Teaching Writing Through Peer Revising and Reviewing

Kristi Lundstrom
Brigham Young University - Provo

Follow this and additional works at: https://scholarsarchive.byu.edu/etd
Part of the Linguistics Commons

BYU ScholarsArchive Citation
https://scholarsarchive.byu.edu/etd/937

This Thesis is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in All Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.
TEACHING WRITING THROUGH PEER REVISING AND REVIEWING

by

Kristi Lundstrom

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Arts

Department of Linguistics and English Language
Brigham Young University
August 2006
BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

of a thesis submitted by

Kristi Lundstrom

This thesis has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

________________________ __________________________________________
Date                      Wendy Baker, Chair

________________________ __________________________________________
Date                      Dallin D. Oaks

________________________ __________________________________________
Date                      Mark Tanner
As chair of the candidate’s graduate committee, I have read the thesis of Kristi Lundstrom in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

Date

Wendy Baker
Chair, Graduate Committee

Accepted for the Department

John Robertson
Associate Department Chair

Accepted for the College

Gregory Clark
Associate Dean, College of Humanities
ABSTRACT

TEACHING WRITING THROUGH PEER REVISING AND REVIEWING

Kristi Lundstrom
Linguistics and English Language
Master of Arts

Although peer review, in which students evaluate each others’ papers, has been shown to be beneficial in many writing classrooms, the benefits of peer review to the reviewer, or the student giving the feedback, has not been thoroughly investigated in the field of second language (L2) writing. The purpose of this study is to determine which is more beneficial to improving student writing: receiving or giving peer feedback. The study was conducted at the English Language Center (ELC) at Brigham Young University (BYU). Ninety-one students in nine writing classes at two different proficiency levels, high beginning and high intermediate, participated in the study. The treatment groups reviewed anonymous papers, but received no peer feedback over the course of the semester, while the control groups received feedback, but did not review other students’ papers. Writing samples collected at the beginning and end of the semester were used to evaluate which of the two methods most helped student writers. In
addition, a short survey was conducted to investigate the correlation between student attitudes and demographic information and these results.

Results of a series of t-tests indicated that the treatment groups, which focused solely on reviewing peers’ writing, made more significant gains in their writing over the course of the semester than the control groups. These results were also more significant at the lower than the higher proficiency level. Students’ level of comfort with the writing process and desire to learn how to use feedback were found to be significant predictors of these results.
ACKNOWLEDGEMENTS

I am very grateful to many people for their help with this research project. Dr. Wendy Baker has been a wonderful advisor and teacher, and I am very grateful for her constant willingness to help. I am also grateful to Dr. Dallin D. Oaks and Dr. Mark Tanner for their support throughout this process. I would also like to thank Dr. Strong-Krause for her patience and willingness to help with much of the data analysis. Thanks to all the faculty and staff of the BYU Linguistics and English Language department. I have enjoyed my courses in the program and they have been very useful in this project and my work. I am grateful for the writing teachers and raters at the ELC who were willing to help with this project, as well as the support of the writing coordinator, Nancy Tarawhiti, and others. Finally, I am grateful for support of my family, especially my parents, Gary and Julie, and for their encouragement and confidence.
# Table of Contents

Table of Contents .................................................................................................................... ix
List of Tables .......................................................................................................................... xi
List of Figures ........................................................................................................................... xii

## CHAPTER ONE

Rationale for This Study ........................................................................................................... 1
Purpose of This Study ................................................................................................................. 3
Definition of Key Terms .......................................................................................................... 5
Delimitations ............................................................................................................................... 6

## CHAPTER TWO

Introduction ............................................................................................................................... 8
Current Confusion with Peer Review Activities ...................................................................... 10
Possible Challenges of Peer Review ........................................................................................ 14
Possible Benefits of Peer Review ............................................................................................ 15
Advanced Thinking Skills ....................................................................................................... 20
L1 Research on Critical Thinking and Peer Review ................................................................. 22
Need for L2 Research ............................................................................................................. 25

## CHAPTER THREE

Introduction ............................................................................................................................... 29
Participants ................................................................................................................................. 30
Raters ....................................................................................................................................... 32
Instruments ................................................................................................................................. 34
Materials ................................................................................................................................... 37
Procedures ................................................................................................................................. 39
  Control Group ......................................................................................................................... 41
  Treatment Group .................................................................................................................... 42
Statistical Design and Data Analysis ......................................................................................... 44

## CHAPTER FOUR

Introduction ............................................................................................................................... 49
FACETS Analysis ...................................................................................................................... 50
  Validation of the Instrument ................................................................................................. 51
  Internal rater reliability ......................................................................................................... 54
Analysis of the Research Questions ......................................................................................... 60
  Research Question 1a ........................................................................................................... 60
  Research Question 1b ........................................................................................................... 62
  Research Question 2a ........................................................................................................... 65
  Research Question 2b ........................................................................................................... 66
  Research Question 3 ............................................................................................................. 71
Conclusion .................................................................................................................................. 78
List of Tables

Table 1  Student Participation ........................................................................................................ 31
Table 2  Student Demographics ..................................................................................................... 32
Table 3  Distribution of Essays by Rater .......................................................................................... 34
Table 4  Rater Severity over All Aspects .......................................................................................... 55
Table 5  Rater Consistency over All Aspects ..................................................................................... 56
Table 6  Mean Scores of Essays by Group ......................................................................................... 58
Table 7  Mean Pretest Scores of Essays by Proficiency Level .......................................................... 59
Table 8  Significance of Overall Scores by Group ............................................................................. 62
Table 9  Significance of Writing Aspects by Group .......................................................................... 63
Table 10 Significance of Overall Scores for Treatment and Control Group by Level ..... 66
Table 11 Significance of Aspects for Control and Treatment Groups for Level 2 ......................... 67
Table 12 Significance of Aspects for Control and Treatment Groups for Level 4 ......................... 69
Table 13 Frequencies of Responses to Question One of the Survey ............................................. 72
Table 14 Frequencies of Responses to Question Two of the Survey ............................................ 72
Table 15 Frequencies of Responses to Question Five of the Survey ............................................ 73
Table 16 Frequencies of Responses to Question Six of the Survey .............................................. 73
Table 17 Frequencies of Responses to Question Seven of the Survey .......................................... 74
Table 18 Frequencies of Responses to Question Eight of the Survey ........................................... 74
Table 19 Frequencies of Responses to Question Ten of the Survey .............................................. 74
Table 20 Frequencies of Responses to Question Twelve of the Survey ........................................ 75
Table 21 Frequencies of Responses to Question Thirteen of the Survey ...................................... 75
Table 22 Frequencies of Responses to Question Fourteen of the Survey ..................................... 76
Table 23 Statistical Results of Multiple Regression Analysis by Writing Aspect ........................ 77
Table A1 Mean Scores of Level Two Control Group ................................................................. 174
Table A2 Mean Scores of Level Two Treatment Group ............................................................. 175
Table A3 Mean Scores of Level Four Control Group ................................................................. 176
Table A4 Mean Scores of Level Four Treatment Group ............................................................. 177
List of Figures

