant was assembled a composition from the previous semester to be compared with the final drafts from the current semester. From each of the 15 students of the other class taught by the same teacher, one composition from the previous semester and one from the current semester were brought together to compare the improvement of the two classes.

3.5.2 Surveys

A pre-survey (see Appendix B) containing 33 items on a five-point Likert scale was given to the participating students at the beginning of the semester. It was intended to find out the characteristics of the students, for example, who was interested in English writing, who disliked it, who was interested in or skilled at surfing the Internet, who disliked working with others, and so on. At the end of the semester, a post-survey (see Appendix C) containing 17 of the same or similar items and 54 other questions was given to the participating students, seeking information on their perception of English writing, the Internet technology, and process writing, especially peer reviews. The post-survey also provided space for the participating students to specify the reasoning behind their responses to many items. Both surveys were done in class. I administered and collected the questionnaires personally and was present to answer questions. In addition to the purposes of identifying participating students for outside class observation and for post-interviews, a t-test comparing the same or similar items was done to show the effects of the On-line Writing Project.

3.5.3 Participant Observation

The purpose of my observation was "to describe the setting that was observed; the activities that took place in that setting; the people who participated in those activities; and the meanings of the setting, the activities, and their participation to those people" (Patton, 1980, p. 124). In this study, I played the role of a participant observer because I intensively participated with and observed the participants (Spradley, 1980): I was sometimes teaching, and always observing and videotaping in the class which met two hours a week; I also chose three students and observed them doing homework outside the class; and in the day time, I was mostly in one of the computer labs in the university. According to Patton (1990), participant observation, the primary method of ethnographers, is regarded as the most comprehensive of all types of research strategies because the data thus obtained help the researcher gain insights into the program under study, which interviews alone are unable to provide. My participant observation provided rich first-hand accounts of what happened inside and outside the class, the language and behavior of the teacher and the students with regard to the research questions, and what was fundamental to the people under observation. The participants were told of the research purpose during all of my observations, that is, the observations were done openly.

3.5.4 Ethnographic Interviews

The purpose of my interviews was to understand the experience of the participants and the meaning they made of their experiences (Seidman, 1998). In this study, I employed ethnographic interviews, especially to understand the participants' attitudes, values, behaviors, and beliefs from a native point of view as advised by Spradley (1979).

My interviews of the participants were open-ended and incorporated questions based on my observations. I included two types of open-ended questions, that is, grand tour or mini-tour questions, and questions about the subjective experience of the participants, as mentioned by Spradley and Seidman, in order to obtain in-depth information. I conducted the interviews in Mandarin Chinese, the official language in Taiwan; I audiotaped and transcribed them in Mandarin Chinese and then translated them into English.

I did the pre-interviews (see Appendix A) at the beginning of the semester. The 16 students were queried about their past experience with English writing classes, their knowledge of and attitudes toward English writing, and their idea of a perfect English writing class. Each of the interviews took about 15 minutes. I also interviewed the teacher about his past experience with English writing classes and computers; his knowledge of and feelings about computers, the Internet and process writing, and his hope for the On-line Writing Project and his English writing classes. The teacher's interview took about half an hour.

Six of the participating students took part in a post-interview (see Appendix A) near the end of the semester regarding their experience and perception of the On-line Writing Project and their suggestions for the integration of Internet technology and process writing activities. Each of these interviews took about one hour. I also interviewed the teacher at the end of the semester about the influence of the On-line Writing Project on his teaching and his suggestions regarding its incorporation. That interview took about 40 minutes. Both the pre-interviews and the post-interviews were

done at a meeting room at the university, and both the teacher and his students signed an informed consent.

Additionally, I did a follow-up interview with all the participating students several months later when most of the data analysis was done. I asked specific questions regarding their writing drafts; hence, the time spent and questions varied from individual to individual. The participants were also informally interviewed many times during the semester when the need arose.

3.5.5 Other Documents and Recordings

The students were asked to keep a weekly journal other than their writing assignments to show their perspectives.

The students were also asked to record the peer reviews by themselves. After revising their drafts, the students were to turn in the tapes, the completed response sheets, and the marked drafts to me for analysis.

Videotaping ensured the descriptive validity of my observations. I videotaped every time the class met.

I also kept a researcher's journal to keep track of my methodological and analytic decisions, procedures, and reflections.

3.6 Data Analysis

This section describes the procedures for analyzing the quantitative data, which were the writing drafts and the surveys, and the qualitative data, including the transcripts of the videos and tape recordings, observation notes, peer response sheets, writing drafts, and journals. The writing drafts were used for both quantitative and qualitative analysis.

3.6.1 Comparison of the Writing Drafts as Quantitative Data

The ratings of the writing drafts of the participating students and the students from the other class taught by the same Taiwanese teacher were compared to find out the effects of the peer reviews versus the effects of the On-line Writing Project. There were 138 drafts in all: the pre- and post-peer review drafts, the final drafts for the three on-line lessons, one randomly chosen piece of writing by the participating students from the previous semester, and one randomly chosen piece of writing by the students of the other class from the previous semester and near the end of the current semester.

To diminish the subjectivity in the scoring (Henning, 1987), these drafts were evaluated by multiple independent raters, including myself and three other raters, based on the Test of Written English (TWE) scoring guide, which is a holistic scoring scale. A holistic scoring scale, according to Cooper (1977), is a procedure that is intended to enumerate “linguistic, rhetorical, or informational features of a piece of writing” (p. 4). Holistic scoring is usually recommended for large testing populations because it is the most economical and popular of all direct writing procedures (Huot, 1990). Each of us read each writing draft independently and assigned a holistic score according to the overall impression of the draft (Huot, 1990; Lin, Huang, Lin, & Chen, 1993) on a scale of 1 to 6 where each numbered score has a corresponding description of a writing level (see TOEFL Test of Written English Guide, 1996). The inter-rater reliability of the ratings of the essay drafts came out as 0.67 after I used the Spearman-Brown adjustment. The mean scores were used.

Because one pre- peer review draft and one post- peer review draft by a different participant were missing for the second lesson, and the same was true of the third lesson,

four drafts lost a counterpart for comparison. It turned out that the 16 participating students produced 44 pairs of drafts for comparison. A paired t-test procedure was applied to determine whether the peer review sessions resulted in significant difference. The drafting process of each essay by each participant was inquired in detail to assure that the difference mainly resulted from peer reviews.

In addition, the mean scores of the three final drafts by every participating student were further averaged, and the final score was compared with the mean score of one of their compositions from the previous semester. A matched group t-test procedure was used to determine whether the participating students made significant improvement after attending the On-line Writing Project. Likewise, the means of one of the compositions from the previous semester and one from the current semester by every student of the other class were subjected to a matched group t-test to determine whether there had been a significant gain in the scores. The unmatched groups t-test (Henning, 1987) was used to compare the writing of the class that participated in the On-line Writing Project and the writing of the class that did not participate to determine whether the two classes were the same at the outset, but changed as a result of the On-line Writing Project. A 0.05 level of significance was expected.

Although the inter-rater reliability is somewhat low, I have done my best to improve it. I encountered great difficulty in finding qualified, responsible, and willing-to-help raters in Taiwan. After all the scores arrived, I found that those of one of the raters did not correlate highly with the others, but I did not drop his ratings from this study. There were two reasons for using his scores. First, the reliability was still the

highest with his ratings included; second, the research results remained the same with or without his ratings.

3.6.2 Analysis of the Quantitative Surveys

The Likert-scaled answers to the pre- and post-surveys were quantified as “strongly disagree” -2, “disagree” -1, “I don’t know” 0, “agree” 1, and “strongly agree” 2. Subsequently the values for each item were tallied and averaged. Although the individual item response scale does not represent true interval data, I would contend the data “approaches” an interval scale. A t-test comparing the same or similar items in both surveys was also done to show the influence of the On-line Writing Project.

I used inferential statistics (t-test) although this study did not utilize random sampling or an experimental design (Smithson, 2000). I based the decision to use inferential statistics on the “tangible, accessible and abstract” discussion presented by Huck (2000, pp. 112-115). In this study the accessible study population sample is believed to be representative of a larger abstract population that fits or is reflective of the study sample. In this study, I am arguing that the sample used for this study reflects the larger abstract population that is considered to include university students like those included in the sample.

3.6.3 Analysis of the Qualitative Data

My analysis of the qualitative data was ongoing, inductive, and holistic. First, I transcribed the pre-interviews, whose analysis provided part of the basis for selecting participating students for outside-class observation. Then, I transcribed the videotapes I made during the class sessions as well as the tape recordings for other interviews and the peer reviews. Subsequently I iteratively read all types of data in the transcripts, the

observation notes, the peer response sheets, the writing drafts, and the journals including the students', the teacher's, and mine, and cross referenced to get a holistic picture. I paid special attention to the process. After that, I interpreted and categorized the data, and developed a short list of tentative codes. My analysis began with individual participants. I also used matrices to make contrasts and comparisons of the data. Next, I theorized and generated assertions I derived from the data. Finally, I revisited the assertions to check whether there was confirming and disconfirming evidence. During the process, I often reminded myself to avoid personal expectations.

3.7 Validity

The findings were validated by triangulation, thick description, inspection of alternative explanations and discrepant data, and self-report of bias toward Internet technology and process writing.

In this study, triangulation, “the heart of ethnographic validity” (as cited in Dana, 1991, pp. 50-51), was constituted by multiplicity of data sources (the teacher, the students, the Internet, etc.) and several different methods of data collection (participant observations, interviews, surveys, etc.). The triangulation of different sources of data and different data collecting methods can reduce “the risk of chance associations and of systematic biases” (Maxwell, 1996).

I provided detailed descriptions so that the readers could use the thick description and typicality category (Merriam, 1998) to compare with their own situations to determine whether the findings of this study can be transferred.

In the process of analyzing the qualitative data, I constantly sought discrepant data to determine whether alternative explanations were possible.

It was impossible to avoid imposing my own meaning on the data or selecting data that attracted my attention. It was also possible that I influenced the setting and the participants, especially because this was an action research. Therefore, it is important that I admit my bias toward process writing and Internet technology.

This study posed no serious ethical problems because pseudonyms were used for the teacher and the students. Also, within the period of about 4 months, nothing unusual would have happened, especially because that the participating students were aware that they were being researched and that they were self-selected. Nothing inconsistent about them was noticed when I met with them or when they were on line.

Chapter 4

RESULTS, FINDINGS, AND DISCUSSIONS

In the following sections, the results derived from using several different methods of data analysis are classified in response to the research questions. These data included the quantitative data from comparisons of the ratings of the writing drafts, the post-survey, and the comparison between the pre- and post- surveys, and the qualitative data from my fieldnotes, the interviews, the completed response sheets, audiotape recordings of the peer reviews, in-class video recordings, journals, and the participating students' writing drafts.

4.1 The Results of the Quantitative Data Analysis

The results of the quantitative data analysis include the results of the t-tests for examining the effects of the peer reviews and the effects of the On-line Writing Project using the scores of the writing drafts. The results of the post-survey are also presented, and shared items in the pre- and post-surveys were compared.

4.1.1 The Effects of the Peer Reviews

The paired t-test for the comparison between the pre- and post- peer review drafts showed that the difference was significant. The mean value for the pre-peer-review drafts was 3.21, and that for the post-peer-review drafts was 3.49. The p-value was $<.001$. The results indicated that the peer reviews were effective in helping the students improve their writing drafts, which supported the findings of Chen (1998) and Wei (1996).

4.1.2 The Effects of the On-line Writing Project

The results of the t-test for the effects of the On-line Writing Project are shown in

Table 4.1.

Table 4.1

Results of the Matched and Unmatched t-tests for the Effects of the Project

		previous semester		current semester		
	N	M	SD	M	SD	t (matched)
participating class	16	3.09	0.46	3.46	0.34	0.01*
the other class	15	3.13	0.49	3.07	0.64	0.36
t (unmatched)		0.41		0.02*		

Note. Scores could range from 1 through 6 with 6 being high.

*p<0.05

The matched group t-test for comparing the means of the compositions by the participating students from the previous semester and the current semester also showed significant difference. The p-value was 0.01. On the other hand, the matched group t-test for comparing the means of the compositions by the other class from the previous semester and the current semester showed insignificant difference. The p-value was 0.36. The results of the unmatched groups t-test showed that the two classes were not significantly different at the end of the previous semester (p= 0.41) but were different at the end of the current semester (p= 0.02). These results therefore suggest that the On-line Writing Project helped the students improve in their writing performance. Although the participating students were not selected randomly, it can still be inferred that as long as the students are willing to attend such a project, they will improve in English writing.

The significant difference between the two classes in spite of the somewhat low reliability suggests that if the reliability had been higher, the results would have been even more significant.

4.1.3 The Results of the Post-survey

The means and standard deviations for the post-survey answers are displayed in Table 4.2.

Table 4.2
The Results of the Post-survey

item	N	M	SD
1 I like to write in English.	16	.63	.96
2 I think it is interesting to write in English.	16	.5	.97
3 I think it is easy to write in English.	16	-.69	.7
4 I am familiar with the Internet.	16	.5	.73
5 I like to search the WWW.	16	.69	.95
6 I prefer searching the WWW, compared with seeking information from books.	16	.69	.95
7 Searching the WWW improved my English reading ability.	16	.5	.73
8 Searching the WWW helped me better understand Chinese or Taiwanese culture.	16	.19	.98
9 Searching the WWW helped me find ideas to write.	16	1.13	.34
10 I think it is important to learn to search the WWW for the information I need.	16	1.19	.54
11 I think it is interesting to search the WWW.	16	.94	.68
12 I think it is easy to search the WWW.	16	.63	.81
13 I think it is a good idea to incorporate WWW searching into English writing classes.	16	1.06	.77
14 I like to send or receive e-mails.	16	1.44	.51
15 I think it is important to know how to e-mail.	16	1.5	.52
16 I think it is interesting to send e-mails to my friends or receive e-mails from them.	16	1.38	.5
17 I think it is easy to send and check e-mails.	16	1.19	.66
18 I am excited about sending or getting e-mails.	16	1.38	.62
19 Reading the self-introductions by the American students and exchanging e-mails with them made me more aware of the audience when I was writing the introduction to Taiwan and the comparison and contrast between traditional Chinese values and mine.	16	.69	.79

Table 4.2 (continued)

20	I think it is a good idea to incorporate e-mail exchange into English writing classes.	16	1.06	.93
21	I've tried my best to help my partners improve their drafts.	16	1.13	.5
22	I believe my partners have tried their best to help me improve my drafts.	16	1.06	.57
23	I honestly and frankly told my partners the defects of their drafts.+	16	.69	.95
24	Peer reviews helped me find ideas to write.	16	1.06	.77
25	The first peer review was helpful to me.	16	.88	.89
26	The second peer review was helpful to me.	16	1	.89
27	The third peer review was helpful to me.	15	.67	.9
28	My partner gave me correct suggestions in the first peer review.+	16	1.06	.57
29	My partner gave me correct suggestions in the second peer review.+	16	1.06	.68
30	My partner gave me correct suggestions in the third peer review.+	15	.8	.56
31	The suggestions my partners gave me regarding grammar or diction were helpful.	14	.43	.94
32	I think it is a good idea to incorporate peer reviews into English writing classes.	16	1.31	.87
33	I like peer feedback better than teacher feedback.	12	-.25	1.14
34	Peer feedback is more helpful than teacher feedback.	11	-.45	.69
35	Peer feedback is more detailed than teacher feedback.	11	.18	.84
36	Peer feedback is easier to understand than teacher feedback.	11	.73	.65
37	I have the freedom to choose whether to follow peer feedback, but have to accept teacher feedback.	11	0	1
38	I trust the suggestions my partners gave me.+	16	.88	.81
39	My partners helped me find out mistakes that I was not aware of.	16	1.19	.40
40	Reviewing my partners' drafts was helpful to my English writing ability.	16	1	.63
41	Peer reviews helped me understand audience need.	16	1.44	.51
42	I like peer reviews.	16	.81	.75
43	I think I have the ability to give my partners helpful suggestions.+	16	.44	.81
45	Teacher feedback combined with peer feedback is better than peer feedback alone.	16	1.56	.51
46	Teacher feedback combined with peer feedback is better than teacher feedback alone.	16	1.38	.62
47	I think correct grammar is the most important element in English writing.	16	-.88	.5

Table 4.2 (continued)

48	Pre-writing activities helped me find ideas to write.	16	1.13	.72
49	I think it is a good idea to incorporate pre-writing activities into English writing classes.	16	1.19	.75
50	I have followed the advice to focus on content in drafting.	16	.56	1.03
51	Focusing on content in drafting helped me focus and reduce writer's anxiety.	11	1.09	.54
52	Focusing on content in drafting lowered the quality of my drafts.	11	-.82	.6
56	I know how to surf BBS.	16	1.44	.51
57	I usually surf BBS.	16	.69	1.4
58	My conferencing with the teacher last semester was helpful.	9	.78	1.09
59	My conferencing with the teacher this semester was helpful.	8	.75	.89
60	The written comments or correction the teacher gave me last semester were helpful.	11	.18	1.17
61	In the future, I should be able to revise my own drafts according to the tips on the peer response sheets.	16	.88	.81
62	In the future, I will ask a peer to review my drafts.	16	.06	.85
63	I hope the teacher can comment or correct all my compositions.	16	1.19	.54
64	I hope I can conference with the teacher for each composition.	16	.69	.87
66	Reading the posts by the Americans helped me understand American culture.	13	.62	.96
67	Reading the posts by my classmates helped me understand Chinese or Taiwanese culture.	15	.47	.83
68	Reading the posts by my classmates helped me in English writing.	16	.81	.54
69	I like reading the posts by my classmates.	16	.5	.82
70	I think it is a good idea for the students to post their writing to a place which is accessible to the class.	16	1.25	.45
71	I think it is a good idea for the students to post their writing to the Internet.	16	1.19	.54

Note. "strongly disagree": -2, "disagree": -1, "I don't know": 0, "agree": 1, "strongly agree": 2

+ reversed-coded item

The overwhelmingly positive results show that the participating students liked English writing (items 1 and 2), process writing (items 49, 70, and 71), peer reviews (items 32 and 42), and Internet technology (items 5, 6, 11, 13, 14, 16, 18, 20, and 71).

The results also indicated that the participating students thought highly of Internet technology (items 7-10, 13, 15, 19, 20, and 71), and as reported by Lee (1997), were able to handle the technology (items 4, 12, and 17), trusted their peers (items 22, 28-31, and 38), and confirmed the helpfulness of peer reviews (items 24-27, 32, 35-36, and 39-41).

The negative figures, on the other hand, revealed that the students thought English writing was difficult (item 3), liked teacher feedback better than peer feedback (item 33), and thought teacher feedback was more helpful than peer feedback (item 34).

According to items 50 to 52, most of the participating students had followed the guideline of process writing to focus on content while drafting (the mean being .56), which helped lower their writing anxiety (the mean being 1.09). They did not think that doing this would impair the quality of their writing (the mean being .82).

4.1.4 Comparisons Between the Pre- and Post- surveys

The means of the same or similar items in the pre- and post- surveys were compared. The results of the t-test revealed the influence of the On-line Writing Project on these items as presented in Table 4.3.

Table 4.3
Comparison of the Shared Items in the Pre- and Post-surveys

number in pre (post)- surveys	item	pre-survey			post-survey			t-test
		N	M	SD	N	M	SD	
1(1)	I like to write in English.	16	.75	.77	16	.63	.96	.09
3(2)	I think it is interesting to write in English.	16	.75	.77	16	.5	.97	.12
4(3)	I think it is easy to write in English.	16	-.81	.54	16	-.69	.7	.29
13(4)	I am familiar with the Internet.	16	.38	.72	16	.5	.73	.3
16(5)	I like to search the WWW.	16	1.13	.72	16	.69	.95	.055
17(10)	I think it is important to learn to search the WWW for the information I need.	16	1.5	.52	16	1.19	.54	.03*
18(11)	I think it is interesting to search the WWW.	16	1.25	.45	16	.94	.68	.048*
19(12)	I think it is easy to search the WWW.	16	.5	.97	16	.63	.81	.25
20(14)	I like to send or receive e-mails.	16	1.13	.96	16	1.44	.51	.09
21(15)	I think it is important to know how to e-mail.	16	1.25	.58	16	1.5	.52	.08
22(16)	I think it is interesting to send e-mails to my friends or receive e-mails from them.	16	1.13	.72	16	1.4	.5	.052
23(17)	I think it is easy to send and check e-mails.	16	1	.52	16	1.19	.66	.09
24(18)	I am excited about sending or getting e-mails.	16	.69	1.14	16	1.37	.62	.002**
26(21)	I will try (have tried) my best to help my partners improve their drafts.	16	.94	.57	16	1.13	.5	.02*
27(22)	I believe my partners will try (have tried) their best to help me improve my drafts.	16	-.19	.54	16	1.06	.57	.00003***
28(23)	I will honestly and frankly tell (told) my partner/s the defects of their drafts.	16	-.5	.89	16	.69	.95	.21
29(47)	I don't think correct grammar is the most important element in English writing.	16	-.19	1.05	16	-.88	.5	.1

Note. "strongly disagree": -2, "disagree": -1, "I don't know": 0, "agree": 1, "strongly agree": 2

*p<0.05 **p<0.01 ***p<0.001

The significant difference in items 17(10), 18(11), 24(18), and 27(22) indicate that the On-line Writing Project decreased the value that the participating students put on WWW searching and the fun they had surfing the WWW. However, the Project increased the students' excitement about e-mailing and their trust in their partners' peer review efforts.

4.2 Assertions

I developed the following assertions after I analyzed my observation notes, the transcripts of the interviews, the participants' journals, the peer review response sheets, the peer review recordings, the videotapes, my research journal, and the participating students' drafts, all of which I cross-referenced with the findings from the quantitative data. The assertions were categorized in terms of sub-questions derived from action research and those derived from ethnography. Specifically, the assertions in 4.2.1 are in response to questions regarding the students' problems with English writing classes, their hopes for an ideal English writing class, and the effectiveness of the On-line Writing Project; the assertions in 4.2.2 are in response to questions regarding the influence of the On-line Writing Project on the participants' attitudes and knowledge system, their attitudes and behaviors with regard to the On-line Writing Project, and the relationship between Chinese/Taiwanese culture and peer reviews/peer feedback. I also tried to connect assertions related to peer reviews to issues mentioned in the section of review of the literature.

4.2.1 Sub-questions from Action Research

Assertions in this section were in response to sub-questions derived from action research, that is, questions regarding the students' problems with learning English writing,

the ideal English writing class in their mind, and the effectiveness of the On-line Writing Project, including the Internet technology, process writing activities, and the whole Project.

4.2.1.1 Writing difficulties

Assertion 1. *The participating students complained about their former English writing classes being unhelpful and boring. They had little opportunities to apply the English writing techniques they had learned and had little teacher feedback. They used to passively receive instruction in the English writing classes they had before.* (in response to sub-question 1: What difficulties did the participating students encounter in learning English writing?)

According to action research, the first step in a spiral is to identify an initial idea and find out the fact. To understand what difficulties the participating students encountered in learning to write in English, in their pre-interviews they were asked about their experiences in and perceptions of English writing classes they had before the On-line Writing Project. The participating students recalled having had similar experiences in their English writing class the previous semester. The teacher implemented a single draft, product-oriented approach to writing. The class was teacher-centered. On the whole, the teacher taught by the textbooks, lecturing on the basic techniques and methods for writing in English, and sometimes talked about his experiences with regard to life and learning English/English writing. He also instructed them in word usage and sample articles he provided. However, the students passively received the instruction with little discussion and minimal interaction. Then they were left to write on their own after class.

In their opinion, the techniques and methods taught in the English writing class were so abstract that they did not know how to apply them to writing. They complained about having little opportunity to practice. They also complained about the assignments not being corrected immediately; as a result, they did not know what mistakes they had made. Furthermore, they expressed dissatisfaction with the teacher for seldom commenting on their work and for only giving grades on it, which was not helpful for improving their English writing. They also had to memorize concepts and theories in the textbooks in order to take the midterm and final examinations. They thought they were learning almost nothing and that the class was boring. Some of them were disappointed in the way the class was conducted and resisted by not attending the class, not paying attention in class, or not working hard. The problems they mentioned here matched most of my descriptions in section 1.1.

Three of the participating students also had other English writing classes before the previous semester. They typically went through similar experiences.

The description of the way the class was conducted was corroborated by Mr. Yu in the pre-interview: the teacher lectured about theories in the two textbooks; sometimes the teacher and the students discussed sample articles in handouts; and the students handed in compositions for the teacher to correct. Most of the teacher's lectures focused on vocabulary, logic, and his own experiences.

4.2.1.2 Ideal English writing curriculum

Assertion 2. *The participating students hoped to have an English writing class that was structured, effective, interesting, and interactive. They also hoped for teacher feedback*

and opportunities to practice. (in response to sub-question 2: What kind of English writing class did the students hope for?)

To develop action strategies in accordance with the students' expectations, in their pre-interviews the participating students were asked about what they would like to have included in the On-line Writing Project and what an ideal English writing class was like. According to the participating students, in an ideal English writing class, the class is approached step by step; there are lively activities for the students to participate in, such as sharing and discussing each other's papers. The teacher is supposed to teach writing techniques and choice of words, provide good samples of English compositions for them to analyze, discuss, and model on, as well as comment on their writing products with regard to how to improve. The students hoped to interact more with the teacher so that they could ask questions. All the above statements were similar to the expectations of the participants in Jones' study (1999). The participating students in this study also hoped to interact with English native speakers and to learn to think and write in a native way. They expected the class to be interesting and effective, with ample opportunities to practice English writing.

In the pre-interview, the participating students were also asked what they would like to have included in the On-line Writing Project that they were going to be involved in. Since the participating students gave considerable attention to words and diction as can be seen above, it was natural for them to mention "vocabulary" (3 out of 16). The strong emphasis on vocabulary is distinct from the results of Huang's (1999) ESL Project, where the ESL students put great emphasis on grammar for English writing.

Other things that most of the participating students wanted to have incorporated into the On-line Writing Project were “teacher feedback” (4 out of 16), “using computers and the Internet” (4 out of 16), “emailing native English speakers” (4 out of 16), “skills concerning how to write in English” (3 out of 16), “feedback” (3 out of 16), and “more opportunities to practice English writing” (3 out of 16). Interestingly, one student replied, “I have no special requests and will follow whatever the teacher says” (Sharron, pre-interview, February 21, 2000).

After I analyzed the pre-interviews and obtained the above results, I revised the design of the On-line Writing Project accordingly.

4.2.1.3 Effectiveness of Internet technology

Assertion 3. *Exchanging e-mails with native English speakers excited the participating students. It also helped them better understand their e-pals’ culture and facilitated their ability to communicate. It was interesting, interactive, useful, and convenient.* (together with Assertion 4 in response to sub-question 3: How did Internet technology help the students with English writing? What were its advantages and disadvantages in relation to English writing?)

Like the participants in Chen et al.’s study (1997), the participating students in this study also expressed in the pre-interviews expectations of interacting with native English speakers through e-mails. Five of the 16 informants in the pre-interviews said that they look forward to interacting with American students through e-mails or in the chat room because they could read more authentic English, imitate the way native speakers write, learn more about another culture, make friends, and share experiences.

During the first few weeks, the students were excited when they talked about e-mail exchanges with their American partners. Eva was one of them.

Fieldnotes, March 13, 2000

Before today's class began, I walked around the lab, asking who had got in touch with their American partners. When I approached Eva, she said excitedly that one of her partners replied several times in the chat room. Tina, sitting beside Eva, added excitedly that he even mentioned his girlfriend. . . .

As the semester proceeded, some students expressed disappointment because their American partners did not reply to their e-mails, did not reply until weeks later, wrote too little, or did not exchange opinions with them. In their journals, four students mentioned their disappointment in regard to responses to their e-mails. Similar phenomena were reported in other studies investigating e-mail exchanges (Chen et al., 1997; Chen, 2001).

Among the 45 American students, 26 posted a self-introduction in the chat room. Another one sent her self-introduction through e-mail. As a result, every Taiwanese participant could see the self-introduction of at least one of their American partners. In terms of subsequent interactions, 11 American students e-mailed their Taiwanese partners to answer their questions. Four replied to their Taiwanese partners in the chat room. Two even replied to Taiwanese students who were not their partners. Two American students made more than one reply (one made two replies and the other made three). Therefore, 12 Taiwanese students got at least one reply through the chat room or one e-mail from an American student, whether it was from their American partner or not. Actually Taiwanese students often replied to their classmates, too. There were 56 posts in total, of which 43 were original threads, and 13 were replies to different threads. All in all, the Americans' interaction with the Taiwanese students was sparse.

The reasons for the low degree of participation by the American students might be threefold. First, they might have been busy with things related to graduation, such as proms, as mentioned in one of their e-mails. Second, the unequal language abilities between the participating students and their American counterparts might have weakened the latter's motivation to respond (Kern, 1996). Third, the topic or what the participating students wrote might not have appealed to the Americans.

In spite of the very limited interaction overall and no American participation in the third e-mail exchange regarding the comparison and contrast between traditional American values and their own, the participating Taiwanese students still thought it was a good idea to incorporate e-mail exchange into English writing classes (the 20th item in the post-survey, the mean being 1.06). Shirley's journal was representative of this feeling.

Shirley's Journal, April 22, 2000

. . . It's better to have someone who could write English e-mails to you, and introduce you their culture which is different from yours. It really activates my interest in learning writing through exchanging mails in this way.

A favorable reaction to exchanging e-mail with native speakers is common in the literature. For example, according to Lee (1997), e-mail exchanges with peers heightened students' enthusiasm for discussion of cultural topics. Denny and Gwen, like Shirley, thought that e-mailing American students helped them better understand their American partners' thought and culture. The power of e-mails to promote an understanding of e-pals' culture had already been Chen's conclusion (2001).

In addition to facilitating understanding of the target culture, many other advantages of incorporating e-mails into English writing were cited by the participating

students. Gwen and Charles thought it was interesting to correspond with their American partners. Shad said in the post-survey that e-mailing made English writing classes more interactive and novel. Gwen, Phoebe, and Charles liked the potential of learning the native way of writing through e-mails. Peggy and Gwen were of the opinion that using e-mail in English writing classes would increase the frequency of the students' writing letters and their ability to communicate in English. Gwen made explicit in the post-interview that the process of e-mailing her American partner made her realize that she had to work harder on her English. Sharron said in the post-interview that learning to use e-mails in this project put her "in the swim" so that now she uses e-mail a lot. Karl, Sue, and Eva praised the usefulness of e-mailing skills and the speed of delivery. Sue thought it was a good idea to use e-mails in English writing classes because the participating students could exchange opinions or stay in contact with each other, and she found email attachments useful too. Five of the 6 post-interview informants said that it was convenient to use e-mail in English writing classes.

Peggy and Joanne were the only two who disagreed with the item "I think it is a good idea to incorporate e-mail exchange into English writing classes" in the post-survey. The reason Joanne provided was that the teacher would not know how much the students had e-mailed and how to control unexpected mechanical problems. In addition, Joanne said in the post-interview that, like Peggy and Charles, it was not easy for her to talk to strangers, particularly when the topics of interest were different. In addition, she was vexed when she couldn't send her e-mail because the server was down.

Four of the 6 post-interview informants thought there were no disadvantages to using e-mail in English writing. However, 3 of the 6 post-interview informants had

returned e-mail or encountered problems with the server. Moreover, Karl had difficulties e-mailing his American partner because he was using a Macintosh computer. Joanne also mentioned in the post-interview that sometimes her e-mail turned out to be strange codes because of the differences between the Chinese and English windows operating systems.

The high mean score of 1.4 for the 18th item in the post-survey, “I am excited about sending or getting e-mails,” and the significant increase from the pre-survey to the post-survey revealed that the e-mail exchange in the On-line Writing Project excited the students throughout the semester.

Assertion 4. *The WWW helped the students find ideas to write and increased their understanding of topics related to their writing. It was convenient, fast, and updated. However, it was sometimes not easy for them to find what they needed.* (together with Assertion 3 in response to sub-question 3: How did Internet technology help the students with English writing? What were its advantages and disadvantages in relation to English writing?)

Similar to the results of Chen et al. (1997), five participating students stated in the post-interview or the post-survey that searching the WWW helped them find ideas to begin or write their essays and better understand the topic than would be the case of writing on their own. These students also showed in their journals their fascination with searching the WWW. Shad’s journal entry provides an example.

Shad’s Journal, May 1, 2000

. . . What I have also learned from this course is to use search engines. Yahoo.com is really amazing, for it contains numerous web sites and countless information. If in need of some graphics or statistics for our articles, we can always satisfy ourselves by means of surfing those web sites. . . .

Shad also mentioned in his journal that brainstorming, WWW searching, and classmate publication in the chat room provided him with inspirations to write the otherwise empty essay. Sue mentioned in the post-survey that the varied sources on the WWW expanded and enriched her vision, in which the subject materials had been limited. Five participating students indicated in the post-interview or the post-survey that students could find rich information on the WWW if they knew how to search, and sometimes, they could even find information not available in books.

In addition to the capability of the Internet of providing bountiful information, its other benefits were shared by Peggy: she could also emulate the sentence structures or imitate the examples on the Internet to improve her writing. She also noted in the post-survey that the WWW searching in the On-line Writing Project made her learn more systematically and extensively about Chinese/Taiwanese culture.

Nine students mentioned in their journals, the post-interviews, and the post-survey that it was more convenient to search information on the Internet than in books, including Ruby, who thought it was much easier to search information on the WWW than in books: the searcher could download the needed information immediately and save paper. Peggy also liked web searching better because the information was always available for many people to use at the same time, whereas books in the library might be unavailable if they were checked out. Six participating students stated in the post-interview and the post-survey that it was faster to search information on the Internet.

Peggy, Sharron, Tina, Karl, and Gwen mentioned in the post-survey that the information on the Internet was usually more up to date. Tina and Karl also mentioned that the view points of the information on the WWW corresponded better to current

trends; they also believed that the future trend would be to incorporate web searching into English writing classes.

The high mean score (being 1.13) of the 9th statement in the post-survey, “Searching the WWW helped me find ideas to write,” also revealed that the students thought the WWW was a good source of ideas. The high mean score (being 1.06) of the thirteenth statement in the post-survey, “I think it is a good idea to incorporate WWW searching into English writing classes,” indicated that the students liked the incorporation of the WWW searching.

However, sometimes some of the participating students had trouble with the WWW. Gwen mentioned in the post-interview that it was not easy to find what she needed: she sometimes had to enter many different keywords to get desired results. In the post-survey, Peggy expressed similar frustration. Joanne said in the post-interview that when she entered keywords, either too many or too few results came back. When there were too many results, it became difficult to choose. This phenomenon of getting lost in the information sea of the WWW is often seen in the participants of other web-based studies (Chen, 2001). Addressing the fact that there were many links, advertisements, or irrelevant but interesting material, which was distracting, Joanne suggested that the teacher should ask the students to classify and organize the search results.

Because of her frustration with searching for the desired results, Joanne disagreed with the post-survey item: “I think it is a good idea to incorporate the WWW searching into English writing classes.” The reason she provided was that it would be impossible to control the students’ speeds of reading. Phoebe also pointed out in the post-survey that

she was not sure whether it was a good idea to incorporate WWW searching into English writing classes because it did not guarantee finding suitable information and it was a waste of class time.

4.2.1.4 Effectiveness of process writing activities

Assertion 5. *The pre-writing activities helped the participating students find ideas for writing; they helped the students focus while expanding their views.* (together with Assertions 6 and 7 in response to sub-question 4: How did process writing activities help the students? What were their advantages and disadvantages?)

According to the participating students, the pre-writing activities helped them find ideas for writing. Take the first pre-writing activity, brainstorming about Taiwan, for example; unlike the rare incorporation of ideas engendered in pre-writing discussion in Huang's study (1995), of the 132 ideas produced in the first pre-writing activity in this study, 21 were used in the students' first compositions. Among the 21 ideas used, 12 were not generated by the writers themselves but by their classmates. No wonder Shad claimed in his journal that brainstorming was one of the important resources for getting ideas for writing. Sharron also said in the post-interview that the pre-writing activities made her more aware of what was important about the topic, and she felt that it was easier to write after doing the pre-writing activities. Joanne agreed in the post-interview that pre-writing activities could help her to decide on a direction before she wrote randomly without thinking. Gwen's high praise of pre-writing activities was a good summary of what the participating students perceived about pre-writing activities.

Gwen: Pre-writing activities can give us inspirations. For example, in the pre-writing activities for the argumentative essay, I shared opinions with my

classmates, which really broadened my views. It was interesting. I hope the pre-writing activities can be given more time. (post-interview, June 20, 2000)

The high mean score (being 1.13) of the 48th item in the post-survey, “Pre-writing activities helped me find ideas to write,” confirmed the helpfulness of pre-writing activities.

Assertion 6. *Peer reviews helped the participating students see their blind spots, recognize their strengths and weaknesses, and understand what was important about the written topic, what to revise, and how to revise. The activity was so interactive and relaxing that they could freely exchange ideas and cooperate. They learned to pay more attention to content, organization, and audience needs. They also learned to think more and look at things from different angles.* (in response to issue 2 in 2.1.2.4: Is the peer reviewing activity effective with Taiwanese learners? and issue 2 in 2.1.2.3: Do ESL/EFL students and teachers find peer reviews helpful? also, together with Assertions 5 and 7 in response to sub-question 4: How did process writing activities help the students? What were their advantages and disadvantages?)

The paired t-test for the comparison between the pre- and post- peer review drafts showed that the three peer reviews were effective. According to the post-survey, the students agreed that peer reviews helped them in the following ways: the 24th item “Peer reviews helped me find ideas to write” (the mean being 1.06); the 39th item “My partners helped me find out mistakes that I was not aware of” (the mean being 1.19); the 41st item “Peer reviews helped me understand audience need” (the mean being 1.44); the 40th item “Reviewing my partners’ drafts was helpful to my English writing ability” (the

mean being 1), and the 61st item “In the future, I should be able to revise my own drafts according to the tips on the peer response sheets” (the mean being .88).

Charles talked about the advantages of peer reviews in his post-interview.

Charles: I liked best about peer reviews. We can know each other, talk, and interact. The reviewers can show his or her knowledge of English writing, and the writers can absorb the knowledge. . . . It is very helpful. I personally cared about diction very much, and my partners directed my attention to content and organization, which I tend to ignore. . . . It also made me aware of my strong points and weak points. After peer reviews, I knew better what was important, how to revise, and what to work on. (post-interview, June 20, 2000)

Eva totally agreed with Charles that peer reviews helped her realize her weak points and pinpointed things for her to improve. The participating students’ appreciation of peer reviews was also shown in their journals.

Shirley’s Journal, April 22, 2000

. . . I think that the ‘peer review’ is really a useful way for me. Because I usually fail to find out the mistakes I wrote in the composition, and it’s really important to have double-checked and some exchanging in opinions. . . .

Sue, Shirley’s partner in the first and second peer reviews, also thought highly of the reviews.

Sue’s Journal, March 25, 2000

I just had my first peer review.

I really think it’s helped me a lot, and I am very thankful for my partner’s thorough thinking that points out the incomplete sentences and ideas. We spent almost two hours recording the energetic discussion and exchanged lots of opinions with each other. . . .

In the open space for reaction to the On-line Writing Project in the post-survey, Sue mentioned the advantages of peer reviews again.

Sue: This Project really gave me many opportunities to practice. Also, because of peer reviews, I not only understood more clearly the pattern and the consistent defects of my writing but also saw brief and to-the-point descriptions, which my writing lacked, in my partner's drafts. The peer review activity also gave me a really really great partner to work with. . . . (post-survey, June 19, 2000)

As Shirley, Denny, and Gwen pointed out, it was encouraging that peer reviews helped them see the blind spots of their writing. Denny also said that peer reviews helped him organize his ideas more appropriately. Gwen said that the atmosphere during peer reviews was so relaxing that she could say whatever she wanted to. She could also compare her own writing ability with her partner's.

Sharron also liked peer reviews very much.

Sharron: I like peer reviews very much because my two partners were both nice. They carefully read my drafts and gave me constructive ideas that I hadn't thought of. They found a lot of mistakes I was not aware of and points which did not make sense. I think it is also good to read more of my partners' writing and share each other's ideas. After peer reviews, I felt more confident of re-writing my essay, and I would consciously avoid contradictory ideas. (post-interview, June 19, 2000)

Karl also agreed with Sharron that his partners had given him some suggestions he had not thought of, nor had the teacher. Tina and Phoebe mentioned another advantage of peer reviews, that is, the discussion sometimes caused them to think more than they had. Helen stated in the post-survey that seeing her partner's shortcomings made her alert to similar mistakes.

In the post-interview, Peggy talked about the process through which she got to understand peer reviews.

I: How do you like peer reviews?

Peggy: This is the first time I experience peer reviews. At first we didn't know what it was but just followed the response sheet. It was fun. After the first review you explained about peer reviews again in class. So in the second review, we knew better how to proceed. We took it more and more seriously and we did it better and better every time. The more peer reviews I did, the more I understood about the activity. I gradually understood why this is called process writing. (post-interview, June 20, 2000)

She continued to express her opinion that peer reviews are good for both the writer and the reviewer, and for both the one whose level was higher and the one whose level was lower.

Peggy: I think reviewing my partner's writing not only helped my partner but also helped myself check my own writing and consciously organize my own composition. Peer reviews also helped us to communicate, made me more aware of my audience's needs, and facilitated me in understanding English writing. After the second review, I learned to think about the content of the composition more carefully and avoid using single perspective because I might be refuted. . . . I think peer reviews are good for students whose level is higher as well as those whose level is lower: the writing of the higher level students can serve as a model for their partner; finding out the defects in the writing by the lower level students will also help the more capable one to write. (post-interview, June 20, 2000)

In light of the peer review tape transcripts, some of the dyads fully interacted, while others did a poor job. All of them were on task. Various kinds of topics were discussed, including format, organization, content, form, difficulties they encountered, and so on. Also, during peer reviews, the writers often automatically talked about the weaknesses of their writing or raised questions to solicit the reviewer's help. Apparently peer reviews offered great opportunities for the students to negotiate meaning and collaboratively solve the problems they encountered during the process of writing.

The post-interview informants did mention some problems with doing peer reviews and gave some suggestions. Peggy mentioned that when the levels of the pair

were close or both were low, the improvements would be limited. Therefore, she proposed that partners should be randomly assigned every time to reduce the chance of such matches. Or, as she suggested, larger groups consisting of more than three people in each group, could replace the dyads. Sharron proposed that the teacher carefully match the students for the peer reviews because if one of the reviewers was too busy to read the draft to be reviewed, the activity would not be successful. Shad, Gwen, Karl, Peggy, and Sharron thought that there was too much trouble involved in doing peer reviews outside of class. Moreover, both Gwen and Karl had the feeling that both sides, being students, could be subjective when evaluating each other's drafts. Karl wondered how to offer actual helps when his partner failed to write well. He also thought peer reviews took much time. Joanne said that it was difficult to control the quality of peer reviews unless both sides made adequate preparation. Charles mentioned the issue of how to convince their partners of what was needed in their writing without hurting them. He thought it would be better to do the activity with someone familiar so that there would be more trust and more honesty with each other. He also believed that it would be more convincing if more people could review as a group. He suggested that one more peer review session be done after a draft had been revised based on the first peer review. Peggy also suggested that large group peer reviews be held more often.