Figure 1 Proficiency distribution curves for all writing aspects ........................................ 52
Figure 2 Proficiency distribution curve for mechanics ....................................................... 53
Figure 3 Proficiency distribution curve for organization ................................................. 54
Figure 4 Mean overall pretest and post test scores for treatment and control groups ..... 57
Figure 5 Mean overall scores by proficiency level .......................................................... 59
Figure 6 Rater-assigned overall mean scores for both treatment and control groups ..... 61
Figure 7 Mean scores of global aspects by group ............................................................ 64
Figure 8 Mean scores of local aspects by group ............................................................... 64
Figure 9 Mean pretest and post test scores for level two global aspects ....................... 68
Figure 10 Mean pretest and post test scores for level two local aspects ....................... 68
Figure 11 Mean pretest and post test scores for level four global aspects ...................... 70
Figure 12 Mean pretest and post test scores for level four local aspects ....................... 70
CHAPTER ONE

Introduction

Rationale for This Study

One of the greatest dilemmas for writing teachers of non-native speakers of English is finding the time to provide enough feedback to students, because responding to student writing is such a time-intensive process, yet at the same time absolutely essential to their progression as writers. Obviously, students need feedback on their writing in order to improve, and the teacher is usually the first choice for providing that input. However, providing a sufficient amount of feedback is difficult if not impossible for most teachers because it is so time-intensive. Providing feedback in the right way at the right time is crucial, and writing teachers continue to look for effective ways to supplement their own feedback to their students. Peer review is one way in which teachers help their students receive more feedback and can be an integral part of the writing feedback process. However, teachers must learn how to use peer review effectively and understand the extent of its possible benefits to their students.

As more research has been conducted in second language (L2) writing classrooms on the best way to conduct peer review, much information has been gained in many different aspects of the activity. For example, teachers now have access to information about how to form effective groups (Hansen & Liu, 2005; Mendonça & Johnson, 1994; Rollinson, 2005), what kind of training students need (Hansen & Liu, 2005; Schaffer, 1996), and what activities seem to be most effective (e.g. Bell, 1991; McMurry, 2004; Shaffer, 1996). Teachers most likely have also had previous experience with peer review themselves, either as a student or as a writing teacher, and these experiences may affect
how effective they think peer review is and how it should be conducted in the classroom. All this information is intended to help teachers conduct more effective peer review activities in their classroom, thus offering their students more feedback on their written work.

However, even if teachers are aware of all of this information, knowing how to apply it to their specific classroom situations can be difficult. The number of options available and the research supporting a variety of those options can make choosing the best one for a particular writing class overwhelming (McMurry, 2004; Rollinson, 2005). Looking at all the choices, teachers may still not know how to use peer review in specific situations, such as in teaching their students how to improve their organization, or to correct their grammar, or to use more descriptive words in their writing. Therefore, some teachers may decide not to use peer review at all because it does not seem worth the time necessary both in learning how to conduct it effectively and in setting it up in their classroom (Mirtz, 1997; Shaffer, 1996).

A better understanding of the specific benefits of peer review could help many teachers make these choices more easily and effectively. Previous research on the topic offers some helpful suggestions. For example, many researchers point to peer review as a good way to teach the process approach to writing and help students learn how to use feedback and make continuous revisions (Bell, 1991; Tang & Tithecott, 1999). Others recognize the language practice peer review offers as another great benefit (Auten, 2005; Rollinson, 2005). Frequently in peer review activities students are required to use negotiation strategies and must communicate either orally or in writing with their peers in a group discussion.
Some researchers have also argued that another great benefit of peer review is that it teaches students to think more critically because they are required to critically review their peers’ writing, which skill also helps them to critically evaluate their own writing and become effective self-editors (Min, 2005; Rollinson, 2005). Critical thinking with respect to writing is the ability to see the reasons behind the ideas in a paper and be able to defend or critique them (Gieve, 1998). This claim that peer review develops critical thinking, however, is not well supported by research, especially in the L2 writing field. First language writing researchers have conducted some studies that indicate that students learn more advanced thinking skills, including critical thinking, when they review their peers’ writing (Sager, 1973; Graner, 1987), but none of these studies is current, nor have they been replicated using L2 writing students. If peer review truly does develop critical thinking, however, it then offers important benefits to L2 writing students because these thinking skills are difficult to teach yet essential for success in almost any American classroom (Thompson, 2002).

**Purpose of This Study**

The need for more research in this area has prompted the current study, which investigated whether learning to review peers’ writing really teaches students advanced thinking skills which are then transferable to improving their own writing. This was done by separating different writing classes into one of two groups. The control group focused exclusively on learning how to use peer feedback to revise essays (a skill learned through interpreting peer feedback), while the treatment group focused on learning how to review peer writing and give feedback (skills learned by reviewing others’ papers). Both classes received specific activities relating to their focus, all of which revolved around global
issues such as organization and development. Classes from two different proficiency levels were used to see whether students at a lower or higher level of proficiency received greater benefits from the activities. The following research questions guided the study:

1. Are reviewing peer writing and giving feedback more helpful in improving student writing than receiving and using peer feedback, as measured by:
   a. improvement in overall writing ability?
   b. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

2. Does the proficiency level of the students affect the extent to which they improve their writing, as measured by:
   a. improvement in overall writing ability?
   b. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

3. Do students’ attitudes toward writing and peer review affect the extent to which they improve their writing?

In order to compare the two groups and address the research questions, pretest essays written the first week of class and post test essays written the last week of class were rated on a ten-point scale examining six different aspects of writing, including organization, development, cohesion, structure, vocabulary, mechanics, and an overall score. The pretest and post test scores were then compared to see how much improvement students made over the course of the semester. These results were
examined by group, by level, and by writing aspect. In addition, students completed a short affective survey, which collected information about their attitudes of the writing process and peer review, as well as background information on the students.

**Definition of Key Terms**

The following key terms are defined here as they will be used throughout the rest of this paper. They are presented in alphabetical order.

1. *Critical thinking* is the ability of a student to understand the reasons behind a given argument and recognize where the weaknesses are. It is most clearly connected to finding problems in the development of ideas, organization, or content of a paper.

2. *Global writing aspects* are the areas of writing that deal with overall ideas and the big picture. They include areas such as organization, development, content, and connections within a paper.

3. *Logit* refers to a logarithmic measurement calculated by FACETS, a statistical program that uses a multi-faceted Rasch analysis (MFRA) to assign scores to different facets of a test, such as items, students, raters, etc.

4. *Peer review* is the process in which students share their writing with each other and offer feedback.

5. *Local writing aspects* are areas of writing that deal with the specific pieces of language, such as sentence structure, word choice, or grammar.
Delimitations

This study did not attempt to examine all aspects of peer review but focused on the areas discussed above. Therefore, the following areas were not included in the present study.

The effect of individual teaching ability or teaching style on student writing improvement, perceptions of peer review, or attitudes toward writing in general was not addressed in the study. Although teachers most likely have a large impact on student learning, this study was not able to take this into account. The study attempted to control for different teachers by giving the teachers, who were all experienced in teaching writing, suggested lesson plan ideas relating to the purposes of the study, assignments for the students to complete four times throughout the semester, and a thorough explanation of the goals of the study. However, teachers were not given specific instructions on how to teach their classes other than the focus on either giving peer feedback or receiving peer feedback, because it would have been too intrusive.