Assertion 7. *Publishing the participating students' writing on the Internet prompted them to work harder. They could share ideas, compare and contrast their works with those of others, and emulate each other's good points.* (together with Assertions 5 and 6 in response to sub-question 4: How did process writing activities help the students? What were their advantages and disadvantages?)

In light of the results of the post-survey, the students agreed with the 68th statement that “Reading the posts by my classmates helped me in English writing”, (means being .81). Shad admitted in his journal that without the help of brainstorming, searching the WWW, and reading published essays by his classmates in the chat room, he would have little to say in his essay.

Peggy said a lot about publishing and posts by Americans versus her classmates in the post-interview.

Peggy: Publishing our writing on the Internet pushed us to write more seriously. Everybody has their specialties and we can emulate each other’s good points. I can also understand how other people think about the topic I wrote or am going to write.

Compared to the posts by the American students, we worked harder, so the content is richer. It was my classmates’ but not the Americans’ posts that helped me do the writing assignments.

I found that only when your post is interesting will other people respond and reply. I also found that the levels of the students in this class varied to a great extent. I felt much pressure and a sense of inferiority. I’ll try to emulate the good ones. It’s also unavoidable that I will care about how others look at my writing and that I might try to cater for my classmates. (post-interview, June 20, 2000)

Two things related to this interview were touched on by Chen (2001). The first was that her participants also declared that although their American e-pals enhanced their understanding of the cultural issues under discussion, it was their peers who provided them with new and better ideas to write and explore. Second, her participants were also afraid that what they shared might be disliked by their peers at the beginning stage of the study.

On the other hand, Sharron looked at the posts by the American students and her classmates from a different angle from Peggy although she also derived a sense of inferiority.

Sharron: The American students wrote very much. It was obvious that they wrote better. The posts by our Taiwanese students were easy to understand, containing only some words that I didn't understand. The speed of connection was usually slow, especially when I was at the dorm. The American students' posts opened my eyes and made me feel that my English was not good enough and needed work. The posts by our class were more Chinese style. You could still see the introduction-continuation-turn-conclusion format. I felt my posts sucked, so I was worried that other people would look down on me. Therefore, I worked harder. Posting my work on the Internet also made me learn how to use the Internet. I liked to read the posts because I could see how I wrote differently from my classmates and we could share ideas. (post-interview, June 19, 2000)

Peggy, Tina, Sue, Helen, and Karl thought that reading posts online made it possible for them to emulate each other's good points, to discuss issues, and give opinions. Sue and Helen also found some ideas they had not thought of in the posts. Sue also liked to see how other people wrote about the same topic. Helen thought that posting student writing on the Internet was a good idea because she could read her classmates' writing very soon.

Gwen, who is very fond of reading posts, said a lot in the post-interview. According to her, publishing student writing on the Internet stimulated her to read the posts again and again, which helped her understand the topic more deeply. She could also compare and contrast her writing with the posts to find out how well she wrote. What was even better, she could read the posts whenever she wanted to. Another advantage was that they could use nicknames to post works in the member discussion area in the chat room so that she wouldn't have to feel embarrassed.

Like Peggy and Sharron, Joanne and Charles said in the post-interview that they wouldn't write sloppily because their writing would be published on the Internet, which gave them a sense of achievement and made them work harder. I even met Peggy unexpectedly in a computer lab on a Tuesday. She went there to read the posts because she did not finish reading them in class the day before on a Monday. The autonomous learning spirit among the students heartened me. The motivating effect of publishing students' works on the course website was also apparent in Chen's study (2001).

On the other hand, there were some disadvantages in having the students post their writing on the Internet. Joanne said in her post-interview that if the students failed to read the posts regularly, there would be too many unread posts, and they would not want to read them at all. Unfortunately, when the students did not have time to go online, they would not be able to read the posts. In addition to Sharron, in their post-interview, Tina, Charles and Karl also mentioned the problem of connecting speed. Karl even said that he had been quite interested in reading the posts at the beginning but that the slow speed impaired his interest. Moreover, Karl and Eva complained about the words being so small that the posts were not easy to read. Both Eva and Sue thought reading posts online was time-consuming.

To sum up, process writing activities as a whole helped the participating students share ideas, find ideas to write, and gain in cognitive skills. In addition, as revealed by Wei (1995), Charles articulated in the post-interview that process writing helped him write more and better.

I: How did doing the pre-writing activities, writing multiple drafts, peer reviewing, and publishing in the chat room affect your feelings of English writing?

Charles: There were a lot of steps. It was heavy. But it is of great help. It used to be difficult for me to write even 8 or 12 lines before; now I can write more. I think it is practical. I think my English writing ability has improved. It is more challenging to write this way and it is professional. This is more like what a college student should have. In spite of the challenges and heavy jobs, I like to write this way. I felt more confident. . . . Now I can write pretty much when I write papers for other courses in English. The teachers were surprised. I attributed all this to this Project. (post-interview, June 20, 2000)

In the post-interview, the informants gave the following suggestions regarding the incorporation of process writing. First, it may be difficult for them to contact each other if the peer reviews are to be done outside of class, especially when two people in a pair are not familiar with each other. Therefore, peer reviews should be done in class. Second, the teacher should take into consideration whether the levels of the students are suitable for process writing. Third, the teacher should introduce the process and its meaning as often as possible at the beginning of the activity.

4.2.1.5 Effectiveness of peer feedback

Assertion 8. *The peer reviewers gave considerable feedback, especially about content and organization. They were good at identifying mistakes in content and organization but not very good at providing specific suggestions with regard to how to revise.* (in response to issue 7 in 2.1.2.3: Do ESL/EFL peers give incorrect feedback? also, in response to sub-question 5: How helpful was peer feedback?)

After I transcribed the tapes recorded by the participating students while they were doing peer reviews, I examined their pre- and post-peer review drafts of the 48 essays by referring to the peer response sheets and the tape transcripts. It was discovered that the participating students made extensive comments and suggestions about content/organization as presented in Table 4.4.

Table 4.4

Peer Comments and Suggestions about Content/Organization

	comments with suggestions	comments without suggestions	total comments	suggestions with comments	suggestions without comments	total suggestions
Number	123*	82	205	123*	39	162
Inappropriately advised			13			30
Revisions effected	48*	75	123	48*	12	60
Inappropriately revised	2*	0	2	2*	3	5

*overlapping cases

Unlike the lack of peer comments, particularly about content, in the studies of Min (1998) and Tsui (1999), the participating students in this study indicated 205 problems related to content and organization, offering 123 specific suggestions; among the 205 problem instances, I found only in 13 of them were the peer reviewers wrong. These comments led to 123 changes; I found that only 2 originally correct instances were changed in the wrong way.

Examples of problem-indicating statements were: “The introduction is too long,” and “There is more than one topic.” Examples of their accompanying suggestions were: “Divide the introduction into two paragraphs,” and “Talk about only the New Year’s Eve or the first day of the New Year.”

In addition, the peer reviewers gave 39 specific suggestions about content and organization without offering accompanying problem-indicating statements, which happened especially when the writer automatically asked questions or for help.

The 123 specific suggestions with problem-indicating comments, combined with the 39 without, resulted in 162 specific suggestions. Among these 162 suggestions about content and organization, I found that 30 were not appropriate. These suggestions effected 60 changes, 48 of which overlapped with those caused by problem-indicating comments; and I found that 5 of the changes, 2 of which overlapped with those caused by problem-indicating comments, made the drafts worse.

To sum up, the 205 problem-indicating comments and 162 specific suggestions about content and organization were comprised of 123 pairs of comments and suggestions, 82 comments without suggestions, and 39 suggestions without comments. They induced 135 changes in content and organization, of which only 5 made the content worse.

The reviewers also indicated 91 surface mistakes or weaknesses with 82 suggested usages. Among the indicated instances, I found that 15 had been correctly and well written; among the suggested usages, 23 were found to be wrong. The writers accepted 37 of the suggestions, among which 6 were wrong.

The peer reviewers' comments induced numerous revised instances of both content/organization (135 changes) and form (37 changes). The participating students' considerable revision based on peer feedback—and the fact that their revised drafts were significantly better than the pre-peer review drafts—refuted the claim of Leki (1990) that ESL peer reviewers are not capable of producing comments that will assist their peer writers in revising their composition.

Table 4.5 shows the comparison between content/organization comments/suggestions and surface comments/suggestions.

Table 4.5

Comparisons Between Content Comments/Suggestions and Surface Comments/Suggestions

	content comments	content suggestions	surface comments	surface suggestions
number	205	162	91	82
inappropriately advised	13	30	15	23
percentage	6%	19%	16%	28%
revisions effected		135		37
percentage		55%		41%

As opposed to 205 problem-indicating comments about content and organization and 162 specific suggestions with regard to how to improve them, the participating students made many fewer comments and suggestions about grammar mistakes (N=91, 82). This is contrary to Chi's (1998) and Hung's (1999) findings, where peers tended to give feedback related to surface features, such as sentence structure, wording, and grammar mistakes, and ignored idea development and organization.

The participating students' ability to find mistakes in content and organization was good. When they pointed out mistakes in content and organization, there were only 6% (13/205) inaccurate charges. On the other hand, their ability to give specific suggestions as to how to improve content and organization and surface structures was not quite as good, making 19% (30/162) and 28% (23/82) mistakes, respectively. This supports what Chou (2000) noted: the students were not skilled at giving their peers specific suggestions as to how to revise their drafts.

The fact that the participating students' knowledge about English writing was not extensive enough was also revealed in their response sheets. In these are items requesting the reviewers to mark the thesis statement and topic sentences and to answer some yes/no questions, such as whether the writer gave enough evidence, whether there are confusing sentences, whether the thesis was developed, and whether the paragraphs have unity (see Appendix D for an example). An analysis of the response sheets showed that the reviewers did not do well in these items. The results are summarized in Table 4.6.

Table 4.6
The Number and Percentage of Inappropriate Feedback in the Response Sheets

inappropriate feedback for	number of cases	percentage
marking thesis statements	12 in 47 cases	26%
whether there are enough examples	4 in 58 cases	7%
whether there are confusing sentences	6 in 56 cases	11%
whether there is unity in paragraphs	12 in 48 cases	25%
marking topic sentences	57 in 116 cases	49%
whether the thesis is developed	10 in 46 cases	22%
giving examples of keywords	18 in 52 cases	35%
whether there is flow between paragraphs	22 in 64 cases	34%
whether there are misplaced sentences	14 in 42 cases	33%
whether the conclusion is logical	7 in 43 cases	16%

As seen in this table, the results show that the reviewers were better at basics such as deciding whether an essay contained enough examples, confusing sentences, and a logical conclusion than at commenting on more difficult aspects regarding thesis statements, unity in paragraphs, topic sentences, thesis development, keywords, paragraph flow, and misplaced sentences. This suggests that the reviewers did not possess mastery of English writing skills. Fortunately, however, this did not seem to

influence the quality of the writer's revision: after peer reviews, the post-review drafts were significantly better than the pre-review drafts.

4.2.1.6 Effectiveness of the On-line Writing Project

Assertion 9. *The students learned a lot from the On-line Writing Project, in which they had more opportunities to write, cooperate, and think. This whole new experience transformed them into active learners. They studied harder. Because of their willingness to give help and their appreciation of receiving help, a learning community was formed.*

(in response to sub-question 6: How did the On-line Writing Project help the students?)

The participating students reported in their journals that they had learned a lot from the On-line Writing Project and thought it was helpful.

Sue's Journal, April 10, 2000

Today I successfully sent my "second" final draft through attachment! In fact, I feel embarrassed because it never occurred to me the attachment is exactly that attachment! Anyway, I know one thing helpful more now!

I think this course had really been of great help! It gives us more chances to write and think, learn from each other through a lively way, get to know more about USA, and have a friend at a distance. . . .

Shirley's Journal, April 22, 2000

. . . well, the advantages [of learning through the computer or Internet] are as below. . . at the same time we learn the basic skill of writing, we also learn of how to utilize the computer, too. . . .

Shad reported that he had learned how to use the search engines and to apply his writing knowledge to review writing drafts.

Shad's journal, May 1, 2000

The first time I heard about this class, my reaction was, "Wow. E-mail exchanging with American students. That rocks." However, after a couple of weeks of classes, I found something more interesting and helpful to my English writing—

discussion over sample articles. The co-teacher usually hands out articles written by other ESL students or school teachers. After reading them, we apply the writing techniques, such as parallelism, use of transitions, a topic sentence per paragraph. . . to examine the articles. Surprisingly, we tend to find the logical mistakes ourselves often make as well as the wordiness problem. The various ideas and opinions gathered can not only benefit our writing but also enlarge writing materials we use.

The participating students also mentioned in the post-interviews what they had learned from the On-line Writing Project.

Sharron: In this class I have learned a lot about writing skills. I learned to find out mistakes for my partners. But before that, praise them first. I learned how to check my e-mails and attach documents. In the process of writing the third essay, I learned about environment protection. I also reviewed some English usages. (post-interview, June 19, 2000)

Charles: I wrote fewer pieces this semester. I used to write a piece every week. This semester I wrote a piece every two or three weeks, but the quality has improved. I learned a lot from this Project. I learned how to think, prepare, logic, brainstorming, clustering. I also learned to distinguish things I should pay attention to from those I don't have to, I learned how to revise what I want to express, and I learned how to write introductions, conclusions, and add details. But I didn't learn about diction. (post-interview, June 20, 2000)

Gwen said in the post-interview that she had learned to move faster on the Internet. Karl said in the post-interview that he had learned how to brainstorm and would try it again in the future. He also had learned to search information on the Internet, do peer reviews, and exchange e-mail with his American friends. Peggy said in the post-interview that she learned to organize her writing. Sharron said in the post-interview that she would continue to use the WWW to search for information for other reports and for other uses. Joanne said that she learned better how to interact with her partners in the peer reviews.

Actually, I discovered in my investigation that among the 16 participating students, 7 had not known how to attach documents to e-mail. Some were not familiar with the use of computers either. For example, Jill said that she was a little afraid of using the computer in the On-line Writing Project initially, but adjusted to using it because of the co-teacher's instruction and her classmates' help. Tina and Peggy had been somewhat apprehensive about having to use computers in the On-line Writing Project before it began, so they asked their friends to participate with them. It turned out that they learned to learn by using the computer.

Peggy said in her post-interview that the new and untraditional instruction in the On-line Writing Project had made her more willing to try. Helen also liked the active atmosphere of the On-line Writing Project, as this excerpt from her journal reveals.

Helen's Journal, April 28, 2000

What I like about this class is that the students actively and willingly expressed their own opinions and suggestions about the class. . .

As I had noted in my researcher's journal, Jill called one day to inform me that she was unable to hand in the final draft of her first essay on time because she was going to revise her essay to a great extent. The final draft of her first essay did look different from the first draft (See Appendix E). Joanne admitted that she used to leave the classroom immediately after the class was over, but during the semester of the On-line Writing Project, she found that there was more discussion to keep her around. Peggy said in her post-interview that the influence of using the computer, searching the WWW, and emailing with native English speakers was that she worked harder. Sharron also said in the post-interview that she worked harder in this On-line Writing Project, which was one

of the few classes she liked. The active participation of the students in the On-line Writing Project contradicted the description of Gwen, one of the participating students, in the pre-interview that the Chinese are passive.

The participating students were willing to try and give suggestions on the one hand and appreciated their partners' cooperation and help on the other. For example, Sharron, in her journal, expressed gratitude for the help she received from her partners.

Sharron's Journal, May 1, 2000

. . . Besides, I have to cooperate with my partner – a nice guy who always help me solve my problems of using computers and remind me to write my composition. . .

Similar gratitude for her partner's suggestions was expressed in Sue's journal.

Sue's Journal, March 25, 2000

This is my first peer review.

I really think it's helped me a lot, and I am very thankful for my partner's thorough thinking that points out the incomplete sentences and ideas. . .

Apparently, in addition to seeking information and assistance from their peer reviewers—as was mentioned in Assertion 6, the students also assumed the role of information/assistance providers, as described in the responsive/collaborative script in Gutierrez's study (1992). The collaboration among the participating students in my study, and their appreciation for their peers, made them a learning community.

4.2.2 Sub-questions from Ethnography

Assertions in this section are in response to sub-questions derived from ethnography, that is, questions regarding the influence of the On-line Writing Project on the participants' attitudes and knowledge system, their attitudes and behaviors with

regard to the On-line Writing Project, and the relationship between Chinese/Taiwanese culture and peer reviews/peer feedback.

4.2.2.1 Changes with regard to English writing

Assertion 10. *The participating students' attitudes towards and perceptions of English writing did not change much because of the On-line Writing Project: they liked writing in English and thought it was interesting, but they also thought it was difficult to write in English.* (together with Assertion 11 in response to sub-question 7: What were the participating students' attitudes and knowledge system in relation to English writing before and after they attended the On-line Writing Project? That is, how did the Project affect their attitudes towards or perceptions of English writing and their basic knowledge of English writing?)

As shown in the positive mean scores of the 1st and 2nd statements (.63 and .5, respectively) in the post-survey, the participating students liked to write in English and thought it was interesting to write in English. However, the negative result of the 3rd statement, "I think it is easy to write in English," revealed that the participating students thought it was difficult to write in English. As shown in Table 4.3, these perceptions were not significantly different from those in the pre-survey, which means the participating students' attitudes towards and perceptions of English writing did not change to a great extent because of the On-line Writing Project.

To understand whether the On-line Writing Project made the participating students feel differently about English writing, in both the pre-interviews and the post-interviews they were asked about their feelings about English writing. In the pre-interviews, 6 out of the 16 informants (38%) said that they liked to write in English. Five

out of the 16 informants (31%) said that it was difficult, painful, or frustrating to write in English. Five out of the 16 informants (31%) said that they did not know enough vocabulary and that it was difficult for them to find the right words.

In the post-interviews, only six participating students were interviewed. Of these 6 informants, 2 (33%) said that it was interesting to write in English. Two (33%) said that it was not difficult to write in English. Two (33%) said that they couldn't clearly express in English what was in their mind. One out of the 6 informants (17%) said that it was difficult for her to find the right words. One out of the 6 informants (17%) said that it was challenging to write in English. One out of the 6 informants (17%) said that it was time-consuming, tiring, and troublesome to write in English.

Both the pre- and post- interviews reflected that the participating students thought it was interesting but somewhat difficult to write in English. A comparison of the two interviews show that the participating students' feelings about English writing did not change much between the beginning and the end of the semester. The insignificant difference on the first three statements between the pre- and post- surveys also confirmed that the participating students felt approximately the same way regarding writing in English over the semester.

Assertion 11. *The participating students' basic knowledge of English writing did not change much because of the On-line Writing Project: they were familiar with the basic theoretical concepts of English writing.* (together with Assertion 10 in response to sub-question 7: What were the participating students' attitudes and knowledge system in relation to English writing before and after they attended the On-line Writing Project?)

That is, how did the Project affect their attitudes towards or perceptions of English writing and their basic knowledge of English writing?)

To understand whether the On-line Writing Project affected the participating students' basic knowledge of English writing, in both the pre-interviews and the post-interviews they were asked about the characteristics of a good piece of English writing. The fact that most of the participating students answered appropriately implied that they knew well what a good piece of English writing was like. Eight out of the 16 informants (50%) said that a good piece of English writing should be coherent, well organized, and to the point. Seven out of the 16 informants (44%) said it was important to use accurate, beautiful, and varied words. Five out of the 16 informants (31%) answered, "A good piece of English writing should be clear and easy to understand." Five out of the 16 informants (31%) answered, "A good piece of English writing should be interesting and intriguing." Other characteristics of a good piece of English writing mentioned by the participating students included "touching" (19%), "varied sentence structures" (19%), "simple" (19%), "grammatical" (19%), and "direct" (13%).

Similarly, in the post-interviews, the answers were characterized by "coherent, well organized, and to the point", "with correct and beautiful words", and "clear and easy to understand", each of which was mentioned by 3 out of 6 informants. Apparently, the participating students' basic knowledge of English writing remained pretty much the same as before they attended the On-line Writing Project.

4.2.2.2 Attitudes towards Internet technology

Assertion 12. *The participating students were interested in and excited about the incorporation of the Internet, but this high evaluation gradually dropped off. (together*

with Assertions 13 and 14 in response to sub-question 8: What were the attitudes of the students and their teacher towards Internet technology in relation to English writing?)

At the beginning of this study, the participating students, when probed, exhibited much interest in the incorporation of the Internet in the Project. For example, after the first class, Denny expressed his excitement about the pre-interview.

I: Please describe a perfect English writing class for you.

Denny: I haven't thought about this question before. I thought the teacher lectured and the students wrote and turned in the assignments to the teacher. But today I feel different because all the materials were uploaded onto the Internet. If I am not familiar with anything, I can find it quickly on the Internet. I think it's a good way to learn in class. It's already perfect. It's beyond my former imagination about English writing classes.

I: Don't you think it's a lot of trouble? You have to turn on the computer to find information. Isn't it faster to consult books?

Denny: Maybe some people will think so at the beginning. But I think we should make it a rule to search the Internet in this information age. It's convenient and in the swim. (pre-interview, February 21, 2000)

Ruby also responded favorably to the way teaching materials from various sources could be combined and uploaded onto the Internet.

I: What do you expect we will do in this project?

Ruby: After the first class, I think the project is challenging because there is vast amount of stuff. The first unit alone contains 14 assignments. I kept clicking and clicking. I was overwhelmed. But I will take it easy. This time I feel that I am really going to get a lot of ways about how to write in English. There are abundant materials compared to last semester. I think the textbook last semester was too easy. . . (pre-interview, February 23, 2000)

Jill also said in the pre-interview that the first class made her excited because she could practice how to use the computer, Word, and the Internet, all of which would help her find information or study abroad.