Six writing aspects (organization, development, cohesion, structure, vocabulary, and mechanics) and overall writing ability were assessed in this study. Other writing aspects were not looked at, such as formatting, length, tone, or style, although examining them may provide interesting information in a future study.

This study took place at the English Language Center at Brigham Young University and attempted to match the ELC writing curriculum in its method of assessment, types of activities conducted, and focus on global aspects, such as organization and development, rather than local writing aspects, such as grammar and
mechanics. Therefore, it may not be generalizable to other institutions or writing programs.
CHAPTER TWO

Review of Literature

Introduction

Peer review, which is also commonly referred to as peer editing, peer evaluation, or peer response, is an activity that is frequently used in both first language (L1) and second language (L2) writing classrooms. Traditionally, peer review involves placing students in pairs and asking them to exchange papers and then offer each other feedback on their writing (Hansen & Liu, 2005; Mangelsdorf, 1992). Variations on this basic activity may include larger groups of students, worksheets instructing them to focus on certain writing aspects, different types of activities, written feedback rather than just oral feedback, the use of computers to facilitate the activity, and the duration or intensity of the feedback required (Bell, 1991; Matsumura, 2004; Tang & Tithecott, 1999). Peer review can be used from beginning to advanced students and provides a way for writing teachers to help their students receive more feedback on their papers because students, in addition to the teacher, are giving feedback. Also, research has supported the idea that peer review offers not only a greater quantity of feedback, but provides a range of skills and practices that are important in the development of language and writing ability, such as meaningful interaction with peers, a greater exposure to ideas, and new perspectives on the writing process (Hansen & Liu, 2005; Mangelsdorf, 1992).

However, to make peer review an effective classroom activity, teachers must understand what benefits and challenges it offers their students. Although much research has been conducted on the effectiveness of peer review activities in increasing the writing abilities of the students participating in it (e.g. Mangelsdorf, 1992; Paulus, 1999; Tang &
Tithecott, 1999), there are still many questions to be answered, such as the most effective way to form groups (Hansen & Liu, 2005; Mendonça & Johnson, 1994; Rollinson, 2005), how to train students effectively (Hansen & Liu, 2005; Schaffer, 1996), and how to adjust to the cultural background of the specific students in the class (Carson & Nelson, 1994; Ramanathan & Atkinson, 1999). Clearly, preparing students for peer review and conducting effective peer review activities is a time-intensive task if done correctly, and therefore the benefits it brings must outweigh the difficulties that come in implementing it. Although this may seem daunting, when teachers are aware of what peer review involves and how it can benefit their students, they will be able to adapt it to the specific needs of their classes, increasing the likelihood that more teachers will be willing to implement it in their classrooms and allowing for more effective peer review activities once they are implemented.

One aspect of peer review that could provide extensive gains but that has not been investigated empirically in L2 writing feedback research is the possible benefits of peer review to the reviewer, or the person reading the essay and offering feedback. Although receiving feedback on writing and learning how to revise effectively are common activities for students in second language writing classrooms, some L2 researchers claim that peer review also teaches students critical thinking skills, or the ability to see the reasons behind the ideas in a paper and be able to defend or critique them (Gieve, 1998), by encouraging them to examine other students’ writing and to give helpful feedback (Bell, 1991; Ferris, 2003; Rollinson, 2005). This ability to think critically may then ultimately lead to the creation of self-reviewers, or students who are able to look at their
own papers and accurately assess areas in which they need to improve and revise their papers (Rollinson, 2005).

Because of the difficulty in teaching critical thinking skills and the importance it has in most educational settings (Thompson, 2002), knowing the extent to which peer review teaches this skill would be very beneficial. Teachers would then know if they could rely on peer review activities to help their students develop these advanced thinking skills as well as the ability to improve their own papers, and would therefore be more willing to devote the time necessary to carry out effective peer review activities. Thus, a more thorough understanding of the benefits of peer review would allow the writing teacher to use this tool more effectively in not only providing an increased quantity of feedback to the student from his or her peers, but also in teaching students to become self-reviewers and provide feedback for themselves on a consistent basis.

**Current Confusion with Peer Review Activities**

Currently, however, there is some confusion with respect to the basic principles of peer review activities, and this confusion may keep teachers from implementing these activities despite the potential benefits. For example, fundamental issues relating to peer review, such as how to train students (Hansen & Johnson, 2005; Schaffer, 1996), how to form groups (Hansen & Liu, 2005; Mendonça & Johnson, 1994; Rollinson, 2005), the types of activities to conduct (e.g. Bell, 1991; McMurry, 2004; Shaffer, 1996), and the method to be used (O’Donnell, 1980; Rollinson, 2005), are all dependent on the unique needs of the students involved. Therefore, teachers have many choices to make in setting up peer review and this can be daunting. Also, the answers are not clear-cut because they are so dependent on the students involved and the objectives of the class. Thus, the wide
variety of possible ways to set up and conduct peer review in the writing classroom can actually create confusion for teachers as to what exactly peer review involves and the best way to utilize it.

Some studies have looked at the cultural aspects of peer review, demonstrating why it may be more difficult to implement peer review in the L2 writing classroom than in L1 classrooms. Carson and Nelson (1994) reported that students from more collectivist cultures such as Japan or the People’s Republic of China may struggle with writing groups because of differing cultural views on the value of individualism. In addition, these students may form groups that include certain students and exclude others based largely on culture, making peer review basically ineffective. Ramanathan and Atkinson (1999) add that students from cultures that stress a certain social hierarchy or academic interdependence may find it extremely difficult and even unnatural to critique a peer’s paper or share their ideas in an individualistic, possessive manner. Cultural views having to do with age, gender, and social station can further complicate peer review groups and create uncomfortable situations for students with various cultural backgrounds.

In addition to the influence of culture on the interactions among group members, the personality of the students in the group will affect how group members interact and possibly also the effectiveness of the peer review activities (Lockhart & Ng, 1995). Lane & Potter (1998) identified four basic styles of interaction that students take when working in groups to see what effect personality had on group interactions. They labeled the four stances as authoritative, interpretive, probing, and collaborative, and found that student personality had a greater impact on which stance students took than teacher training or
instruction. The results of the study also indicated that the collaborative stance was the most effective in peer review activities. This suggests that classes with a greater number of student personalities that are more inclined to collaborative interactions with their classmates may have more success with peer review activities than classes with other types of personalities.

Other researchers debate the most effective form in which to organize the feedback, whether it be oral, written, or electronic (O’Donnell, 1980; Rollinson, 2005). Although computers and technology can be very useful in providing feedback to students and peers, problems with technology and anxiety related to computer use can cause problems for some students (Matsumura & Hann, 2004). Many researchers point to the benefits inherent in orally discussing a paper and having to communicate and understand an author’s intended meaning and a reviewer’s questions and suggestions (Bell, 1992; Hansen & Liu, 2005; Mirtz, 1997). Others recognize the benefits and convenience of having students write their responses rather than meet in a group to discuss a paper, such as more time to consider a paper and make thoughtful comments and practice writing to a particular audience (Rollinson, 2005; Schaffer, 1996), and still others seem to prefer a combination of oral and written feedback (Tang & Tithecott, 1999).