It was also obvious from my fieldnotes that the students were initially quite excited about the incorporation of the Internet.

Fieldnotes, February 21, 2000

Today was the first class. After I handed down the questionnaires and the pre-interview schedule, I took the students to the web site and began the unit of preparation. One female participant asked me to repeat again, so I wrote down the website address on the blackboard.

I first explained the syllabus. Then, after I made sure that they did not have questions about word processing, I took them to the chat room. I showed them how to post a writing piece and display their photos. I heard a lot of sounds and some laughter. They seemed quite excited. Sue changed computers twice because the two computers were bad. Because of this, she had problems signing in and had to re-apply for the membership.

Then I showed them how to use Netscape to e-mail at school. Most of them knew how to check and send e-mails at home, but did not know how to do that at school. Also, most of them did not know about cc. After all these, I explained a little bit about the homework and left them some time to practice on the computer. Some participating students seemed not very familiar with Netscape. Some of them behaved awkwardly when using the Internet. Some of them asked simple questions.

Denny told Mr. Yu that he thought the class was interesting. He immediately used the on-line dictionary to look up the word "pedagogy" found in the introduction to process writing. A girl also tried the on-line dictionary. Two other girls went back to Netscape to search for something. Most of the other students were practicing posting in the chat room.

Fieldnotes, March 13, 2000

Today, I added a link named "Building Vocabulary" to the table of contents in response to the enthusiasm the students expressed in pre-interviews to learn more about vocabulary. When I told the students in class, some of them immediately went there and tried it out, just as last week when I told them I added an on-line thesaurus, some of them clicked it right away. They seemed to like the interactive word games very much. Many of them said they would try them after class. When I told them that they could subscribe a word a day through e-mail, many of them exclaimed happily. Then I taught them how to save the information and the links on a web site in a disk. They were very excited to know the fast and inexpensive way to use the Web. . . . When Shad found a Chinese web site related to his topic, he said, "Wow, amazing! Even this can be found!" . . .

When I observed Eva doing homework, she talked excitedly about searching the WWW in spite of the slow speed of the server at school at that time.

Fieldnotes, March 16, 2000

This afternoon, I observed Eva doing her homework. She wanted to check her e-mail first. We waited for a long time but could not go to Hotmail, so she gave up. Then she tried to go to the Project web site. Still, we waited and waited but didn't go anywhere, so we began chatting. She said that it was convenient for her to use Yahoo! to search the English information about the aspect of Taiwan which she was going to write. She was excited when she said that one of her classmates found a fantastic web site through Yahoo! search engines about a special topic of Taiwan, and it was English! She suggested me to go and see for myself. . . .

However, their excitement about the Internet gradually cooled. Some time after midterm, I found some changes in their attitudes towards the Internet as revealed in their journals. Some of the students, apart from pointing out the advantages of the Internet, began to express impatience with it and mentioned some problems. For example, Shirley talked about the harm of the computer on health and the waste of time in connecting to the web sites.

Shirley's Journal, April 22, 2000

. . . I feel that the disadvantage of learning through the computer or internet is as below:

1. the physically problem, such as the weariness of our eyes and body etc. And the radiation of the computer is harmful to our health in long term.
2. the time spending on connecting to the relevant homepage.

. . .

Charles pointed out in his journal that it was a waste of time to connect with a web site.

Charles' Journal, April 28, 2000

I think this class is very interesting to me. Take some activities in the class, like peer reviewing, discussion, brainstorming and so forth, they really work and inspire our interests. In my opinion, maybe we can spend more time discussing about the alchemy in composing instead of linking the network. Sometimes, I feel we waste much time in connecting with the website.

The students' complaints about wasting too much time online were also common in other projects that incorporated the Internet (e.g., Lee, 1997).

In the middle of the semester, in contrast to his positive exclamation about the Internet in the first class of the On-line Writing Project, Denny, in his journal, mentioned having difficulty absorbing and memorizing information from the WWW.

Denny's Journal, May 1, 2000

It is first time for me to use computer or Internet to learn something in school and in the beginning it is fresh and interesting for me . . . when I read the material on screen, I can't absorb it very quickly and efficiently and it happens in memorizing as well. Maybe I need more time to get used to this new teaching style. . . .

Peggy also mentioned in her journal the difficulty of recalling what she had read from the Internet until I told her to take notes. In addition, Sharron mentioned in her journal the inability to go through the vast amount of the information on the web.

At the end of the semester, 3 of the 6 informants articulated in the post-interview that going online involved too much trouble and time, and thus made them tired when searching the WWW. They suggested that the slow speed be overcome. Among the six post-interview informants, Charles chose "searching the Internet for information" to be the thing that he liked least about the On-line Writing Project. He thought it was a waste of time and would rather consult books to obtain deep and complete information.

On the other hand, the other three informants still thought it was fast and convenient to search the WWW and that it saved more time compared with going to the library. Among the six post-interview informants, Peggy chose "connecting to the Internet" as her favorite part of the On-line Writing Project. She thought it involved real and effective communication. In her reaction to the On-line Writing Project in the post-

survey, Sue indicated in the open space the challenge of working via the Internet and e-mail when the network was down, and at the same time, claimed that the two were necessary.

The mean scores of the tenth and eleventh items in the post-survey showed that the students still thought that it was important to learn to search the WWW (the mean being 1.19) and it was interesting to search the WWW (the mean being .94). However, the significant decreases in the scores of these two items from the pre-survey to the post-survey confirmed the assertion that the students were not as enthusiastic about the incorporation of the Internet as at the beginning.

A drop in the level of the students' excitement about Internet technology was also a finding of Chen (2001). In that study, the participants were excited prior to the web-based activities; however, when they began to participate, they retreated because they did not know how to select a topic for their assignment and were afraid of sharing their opinions in their posts. As the project continued, they understood that varied viewpoints on a single issue were inevitable, so their apprehension vanished, and they learned to openly express their angle regarding an issue.

The causes of the change in the students' attitudes toward the incorporation of the Internet in the Project could be due to the fact that the server went down easily, the speed for connection was slow, and the chat room was difficult to access as mentioned in other web-based projects conducted in Taiwan (Chen, 2001; Chiu, 1998). For example, on March 6th during the Project, the server was down. Fortunately, I had prepared some handouts on paraphrasing.

The fieldnotes I recorded when I was observing Eva doing her homework outside of class clearly showed how computer technology made her lose patience.

Fieldnotes, March 16, 2000

This afternoon, I observed Eva doing her homework. She wanted to check her e-mail first. We waited for a long time but could not go to Hotmail, so she gave up. Then she tried to go to the Project web site. Still, we waited and waited but didn't go anywhere, so we began chatting. She said that it was convenient for her to use Yahoo! to search the English information about the aspect of Taiwan which she was going to write. She was excited when she said that one of her classmates found a fantastic web site through Yahoo! search engines about a special topic of Taiwan, and it was English! She suggested me to go and see for myself. A dialogue box popped up, saying the site couldn't be retrieved. Eva asked, "Is the server down?" She re-entered Netscape, went to a school page, revised the address, and finally entered the Project page. She clicked "Building Vocabulary" and entered it. Because there were several pages, she tried to print the link. However, she failed. She made the left frame smaller and used "print preview", but the printer did not respond. She tried another computer, but couldn't enter the Project site. She went back to the first computer. She wanted to go to the chat area to see if anyone responded to one of her posts. But the speed was so slow that she decided to look for information for her first essay. She wanted to go to a certain site, but a box popped up saying all the servers couldn't be used. She asked me what to do. I said, "Press O.K." But then nothing happened for quite a while. She asked, "Now what?" I answered, "I don't know either." She moved the cursor and found the computer was running. We waited for some while and finally got to the destined page. After a short while she wanted to change to another site, but a box popped up saying the site couldn't be retrieved. She murmured, "Impossible!" She sighed twice and said "It's so strange. I can't stand it anymore!" Then she went back to the Project site, entered the chat room. Seeing one of her American partners responded to her post, she was very happy. She said, "He did reply!" While reading along smiling, she told me that this American partner of hers often went outing with his girlfriend. After she finished reading the response, she replied. After she posted the reply, she tried to print the link "Building Vocabulary" again but still in vain. Therefore, she had to read it on the screen. Because Hotmail was inaccessible, she asked me how to use the school e-mail. Then she sent an e-mail to subscribe "A Word A Day". Then she wanted to go to a government site but in vain, so she went to Yahoo! After about one hour's observation I left.

The chat room also went through repairs many times. The students often complained about not being able to post their drafts. After late March, the chat room could only be accessed though Internet Explorer, not by Netscape. In addition, it took

much time to use. The students often complained about the speed being slow. In hopes of making it work faster, I deleted all the self-introductions by the participating students and the American students. But it was still slow for the students to connect to the chat room.

Another reason may be that during the process of searching, some of the students found it difficult to find what they needed, as shown in the following excerpt.

I: What are some of the things you experienced when you were navigating the Internet or searching the Internet for information for your writing?

Joanne: When I was searching the Internet using keywords, I either found nothing or too much to choose from. Sometimes the results were messy if I searched many times using different key words. . . . (post-interview, June 23, 2000)

Shirley, Karl, and Charles also mentioned the same problem in their journals or post-interviews.

The participating students made several suggestions regarding the incorporation of the Internet. Gwen suggested in the post-interview that students should be taught how to search the WWW if Internet technology is going to be used. Charles suggested that real time chat be added to speed up their thinking. Karl said in the post-interview that if Internet technology is going to be used, the website should be well planned, interesting, and easy enough to enter and to find what the students need. He even suggested that BBS be used to replace the chat room because the speed was faster.

Assertion 13. *Some of the participating students thought the information on the WWW was not as deep, complete, and correct as that in regular books and may reduce opportunities for critical reading and thinking.* (together with Assertions 12 and 14 in

response to sub-question 8: What were the attitudes of the students and their teacher towards Internet technology in relation to English writing?)

Similar to some of the participants in Hsu's study (2003), some of the participating students in the present study also expressed concern over the quality of the information on the WWW. Two of the 6 post-interview informants indicated that the information on the WWW was not as detailed as that in books. Commenting in the post-survey, Denny thought that although the WWW provided a vast number of resources instantly, the information on the Internet was much less thorough and deep than that found in books. Gwen also pointed out that the information could be incorrect.

Gwen: I think the disadvantages of searching the Internet are that there are no regulations for the Internet. A lot of the information is just opinions but not facts, some even incorrect. It is important that you have the ability to tell facts from opinions and to choose. . . . the students should be taught to tell true information from false information if they are going to search the Internet for information they need. (post-interview, June 20, 2000)

It is obvious that the students have some ability to judge the information on the Internet.

Joanne articulated the tendency to rely on the Internet and use the information without inspecting it.

Joanne: The disadvantages of searching the Internet are that you are attempted to rely on the Internet. You don't want to go to the library to consult books. It's easy for you to just copy and paste the information, without reading carefully what is actually said. (post-interview, June 23, 2000)

When I observed Ruby doing her homework, she did seem anxious to obtain information by searching the WWW.

Fieldnotes, March 15, 2000

I was a little bit late, so when I arrived, Ruby had already started searching. She said she couldn't seem to find the information she needed and that she hadn't decided to write about culture or dancing. She went to Alta Vista and some electronic newspapers. She knew how to use the "Go" button to go to where she had gone. She went to some sites there and some sites from the list in her own memorandum. She said that she often went on the Internet to some sites to search some journals for her homework. She thought it was convenient. She went to the links in the Project website. I asked her if she thought much about what she was going to write. She said she wanted to surf the Internet to search to give herself more ideas. . . .

Peggy also said that it was tempting for students to imitate what is on the Internet and not to think for themselves. Thus, critical thinking seems especially important at a time when technology permeates the students' environment. As Lin et al. (1999) noted, it is as important for students to learn to understand the information on the WWW, to distinguish the true from the false, and to determine what is useful as it is to learn to find information.

Assertion 14. *The teacher had not thought highly of using the Internet technology in English writing classes before he participated in the On-line Writing Project; however, his evaluation of the Internet technology was greatly enhanced.* (together with Assertions 12 and 13 in response to sub-question 8: What were the attitudes of the students and their teacher towards Internet technology in relation to English writing?)

Mr. Yu's estimation of the use of Internet technology in English writing classes had obviously increased during the On-line Writing Project. When it began, he thought that although the Internet was the future trend and should be incorporated into teaching, the effect would be tentative. After midterm, he could no longer deny the power of the Internet, so he invited me to give a short speech on how to search the WWW to the other class that he was teaching. At the end of the semester, he even told me that he was going

to incorporate the Internet into his teaching the following semester and consulted me on the design of the class. Still, he recognized its disadvantages.

I: According to your experience in this class, what do you think of using computer and Internet technology in an English writing class?

Mr. Yu: The computer is a very good tool. . . . helpful in typing and writing letters and is also a new medium of communication. The Internet is even better. We can get to people instantly and find what we need easily through it. . . very useful to students. The computer is the most popular medium. Everybody likes it. Whatever is involved with it is popular. It is a must. It is in. It is helpful to English writing. However, it is also distracting. There is too much information on the Internet and takes the students too much time. (post-interview, June 20, 2000)

Regarding the use of the computer and Internet technology in English writing classes, Mr. Yu made the following suggestions. First, if the teacher can revise the students' drafts before they post them on line, the understanding of the native English speakers will increase and hence the interaction might increase and last longer. Second, the speed of connecting to the Internet should be improved. Third, the students' self-preparation is imperative. The students should be prepared to use the computer. In addition, they should read more to upgrade their writing level. They should also equip themselves with more knowledge about culture and humanities so that native English speakers interacting with them through the Internet might be more patient with them.

4.2.2.3 Behaviors in using Internet technology

Assertion 15. *Although the participating students were told to avoid plagiarism and had practiced how to paraphrase, some of them simply translated the information on Chinese websites into English or copied information from English websites. (together with*

Assertion 16 in response to sub-question 9: What were the students' behaviors in using Internet technology for writing in English?)

Some of the participating students tended to go to Chinese websites, plagiarize the information on them, and translate it into English. Peggy mentioned in the post-interview that sometime there was so much information on the Internet that it made her tired reading it; therefore, she would sometimes just jump to Chinese websites. Gwen said in the post-interview that it was not as easy to read English websites, so she sometimes went to Chinese websites and translated the information into English. Sharron also said in the post-interview that she often went to Chinese websites because English websites were difficult to read. Joanne said in the post-interview that she often went to Chinese websites, where she could easily decide whether to read a certain part more carefully.

Of the 48 essays by the 16 participating students, only two by Karl and one by Tina cited where their information came from. Gwen's third essay used information from a book, but she did not cite the source. Phoebe mentioned a website in one of her essays, but she did not give the address.

Assertion 16. *The students liked to have class in the computer lab; however, they could not resist doing irrelevant activities on the computer in class.* (together with Assertion 15 in response to sub-question 9: What were the students' behaviors in using Internet technology for writing in English?)

The students liked using the computer lab in class. When queried about what they liked best about the On-line Writing Project, 3 of the 6 informants for the post-interview stated that they liked to capitalize on the computer lab in class.

Gwen: What I liked best about this Project was that I could surf the Internet to do what I liked to do when the teacher digressed from the subject under discussion. (post-interview, June 20, 2000)

Sharron: What I liked best about this Project was peer reviews, which were helpful; the topics for the assignments, which constituted no obstruction for me to write; the teachers, both of whom worked hard and were nice; and the computer lab, which was air-conditioned and well-lit. I felt so free and never sleepy in the lab because there were computers inside so that I could surf the Internet. (post-interview, June 19, 2000)

Joanne also mentioned that she liked to sit in front of the computer because it made her feel “technological” and freed her from having to listening to the teacher all the time.

As observed by Chou et al. (1998), students sometimes worked on other computer files, checked their e-mails, or surfed the Internet for things unrelated to the class while working in the computer lab. My fieldnotes clearly showed this to be the case.

Fieldnotes, May 15, 2000

Today Mr. Yu was lecturing on Argumentation and logic. I walked around to see what the class was doing. Many of them had to hand in a report for another class later, so before Mr. Yu began to lecture, some of them had begun using computers. Sharron was looking for the information for the third essay. After about 10 minutes, she went to Netscape to check her personal account information. About 3 minutes later, she began to use e-mail. Eva was doing her report for another course. About 10 minutes later, she talked to Tina for a short while and then went to Hotmail to use e-mail. Phoebe was using BBS. After about 5 minutes, she went to the Project webpage for Lesson 3 and then used the chat room. After about 5 minutes, she went to Hotmail. Two minutes later, she went back to the chat room. Sixteen minutes later, she began to use e-mail. Two minutes later, she went back to the Project webpage for Lesson 3 and started to listen to the lecture at the same time. Shad was using the chat room. About 3 minutes later, he used e-mail for about 2 minutes, and went back to the chat room. About 2 minutes later, he talked to Phoebe for a little while and began doing his peer response sheet. About 8 minutes later, he began to type with Word. Ruby was looking for the information for the third essay. After about 15 minutes, she went to BBS to look for houses for rent. I know she has been vexed about her housing problem lately. Within 2 minutes, she resumed looking for the information for the third essay. Seven minutes later she resumed looking for housing. Three minutes later, she resumed looking for the information for the third essay. And then she just switched to and fro between these two activities every two or

three minutes. Tina and Sue were typing their reports for another class. Jill was typing her report for another class, too. After about 25 minutes, she went to Hotmail. Fourteen minutes later, she went to Netscape to use e-mail. About 3 minutes later, she went to the Project webpage for Lesson 3 and started to listen to the lecture at the same time. Denny was looking for the information for the third essay in Chinese WebPages. About 15 minutes later, he went to BBS. About 8 minutes later, he went to the chat room and sometimes gave a glance at the handout prepared by Mr. Yu. About 7 minutes later, he went to the BBS. After about one minute, he went to the chat room again. After about 5 minutes, he went to Netscape for a short while and returned to the BBS. Joanne was reading the Project webpage for Lesson 3. After about 42 minutes, she went to BBS. Karl kept typing using Word. Charles was late. He started with reading the Project webpage for Lesson 3. After about 15 minutes, he began to answer the questions in the second peer response sheet. After about 12 minutes, he went back to the Project webpage. Shirley was late, too. After she arrived, she opened her e-mail in Yahoo!. After about 8 minutes, she went to the Project webpage for Lesson 3 and listened to Mr. Yu's lecture at the same time.

The participating students also talked frankly in their journals about this phenomenon of engaging in unrelated activities in the computer lab during class.

Joanne's journal, April 24, 2000

. . . Second, because there are many students in a class, some naughty students may surf the other websites, not the Project's websites. Consequently, teachers can't promise every student concentrate on lessons. . . .

Shirley's journal, April 22, 2000

. . . 4. When attending the class, I tend to be easily distracted because I would 'automatically' open other files, or joined the BBS board at the same time when teacher lectures on the podium . . .

To address this problem, Joanne made the following suggestions: the class should be as small as possible; the students should be monitored in some way; or a co-teacher could advise the students not to engage in irrelevant activities while walking around to facilitate them.

To understand how popular the BBS board is with Taiwanese college or university students, I entered a computer lab open to all students at the university during their free time on June 30, 2000. I found that out of the 34 students in the lab, 24 of them were using the BBS.

4.2.2.4 Attitudes towards process writing activities

Assertion 17. *The participating students liked the pre-writing activities.* (together with Assertions 18, 19, 20, and 21 in response to sub-question 10: What were the attitudes of the students and their teacher towards process writing activities?)

The students responded favorably to the pre-writing activities, as shown in the video transcript.

Video transcript, March 13, 2000

. . . I asked the students to find a partner to brainstorm. They did not know what to do at first. They asked many questions. For example, whom should they ask to be their partner? How should the activity proceed? Where should they write? How many pieces of paper should they use? I told them to ask the person next to them to be their partner. After they began, there were sounds and laughter immediately. Two dyads (Sue and Joanne, Eva and Jean) were using English. But after the students started to work on their own, Charles, Shad, Jill, Ruby, Joanne, and Sue used English to brainstorm. Sharron consulted an English-Chinese dictionary several times. Denny and Sharron were using the computer instead of paper. After they started to work on their own, Denny continued to use the computer and Sharron changed to use paper. Only Phoebe and Gwen were using clustering instead of brainstorming. Shortly they stopped to work on their own. It seemed that they produced quite few ideas. Eva seemed to have decided what to write and began searching Chinese Yahoo! I asked her why she was not brainstorming, and she answered that she was searching the English name of a national park. All of them seemed quite concentrated. Ten minutes later, I asked them to share their ideas. . . . One hundred and thirty-two different ideas were produced. They were even more excited during the sharing process. In less than 6 minutes, they laughed 15 times. They were also concentrated and seemed interested. Even Mr. Yu smiled a lot. . . .

Sue and Charles mentioned in their journals after the first pre-writing activity that brainstorming was interesting. Charles also noted that brainstorming was effective. The other two pre-writing activities were similar to the first. The high mean score (being 1.19) of the 49th item in the post-survey, “I think it is a good idea to incorporate pre-writing activities into English writing classes,” confirmed that the students liked these activities.

Assertion 18. *Most of the participating students liked peer reviews.* (in response to issue 1 in 2.1.2.4: Do Taiwanese learners welcome peer reviews? also, together with Assertions 17, 19, 20, and 21 in response to sub-question 10: What were the attitudes of the students and their teacher towards process writing activities?)

Most of the participating students in the present study liked peer reviews, which is similar to the results of Chen (1998), Huang and Tang (1997), Mangelsdorf (1992), Mendonca and Johnson (1994), and Nelson and Murphy (1992). This assertion was derived from a variety of sources of data, including the post-survey, the pre- and post-interviews, my fieldnotes, and the students’ journals.