In addition, researchers have experimented with a wide variety of methods or recommendations in implementing peer review activities in the classroom. For example, Bell (1991) recommended a method in which the author largely directs the activity, asking the other members of the group specific questions about his or her writing, after which the group members are free to respond and offer suggestions. Schaffer (1996) suggested a method which focused on questioning, in which the students who are
reviewing the essay write specific questions for the author to help clarify the ideas in the paper. Hansen and Liu (2005) proposed that the students create a worksheet as a class in which they identify which parts of the paper are important, which can then be used during the subsequent peer review activities. Many other articles have been written that contain a wide variety of ideas on the most effective methods for peer review (e.g. McMurry, 2004; Rollinson, 2005; Tang & Tithecott, 1999). Because of the large volume of available ideas, a greater understanding of what the benefits of peer review are and how the challenges can be overcome would be very beneficial to the L2 writing teacher in choosing the correct peer review activity for a given class and writing objective.

Currently, however, because of this confusion, teachers may feel reluctant to give peer review activities the full time that they demand because they are unsure of how to use them effectively and do not want to do it incorrectly (McMurry, 2004; Rollinson, 2005). Also, because they know from experience that peer review has some challenges, and unless it is conducted effectively their students may not be benefiting from the activity, they may also be reluctant to make use of peer review activities because the class time used could be better spent in some other way (Mirtz, 1997; Shaffer, 1996). Thus, the teacher’s lack of understanding of the peer review process may lead to mediocre or ineffective peer review activities that are not adapted to the specific circumstances of the students, as well as misunderstandings of the benefits and challenges associated with them (Rollison, 2005). Teachers often do not know what to expect from peer review, and when that uncertainty is passed on to their students, little learning takes place.
Possible Challenges of Peer Review

Therefore, although it can be a very effective activity, peer review does have its drawbacks and potential problems, and some critics argue that these troublesome aspects make it of questionable value in the L2 classroom (Nelson & Murphy, 1992). For example, conducting these activities in their second language presents some problems for lower level students. If they are not trained in how to conduct a peer review session or in politeness strategies in English they might be aggressive or rude, possibly lowering fellow L2 writers’ confidence and creating a negative writing atmosphere in the classroom (Paulus, 1999). They may also be afraid to be critical, resulting in very little constructive feedback for the writer (Carson & Nelson, 1994). In either case, neither the author nor the reviewer is able to improve their writing or receive helpful feedback from their peers.

Problems such as these often lead to one of the more common challenges of peer review—negative student attitudes or perceptions of the activity. Some studies have shown that even after training and practice in peer review, students generally still prefer teacher feedback when given the choice (Paulus, 1999). Zhang (1995) reported in a review of eleven empirical studies about the affective aspects of peer review, such as feeling uncomfortable sharing their writing with their peers or not being completely confident in their peers’ ability to offer useful feedback, that almost 94% of the participants preferred teacher feedback to non-teacher feedback. Students often distrust that their peers can provide effective feedback, making the feedback they do receive ineffective because they do not use it (Mangelsdorf, 1992; Paulus, 1999). Thus, their attitudes prevent them from receiving the potential benefits from their peers’ feedback.
because they do not think it can help them. They expect to receive only the traditional
teacher feedback without supporting peer feedback, or they may have had other
unpleasant experiences with peer review in the past. These attitudes are often difficult to
overcome; for example, even when students recognize the benefits of peer review they
still dislike participating in these types of activities, often due to these affective factors
(Mangelsdorf, 1992; Müray, 1993).

Possible Benefits of Peer Review

Many studies have demonstrated that the possibilities of overcoming these
challenges are very real, however (Bell, 1991; Hansen & Liu, 2005; Schaffer, 1996). For
example, a study conducted by Paulus (1999) clearly illustrates one instance in which
peer review was used successfully in the second language writing classroom. Paulus
analyzed 11 ESL student essays written in three drafts with peer feedback after the first
draft and teacher feedback after the second to see if student writing improved and what
the sources of the changes were. She found that the mean score of the essays increased
by 0.75 on a 10 point rubric scale from the first to the third draft. More importantly, by
analyzing the source of the changes made in the drafts she found that 34.3% of the
revisions were influenced by the teacher and 13.9% were influenced by peers. Although
this study needs to be replicated in order to verify the results, it does support the belief
that the benefits of peer review are real and it is therefore an effective way of
supplementing teacher feedback. This study indicates that it can be worth the time and
effort necessary to overcome the challenges associated with peer review to implement it
successfully in the classroom.
Many studies support the idea that peer review in the traditional sense can be extremely effective for a variety of reasons when used correctly (Bruffee, 1978; Lockhart & Ng, 1995; Paulus, 1999). Teachers can incorporate it as a way to present the process approach to writing, which involves receiving feedback from different sources, making revisions, and evaluating continuously, ideally creating a student-centered classroom and ultimately learners capable of critically evaluating their own written work (Bell, 1991; Tang & Tithecott, 1999). Peer review for second language learners also provides students with the opportunity to use language in the classroom in a meaningful way. In-class peer review sessions can be particularly useful because they provide the opportunity for students to receive comprehensible input from their peers, or input to a learner that is understandable but slightly above his or her proficiency level (Krashen, 1982). It also allows them to use language, which is inherently social, in an interactive, natural manner, thus improving not only their writing but also allowing them to practice their listening and speaking abilities (Lockhart & Ng, 1995; Mendonça & Johnson, 1994; Tang & Tithecott, 1999). Peer review sessions can teach students important writing skills, such as writing to a real audience (Mangelsdorf, 1992) and seeing ideas and points of view other than their own (Paulus, 1999). Finally, peer review teaches international students how to work in groups with their peers, an essential skill they may not have learned in their native country that is needed for success in American universities and workplaces (Tang & Tithecott, 1999).

One of the biggest arguments for the use of peer review in the second language writing classroom is the opportunity it gives the students to interact with each other. Some researchers claim that being able to discuss ideas and negotiate the meaning of
their writing is necessary for students to become effective revisers of their work (Auten, 2005; Rollinson, 2005; Tang & Tithecott, 1999). Mirtz (1997) suggests that even the interactions among students when they appear to be off-task in their peer review groups are necessary for effective communication and lead to learning. During peer review activities, students receive comprehensible input from their peers, either verbally or in written form, and are also required to offer comprehensible output in return (Tang & Tithecott, 1999). Especially with second language learners, the use of negotiation strategies and other language skills can be very helpful not only for their writing abilities but also in the development of their overall language skills.

In addition to the possible language skills gained, many peer review activities demand that the student reviewing the paper master other more advanced thinking processes necessary for effective peer review. These skills include understanding the reasoning behind an argument, looking at the paper as a whole, understanding an author’s intended meaning, or identifying weaknesses in organization or development. The need for these abilities in reviewing papers suggests possible benefits for writing students beyond just an increased amount of feedback. Rather, the process of reviewing a peer’s paper may offer students practice in developing and using advanced thinking skills, which could make the peer review process beneficial regardless of the quantity or even quality of feedback received by the author. Also, as students gradually developed these skills more thoroughly, they would be able to offer more helpful feedback to their peers.