According to their responses to the post-survey, the students agreed with the 32nd item, “It is a good idea to incorporate peer reviews into English writing classes” (the mean being 1.31). Their responses to the 42nd item in the post-survey, “I like peer reviews” (the mean being .81), confirmed that the students liked peer reviews. This result was the opposite of what their teacher, Mr. Yu, anticipated at the beginning of the On-line Writing Project when he indicated that the students would not like peer reviews.

Actually, as early as the pre-interviews, Eva had already welcomed the idea of discussing with her classmates their writing assignments. In the post-interview, when the

participating students were asked what they liked best about the On-line Writing Project, two of the 6 informants answered, “peer reviews.”

Charles: I liked best about peer reviews. We can know each other, talk, and interact. The reviewers can show his or her knowledge of English writing, and the writers can absorb the knowledge. . . . It is very helpful. I personally cared about diction very much, and my partners directed my attention to content and organization, which I tend to ignore. . . . It also made me aware of my strong points and weak points. After peer reviews, I knew better what was important, how to revise, and what to work on. (post-interview, June 20, 2000)

The students’ appreciation of peer reviews was also shown by my fieldnotes and their journals.

Fieldnotes, April 10, 2000

. . . After class, Sue and Shirley talked with me. Shirley said that peer reviews were the most useful. She also said that it took too much time to be connected to the Internet and that the computer hurt the eyes and caused such problems as backache and tendon infection.

Shirley’s Journal, April 22, 2000

. . . I think that the ‘peer review’ is really a useful way for me. Because I usually fail to find out the mistakes I wrote in the composition, and it’s really important to have double-checked and some exchanging in opinions. . . .

In fact, Shirley wrote in the post-survey, “I think peer review is the best way to improve English writing this semester,” as her reaction to the On-line Writing Project.

Sue, Shirley’s partner in the first and second peer reviews, also thought highly of the reviews.

Sue’s Journal, March 25, 2000

I just had my first peer review.

I really think it’s helped me a lot, and I am very thankful for my partner’s thorough thinking that points out the incomplete sentences and ideas. We spent almost

two hours recording the energetic discussion and exchanged lots of opinions with each other. . . .

Sharron also liked peer reviews very much.

Sharron: I like peer reviews very much because my two partners were both nice. They carefully read my drafts and gave me constructive ideas that I hadn't thought of. They found a lot of mistakes I was not aware of and points which did not make sense. I think it is also good to read more of my partners' writing and share each other's ideas. After peer reviews, I felt more confident of re-writing my essay, and I would consciously avoid contradictory ideas. (post-interview, June 19, 2000)

The students liked peer reviews because they thought the activity was helpful, as revealed by the previous excerpts. The high mean scores (being .88, 1, and .67) of the 25th, 26th, and 27th items, respectively, in the post-survey showed that many of the students thought that peer reviews were generally helpful. Actual comparisons of the students' drafts before and after the peer reviews also showed that the students made significant improvement after peer reviews. ($p < 0.001$)

Among the 16 participating students, 3 held a neutral attitude towards peer reviews, and 1, namely Joanne, held a negative attitude toward peer reviews. She was the only one who chose to disagree with the 42nd item, "I like peer reviews," in the post-survey. She expressed her view in the post-interview.

Joanne: The advantage of peer reviews is that the writer and the reader can interact face to face. The reader can ask why the writer wrote this way and so on and the writer can clarify. If you are reading a magazine, it is one way: you can only accept what was written. And you can also learn what other people are thinking. But sometimes I didn't agree with the suggestions given by my partner or didn't think the suggestions were practical. The effects of peer reviews are limited. One of my relatives also had a class using peer reviews. She said the teacher was not doing her job. I don't think peer reviews should be done in class

because then English writing class will not be like English writing class. Teachers' lectures should be the priority of an English writing class. Peer reviews take too much time. . . . Since it is not for English writing classes, there is no need to do it too many times. A semester is very short. If we have to do it every week, it is too much trouble. It serves only as a stimulus; it is not the primary way of learning. (post-interview, June 23, 2000)

Assertion 19. *The participating students liked feedback, especially negative feedback; the more feedback they got, the better they felt.* (together with Assertions 17, 18, 20, and 21 in response to sub-question 10: What were the attitudes of the students and their teacher towards process writing activities?)

The participating students in this study have demonstrated their eagerness for feedback throughout the semester. At the beginning of the semester, 7 out of the 16 informants in the pre-interview indicated the desire to receive feedback from other people. Of the 7 informants, Joanne insisted that the feedback should come from the teacher. In the middle and at the end of the semester, Charles expressed in his journal and in the post-survey, his desire for the teacher to correct his writing and give him some advice. He also hoped to have group peer reviews instead of dyads. At the end of the semester, Sue mailed me a letter, enclosing the final draft of her third composition. In her letter, she wrote the following to me: "If you find any defects in my writing, please do tell me. I really want to know. . . ."

The students showed through their journals, the interviews, and the post-survey that they liked receiving as much feedback as possible. In his journal, Charles suggested that the peer review dyads be replaced by groups so that more comments might be obtained.

Charles' Journal, April 28, 2000

. . . I think maybe we can make a large group to go about the peer review because we can get more comments from other people about our own essay. I think that maybe one peer will neglect some mistakes in our essay. In addition, we can read more compositions of others. I think it will benefit us more. . . .

Similar to the results of Engler (1998), the participating students in this study consented to the statement "Teacher feedback combined with peer feedback is better than peer feedback alone" (the 45th statement in the post-survey, the mean being 1.56) and that "Teacher feedback combined with peer feedback is better than teacher feedback alone" (the 46th statement in the post-survey, the mean being 1.38). The extremely high mean scores show that the participating students desired as much feedback as possible.

As noted by Min (1998), Nelson and Carson (1998), and Wei (1995), the participating students in the present study also preferred receiving negative comments. For example, when one of Sharron's partners kept praising her draft and gave her only one negative comment and one suggestion, she was disappointed, as she did not think the limited negative feedback would help her improve.

Another episode illustrated the students' preference for negative feedback. During a peer review session, Karl confessed to his partner Denny that he thought that his own draft lacked coherence and that a certain sentence should have been moved elsewhere, but Denny had not found these two problems in Karl's draft. In the follow-up interview, when I asked Karl about this exchange, he said that he understood that everyone judged things from different points of view. However, since Karl thought he himself did not write well enough, he wondered if Denny was being too polite with his feedback, and

said that he would have appreciated some suggestions from Denny on the two points mentioned above.

In another case, Sharron gave Denny 24 surface suggestions about grammar or word usage in their second peer review. When asked in the follow-up interview how he felt about so many mistakes being pointed out, Denny said that he felt good about receiving so many suggestions, which made him aware that there were many mistakes in his writing.

Assertion 20. *Most of the participating students liked to have their writing drafts published.* (together with Assertions 17, 18, 19, and 21 in response to sub-question 10: What were the attitudes of the students and their teacher towards process writing activities?)

Most of the participating students welcomed the idea of having their writing drafts published, as indicated by the high mean scores of the 70th and 71st items in the post-survey, “I think it is a good idea for the students to post their writing to a place which is accessible to the class” and “I think it is a good idea for the students to post their writing to the Internet” (the means being 1.25 and 1.19, respectively). Charles also said in the post-interview that the sharing of ideas in publishing student drafts was helpful.

The mean score of the 69th item in the post-survey, “I like reading the posts by my classmates,” was somewhat low (being .5). The reasons for this that the students offered on the space provided included “it takes too much time to be connected”, “I don’t want to read”, and “there are so many posts; it takes too much time to read”. Still, on the average, the participating students read some to most of the posts (item 65 in the post-survey).

On the whole, the participating students thought process writing activities were helpful, as indicated by the participants in Chen's study (1998). Sharron even said in the post-interview that she thought that process writing was effective.

Assertion 21. *The teacher thought the process writing pedagogy was structured and effective, especially when combined with Internet technology.* (together with Assertions 17, 18, 19, and 20 in response to sub-question 10: What were the attitudes of the students and their teacher towards process writing activities?)

The teacher reacted positively towards process writing and thought it was effective when combined with Internet technology.

I: What have you learned from this project?

Mr. Yu: The pedagogy. The pedagogy was scientific, proceeding step by step so that the students had opportunities to gradually apply the vocabulary, structures, and what they had learned. . . (post-interview, June 20, 2000)

I: According to your experience in this class, what do you think of students' doing the pre-writing activities, writing multiple drafts, peer reviewing, and publishing in the chat room?

Mr. Yu: These were very good activities. Combined with the popularity of the computer, they brought about active interaction and cooperation between the students. The attendance rate was good. It was a good phenomenon that the students wrote so much and revised so much. Their potentiality was brought into full play. Challenged by the possibility of English native speakers reading their post, they made more efforts to write their essays. . . Compared with this class, the other class of mine has been quieter; fewer people come to class, too. These activities should start from kindergarten or primary school. . . I'm impressed that the students were so interested and revised so much. (post-interview, June 20, 2000)

4.2.2.5 Behaviors in using peer feedback

Assertion 22. *Most of the writers were capable and critical revisers: they accepted many peer comments and revised a lot but adopted few inappropriate comments or*

suggestions. (in response to issue 7 in 2.1.2.4: Do Chinese/Taiwanese learners use peer comments? and issue 8 in 2.1.2.3: Can ESL/EFL students tell quality feedback from inappropriate feedback? and issue 9 in 2.1.2.3: To what extent do ESL/EFL students incorporate peer feedback? also, together with Assertion 23 in response to sub-question 11: What were the students' behaviors in relation to using peer feedback?)

According to the 53rd to the 55th items in the post-survey, the averages of times the participating students revised the three essays were 2.1, 1.9, and 1.2 respectively. As shown in Assertion 8, the writers made 135 revisions in content and organization and 37 revisions in form according to peer feedback, while incorporating only 5 wrong comments or suggestions about content and organization and 6 wrong suggestions about surface structures. These numbers suggest that the participating students worked quite hard at revision but that they did not blindly accept the changes their peers advised. Most of the writers had the ability to distinguish quality feedback from poor quality feedback from their reviewers, as did the students in the research of Horgan and Barnett (1991) and Jacobs and Zhang (1989).

The fact that the peer reviewers' comments induced numerous revised instances of both content/organization and form contradicted Delpit's report (1995) where peer conferencing among black students incurred very few changes. The higher percentage of adopted feedback for content/organization ($135/244 = 55\%$) than for form ($37/91 = 41\%$) also differed from Chang's finding (1998) that the students focused more on problems of form and therefore adopted more comments about form than about content. This finding also contrasted with Chou's (1998) and Tu's (1997) that most of the revisions were at the lexical and phrasal level.

What changes did the writers make based on their partners' feedback, and what were some of the criteria the writers used to decide whether to accept the feedback? After cross-referencing the drafts, peer response sheets, and peer review tape transcripts, I found that, as to their partners' feedback, the participating students completely followed it, changed the problem areas without following the suggestions, deleted the problem areas, or did not change anything at all.

In the follow-up interviews, most of the participating students reported similar reasons for not acting upon a reviewer's problem-indicating comment or a suggestion. The most-often-mentioned ones were: the writer does not think it is reasonable or convincing, the writer is not sure whether the suggestion is correct, the writer has no time to revise, the writer forgot to revise, and the writer does not know how to correct or improve the text. The less-often-mentioned ones were: the writer did not notice the mistake or weakness, the text will need extensive revision if the writer is going to accept the suggestion, the reviewer misunderstands the writer, the writer did not care about the suggestions, and the text sounded weird after revision (so it was changed back).

Phoebe said that since they were accustomed to relying on the teacher, it was sometimes difficult to determine whether her partner's suggestions were right or not. However, judging from the fact that the writers did not blindly follow all the comments or suggestions and the fact that they accepted few incorrect comments or suggestions, we know that most of the participating students were capable and critical revisers.

Assertion 23. *The participating students maintained their authorship well.* (together with Assertion 22 in response to sub-question 11: What were the students' behaviors in relation to using peer feedback?)

The participating students' authorship was usually maintained, as can be seen from the fact that the student writers adopted only some of their peers' suggestions. An incident from my observation notes also testifies to this claim.

Fieldnotes, June 12, 2000

Today I observed Jill and Sharron doing the 3rd peer reviews. . . . Jill suggested Sharron adopt a neutral position and summarize all she has written in the concluding paragraph. Sharron didn't say anything. . . . The discussion ended and Jill left in a hurry. Sharron and I talked on our way to her dormitory. She told me that she wouldn't change the draft. She believed that when writing an argumentation, the writer should adopt a definite stance, that is, she should either agree or disagree. She defied the view that she should be neutral.

This incident clearly showed that the participating students did not accept whatever their peers advised.

4.2.2.6 Influence of Chinese/Taiwanese culture

Assertion 24. *The participating students were eager for teacher feedback. Most of them preferred teacher feedback to peer feedback.* (in response to issue 4 in 2.1.2.3: Do ESL/EFL students like teacher feedback better than peer feedback? also, together with Assertions 25, 26, 27 and 28 in response to sub-question 12: How did Chinese/Taiwanese culture impact the implementation of the On-line Writing Project?)

Similar to findings in a study by Kao (1993), the participating students in this study desired teacher feedback as indicated by the high mean score of the 63rd item in the post-survey, "I hope the teacher can comment or correct all my compositions" (the mean being 1.19). Among the 16 participating students, only Sharron did not choose "agree" or "strongly agree". Instead, she chose "I don't know", and in the space provided, she explained, "The job can be done by my classmates, too."

The participating students' infatuation with teacher feedback is shown by the result that, although 4 of the 16 participating students said in the post-survey that they did not think the written teacher feedback the previous semester was helpful, they still hoped the teacher could comment or correct all their compositions.

The 44th item in the post-survey asked the students to choose between peer feedback and teacher feedback. Twelve out of the 16 participating students (75%) chose the teacher to review their drafts. The result that most of the students prefer teacher feedback to peer feedback is in line with the findings of Chen (1997), Chi (1998), Kao (1993), Leki (1990), Nelson and Carson (1998), and Zhang (1995).

In spite of choosing peer feedback in the post-survey, Sue wrote about her struggle with it in the margin (no space was provided requesting explanation): "Gee, it's so hard to choose. The teacher is harder to find and the face-to-face pressure is big." Her full-length explanation about peer and teacher feedback in the space provided for the 33rd and 34th items in the post-survey betrayed her strong preference for teacher feedback, however.

Sue: The peers understand differently from the teacher. My partners gave me more suggestions about grammar or superficial understanding. On the other hand, the teacher's suggestions are mostly based on the relevancy and development of the composition in the hope that they will help the students think in the western way. To communicate with classmates face to face is less formal. The defects they point out are easier to repair. In contrast, the teacher's feedback is deeper, the most fundamental, and pivotal. (post-survey, June 19, 2000)

Denny thought the same way. He said in the post-survey that teacher feedback was more critical and more helpful than peer feedback but more difficult to follow. He thought that Mr. Yu emphasized diction while his peers cared about understanding the

writing. An interesting episode illustrates the value of teacher feedback in Denny's mind. After the first peer review, he followed all four suggestions about content or organization given by his partner, revised his draft, and posted the second draft onto the Internet. Then he had a conference with Mr. Yu. Afterwards, he revised again and the third draft was much more like the first draft than the second. When asked why in the follow-up interview, he said that it was because of Mr. Yu's remark.

Denny: Mr. Yu said that the post on the Internet was for the Americans to read, so I'd better delete some unnecessary stuff lest they be confused. So I compared and contrasted the first and second drafts and found that the first draft was easier to understand. I revised the second draft. But after the revision, I found it not smooth. So I retrieved the first draft to see what I could use. (follow-up interview, Dec. 31, 2000)

Karl said in the post-interview that he liked teacher feedback better because his level of writing knowledge was not the same as that of his classmates. Phoebe said in her reaction to the On-line Writing Project in the post-survey that the links on the Project website were all good and helpful, but the On-line Writing Project would be even better if the teacher could give feedback in time. Joanne even thought that all the troubles involved in process writing activities could be saved by teacher feedback alone.

Joanne: I've never experienced having to revise so many times. Why not just ask the teacher to tell us about our mistakes?! Although I won't correct the draft where the mistakes occurred, I can apply the knowledge to the next piece of writing. Seeing how badly I wrote for the first draft discouraged me from re-writing it. (post-interview, June 23, 2000)

The strong preference for teacher feedback among the students may be because they see the teacher as authoritative and as the single reliable resource in the classroom,

as mentioned in chapter 2. As Shad said in the pre-interview, “Of course it’s O.K. if it is my classmates who tell me where I did not do well. But the teacher will be trusted more by the students.” Phoebe and Gwen also thought teacher feedback to be more professional and more thoughtful than peer feedback. The negative mean score (-.45) of the 34th item in the post-survey, “Peer feedback is more helpful than teacher feedback,” also confirmed the mindset of the students. Therefore, although the students agreed that peer feedback was slightly more detailed and easier to understand than teacher feedback (the 35th and 36th items in the post-survey, the means being .18 and .73), they still slightly preferred teacher feedback to peer feedback (the 33rd item in the post-survey, the mean being -.25). This result was expected by Mr. Yu. He had told me prior to the beginning of the semester that what the students desired most was for the teacher to correct their writing assignments.

Shirley was one of the four students who preferred peer feedback to teacher feedback.

I: In the post- survey, you chose “strongly agree” for the item “I like peer feedback better than teacher feedback,” and provided detailed reasons. What did you mean by “Peer thoughts are more similar, and both are in the process of learning?”

Shirley: Peers work harder and are modest. Our levels are similar, and statuses equal, not like teachers and students. Teachers use “should” more often than give suggestions. I feel better to have peer feedback. I don’t have to worry about being laughed at and we can even discuss with each other. You can only listen to the teacher. The communication is one-way. (follow-up interview, June 25, 2000)

Because she has much less preference for teacher feedback, Shirley did not change one of her drafts after she conferenced with Mr. Yu. The reason she gave was, “I like what I have written better.” Still, she chose “agree” for the item “I hope the teacher can

comment or correct all my compositions” because she hoped her teacher could offer different opinions than those of her peers.

Another exception was Peggy, who said that she was very afraid of teachers, and that she would be under less pressure if her peers rather than her teacher reviewed her essays. Also, because her level and that of her peer are similar, she felt more capable of revising according to her partner’s suggestions and improving gradually.

Sharron also preferred peer feedback to teacher feedback. The reason she gave was that peer feedback brought less pressure.

Assertion 25. *While most of the participating students liked written teacher feedback, some of them did not understand the teacher’s oral feedback and felt pressured talking to him face to face.* (together with Assertions 24, 26, 27 and 28 in response to sub-question 12: How did Chinese/Taiwanese culture impact the implementation of the On-line Writing Project?)

Four among the 6 post-interview informants and 7 among the other 10 students had conferences with Mr. Yu during the previous semester or the current semester.

Peggy did not like the conference.

Peggy: I conferenced once with Mr. Yu last semester. I don’t remember very clearly now. What I still remember is that I was under great pressure. There was a vast distance between my works and Mr. Yu’s ideal. I think I will never reach the goal. The experience divested myself of power. He also told me what books to read, what texts to recite to reinforce my understanding of English composition. After the conference, I didn’t follow his advice to revise because I don’t think it’s important. Meeting with the teacher increases my writing anxiety. I might run away. (post-interview, June 20, 2000)

The tense and nervous feeling Peggy had towards student-teacher conferences was also present in the participants in Chi's study (1998). Even though Peggy did not appreciate her conference with the teacher, she still assented to the 63rd item in the post-survey, "I hope the teacher can comment or correct all my compositions." Her rationale was that the teacher knew better what standards they should reach and would push them to improve accordingly.

Joanne did not quite know what Mr. Yu was talking about in the conference.

Joanne: I didn't quite understand what he was talking about. He is a hard-working teacher. He talked about some philosophical stuff, but I felt very strange. He used a pencil to mark my drafts twice. The first time I didn't even know what he was talking about. The second time he told me to use the westerner's view point. He also told me to read some books. . . . (post-interview, June 23, 2000)

The perception that teacher feedback is difficult to understand was also found among the students in one of the classes studied by Hung (1999). In my study results, Shad indicated that he did not understand Mr. Yu either.

Shad: I don't remember what he was talking about. He kept murmuring about how to write English compositions, how to write topic sentences and supporting details. He talked about theories but didn't point out problems. He didn't ask me questions during the process but only asked if I had questions at the very end of the conference. (follow-up interview, July 25, 2000)

On the other hand, Gwen said she benefited from the conference with Mr. Yu.

Gwen: Mr. Yu is a man of considerable and profound learning. He told me that our American partners might not be able to understand what I have written. I should have chosen the subject more carefully. If I wrote about nature, beautiful sights, etc., they will be more interested. That's very to the point. (post-interview, June 20, 2000)

Sue also thought it was helpful to have a conference with Mr. Yu. Mr. Yu mainly focused on her thinking mode, which may confuse Americans.

Fieldnotes, March 27, 2000

The class was over just now. Sue and Mr. Yu were going to have a conference. Sue went to the chat room to print out her post of the first essay, whose purpose is to introduce Taiwan to her American partners. Her topic was “Family Responsibility”. After Mr. Yu read it, he told Sue that she should write a general statement in the introduction and put particular things in the following paragraphs. This would be closer to the thinking and cultural mode of the Western style. He also said that what she referred to as “family responsibility” here was actually parental duty, which would be easier for her American partners to understand. He also suggested Sue not to talk about Chinese situations before Western ones in each paragraph from the second paragraph on. He asked about Sue’s religion and explained that Catholicism and traditional Taiwanese religious beliefs were both authoritarian while Christianity was more liberal. He advised Sue to see things from the westerners’ point of view and write stuff that they would feel more informative. Throughout the conference Mr. Yu only asked Sue one question about her religious belief. During the rest of the time he talked.

Assertion 26. *Most of the participating students did not avoid indicating their peers’ mistakes or weak points in writing although they might not have been one hundred percent honest.* (in response to issue 3 in 2.1.2.4: Do Chinese/Taiwanese learners resist making negative comments? also, together with Assertions 24, 25, 27 and 28 in response to sub-question 12: How did Chinese/Taiwanese culture impact the implementation of the On-line Writing Project?)

Eleven out of the 16 participating students agreed or strongly agreed to the 23rd item in the post-survey, “I honestly and frankly told my partners the defects of their drafts” (the mean being .69). Of the other 5 students, Tina answered, “I don’t know.” She said that she did not honestly tell her partners the defects of their writing because she did not have confidence in herself as an authority. Therefore, when what her partner wrote seemed to conflict with her knowledge, she only asked why.

The other four students all disagreed that they honestly told their partners the defects of their drafts. Phoebe clarified that her second and third partners wrote such short drafts that she felt embarrassed to tell them so and had little to say about their defects. Shad pointed out that students were conservative and reserved in peer reviews, unlike teachers, who do not have to be polite. This is also true in peer editing. When asked why he did not do peer editing, Shad answered that he was not sure about his own ability, so if it was not an obvious mistake, he did not think he had the authority to point it out.

Joanne also said that she was sometimes reserved in giving feedback. She did not think she was being dishonest or trying to avoid hurting her partner. She just thought that it was not necessary to stick to her opinion because she was not sure whether she was right since her level was not so good, and it was all right if she and her partner just thought differently. Therefore, she would tell her partner about some defects in his/her draft, but not all of them, because sometimes it was a slip of the pen or a minor problem.

However, in light of my inspection of the peer review tape transcripts, the peer response sheets, and the pre-peer-review drafts, the four who denied that they gave honest peer feedback gave some-to-considerable negative comments about the content/organization of their partners' drafts. Phoebe gave six problem-indicating comments about content/organization in the first peer review, four in the second, and three in the third. Shad gave six in the first peer review, ten in the second, and ten in the third. Jill gave four in the first peer review, six in the second, and seven in the third. Joanne gave eight in the first peer review, five in the second, and three in the third.

As just described, the peer reviewers worked hard to help out the writers. They gave 205 problem-indicating comments and 162 specific suggestions about content and organization while indicating 91 surface mistakes with 82 suggested usages. This is contradictory to what Eva, one of the participating students, said about the characteristic, and generally accepted stereotype, of the Chinese: Chinese tend to be implicit and mind their own business (pre-interview, February 23, 2000). It seemed that the indirectness and implicitness characteristic of communication in high-context cultures like Chinese (Hall, 1976; Hall, 1983) were fading in this young group of participating students. At the same time, no one draft was said to be perfect and without defects. Therefore, it would seem that most of the student reviewers did not withhold all their negative comments from their peers.

However, some participating students showed their concern. Peggy mentioned in the post-interview that she was worried about how far she should go with her feedback to avoid offending her partner. Charles was found to give different and sometimes contradictory answers in the recordings and on the response sheets when paired with Shad. For example, I found that after the two students discussed each other's drafts, they filled in the response sheets and turned them in to me without giving them to each other. It was interesting that Charles was polite in the face-to-face discussion but more frank on the response sheets. In a follow-up interview over the phone, he talked about the mentality.

I: Why didn't you do peer-editing?

Charles: I lacked the confidence to correct my partner's draft. Do I really know that much? It's the same with peer reviews. I doubt both my and my partner's abilities. When I know my partner, and when we had to discuss face to face, I

feel strange. I'm afraid I will hurt her or him. It's like a superior to a subordinate. I dare not to be honest especially when the writer is not an old acquaintance. If I don't have to face the stranger, I'll concern less. (follow-up interview, November 9, 2000)

In light of this excerpt and his suggestions about doing peer reviews—that it would be better to do them with someone familiar so that there would be more trust and more honest between partners—Charles seemed to be able to speak openly to an acquaintance but not a stranger. This echoed Jandt's description (1998) of one of the effects of Confucianism on interpersonal communication, i.e., that ingroup members may talk in a freer and deeper way among one another. However, it contradicted the ingroup/outgroup distinction mentioned by Carson and Nelson (1994) that ingroup members might hold negative comments back from one another. Whether the reviewers have to face the writers also seemed to be one of the influencing factors.

The following excerpt illustrates the peer review session between Jill and Karl, who was one of the participating students who liked to use indirect speech.

Translated transcripts for the 1st Peer Review (Karl and Jill, March 23, 2000)

Karl: O.K. Hi, I'm Karl.

Jill: I'm Jill.

[Both laugh loudly.]

Karl: Let's begin the discussion.

Jill: O.K.

Karl: Uhm . . . I think your essay, from the point of view of number one about the strength of the essay, made it easy for readers to understand the situations about Taiwan. It's very clear, very easy to understand. That's the strength of the essay.

Jill: O.K. Do you think it is too easy, too simple?

Karl: Too simple?

Jill: Yeah?

Karl: Simplicity is not a problem. Sometimes it is a merit to use simple sentences if the content, if the content . . . we'll talk about the content later.

Jill: O.K. Thanks.

Karl: Uhm . . . wait a moment.

[Sounds of tape turned off and on]

Karl: [Read part of the 2nd question on the response sheet.] Is there a thesis statement? Yes, I underlined your thesis statements. You did make the first sentence of every paragraph the topic sentence.

Jill: O.K.

Karl: But . . . we'll talk about content later. And number three, about details. uhm, I think . . . uhm, following every topic you can probably add more.

Jill: Add more to support.

Karl: Right! Right! You have only two or three sentences in some paragraphs. I think maybe you can add more interesting stuff. Uhm, I think the fourth paragraph should be interesting to an American college student, but I don't know whether an American high school student will the same, too, because you wrote about the China/Taiwan issue and then the Presidential election and the future of Taiwan, and the relationship between Taiwan and China. Maybe they'll want to know. As to re-arrangement of examples, it should be O.K.

Jill: O.K.

Karl: Number Four, Do any sentences confuse you? There's one. But it could be due to grammar [chuckles]. This one "If you want to go somewhere, you had better go out earlier about thirty minutes ago."

Jill: [chuckles] What I meant was that if you want to go to a certain place, you'd better leave thirty minutes earlier lest you should be late.

Karl: Uhm-hmm. But, but it should be "go out about thirty minutes earlier . . ."

Jill: [At the same time] "Thirty minutes earlier", I should do without "ago". That's what I thought but I didn't have the time.

Karl: So there should be no problem. Oh! Here. The truly confusing sentence should be the last sentence. "So that Taiwan or China will be better in the future." What does it mean? Either Taiwan or China . . . and "that" means the relationship?

Jill: Oh, this is another clause following "soon", and "so that" is a unit. Maybe I should change them into "therefore".

Karl: Uhm . . . what will be better? The relationship?

Jill: Uhm, the problems between them should be resolved. And then Taiwan will be Taiwan or, Taiwan will be united with China and will be China. I didn't know how to express.

Karl: Oh, O.K. It's just that I didn't quite understand.

Jill: O.K. Then I'll try to make it better.

Karl: O.K. Then number five, yes, every paragraph contains one and only one topic. And then, [stop for about 8 seconds] O.K. I had a feeling that, uhm, you mentioned several aspects, but, uhm, every paragraph seems, seems to be independent.

Jill: Uhm-hmm. They are not connected.

Karl: Right! What do you think?

Jill: I think so, too.

Karl: Then a solution should be figured out to increase the unity.

Jill: Uhm, I think I'll probably give, uhm, give an appropriate title to the essay to better connect them. Or do you have better suggestions?

Karl: Better suggestions?

Jill: Uhm-hmm.

Karl: Better suggestions. . . I'm thinking, better suggestions, maybe, maybe, it's just my personal feeling that you wrote a lot, and every paragraph has its own topic: traffic, and economy, and uhm, uhm, the relationship between Taiwan and China. Maybe you can select some more related topics.

Jill: O.K.

Karl: For example, people, traffic, topics more close to each other.

Jill: O.K.

Karl: If I were you, I would, I would indicate what I am going to write in the first paragraph. Maybe there are several topics, but I would say in the first paragraph that I am going to talk about some interesting stuff, such as this and that, and then I would talk about one point each paragraph. [sounds signifying embarrassment at having to give suggestions]

Jill: O.K. I think [chuckles] I will look for more information on the Internet [chuckles].

Karl: [chuckles] O.K.

Jill: I'll try to focus.

Karl: O.K. This is my suggestion. Then, the next one, does the main point refer back? We talked about this, about thesis.

Jill: I don't have a clear thesis.

Karl: That's right.

Jill: Can I entitle my essay "untitled"? [chuckles]

Karl: Untitled? [chuckles] Can she, teacher? [chuckles]
[Both laugh loudly.]

Jill: Many Chinese compositions are untitled.

Karl: And just ramble.

Jill: I was just kidding. It's in English, after all.

Karl: O.K. And number eight, no. Number nine, it's the same problem: every paragraph is isolated without being connected.

Jill: O.K.

Karl: And number ten, no. Number eleven, conclusion . . .

Jill: [chuckles]

Karl: Is the last paragraph your conclusion? That Taiwan and China will be better?

Jill: Yes.

Karl: Then you have a conclusion because I think as a Taiwanese, you expressed your concern in the last paragraph. [chuckles]

Jill: Uhm, I think I'll revise so that my first paragraph will be more coherent with my last.

Karl: O.K. And the last one, what does the writer need to work on? Just like you said, you need a thesis to connect your paragraphs and make your essay more coherent.

O. K. That's all.

Jill: Thanks. Thank you very much.

Karl: You're welcome. Let's exchange. . .

As revealed from the above excerpt, even though Karl tended to use circumlocution and might not have been one hundred percent honest, he still indicated several confusing areas and weaknesses in Jill's draft. The pre- and post- peer review drafts of Jill's with regard to this section on peer reviews appear in Appendix E.

It seemed that the most of the peer reviewers in this study tried to give their partners honest feedback, whereas some of them were not one hundred percent honest with their partners with regard to the defects in their partners' writing. In addition to the influence of Chinese/Taiwanese culture on the reviewers to save their partner's face and maintain harmony, the reasons that the participating students were not one hundred percent honest with their partners seemed to be related to their lack of confidence as reviewers and the authoritative image of the teacher.

Assertion 27. *Most of the participating students said that they trusted their partners.*

However, they trusted their partners only to a certain extent. (in response to issue 5 in 2.1.2.4: Do Chinese/Taiwanese learners trust their peers as reviewers? also, together with Assertions 24, 25, 26 and 28 in response to sub-question 12: How did Chinese/Taiwanese culture impact the implementation of the On-line Writing Project?)

At the beginning of the semester, the students were not sure whether their peer reviewers would work hard to help them improve their writing assignments, as indicated by the low mean score (being .19) in the pre- survey. However, the mean score of the similar item was significantly increased in the post-survey to 1.06. The significant increase in the score signified the participating students trust in their peers' efforts by the end of the semester. In addition, it seemed that they also trusted the comments their peers gave them, according to the post-survey. The mean scores (being 1.06, 1.06, .8, and .88,

respectively) of the 28th, 29th, 30th, and 38th items in the post-survey indicated that the participating students believed their partners gave them correct suggestions. Only Joanne chose “disagree” to the 38th item, “I trust the suggestions my partners gave me,” in the post-survey.

Charles, in spite of choosing “agree” for the 28th, 29th, 30th, and 38th items, expressed mistrust between himself and his partners in the post-interview.

I: What are some of the things you experienced when you and your partner were reviewing each other’s writing?

Charles: I think the biggest problem was that we didn’t trust each other. When I thought the writing of my partner was of poor quality, I didn’t want to be too honest. I think if my partner thought I wrote poorly, she may act the same way. But if she did say I did not write well, I might think to myself, “You are not the teacher.” Also, if she said that she didn’t understand what I wrote, I doubt her ability. . . . It’s good that they gave some suggestions, but I think they should write a summary or the main ideas of the essay they are reviewing so that I know if they have problems understanding what I have written. It should not be their job to evaluate the essay, you know. They are not the teacher. The teacher is more authoritative. I don’t think I am qualified to evaluate other people’s writing. If the partner does not specify the answers to the questions listed in the peer review checklist but give only a “yes” or “no”, it won’t help much. (post-interview, June 20, 2000)

When I called him more than three years later, asking about the discrepancy between his answers in the post-survey and his remarks in the post-interview, he still stuck to his answers in the post-survey, but made some clarification.

Charles: I’m fond of using difficult words. A lot of people said that, too. So sometimes I wondered if it was because they were not the teacher. But afterwards the teacher said the same thing, too. So when I was filling out the post-survey, I thought and I still think the same way that peer feedback is positively helpful, with the effect of rectifying the basic grammar, vocabulary, and meaning of my writing. I trust it. It’s just that it is not that deep as teacher feedback. (follow-up interview, Nov. 28, 2003)

But did the participating students really trust their peers? We can judge so from the rates of their incorporating peer comments or suggestions. As indicated earlier, the writers adopted only 123/205 (60%) problem-indicating comments about content and organization, 60/162 (37%) suggestions about content and organization, and 37/82 (45%) suggestions about surface structures. We can see that they trusted their partners only to a certain extent.

Also, as shown above, the most-often mentioned reasons that they did not make any changes in response to the comments or suggestions were that they were not convinced, or that they were not sure whether the comments or suggestions were correct. These reasons betrayed their mistrust of peer feedback.

Anyway, it seemed that the participating students' feeling about whether they trusted their partners' feedback was complicated. The complicated feeling had to do with the authoritative image of the teacher, as was clear from Charles' remarks.

Assertion 28. *The participating students had some but not much confidence in themselves to give their peer writers helpful feedback.* (in response to issue 4 in 2.1.2.4: Do Chinese/Taiwanese learners have confidence as peer reviewers? also, together with Assertions 24, 25, 26 and 27 in response to sub-question 12: How did Chinese/Taiwanese culture impact the implementation of the On-line Writing Project?)

From the mean score (being .44) of the 43rd item in the post-survey, "I think I have the ability to give my partners helpful suggestions," we know that the students had some but not much confidence in themselves as peer reviewers. This is in line with the perceptions of many participants in Huang's study (1995). Shad's comment in the pre-interview reflected this phenomenon.

I: You mentioned that you hoped the teacher could give you suggestions regarding what you should improve. What do you think if this is done by your classmates?

Shad: Of course it's O.K. if it is my classmates who tell me where I do not do well. But of course the teacher will be trusted more by the students. We, as classmates, feel unqualified to correct our peers. For example, we might not be sure about a certain grammar point, so when we correct our peers, we can only say if they change to so and so, it might look better and so on. But it is just "might". None of us dare to say for sure that somebody else is wrong about a certain point. (pre-interview, February 24, 2000)

Joanne also gave a similar description in the post-interview.

Joanne: Maybe because I hadn't been given suggestions individually, I felt unconfident when I had to give my partners suggestions individually. Especially when I felt my level was lower than that of my partner, what happened was that when I didn't know some words that I encountered, I would think there were no problems with the draft. (post-interview, June 23, 2000)

It is obvious that the reasons why the students were not highly confident of themselves as reviewers are related to the authoritative image of the teacher and the low frequency of their receiving feedback individually.

4.2.2.7 Attitudes towards the On-line Writing Project

Assertion 29. *Most of the participating students thought the On-line Writing Project was interesting and interactive and they liked it. However, they thought the assignments were somewhat heavy.* (together with Assertion 30 in response to sub-question 13: What were the attitudes of the students and their teacher towards the On-line Writing Project?)

Most of the participating students thought the On-line Writing Project was interesting, as articulated in Charles' journal.

Charles' Journal, April 28, 2000

I think this class is very interesting to me. Take some activities in the class, like peer reviewing, discussion, brainstorming and so forth, they really work and inspire our interests.

Helen also said in her journal that the On-line Writing Project was interesting because it involved the use of the Internet. Tina mentioned in the post-survey that the On-line Writing Project was interesting because it offered her a whole new experience, although she felt the interaction with Americans was not frequent enough.

The participating students also liked the On-line Writing Project because they had opportunities to interact and cooperate with their classmates. Accordingly, Charles indicated in his post-interview that he liked peer review the best because he got to know other students and could talk to, interact with, and learn from them. Joanne admitted that she used to leave the classroom immediately after the class was over, but during the semester of the On-line Writing Project, she found that there was more discussion to keep her around. She also learned better how to interact with her partners in the peer reviews.

There were some negative comments, too. Karl mentioned that because no quizzes or exams were required in the On-line Writing Project, he became lazier and lazier. Denny mentioned in his journal that sometimes the assignments were somewhat heavy to the extent that he couldn't catch up with the schedule. Peggy and Gwen also said in their post-interviews that the thing they liked least about the On-line Writing Project was that the assignments were too heavy. Phoebe mentioned in her journal that she liked the sample article discussion, but some of her classmates were not paying attention during the discussion. Karl also said in chatting with me that sometimes the discussion of sample articles was a little bit dull and the pace was somewhat slow.

Joanne complained in her journal about the delay of classes because of the late arrival of some students.

Overall, however, the On-line Writing Project was very different from what the participating students had experienced the previous semester.

Assertion 30. *The teacher gave a high commendation to the On-line Writing Project, especially the use of Internet technology. He was most impressed with the motivating effects of the On-line Writing Project.* (together with Assertion 29 in response to sub-question 13: What were the attitudes of the students and their teacher towards the On-line Writing Project?)

In his post-interview, Mr. Yu gave a high evaluation to the On-line Writing Project.

I: What do you like best about this project?

Mr. Yu: The fact that students participated enthusiastically. The attendance rate was high. They interacted and discussed ardently. The atmosphere was good, so was the effect. . . . the incorporation of the Internet and the exchanging with English native speakers made the students study harder. . . (post-interview, June 20, 2000)

His high approbation was also prevalent in his journal.

Mr. Yu's Journal, June 13, 2000

The project is a new and encouraging experience. The attendance rate has been good. The students interacted, cooperated, and took challenges. Projects like this should be continued and be promoted elsewhere.

The co-teacher helped a lot. She brought new skills, new knowledge, and life into the class. So many students came to class. They changed. This project can be improved and promoted in Taiwan, Mainland China, and Hong Kong. It has a future. . .

He especially admired the Internet technology.

Mr. Yu: The computer should be used as a teaching medium whenever possible because it can excite the students' enthusiasm and interest to learn and brought their potentiality into full play. (post-interview, June 20, 2000)

Mr. Yu was impressed with how process writing combined with Internet technology motivated the students to work hard.

I: According to your experience in this class, what do you think of students' doing the pre-writing activities, writing multiple drafts, peer reviewing, and publishing in the chat room?

Mr. Yu: These were very good activities. Combined with the popularity of the computer, they brought about active interaction and cooperation between the students. The attendance rate was good. It was a good phenomenon that the students wrote so much and revised so much. Their potentiality was brought into full play. Challenged by the possibility of English native speakers reading their post, they made more efforts to write their essays. . . Compared with this class, the other class of mine has been quieter; fewer people come to class, too. These activities should start from kindergarten or primary school. . . I'm impressed that the students were so interested and revised so much. (post-interview, June 20, 2000)

His feelings about the participating students changed, as revealed in my researcher's journal.

Researcher's journal, January 8, 2000

I met Mr. Yu today. He said that the pedagogy was too new and too advanced for the students to accept. . . The teacher has to spend too much time preparing for the class. The students tend to skip class and don't work hard, so the Project won't succeed. . . Taiwanese are reluctant to cooperate, and therefore peer review might not work. At last, the kind teacher barely agreed to participate in the Project.

Not only the teacher but also the participating students themselves perceived their change.

For example, Peggy said in her post-interview that the influence of using the computer, searching the WWW, and emailing with native English speakers was that she worked

harder. Sharron also said in the post-interview that she worked harder in this On-line Writing Project, which was one of the few classes she liked.

4.3 Summary and Discussions

The results of the pre-interview show that the participating students were disappointed at the way their English writing classes were conducted because the teacher mainly lectured during class and they could only passively receive instruction with little discussion and minimal interaction. The teacher provided little feedback. The students did not have much opportunity to apply writing theories they had learned. They even had to memorize theories for midterm and final examinations. Some of them thought they were learning nothing. Being bored, some of them seldom came to class, did not pay attention in class, or did not work hard.

The results of the pre-interview also show that the students hoped to have an English writing class that was structured, effective, interactive, and interesting. The students also hoped to have teacher feedback and ample opportunities to practice English writing. In addition, they would like to interact with native English speakers and use computer and Internet technology.

After identifying the difficulties the participating students encountered in English writing class and the kind of English writing class they wish to have, I proposed action strategies, that is, the On-line Writing Project, which integrated process writing and Internet technology into the English writing curriculum, to help them learn to write in English. Results from both the quantitative and qualitative data show that the Internet technology and process writing activities were effective in helping the students.

The effects of the Internet technology can be specified in terms of emailing and searching the WWW. First, exchanging e-mails with native English speakers excited the participating students. It also helped them better understand their e-pals' culture and facilitated their ability to communicate. Second, the WWW helped the students find ideas to write and increased their understanding of topics related to their writing. However, the students sometimes had difficulties finding what they needed on the WWW.

The effects of process writing activities can be specified in terms of pre-writing, peer reviews, and publishing. The pre-writing activities helped the participating students find ideas for writing; they helped the students focus while expanding their views. Peer reviews helped the participating students see their blind spots, recognize their strengths and weaknesses, and understand what was important about the written topic, what to revise, and how to revise. The activity was so interactive and relaxing that they could freely exchange ideas and cooperate. They learned to pay more attention to content, organization, and audience needs. They also learned to think more and look at things from different angles. The disadvantage of peer review was that it took much time. It is also important to pay attention to the matching of the students. Publishing the participating students' writing on the Internet prompted them to work harder. They could share ideas, compare and contrast their works with those of others, and emulate each other's good points. However, reading posts on line was also time-consuming, especially when the connecting speed was slow. To sum up, process writing activities as a whole helped the participating students share ideas, find ideas to write, gain in cognitive skills, and write more and better.