Possibly the greatest benefit of learning to critically review an essay, however, may be the possibility that students who learn to be effective reviewers of their peers’ papers will develop the critical thinking skills necessary to become better reviewers of
their own papers and therefore better writers. Some researchers in both L1 and L2 writing suggest that peer review teaches students critical thinking by forcing them to question the effectiveness of their peers’ writing and defend or explain their own (Bell, 1991; Ferris, 2004; Sager, 1973). For example, Rollinson (2005) argues that as students gain practice in becoming critical readers of their peers’ papers, they will progress toward becoming writers more capable of evaluating and editing their own written work. This claim may be supported by student comments in a study conducted by Min (2005) in which eighteen sophomores at a university in Taiwan were given intense training in how to offer more specific comments to their peers, especially with respect to global issues such as organization. Eleven out of the eighteen students participating in the study commented in their journals that the training on how to review their peers’ papers more effectively helped them improve their own writing.

One question that arises from this study, however, is the question of which specific aspects of the students’ writing improved and the manner in which reviewing affected their writing. Some researchers assume that the effect of increased critical thinking skills on student writing would be manifest most clearly in the global areas of writing because critical thinking skills are by their nature more focused on the big picture and the presentation of ideas (Gieve, 1998; Rollinson, 2005). They are not generally demonstrated through the local aspects of writing, which are more often considered the pieces of language, such as grammar or word choice. Most studies that have been conducted, however, have not attempted to address this issue, but have instead focused on overall writing ability, such as in the Min (2005) study.
Fully understanding the benefits of peer review to both the reviewer of a paper and the author allows for an increased level of adaptability for writing teachers. In addition, many of the problems associated with peer review may be easily avoided or remedied by gaining a better understanding of which aspects of peer review activities are responsible for writing improvement. For example, if students really do develop advanced critical thinking skills through reviewing their peers’ papers, similar results might be possible without the necessity of forming peer groups in certain situations. Teachers could simply teach how to critically review writing in general and never form groups, but just use practice essays for their students to learn how to review. In this way they could avoid many of the problems associated with group work, such as politeness strategies, cultural issues, and group dynamics. The author’s self-evaluation then provides the necessary feedback in addition to what they already receive from their teacher. It is important to remember, however, that some benefits of peer review, such as language use and interaction, are only possible in groups. Knowing which aspects are unnecessary could simplify the process and make peer review activities easier to use and more adaptable for writing teachers, as well as keeping the time required for effective activities minimal.

Clearly, more research must be conducted to determine the extent to which critically reviewing a peer’s paper benefits a writing student’s own writing. These researchers suggest that the benefits of reviewing others’ writing may go beyond the scope of the traditional view of peer review as largely an activity to help the writer whose paper is being reviewed. In addition, the benefits may also flow to the reviewer, adding another side to the possible advantages of peer review. If peer review really teaches
students how to think more critically and become effective self-editors, particularly in

global aspects of writing, then it becomes a much more powerful and valuable activity
despite the time and training needed to make it work, and the writing teacher would be
wise to learn how to conduct it effectively.

*Advanced Thinking Skills*

The thinking skills associated with being able to look at a classmate’s writing and
to provide effective feedback, particularly on a global level, is a very necessary skill for
quality writing. Often the term ‘critical thinking’ is used to describe this advanced
thinking ability, and although it is applied frequently in educational literature and the skill
is universally recognized as essential for the academic advancement of students, its
definition is still often somewhat vague. Gieve (1998) defines critical thinking as the
ability of students to “examine the reasons for their actions, their beliefs, and their
knowledge claims, requiring them to defend themselves and question themselves, their
peers, their teachers, experts, and authoritative texts, both in class and in writing” (p.126). Students are able to see more than just the literal, obvious meaning of what they
hear or read; they look for the reasons behind the arguments and ask questions when they
see a problem. A clearer understanding of the various aspects of an argument points to
an increased mastery of more global writing skills, such as organization, content, or the
development of ideas in a paper. The ability to think critically is a necessary skill in
almost any American writing classroom, in which students are presented with
information and asked to form opinions, make evaluations, and explain the reasons for
their responses.
Therefore, students with advanced critical thinking skills should be able to effectively review texts, both their own and others’, and see the gaps, problems with organization, and other defects that weaken the argument of the paper on the global level (Thompson, 2002). Students will increase in their ability to really understand the author’s intention in a piece of writing and ask for clarification when they do not understand something they read, allowing them to see the paper from the author’s perspective, which is an essential part of any peer review activity. Ultimately, critical thinking, in terms of writing, is the ability to look at writing and recognize how to effectively improve the global aspects of it (Beach, 1989). Ideally, these and other skills would also transfer to their own writing, allowing them to explain why their own paper is organized the way it is and recognize gaps in their work, showing an advanced understanding of the writing process and the ability to be effective self-reviewers (Rollinson, 2005).

Because these critical thinking skills can be extremely valuable in the writing classroom and yet such a difficult process to teach students, any activity that helps students learn to question and examine writing is extremely beneficial (Thompson, 2002). However, to my knowledge, no rigorous empirical studies have been done in L2 research to show that the act of reviewing others’ written work really does teach critical thinking skills, which are then transferred into the students’ own writing process, resulting in better writing. This leaves a large gap in the research on peer review that would benefit any ESL writing teacher struggling to provide sufficient quality feedback to his or her students, because peer review would then provide not only increased peer feedback but
also better self feedback and improved writing, particularly in the areas of organization, content, and development.

*L1 Research on Critical Thinking and Peer Review*

Unfortunately, although the gap in L1 research is slightly smaller than that in L2 research in the question of the effect of peer review on the reviewer, even in L1 research current studies on the subject are not available and the question seems to have been ignored or treated lightly for almost fifteen years. Initially, discussion concerning the role of students in the classroom with respect to each other developed in the mid-1970s with the idea of collaborative learning. Bruffee (1973) published a landmark article describing teachers as organizers of students rather than dispensers of knowledge. He argued that people learn better when they collaborate with others, and it is the duty of the teacher to create an atmosphere that allows for and even encourages that collaboration, rather than discouraging it. Later, other researchers built on Bruffee’s ideas to argue that writing teachers should teach students how to edit papers collaboratively with their peers, with the assumption that this would allow them to be better editors of their own work (Butler, 1981; O’Donnell, 1980). Many others have supported the idea that peer review can teach students to be better judges and evaluators of writing in general and is therefore a valuable writing classroom activity (Gebhardt, 1980; James, 1981; Lamberg, 1980).

In the same year that Bruffee published his article about collaborative learning, Sager (1973) published a study which further supports the idea that students who evaluate writing become better writers. In her study, she investigated what effect learning to evaluate writing had on the writing of sixth-grade students who learned how to use a rating scale to evaluate their classmates’ essays. She focused the study around four areas
which included two global aspects, elaboration or flow and organization, and two local aspects, vocabulary and structure. Two classes of students were taught how to assess essays on these four points using a rating scale, and two other classes were simply taught the four points as necessary parts of good writing. She found significantly greater improvement in the experimental group that learned how to use the rating scale, and the students were 99 percent reliable in their assessments of the writing they evaluated. She concluded that teaching the students how to use the scale made them better judges of writing and brought these issues to their attention more forcefully in their own writing, too, as measured by improvement in their own writing scores over the course of the study.