The effects of the peer reviews were significant. In light of the analysis of the peer feedback, the peer reviewers gave considerable feedback, especially about content and organization. They were good at identifying mistakes in content and organization but not very good at providing specific suggestions with regard to how to revise.

The effects of the On-line Writing Project as a whole were significant, too. The two classes were not significantly different in the previous semester but were after the On-line Writing Project was conducted. The participating class performed significantly better than the previous semester, while the other class did not. The students also indicated that they learned a lot from the On-line Writing Project, in which they had more opportunities to write, interact, cooperate, and think. This whole new and interesting experience transformed them into active learners. They studied harder. Because of their willingness to give help and their appreciation of receiving help, a learning community was formed.

In addition to the effects of the On-line Writing Project, the attitudes of the teacher and the students were examined. It was found that the On-line Writing Project did not affect the participating students' attitudes towards English writing nor their basic knowledge of English writing. That is, they liked writing in English and thought it was interesting, but they also thought it was difficult to write in English before and after the Project. They were familiar with the basic theoretical concepts of English writing, and their knowledge of English writing was not affected to a great extent, either.

Regarding the attitudes of the students and the teacher towards the Internet technology, there were three findings. First, the participating students were interested in and excited about the incorporation of the Internet at the beginning of the On-line Writing

Project, but this high evaluation gradually dropped off. The students still thought that it was important to learn to search the WWW and it was interesting to search the WWW, but they were not as enthusiastic about the incorporation of the Internet as at the beginning of the Project. Second, some of them also thought the information on the WWW was not as deep, complete, and correct as that in regular books and may reduce opportunities for critical reading and thinking. Third, the teacher had not thought highly of using the Internet technology in English writing classes before he participated in the On-line Writing Project; however, his evaluation was greatly enhanced.

There were two findings regarding the participating students' behaviors in using the Internet. One, although the participating students were told to avoid plagiarism and had practiced how to paraphrase, some of them simply translated the information on Chinese websites into English or copied information from English websites. Two, the students liked to have class in the computer lab; however, they could not resist doing irrelevant activities on the computer in class.

Regarding process writing activities, the students were generally positive about them; the teacher thought the process writing pedagogy was structured and effective, especially when combined with Internet technology. It was also found that the participating students liked feedback, especially negative feedback; the more feedback they got, the better they felt.

Regarding the students' behaviors in using peer feedback, they accepted many peer comments and revised a lot but adopted few inappropriate comments or suggestions; we can say that most of the writers were capable and critical revisers. They also maintained their authorship well.

Chinese/Taiwanese culture exerted great influence on the students' attitudes and behaviors with regard to teacher feedback, peer feedback, and peer reviews. Seeing the teacher as the authoritative and single reliable resource in the classroom, most of the participating students were eager for teacher feedback and preferred teacher feedback to peer feedback despite the fact that some of them did not think the written teacher feedback the previous semester was helpful or did not understand the teacher's oral feedback from the previous semester. Because the participating students thought that they themselves and their peers did not have the authority of a teacher, though their trust on their peer reviewers' efforts was significantly increased, they trusted their peers only to a certain degree. For the same reason, their confidence in themselves as peer reviewers was undermined, which in turn prevented them from pointing out their partners' writing defects without reserve. In spite of the fact that some of the participating students were not one hundred percent honest in pointing out their partners' writing defects due to their perceived lack of authority and their concern about offending their peers, each one of them gave some or many negative comments to their partners. It seemed that the aspect of Chinese/Taiwanese culture to sacrifice giving honest feedback to their fellow students in order to maintain harmony was downplayed by the participating students

All in all, most of the students thought the On-line Writing Project was interesting and interactive and they liked it. However, they thought the assignments were somewhat heavy. The teacher gave a high commendation to the On-line Writing Project, especially the use of Internet technology. He was most impressed with the motivating effects of the On-line Writing Project.

To sum up, the On-line Writing Project did not change the students' attitudes towards English writing to a great extent; nor did their knowledge of basic English writing principles improve to a great extent; however, their attitudes and behaviors in relation to the course transformed radically and their performance on English writing significantly improved. In my opinion, the On-line Writing Project helped the participating students change in four ways.

First, it was motivating. The motivating effects were derived from publishing their writings on the Internet, peer reviewing each other's drafts, and incorporating the use of the Internet in their writing activities. Their interaction with their American partners or among themselves through e-mails and the chat room seemed to excite them the most.

Second, the On-line Writing Project was interesting for them. They had fun and enjoyed the stimulation of their pre-writing activities and their interactions with their classmates in peer reviews and with the Americans through e-mails and the chat room. They also liked reading their classmates' and the Americans' essays and understanding their opinions, as well as satisfying their curiosity by learning new skills, and gaining a sense of achievement from overcoming difficulties and accomplishing tasks.

Third, the On-line Writing Project was challenging. The participating students had to use the new technology, go through the seemingly endless links on the Project website, search the vast sea of information on the Internet, and discriminate between suitable information and unsuitable information. They also had to arrange time to discuss their drafts with their partners, give their peers helpful comments without hurting them,

distinguish quality comments from inappropriate ones, and revise their drafts again and again.

Fourth, the On-line Writing Project was interactive. The participating students interacted with their classmates and American counterparts in the chat room or through e-mail exchange; they interacted with their classmates in pre-writing activities, peer reviews, sample article discussions; they also interacted with the teacher in student-teacher conferences. Thanks to these interactions, their writing changed from an individualized task to a social activity.

All the four characteristics of the On-line Writing Project prompted the participating students to work hard. They worked hard to write well so that their peers would not look down on them. They worked hard to give their peers helpful comments. They worked hard to revise their drafts. Although they had not attained sufficient mastery of English writing techniques to give their peers completely correct feedback, their ability to make critical judgment was activated during the process and seemed to work quite well.

It is comforting to see how the participating students grew. It is hard to imagine that although they had been reliant on their teacher, they had changed and become confident writers and competent revisers, who wrote significantly better while maintaining their authorship; were able to tell helpful comments from unhelpful ones, and would be able to revise by themselves in the future. Unlike the student-teacher conference, which divested them of power and increased their writing anxiety, this On-line Writing Project empowered the students to become autonomous learners and active participants. They came to class much more often than before, and even spent extra time

in the Internet chat room outside of class. They revised much and many times. They liked to share ideas and exchange opinions through brainstorming, peer reviews, posting written documents, and discussing sample articles. Owing to their active participation, the class transformed into a learning community, in which they cooperated and helped each other, as well as appreciated the help from each other. Decidedly, the personal changes in the students catalyzed the classroom culture and atmosphere, which in turn facilitated the cooperation among the students. The growth of the students also inspired the teacher, who was beginning to think about changing his teaching practices.

On the other hand, many problems arose from the process of integrating the Internet with the English writing class that need to be resolved. The slow connecting speed to the Internet, the malfunction of the servers, and repairs required of the chat room impeded the smooth use of the Internet by the students. The difficulty in finding suitable information on the WWW, the questionable quality of the information on the WWW, and the students' tendency to plagiarize the information found on the Web and rely on Chinese websites—all decreased the effectiveness of using the WWW for the On-line Writing Project. The native English speakers' low level of participation in e-mails made the On-line Writing Project less fun for the Taiwanese. The students' tendency to do irrelevant activities in the computer lab posed a challenge to their using the Internet in class.

Chapter 5

IMPLICATIONS, CONTRIBUTIONS, LIMITATIONS, AND RECOMMENDATIONS

This chapter discusses the implications of the findings, the contributions of the research, the limitations of the research, and suggestions for English writing teachers and researchers.

5.1 Implications of the Study

Two implications are important for this study. First, culture is an important factor when considering whether to integrate process writing. For black students, it may be disempowering to ask them not to worry about form (Delpit, 1986, 1995). However, for Taiwanese, it is liberating and empowering not to have to worry about form so much, considering the requirements of accuracy and memorization and the pressure of exams. In fact, most of the participating students welcomed the idea of focusing on content in drafting, which freed them from the influence of Ba Gu Wen and helped lower their writing anxiety. With their regular grammar pattern drills at school, they had already had enough grammar. The fact that some of them automatically gave up on doing peer editing but not peer reviewing when they did not have enough time could signify that they thought that content and organization were more important than form.

Second, teachers as well as students should focus on the process of learning to write instead of achieving the written product, as noted by Nelson and Carson (1998). Teachers should be mindful and help their students understand that writing develops over time and with multiple drafts. Many studies have shown that ESL/EFL students mostly

commented on surface problems (Chou, 1998; Chou, 2000; Min, 1998). However, most of them were not good at this kind of feedback as this study has shown. Neither did their peers appreciate such feedback (Nelson & Carson). In fact, the participating students under study were not interested in finding word or sentence-level problems either. If students are not good at finding grammar mistakes and correcting usage, why ask them to? Rather, teachers should understand that peer reviews are intended for the reviewer to help the writer clarify obscure points, for which the students in this study did a good job, write more substantially, and express what they wanted to say, instead of identifying and correcting mechanical or surface mistakes, and direct students' attention on content and organization accordingly. Part of the success of the On-line Writing Project lied in the fact that many activities were designed to help the students develop their writing. For example, the students could search information they needed on the WWW; they could generate ideas through pre-writing activities; they could exchange ideas for revision with their peers in peer reviews. With the help of activities like these, the students were not left alone to write and therefore forced to focus on a single end product.

5.2 Contributions of the Study

This study made several contributions to the curriculum and instruction of and research on English writing, especially in relation to peer reviews/peer feedback. It confirmed some findings from previous studies. For example, the students thought that the peer reviews were helpful; the students liked peer reviews but thought teacher feedback more useful than peer feedback; they were not confident in their own and their

peers' abilities to give peer feedback. It also statistically verified the effect of peer reviews.

Moreover, this study made some discoveries which were new or different from those of most of the Chinese/Taiwanese studies previously discussed. For example, the students were able to give considerable comments, especially about content/organization, and tell quality comments from inappropriate ones; the students used many peer comments and revised extensively, especially about content/organization; the students did not avoid honest negative feedback to maintain group harmony; the students were good at indicating problems with content/organization but they also gave incorrect feedback, especially specific suggestions as to how to revise.

In addition to findings about peer reviews, this study concluded that integrating process writing and Internet technology into the Taiwanese English writing curriculum did help the students learn to write in English as well as illustrated how process writing combined with Internet technology helped the students in an English writing class in Taipei, Taiwan. Since this On-line Writing Project was, generally speaking, embraced by the teacher and the students, it can be promoted with some modifications as indicated by the data. The findings increased our understanding of the relationships between theory and practice. Understanding of how Chinese/Taiwanese culture affects the integration of process writing, the advantages and problems of the incorporation of process writing and Internet technology, and the attitudes and behaviors of the participants in relation to the incorporation of the two will definitely be helpful in improving the English writing curriculum in Taiwan.

No single remedy can solve all the problems of the English writing challenges in schools in Taiwan. I tried to offer as many kinds of remedies as possible in this study, and I am happy to know that the On-line Writing Project has “been of great help!” As reported in Sue’s journal, “It gives [us] more chances to write and think, learn from each other in a lively way.” However, I discovered more problems through conducting this study than conclusions. For example, how can we assess the students’ progress? How can we keep students from using other programs in the computer lab? How can we keep students from plagiarizing from the Internet? How can we activate e-mail partners at a distance? . . . Also, as advised by Reyes (1992), no one-size-fits-all format should be used on all students; instead, teaching practices should take each learner’s language and cultural background into consideration and accommodate to his or her needs. Thus, I know my research is not yet finished. I will continue my action research to address the problems or challenges that arose during the present study. The participating teacher and students offered some excellent suggestions. For example, Joanne regarded it as important for teachers to ask their students to classify and organize their Internet search results. She also suggested that students be monitored in the computer lab. I will certainly take these insightful suggestions into consideration in my future teaching and research. I believe that with the continuation of research like this, the English writing curriculum in Taiwan will become better and better.

5.3 Limitations of the Study

There were several limitations constraining the results of this study. First, this study lasted for only one semester, that is, about four months, and the class time was only

two hours a week. Fortunately, despite these time limitations, there were various sources of data, including interviews, observations, surveys, and document analysis, to ensure the reliability of this study.

The small sample size was another problem, as this study would not be applicable to a larger population. The English writing class consisted of 19 students, but only 16 of them actually participated.

In addition, the students were not randomly assigned, but self-selected into the treatment condition. However, allowing the students to choose their preferred mode of instruction is more ethical, and may have tended to equalize their comfort and motivation in the On-line Writing Project. Also, my aim was to study the learning situation as authentically as possible, not to conduct controlled experiments, which made the study timeframe and sample acceptable for my purposes. However, the aforementioned “limitations,” would restrict the generalizability of the findings.

5.4 Recommendations Based on the Study

Based on the findings of this study, I offer several suggestions regarding the incorporation of Internet technology into the English writing curriculum in Taiwan. First, teachers should prepare the students for using the new technology. Second, teachers might need to consider the amount of information directed at students through the use of the Internet and other activities. As some of the participating students suggested, if they could not catch up with the schedule, they might simply give up trying.

Third, the students should be taught how to tell correct from incorrect information and how to select the information they need from the vast resources of the Internet. It is

easy for students to go astray or get distracted when they are searching the WWW. Therefore, teachers should advise their students not to accept whatever is on the Web. It is best if teachers can offer their students some tips for judging what they find. For example, the students can check the references of the information provider, ask an expert, or consult books to verify information. Students can take notes of, or copy onto a disk, the information they collect. Afterwards, they can classify and organize their search results, as Joanne suggested. It is a good idea for the teacher to check from time to time what the students have downloaded or copied.

Fourth, teachers should make efforts to maintain their course webpage because many sites become out of date or go obsolete within a short period of time. Fifth, teachers can prepare a hard copy of teaching materials or make alternative plans in case the technology fails, so that they can do something else in class. Sixth, the problem of a slow Internet connection must be solved. Seventh, teachers can try to satisfy their students' interest in communicating with native English speakers. However, native English speakers participating in such exchanges should also be interested in what Taiwanese students have to offer. Especially, there should be little age difference between these partners. Eighth, the teacher can encourage the students to go to English websites to promote their reading ability. It will be necessary for the teacher to instruct their students in how to read vast amounts of information, understand it, and find the information they need. The teacher can also ask the students to express their search results in English. Ninth, the teacher should repeatedly teach the students how to paraphrase and cite sources. These skills take time to develop.

The findings from my study also provide other suggestions for integrating process writing into the English writing curriculum in Taiwan. First, students can be instructed in writing techniques in more detail and depth, and practice reviewing many times before they do peer reviews in dyads or groups. Teachers can also urge their students to absorb more knowledge about the topics of their partners' writing in order to be able to understand the content. Only when they understand the topics to a certain extent, and are well equipped with writing knowledge and reviewing experience, will the students be more confident in themselves, do a better job in giving and adopting proper feedback, and trust each other more.

It is especially important to teach students the purpose of peer reviews and desirable ways to review their peers' drafts. The students should be advised to clarify areas of confusion in the writers' drafts, as readers, and help the writers achieve successful communication through better content suggestions, instead of focusing on their partner's surface errors. The teachers should also help their students develop the necessary social skills so that they can give helpful feedback without hurting their partner's feelings.

Second, because the participating students liked peer reviews, but aspired for teacher feedback, peer reviews should be an addition to, instead of a substitute for teacher feedback. By having both types of feedback, student writers can enjoy all the benefits of peer reviews, such as increasing their awareness of audience and offering multiple perspectives, without having to worry about the qualifications of their peer reviewers. To keep students from doing careless work, because they think the teacher will read the drafts anyway, teachers could review and grade, or comment on, the peer responses, as

proposed by Mittan (1989). Although this would increase the teacher's workload, the quality of teaching and learning most likely would improve.

Third, groups of three to four people could also be considered to replace dyads in peer reviews, as suggested by two of the participating students, Charles and Peggy. Group peer reviews may satisfy the students' desire for more feedback and at the same time reduce the risk of their being paired with a partner who is irresponsible, hard to get along with, or too different in English writing abilities. Since the nature of the peer review activity is very interactive, teachers should closely monitor the peer or group dynamics. If things go wrong, teachers need to raise the issue with their class or take such corrective measures as changing the group membership to help one or more students.

5.5 Directions for Future Research

A possible direction for future research is to find out in which areas peer review is helpful (or not). According to certain researchers (Engler, 1998; Mangelsdorf, 1992), participants interviewed sometimes indicated that peer review was only helpful regarding content, but not for grammar. Few studies, if any, have actually examined the writing documents to verify this perception. In this study, the fact that the participating students adopted fewer grammar suggestions than content/organization comments seemed to be an indicator of the perceived relative helpfulness of feedback about content/organization rather than about form. Also, the participating students in this study produced much more feedback about content and organization than about form, and the former type of feedback contained fewer mistakes. However, the present study did not prove that the

participating students made significant gains in content or organization due to feedback made by their peers.

Also, future research could investigate whether the proficiency levels of the students play a role in their attitudes towards peer reviews. So then, if the students' levels are high, will they trust each other more? Or, will they think they can review their drafts on their own and that peer reviews are just a waste of time? As reported in research by Nelson and Murphy (1992), the weakest learner did not like peer reviews because he was often criticized. However, in Min's study (1998), two participants, who were rated low in writing ability, reported that they usually followed their peers' comments. It would be interesting to see how students of different proficiency levels react to peer reviews.

In addition, researchers could study if there is a gender difference in response to peer reviews. This study did not make any correlation between gender and peer review behaviors because the sample size was too small. However, there seem to be deviations in language learning between males and females in light of the literature. For example, Oxford (1995) contends that females are more accurate in grammar and spelling, like social interaction better, and hence cooperative learning, too. Chen (1998) concluded that more females seemed to be positive about peer reviews than males.

It is also possible to research whether or not students like to do peer reviews with partners on the Internet. Although I personally prefer face-to-face interaction, peer reviewing the "e-way" might solve what may be a concern to most Chinese/Taiwanese, i.e., the face problem.

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Appendix A: Interview Guide (English version)

I. For the Students

A. At the Beginning of the Study

1. Did you have any English writing class before? If yes, please describe what you did and how you felt.
2. What would you like to have included in this project?
3. Please describe a perfect English writing class for you.
4. What are some characteristics of a good piece of English writing?
5. How do you feel about writing in English?

B. At the End of the Study

1. How do you feel about writing in English?
2. What are some characteristics of a good piece of English writing?
3. What are some of the things you experienced when you were navigating the Internet or searching the Internet for information for your writing?
4. What are some of the things you experienced when you were sending and receiving e-mails for your writing?
5. What are some of the things you experienced when you and your partner were reviewing each other's writing?
6. What are some of the things you experienced when you were posting and reading essays in the chat room?
7. How do you like peer reviews?
8. Please talk about what happened when you were conferencing with the teacher and how you felt about it.
9. According to your experience in this project, what do you think are the advantages and disadvantages of searching the Internet for information to be used in English writing?

10. According to your experience in this project, what do you think are the advantages and disadvantages of using e-mails in English writing?
11. According to your experience in this project, what do you think are the advantages and disadvantages of doing peer reviews in English writing?
12. According to your experience in this project, what do you think are the advantages and disadvantages of posting students' essays on the Internet?
13. According to your experience in this project, what do you think are the advantages and disadvantages of uploading the teaching (learning) materials and procedures onto the Internet for students to use in an English writing class?
14. How did using the computers, searching the Internet, and e-mailing affect your feelings of English writing?
15. How did doing the pre-writing activities, writing multiple drafts, peer reviewing, and publishing in the chat room affect your feelings of English writing?
16. What do you like best about this project?
17. What do you like least about this project?
18. What have you learned from this project?
19. What are your suggestions about using computer technology, especially the Internet, in an English writing class?
20. What are your suggestions about using process writing in an English writing class?

II. For the Teacher

A. At the Beginning of the Study

1. How long have you been teaching English writing? Can you describe for me what you usually did and how you felt?
2. How often do you use computers? What do you usually do with them? How long have you learned to use computers?
3. What do you think of teaching English writing?
4. What do you know about computers and the Internet?

5. What do you think of using computers and the Internet in English writing?
6. What do you know about process writing?
7. What do you think of process writing?
8. What do you hope to achieve through this project?
9. What would you like to see happen in an English writing class?

B. At the End of the Study

1. How do you feel about teaching English writing?
2. What do you like best about this project?
3. What do you like least about this project?
4. According to your experience in this project, what do you think of using computer and Internet technology in an English writing class?
5. According to your experience in this project, what do you think of students' doing the pre-writing activities, writing multiple drafts, peer reviewing, and publishing in the chat room?
6. What have you learned from this project?
7. What are your suggestions about using computer technology, especially the Internet, in an English writing class?
8. What are your suggestions about using process writing in an English writing class?