Questions began to arise, however, as to the truth of the claim that teaching students how to review their peers’ papers actually teaches them to critically evaluate their own work and therefore become better writers (Matsuhashi, Gillam, Conley, and Moss, 1989). To investigate, researchers began looking at specific instances of peers reviewing others’ writing. For example, two major studies looked at writing samples of writing tutors in two schools, because tutors give large amounts of both global and local feedback to others without necessarily receiving peer feedback on their own papers. Bruffee (1978) published a study in which he examined the writing of tutors over a semester and found that both the tutors and the students they worked with improved over the semester. Marcus (1984) conducted a similar study at a secondary school. He also found that the tutors’ writing improved significantly, and the other students at the school found it helpful to go to the tutors with their writing, creating an atmosphere of increased
excitement about writing. These studies suggest that in an L1 setting, reviewing the writing of one’s peers really can improve one’s own writing.

Finally, Graner (1987) conducted a study in an L1 writing classroom in which he compared two writing classes to see the effects of peer review on the reviewer. He wanted to find a way to avoid some of the problems associated with peer review, such as ineffective comments, unprepared students, and a loss of classroom control. In his study he gave one class a checklist to use while engaged in regular peer review activities, involving both giving and receiving feedback, and he gave another class the same checklist to use while reviewing an anonymous paper, but without receiving any feedback. In this way he removed the groups from the process and kept the writing anonymous with the hope that students would be more honest and free in their responses. He found that both groups performed at similar levels on their writing assessments, which he claims suggests that the important part of peer review is the reviewing, since the experimental group kept up with the control group without receiving feedback on their own papers. He also counted the study a success because he was able to eliminate some of the problematic aspects of peer review, such as dealing with group dynamics and training students on how to work in groups.

Although this research seems compelling, the lack of current research, particularly in the L2 writing classroom, makes further research necessary to show that the benefits of peer review are largely due to reviewing or evaluating writing. For example, in the study discussed previously, Graner (1987) compared a group participating in both reviewing and revising to a group participating in only reviewing, which, although it does not appear to be an even comparison, does still suggest that L1 students who learn how to
evaluate their peers’ writing become better writers themselves. However, follow-up studies still need to be conducted to solidify these findings, especially after the long time lapse since they were conducted. Once researchers have a more solid understanding of the peer review process, their findings can be applied to peer review activities in the writing classroom to see what effect they have on student writing in different settings. Eventually, teachers will be able to be more confident in the effectiveness of their chosen use of peer review in teaching writing to their students, as well as knowing where the benefits lie in the activities they are conducting.

Need for L2 Research

Even with a thorough understanding of the benefits of peer review in the L1 classroom, however, there are still difficulties in transferring those benefits to the L2 writing classroom. For example, differences between the L1 writing classroom and the L2 classroom may arise due to cultural issues, where some students are accustomed to a very teacher-fronted classroom and do not feel comfortable working with peers in a more student-centered environment (Carson & Nelson, 1994; Ramanathan & Atkinson, 1999). Language issues also arise, such as difficulty communicating ideas or a disproportionate focus on local issues such as grammar or surface errors rather than global issues such as content or organization. Varied teaching methods and styles in a relatively new field can add to the potential challenges.

In addition, even though teachers of English as a second language have adapted the idea of peer review for use in their writing classrooms, research still needs to be conducted to determine if second language learners receive the same benefits from reviewing peers’ papers that has been indicated in first language research. Language and
cultural issues complicate the use of peer review in the second language writing classroom, and, because students are less confident in both their writing ability and their language proficiency, the affective pressures associated with peer review may be greater (Carson & Nelson, 1994; Zhang, 1999). If reviewing peers’ papers is found to be the most beneficial part of peer review activities, second language writing teachers can focus on learning how to adapt and use peer review more effectively in their classrooms with the understanding that their students are getting more than just a greater quantity of feedback, but are also actually learning how to become self-editors. Eventually, understanding how peer review affects the different aspects of writing, both global and local, would help teachers tailor this practice to the unique needs of their students. Students could also be developing their own writing skills through a greater ability to critically evaluate writing (Thompson, 2002) and will have a better understanding of the writing process (Rollinson, 2005).

Research needs to show that the same benefits that seem to be found in the L1 writing classroom are also available to L2 writing students, or if there are differences, how the L2 writing teacher can adapt successful L1 peer review activities for her second language students. Many questions arise in adapting peer review activities, such as the most effective way to form groups, taking into account culture, gender, and native language (e.g. Carson & Nelson, 1994; Hansen & Liu, 2005; Rollinson, 2005). Teachers must also decide the most effective method of communication for conducting the activities, whether it be in writing, verbally, electronically, or in some other way. Additional questions may involve the correct level of proficiency at which to conduct peer review activities, or at what stage in the writing process they are most effective. For
all these reasons, L2 writing teachers would greatly benefit from more specific, current support of the claims made by L1 researchers as they try to incorporate peer review activities more effectively into their classrooms.

Writing teachers need to be able to separate the various aspects of peer review to see if using the feedback received through peer review is more beneficial, or if learning to critically examine writing is where the benefits truly lie. This will allow them to more effectively adapt peer review activities to the specific needs of their students. Additional information about the best proficiency level at which to begin developing these skills would also be extremely beneficial in planning how to use peer review more effectively. Without this understanding, teachers will be unable to overcome the challenges that peer group work presents and will not be able to access the anticipated benefits of such activities. The need to understand how writing teachers can maximize the benefits of peer review, including to what extent L1 research can be transferred into the L2 writing classroom, led to the current study, which examines and compares the reviewing, or giving of feedback, to the revising, or receiving of feedback, as well as the students’ feelings and perceptions of the peer review activities. It will attempt to answer the following questions:

1. Are reviewing peer writing and giving feedback more helpful in improving student writing than receiving and using peer feedback, as measured by:
   a. improvement in overall writing ability?
   b. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?
2. Does the proficiency level of the students affect the extent to which they improve their writing, as measured by:
   
   c. improvement in overall writing ability?
   
   d. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

3. Do students’ attitudes toward writing and peer review affect the extent to which they improve their writing?
CHAPTER THREE

Research Design

Introduction

This study compares the two sides of peer review – the reviewing, or giving of feedback; and the revising, or receiving of feedback. Because of the difficulty in providing sufficient quality feedback to students, peer review offers potential help to the writing teacher by allowing the students to provide feedback for each other. However, peer review activities require a large amount of class time, are difficult to set up effectively, and frequently do not work as well as the teacher may have hoped. Despite much research into the benefits and challenges of peer review as well as ways to increase its effectiveness, there is still little that is known of which aspects of the activity are really beneficial to the students. Having a greater understanding of what the specific benefits of peer review are and which aspects of it provide the most help to writing students can help teachers use these activities much more effectively in their writing classrooms, particularly with respect to the benefits derived from learning to critically read peers’ papers. In response to this issue, the following research questions were addressed in this study:

1. Are reviewing peer writing and giving feedback more helpful in improving student writing than receiving and using peer feedback, as measured by:
   a. improvement in overall writing ability?
   b. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?
2. Does the proficiency level of the students affect the extent to which they improve their writing, as measured by:
   a. improvement in overall writing ability?
   b. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