Appendix B: Pre-Survey about English Writing and Using Computers (English version)

name: _____

1. I like to write in English.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
2. I think it is important to learn to write in English.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
3. I think it is interesting to write in English.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
4. I think it is easy to write in English.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
5. I like to use computers or learn how to use them.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
6. I think it is important to learn how to use computers.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
7. I think it is interesting to use computers.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
8. I think it is easy to use computers.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
9. I use the computer about
less than 1 hr a week ___ 3 to 5 hrs a week ___ 6 to 10 hrs a week ___ more than 10 hrs a week ___
10. I am good at typing.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
12. I am familiar with Word.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
13. I am familiar with the Internet.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
14. I am good at constructing home pages.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
15. I am good at processing images on the computer.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

16. I like to search the Internet.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
17. I think it is important to learn to search the Internet for the information I need.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
18. I think it is interesting to search the Internet.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
19. I think it is easy to search the Internet.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
20. I like to send or receive e-mails.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
21. I think it is important to know how to e-mail.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
22. I think it is interesting to send e-mails to my friends or receive e-mails from them.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
23. I think it is easy to send and check e-mails.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
24. I am excited about sending or getting e-mails.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
25. I like to work with other people.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
26. I would like to do my best to help my classmates with their assignments.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
27. I do not think my classmates will work hard to help me with my assignments.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
28. I am afraid to tell my friends honestly about their problems because that will hurt their feelings and ruin our friendship.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___
29. I think correct grammar is the most important element in English writing.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

30. I like to use Chat Room.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

31. I think it is important to learn how to use Chat Room.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

32. I think it is interesting to use Chat Room.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

33. I think it is easy to use Chat Room.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Appendix C: Post-Survey about English Writing and Using Computers

(English version)

name: _____

1. I like to write in English.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

2. I think it is interesting to write in English.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

3. I think it is easy to write in English.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

4. I am familiar with the Internet.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

5. I like to search the WWW
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

6. I prefer searching the WWW, compared with seeking information from books.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

7. Searching the WWW improved my English reading ability.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

8. Searching the WWW helped me understand better Chinese or Taiwanese culture.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

9. Searching the WWW helped me find ideas to write
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

10. I think it is important to learn to search the WWW for the information I need.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

11. I think it is interesting to search the WWW
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

12. I think it is easy to search the WWW.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

13. I think it is a good idea to incorporate WWW searching into English writing classes.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

14. I like to send or receive e-mails.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

15. I think it is important to know how to e-mail.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

16. I think it is interesting to send e-mails to my friends or receive e-mails from them.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

17. I think it is easy to send and check e-mails.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

18. I am excited about sending or getting e-mails.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

19. Reading the self-introductions by the American students and exchanging e-mails with them made me more aware of the audience when I was writing the introduction to Taiwan and the compare and contrast between traditional Chinese values and mine.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

20. I think it is a good idea to incorporate e-mail exchange into English writing classes.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

21. I've tried my best to help my partners improve their drafts.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

22. I believe my partners have tried their best to help me improve my drafts.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

23. I didn't tell my partners the defects of their drafts honestly and frankly lest they be hurt.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

24. Peer reviews helped me find ideas to write.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

25. The first peer review was helpful to me.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

26. The second peer review was helpful to me.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

I haven't done the second peer review _____

27. The third peer review was helpful to me.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

I haven't done the third peer review _____

28. My partner gave me incorrect suggestions in the first peer review.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

29. My partner gave me incorrect suggestions in the second peer review.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

I haven't done the second peer review _____

30. My partner gave me incorrect suggestions in the third peer review.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

I haven't done the third peer review _____

31. The suggestions my partners gave me regarding grammar or diction were helpful.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

No suggestions in this regard were given _____

32. I think it is a good idea to incorporate peer reviews into English writing classes.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

33. I like peer feedback better than teacher feedback.
strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

The teacher has never given me any feedback _____ (If so, please skip 34, 35, 36, and 37.)

34. Peer feedback is more helpful than teacher feedback.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

35. Peer feedback is more detailed than teacher feedback.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

36. Peer feedback is easier to understand than teacher feedback.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

37. I have the freedom to choose whether to follow peer feedback, but have to accept teacher feedback.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

38. I don't trust the suggestions my partners gave me.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

39. My partners helped me find out mistakes that I was not aware of.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

40. Reviewing my partners' drafts was helpful to my English writing ability.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

41. Peer reviews helped me understand audience need.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

42. I like peer reviews.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

43. I don't think I have the ability to give my partners helpful suggestions.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

44. If I can choose only one, I will choose 1. the teacher 2. my classmates to review my drafts.

45. Teacher feedback combined with peer feedback is better than peer feedback alone.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

46. Teacher feedback combined with peer feedback is better than teacher feedback alone.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

47. I think correct grammar is the most important element in English writing.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

48. Pre-writing activities helped me find ideas to write..

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

49. I think it is a good idea to incorporate pre-writing activities into English writing classes.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

50. I have followed the advice to focus on content in drafting.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

I wrote in this way before the Project _____

(Those who choose "agree" or "strongly agree" please continue to answer 51 and 52; otherwise please skip.)

51. Focusing on content in drafting helped me focus and reduce writers' anxiety.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Writing in English does not cause me anxiety at all. _____

52. Focusing on content in drafting lowered the quality of my drafts.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

53. The number of times I revised the introduction to Taiwan was ___

54. The number of times I revised the comparison and contrast between traditional Chinese values and mine was ___

Not completed yet ___ So far I have revised ___ times

55. The number of times I revised the argumentation for or against vegetarianism was ___

Not completed yet ___ So far I have revised ___ times

56. I know how to surf BBS.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

(If no, please skip 57 and 58.)

57. I usually surf BBS.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

58. My conferencing with the teacher last semester (number of times ___) was helpful.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

59. My conferencing with the teacher this semester (number of times ___) was helpful.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

60. The written comments or correction the teacher gave me last semester were helpful.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

61. In the future, I should be able to revise my own drafts according to the tips on the peer response sheets.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

62. In the future, I will ask a peer to review my drafts.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

63. I hope the teacher can comment or correct all my compositions.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

64. I hope I can conference with the teacher for each composition.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

65. I read 1. few 2. some 3. most 4. all of the posts in the chat room.

66. Reading the posts by the Americans helped me understand American culture.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

I did not read _____

67. Reading the posts by my classmates helped me understand Chinese or Taiwanese culture.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

I did not read _____

68. Reading the posts by my classmates helped me in English writing.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

I did not read _____

69. I like reading the posts by my classmates.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

70. I think it is a good idea for the students to post their writing to a place which is accessible to the class.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

71. I think it is a good idea for the students to post their writing to the Internet.

strongly disagree ___ disagree ___ don't know ___ agree ___ strongly agree ___

Because _____

72. Please give your reaction, comments, and suggestions at the back of this survey.

Thanks a lot!

Appendix D: An Example of a Peer Response Sheet

Peer Response Sheet 1

Writer's name: _____

Reviewer's name: _____

Focus on only one of the following questions at a time.

1. What is the strength of the essay? What do you like best about the essay?
2. Is there a thesis statement? If so, where is it? Mark it with parentheses.
3. What details or examples does the writer use? What details or examples do you find especially vivid and appealing? Should more details or examples be added? Where? Should the order of the details or examples be re-arranged?
4. Do any sentences confuse you? Mark them with question marks.
5. Does each paragraph contain one and only one topic?
6. Is there a topic sentence in each paragraph? If yes, underline it. Are these topic sentences well-written? If not, choose one and suggest how to improve it.
7. Does the main point of each paragraph refer back to and help develop the thesis?
8. Are the paragraphs well-organized? Are keywords used?

9. Do the paragraphs flow well? What transitions did the writer use to connect them?

10. Does any sentence need to be moved to a different place?

11. Does the conclusion reflect the content of the essay and summarize main points?

12. What does the writer need to work on?

Be sure to praise your partner for the parts where she did a good job!

Appendix E: Jill's Pre- and Post- Peer Review Drafts for the First Essay
(Pre-peer-review draft)

Taiwan is a place that has a traditional and modern culture. It still has lots of traditional festival and it also accepts other cultures from the world.

Taiwan is noted with its economic experience that make it become a rich and famous country. There're more than 20 million people here, of course, they're friendly and enthusiastic as Chinese.

Because Taiwan is an island and there are so many people here, it seems to be overcrowded. The traffic is usually heavy everyday and it takes time to go anywhere in rush hour. Absolutely the heavy traffic is the worst problem here. If you want to go somewhere, you had better go out earlier about 30 minutes ago.

As everyone knows, Taiwan is not a real country without the admission of other countries in the world. Though it seems to be a part separated from the Mainland China, it has the Present and the government. Lately, the election of president is worked out, we hope the new president will work hard to solve the problem between the two part of China soon. So that Taiwan or China will be better in the future.

(Post-peer-review draft)

Introduction of Taiwan

As everybody knows, Taiwan is noted with its economic experience. And there are many people here and it has a embarrassed political situation.

Twenty years ago, the Taiwanese worked hard and had a frugal life, and hten they made up the economical miracle, it became a famous and rich place. Not long time ago, Taiwan even almost safely passed through the worldwide economical storm. Till now, it is going to be developed place and become a modern society.

Because Taiwan is an island and there are more than 20 million people here, it seems to be overcrowded. The density of population of Taiwan is the second high area in the world, just behind India. It's crowded everywhere, especially in a big city. The traffic in a big city is usually heavy and it takes time to go anywhere in rush hour. And when you go to a scenic spot on holidays, there will be very noisy and crowded.

When it mentions to politics, the most important of all, Taiwan is not a real country without the admission of other countries in the world. Though it is considered a part separated from the Mainland China, it has the government and the President.

Lately, the historical election of president is worked out. Because the new president is come from the DPP and broke the rule that the president was come the KMT all the time, everybody expects he will take Taiwan to a new stage and work harder to solve the problems between the two parts of China soon. Therefore, Taiwan or the only one 'China' will be much better in the future.

Appendix F
INFORMED CONSENTS

Informed Consent Form
The Pennsylvania State University
(for students)
(English version)

Dear students,

I am a Ph. D. student in the department of Curriculum and Instruction at the Pennsylvania State University. I am studying how English writing students and teachers in Taiwan feel about using the Internet and the Process Writing approach in English writing. Some relevant information is as follows.

I. Title:

Use of Process Writing and Internet Technology in an English Writing Classroom in Taiwan

II. Description:

This study is about Taiwanese learners' and teachers' perception of using Internet technology and the Process Writing approach in English writing classes. You and your English writing teacher and classmates are possible participants for my observations and interviews. The purpose of this study is to find out whether Internet technology and the Process Writing approach would be welcomed by English writing teachers and students in Taiwan and whether these methods will help the students to learn to write in English.

III. Procedures:

You have chosen to attend the class to which Internet technology and Process Writing will be added. If you agree to take part in the research, you will be observed and videotaped while in class. The videos will be erased after I take notes of your language and behavior related to the study.

In addition, three of you will be observed outside the class while doing writing assignments. If you choose to be observed at home, your parent will need to sign another consent. You can choose when to be observed.

You will be interviewed at the beginning of the semester for your past experience with English writing classes, your knowledge of and attitudes toward English writing, and the things you usually do with computers. This interview will take about fifteen minutes. Five of you will be selected for interviews again regarding your perception of the incorporation of the Internet technology and Process Writing activities near the end of the semester. This interview will take about one hour. You might also be interviewed at any time during the semester when the need arises. All the interviews will be done on campus during your free time (that is, during breaks or when you are done with classes). All the interviews will be conducted in Mandarin Chinese and will be recorded. The voice recordings will be erased after transcriptions are done.

You will also be asked to fill out a questionnaire at the beginning and the end of the semester. The questionnaire is about your attitude towards computer technology, English writing, and working with other people. It will take about five minutes for you to fill in and will be done in class. I will give and collect the questionnaire personally.

Your writing assignments will also be analyzed to find out your improvement on English writing. Your real name will not appear on any documents used as illustrations in the final report.

To protect your confidentiality, your real name will not be used in the final report. I will be the only person to have access to your identity, the audiotapes, and the videos. The study will last a semester. If you have any questions about the study, you can e-mail me or contact me at the address located on page 3 of this consent form.

IV. Potential Benefits:

The interviews and the survey may increase your awareness of your attitude toward computer technology, especially the Internet, and English writing so that you may better decide how to study English writing.

The results of the study will be helpful in understanding whether Internet technology and the Process Writing approach will work in English writing classes in Taiwan and how they will help Taiwanese students to learn to write in English.

V. Potential Risks:

Although you might experience some minor embarrassment in talking about your feelings of English writing classes you took before in interviews, your identity will remain confidential because only I will have access to the recordings, and your real name will not be used in the final report.

Participant:

I am 18 years of age or older. I have read this consent form, and understand the information. I have been given an opportunity to ask any questions I have, and all such questions have been answered to my satisfaction. I understand my participation in this research will be confidential: only the researcher will have access to data that can be associated with my identity. I understand that I will receive a signed copy of this consent form for my record. I understand the consent form will be separated from the questionnaire. I understand that I will not receive any compensation for participating. I also understand that I do not have to participate in this study if I do not want to, and that I can stop participating at any time. I know that I can choose not to answer any specific questions, and that I will not be penalized.

I hereby agree to participate in this study.

Student's Signature

Date

Researcher:

I certify that the informed consent procedure has been followed, and that I have answered any questions from the participant above as fully as possible.

Researcher's Signature

Date

Contact Persons

Researcher
Mei-ching (April) Huang
4F, 46, Muhsin Rd. Sec 2,
Taipei, Taiwan

Tel: 29391851
E-mail: mxh244@psu.edu

Professor
Dr. Lourdes Soto
268 Chambers Building
University Park, PA 16802

Tel: 863-8922
E-mail: lcs1@psu.edu

Informed Consent Form
The Pennsylvania State University
(for parents of the three students to be observed outside the class)
(English version)

Dear parents,

I am a Ph. D. student in the department of Curriculum and Instruction at the Penn State University. I am studying how English writing students and teachers in Taiwan feel about using the Internet and the Process Writing approach in English writing. Some relevant information is as follows.

I. Title:

Use of Process Writing and Internet Technology in an English Writing Classroom in Taiwan

II. Description:

This study is about Taiwanese learners' and teachers' perception of using Internet technology and the Process Writing approach in English writing classes. Your child and your child's English writing teacher and classmates are possible participants for my observations and interviews. The purpose of this study is to find out whether Internet technology and the Process Writing approach would be welcomed by English writing teachers and students in Taiwan and whether or not they will help the students to learn to write in English.

III. Procedures:

Your child has chosen to attend the class to which Internet technology and Process Writing will be added. Since your child agreed to take part in the research, your child will be observed and videotaped while in class. The videos will be erased after I take notes of your child's language and behavior related to the study. Your child will be observed outside the class while doing writing assignments. Since your child chose to be observed at home, if you agree, please sign this consent. Your child can choose when to be observed.

Your child will also be interviewed at the beginning of the semester, and probably at the end of the semester, too. The first interview will take about fifteen minutes, and the last one will take about one hour. Your child might also be interviewed at any time during the semester when the need arises. All the interviews will be done on campus during your child's free time (that is, during breaks or when your child is done with classes). All the interviews will be conducted in Mandarin Chinese and will be recorded. The voice recordings will be erased after transcriptions are done.

Your child will also be asked to fill out a questionnaire at the beginning and the end of the semester. It will take about five

minutes for your child to fill in and will be done in class. I will give and collect the questionnaire personally.

Your child's writing assignments will also be analyzed to find out his or her improvement on English writing. Your child's real name will not appear on any documents used as illustrations in the final report.

To protect your child's confidentiality, your child's real name will not be used in the final report. I will be the only person to have access to your child's identity, the audiotapes, and the videos. The study will last a semester.

If you have any questions about the study, you can call me, e-mail me, or contact me at the address located on page 3 of this consent form.

IV. Potential Benefits:

The interviews and the survey may increase your child's awareness of his or her attitudes toward computer technology, especially the Internet, and English writing so that your child may better decide how to study English writing.

The results of the study will be helpful in understanding whether Internet technology and the Process Writing approach will work in English writing classes in Taiwan and how they will help Taiwanese students to learn to write in English.

V. Potential Risks:

Although your child might experience some minor embarrassment in talking about his or her feelings of English writing classes your child took before in interviews, your child's identity will remain confidential because only I will have access to the recordings, and your child's real name will not be used in the final report.

Parent:

I have read this consent form, and understand the information. I have been given an opportunity to ask any questions I have, and all such questions have been answered to my satisfaction. My child is 18 years of age or older. I understand that my child's participation in this research will be confidential: only the researcher will have access to data that can be associated with my child's identity. I understand that I will receive a signed copy of this consent form for my record. I understand that my child will not receive any compensation for participating. I also understand that my child does not have to participate in this study if my child does not want to, and that my child can stop participating at any time. I know that my child can choose not to answer any specific questions without being penalized.

I hereby give permission for the researcher to observe my child at home while my child is doing English writing assignments.

Parent's/Legal Guardian's Signature Date

Researcher:

I certify that the informed consent procedure has been followed, and that I have answered any questions from the parent above as fully as possible.

Researcher's Signature

Date

Contact Persons

Researcher

Mei-ching (April) Huang
4F, 46, Muhsin Rd. Sec 2,
Taipei, Taiwan
Tel: 29391851
E-mail: mxh244@psu.edu

Professor

Dr. Lourdes Soto
268 Chambers Building
University Park, PA 16802
Tel: 863-8922
E-mail: lcs1@psu.edu

Informed Consent Form
The Pennsylvania State University
(for the teacher)
(English version)

Dear Teacher,

I am a Ph. D. student in Curriculum and Instruction at the Pennsylvania State University. I am studying how English writing students and teachers in Taiwan feel about using the Internet and the Process Writing approach in English writing. Some relevant information is as follows.

I. Title:

Use of Process Writing and Internet Technology in an English Writing Classroom in Taiwan

II. Description:

This study is concerned with Taiwanese learners' and teachers' perception of using Internet technology and the Process Writing approach in English writing classes. You and your English writing students are possible participants for my observation and interviews. The purpose of this study is to find out whether Internet technology and the Process Writing approach would be welcomed by English writing teachers and students in Taiwan and whether or not they will help the students to learn to write in English.

III. Procedures:

If you agree to take part in the research, you will be observed and videotaped while in class. The videos will be erased after I take notes of your language and behavior related to the study.

You will be interviewed at the beginning of the semester for your past experience with English writing classes and computers, and your knowledge of and attitudes toward English writing, Process Writing, and computer technology. This interview will take about half an hour. You will be interviewed again regarding your perception of the incorporation of the Internet technology and Process Writing activities near the end of the semester. This interview will take about one hour. You might also be interviewed at any time during the semester when the need arises. All the interviews will be done on campus during your free time (that is, before or after your class). All the interviews will be conducted in Mandarin Chinese and will be recorded. The voice recordings will be erased after transcriptions are done.

To protect your confidentiality, your real name will not be used in the final report. I will be the only person to have access to your identity, the audiotapes, and the videos. The study will last a semester. If you are interested in learning the results of the completed study, you can e-mail or contact me at the address listed on page 2 of this consent form.

IV. Potential Benefits:

The interviews may raise your awareness of your attitude toward computer technology, especially the Internet, and/or English writing so that you may better decide how to teach English writing.

The results of the study will be helpful in understanding whether or not Internet technology and the Process Writing approach will work in English writing classes in Taiwan and how they will help Taiwanese students to learn to write in English.

V. Potential Risks:

This study involves minimal risk; that is, no risk to your physical or mental health beyond those encountered in the normal course of everyday life.

Participant:

I have read this consent form, and understand the content of this form. I have been given an opportunity to ask any questions I have, and all such questions have been answered to my satisfaction. I understand that my participation in this research will be confidential. Only the researcher will have access to my identity and data that can be associated with my identity. I understand that I will receive a signed copy of this consent form for my record. I understand that I will not receive any compensation for participating. I also understand that my participation is voluntary and that I can stop participating in the study at any time. I know that I can decline to answer any specific questions without penalty.

I hereby agree to participate in this study.

Participant's Signature

Date

Researcher:

I certify that the informed consent procedure has been followed, and that I have answered any questions from the participant above as fully as possible.

Researcher's Signature

Date

Contact Persons

Researcher

Mei-ching (April) Huang
4F, 46, Muhsin Rd. Sec 2,
Taipei, Taiwan
Tel: 29391851
E-mail: mxh244@psu.edu

Professor

Dr. Lourdes Soto
268 Chambers Building
University Park, PA 16802
Tel: 863-8922
E-mail: lcs1@psu.edu

Mei-ching Huang

VITA

Lecturer, the Applied English Department,
Jin Wen Institute of Technology, Taipei County, 231, Taiwan, ROC
011-886-2/8212-2923,
mxh244@psu.edu, mxh244@jwit.edu.tw

Professional Experience

since Aug./2000	Jin Wen Institute of Technology	English Instructor
Aug./91-Aug./95	China Junior College of Industrial and Commercial Management	English Instructor
Aug./91-Jun./93 (part time)	Fu Jen Catholic University	English Instructor

Education

Doctor of Philosophy, 2004
Department of Curriculum & Instruction, Emphasis Area: Bilingual Education
The Pennsylvania State University, University Park

Master of Arts, 1991
Graduate Institute of Linguistics,
Fu Jen Catholic University, Taipei, Taiwan, ROC

Bachelor of Arts, 1987
Department of English Language and Literature,
National Cheng-chi University, Taipei, Taiwan, ROC

Publications

Huang, M. (2003). Oral accuracy and error correction in the second/foreign language classroom. *Jin-Wen Institute of Technology Journal of Foreign Languages*, 4, 47-55.

Huang, M. (2002). Peer reviews in ESL/EFL writing instruction. *Jin-Wen Institute of Technology Journal of Foreign Languages*, 3, 19-31.

Huang, M. (2002). Teacher feedback in the drafting process: A case study of an ESL writing teacher's feedback. *Jin-Wen Institute of Technology Journal of Foreign Languages*, 3, 3-17.

Abdulghani, B., Chen, I. C., Huang, M., & Wang, P. (2001). Learning English grammar through Internet. *The Proceedings of the Fifth International Conference on Multimedia Language Education, ROCMELIA 2001* (pp. 329-333). Taipei, Taiwan: Crane.

Awards

Outstanding Teacher Award, Spring 2003, Jin Wen Institute of Technology