3. Do students’ attitudes toward writing and peer review affect the extent to which they improve their writing?

Participants

The participants in this study were ninety-one students enrolled in nine sections of writing classes at the English Language Center (ELC) on Brigham Young University campus in Provo, Utah. All participating students signed an informed consent form and the research was approved by the Internal Review Board. Students at the ELC progress through five levels with level one being the lowest level and corresponding to a beginning level class, and level five being the most advanced, corresponding to a low advanced class. Because it was necessary to work with teachers as they were assigned to teach various classes each semester, multiple classes at each level were used to attempt to overcome the limitations of using different teachers and to increase the number of participants who were able to take part in the study. Forty-five of the participants in the study were enrolled in level two writing classes and forty-six were enrolled in level four classes. Two level two and three level four classes, including forty-six students, were part of the control group; and two level two classes and two level four classes, including forty-five students, made up the experimental group (see Table 1). Students in these two
levels were chosen because they represent two different levels of proficiency and because the class sizes were large enough to offer a sufficient number of participants. Also, level two students had advanced sufficiently in their language ability to be able to complete the assignments and the survey, but were still unlikely to have had much previous experience with peer review. This would hopefully allow for a better understanding of the effects of students just learning how to use peer review. The level four students were just beginning to write lengthier, more academic papers, but still had room to improve in all writing aspects measured in this study. Also, they were more likely to have had previous experience with peer review, although their experiences were likely varied. The data were collected over both Fall semester of 2005 and Winter semester of 2006 to get data from enough students to run the correct statistical procedures.

Table 1

*Student Participation*

<table>
<thead>
<tr>
<th></th>
<th>Control group</th>
<th>Experimental group</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 2 students</td>
<td>21</td>
<td>24</td>
<td>45</td>
</tr>
<tr>
<td>Level 4 students</td>
<td>25</td>
<td>21</td>
<td>46</td>
</tr>
<tr>
<td>Totals</td>
<td>46</td>
<td>45</td>
<td>91</td>
</tr>
</tbody>
</table>

Class sizes ranged from twelve to seventeen and contained a diverse group of adult international students. Based on the results of a demographic survey, in this study the students came from fourteen different countries in five continents and spoke eight different native languages (see Table 2). The average age of the students was 23.9 years, with 46% percent being males and 54% percent being females.
Table 2

Student Demographics

<table>
<thead>
<tr>
<th>Native Language</th>
<th>Number of Students</th>
<th>Country of Origin</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td>31</td>
<td>Mexico</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Columbia</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chile</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peru</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bolivia</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Guatemala</td>
<td>1</td>
</tr>
<tr>
<td>Japanese</td>
<td>7</td>
<td>Japan</td>
<td>7</td>
</tr>
<tr>
<td>Korean</td>
<td>12</td>
<td>South Korea</td>
<td>12</td>
</tr>
<tr>
<td>Mandarin</td>
<td>7</td>
<td>Taiwan</td>
<td>7</td>
</tr>
<tr>
<td>Cantonese</td>
<td>2</td>
<td>Hong Kong</td>
<td>2</td>
</tr>
<tr>
<td>Mongolian</td>
<td>8</td>
<td>Mongolia</td>
<td>8</td>
</tr>
<tr>
<td>Portuguese</td>
<td>4</td>
<td>Brazil</td>
<td>4</td>
</tr>
<tr>
<td>French</td>
<td>1</td>
<td>France</td>
<td>1</td>
</tr>
</tbody>
</table>

Raters

Because the method of assessment in this study was writing improvement as measured by the students’ scores on thirty minute timed essays written at the beginning and end of the semester, raters were needed to evaluate the pretest and post test essays in order to determine the writing improvement of the students. The raters in the study were seven teachers working at the ELC who were either current or past writing teachers. All had experience as part of their responsibility as writing teachers at the ELC in grading student essays as well as rating final writing portfolios at the end of the semester using the ELC five-point rubric. Four of the raters were teachers of writing classes involved in the study and three raters were currently teaching other skills but had previously taught
either level two or level four writing classes and were familiar with the structure of the class and level of the students. Also, all teachers had been teaching English as a second language for at least one year. Five raters were female and two were male, and ranged in age from 24 to 45.

Seven different raters helped score the student essays using the scoring guide. Five raters scored the student essays from the first semester of data collection, and five raters scored the essays from the second semester. Two raters in addition to the researcher scored essays both semesters, and four raters scored essays only one of the two semesters. All raters rated essays written by both level two and level four students, and the distribution of essays to raters was completely arbitrary—as raters arrived to score the essays, they were given whichever ones were available at the time. Although a stratified random sample would have been better, the availability of teachers to rate made it necessary to give the essays to whoever was able to rate at that time. However, because all the essays were double rated, and then those essays in which the first two raters disagreed by more than one point were rated again by a third rater, the distribution of the essays was spread out more evenly. Table 3 shows the number of essays graded by each rater from both the treatment and control groups and the percentage of essays graded out of the total number available. The number of essays rated does not equal the number of students in the study because all essays were rated at least twice and some essays were rated more than twice. Also, the researcher (rater 5) was not included in the table because she rated all the essays in both groups.
Table 3

Distribution of Essays by Rater

<table>
<thead>
<tr>
<th>Rater</th>
<th>Number of essays from control group</th>
<th>Number of essays from treatment group</th>
<th>Percentage of essays rated out of total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17</td>
<td>10</td>
<td>13.37</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>17</td>
<td>13.37</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>22</td>
<td>19.80</td>
</tr>
<tr>
<td>4</td>
<td>27</td>
<td>25</td>
<td>25.74</td>
</tr>
<tr>
<td>6</td>
<td>22</td>
<td>19</td>
<td>20.30</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7.43</td>
</tr>
</tbody>
</table>

In order to calibrate the raters to the scale and each other, several thirty-minute diagnostic or final essays similar to those used in the study but written by students from previous semesters were used. These essays were rated by each rater, after which the raters compared their scores to the rest of the group and discussed their reasons for choosing their rating. This continued until all the raters agreed on a given score. The group then repeated this process until all the raters consistently rated within one point on the rating scale, understood the criteria on the scale, and felt comfortable using the whole scale when grading. Raters who joined after the initial calibration meeting were given essays with the correct ratings already determined and were allowed to work through them and ask questions until they were also consistently rating within one point of the official rating.

**Instruments**

To assess the writing proficiency of the students, the grading rubric used by Paulus (1999) was also used in this study (see Appendix A). The scale was used to assess
the thirty-minute diagnostic essay written by each student the first week of class and the thirty-minute essay written during final exams. This essay scoring guide is based on a ten-point scale, and student essays were assigned a different score on the scale from 1-10 for each of the following writing aspects: organization, development, cohesion, structure, vocabulary, and mechanics. In this rubric, organization refers to the formulation of an effective thesis statement and unity of ideas, including paragraphing and grouping. Development refers to the appropriate use of examples and support, as well as logical evidence and persuasiveness. Cohesion refers to the relationship of ideas to each other and the use of transitions. Structure refers to the level of syntax used and grammatical accuracy, including style. Vocabulary refers to clarity of meaning and the precision of the words used. Mechanics refers to spelling, punctuation, capitalization, and general formatting. Raters also assigned students an overall score from one to ten based on what score they felt the essay merited overall, but there was no criteria for overall score on the rubric itself.

The scale used in this study was chosen instead of the five-point scale normally used at the ELC for several reasons. First, the ELC rubric is intended to be used at the end of the semester to rate final portfolios of the writing students and to assess if they have achieved the specific ELC objectives for their level, such as describing or using APA format, and are prepared to advance to the next level. The ten-point scale, however, evaluates student writing based strictly on certain basic writing criteria, such as organization, development, cohesion, structure, vocabulary, and mechanics, which more closely matches the purpose of this study. Also, although the raters were already familiar with the ELC rubric, the ten-point scale was chosen because it allows for a more
analytical assessment of both the global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) aspects of writing mentioned above, in addition to providing a more holistic, overall final assessment score such as that utilized by the ELC. Finally, the ten-point scale offers ten possible scores rather than just the five points available on the ELC rubric, which enables the raters to more accurately assess writers at the varying proficiency levels examined in this study.

In addition to the scoring rubric, students were also given the opportunity to express their feelings and perceptions of peer review and the writing process by taking a short survey adapted from Műrau (1993) and Mangelsdorf (1992) (see Appendix B). The survey was adapted from these sources because they focus on student beliefs about the effectiveness of peer review, as well as students’ previous experience with peer review and other related activities. Because this study also examined the effects of these factors on students’ writing ability, adaptation from these sources was very helpful. Questions included items such as the students’ feelings about the writing process, how difficult they found it to revise their own papers, how helpful it was to both give and receive feedback on papers, what kinds of suggestions were most helpful, and previous experience with peer review. In addition to discovering students’ perceptions of peer review and their previous experience with it, the survey also collected necessary demographic information such as native language, age, gender, and amount of time studying English. The survey provided useful qualitative data such as student attitudes and beliefs about writing as well as background information, which helped interpret the quantitative results and gain relevant information about the participants. In this way, students’ attitudes and
perceptions could be compared to the other results of the study to examine their effect on writing and the peer review process.

**Materials**

The data that were collected from each student included two thirty-minute timed essays that the students wrote at the beginning and end of the semester that served as pre and post test assessments, four essay assignments that the student either reviewed or revised (see Appendix C), and his or her responses to the short affective survey (see Appendix B). In-class timed essays were chosen as the method of assessment in order to ensure that the students did not receive any outside help on the essay to be assessed by the raters. The essays given to the students as assignments were written by students from previous semesters in both level two and level four writing classes and were used with their permission. The student feedback on the essays used by the control group was also obtained from former writing students at those levels, also with their permission (see Appendix C). Several students reviewed each essay with an assignment sheet which asked them to focus on global aspects so the comments on the essays would match the assignments sheets later given to the participants. The students’ comments were then consolidated onto one essay.

The first thirty-minute essay was collected during the first week of class and the final thirty-minute essay was collected the last week of the semester. The topics of the diagnostic essays were assigned by the writing coordinator according to the writing objectives for that level, and were the same for both semesters. The level two essay prompt asked students to describe their favorite book or movie, and the level four essay prompt asked students to either agree or disagree with the statement that teachers should
be paid according to how much their students learn, and then support their opinion. The topics of the final essays were also assigned by the writing coordinator in order to meet the writing objectives for that level, and were similar in format for both semesters. The level two students were asked to describe something, such as a roommate or family member, and the level four students were once again given a statement of opinion and asked to agree or disagree and then support their answer. The first semester the statement was that zoos do not have a purpose; the second semester the students had to respond to the statement that success is determined by how much money one makes.

Four times throughout the course of the semester, the participants in the control group were given an essay written by another student at their level from a previous semester with student feedback on it. This was done to simulate the peer feedback that a student would receive during a traditional peer review activity and to help them practice using the peer feedback to make revisions. Students were also given an assignment sheet with five to seven questions asking them to use the feedback to revise the paper. The questions on the assignment sheet, as well as the comments on the essays, focused on global issues such as organization and development, including how students would use the feedback to improve the thesis statement, introduction, body paragraphs, and conclusion, what they would add to the paper to improve it, and how they would change the organization (see Appendix C). The assignment sheets were used with the essays to standardize the activity for all the classes as well as focusing students on the global writing aspects.

The treatment group was given the same essays as the control group throughout the semester, but without the peer feedback and with a slightly different assignment sheet.
of five to seven questions asking them to critically review, rather than revise, the essay (see Appendix C). As with the control group’s assignment sheet, the questions given to the treatment group asked students to look at the thesis statement, introduction, body paragraphs, conclusion, content, and organization, but instead of using the comments to make revisions, the students in the treatment group made their own suggestions and wrote feedback on the essay for the author. These activities were intended to simulate the part of a peer review activity in which students would offer feedback to the author. They were intentionally very similar to the assignments given to the control group, with the exception that the treatment group reviewed the essays and the control group revised them. Finally, the students completed the short affective survey their last week of class (see Appendix B).

**Procedures**

As part of the diagnostic activities during the first week of class, the students wrote a thirty-minute timed essay in class to determine if they were placed in the correct level. These essays were used as the pre-test assessment of students’ writing abilities. All the teachers collected these essays and gave them to the researcher, who typed them to maintain consistency across all the essays, to minimize the effect of sloppy handwriting or unusual formatting on the rating of the essays, and to avoid recognition of the author of a paper by the raters. While attempting to standardize the format of the papers, the researcher maintained the vocabulary, spelling, and organization of the original paper. The thirty-minute timed essays written the last week of class as part of students’ final evaluations were used as the post test assessment of their writing abilities
for the current study. Once again, the essays were all typed and formatted in a uniform manner to minimize the influence of handwriting or formatting on the raters.

Once the essays were collected and typed by the researcher, they were ready to be rated. All the essays were graded by at least two raters and the different scores were then compared. If the first two raters disagreed by more than one point in any of the seven criteria of a given essay, a third rater also graded those aspects of the essay on which the first two raters disagreed before the scores for the essay were averaged. The researcher graded all the essays, and the other six raters scored varying numbers of essays, which were distributed randomly among the graders without regard to level or group. Because all the raters were volunteers, each one rated as many as possible based on their availability during the rating sessions. To more accurately determine the reliability of the raters, several essays were scored by all the graders who were helping to rate that semester.

This data from the raters were then run through FACETS, a statistical program based on multi-faceted Rasch analysis (MFRA) that examines the interaction of the different facets of an assessment. Rather than the traditional inter-rater reliability, which is essentially a calculation of the correlation between raters who scored the same essay, FACETS generates a reliability of separation index, which measures the degree to which raters differ from each other in severity or leniency. FACETS does not account for internal rater inconsistencies, but it does use the reliability of separation index to adjust the students’ scores on their pretest and post test essays according to rater severity. The closer the index is to 1.00, the less adjustment that is needed for rater severity or
leniency. In this study, the reliability of separation index was .99, signifying that raters were rating very close to each other on the scale overall.

**Control Group**

Throughout the semester, the control group focused on learning how to effectively use feedback and revise papers, which is included in the normal writing curriculum of the ELC. They did not participate in any peer review activities or other activities that would allow the students to review or critically evaluate their peers’ papers. To help the teachers focus on revising and to provide some standard for the types of lessons and activities that would teach the skills that were examined in the study, each teacher was given lesson plan ideas from McMurry (2004) addressing topics such as what a good paper should include, why feedback is necessary when writing a paper, and how to use advice (see Appendix D). They were also encouraged to use these lesson plan ideas to focus their class on helping their students learn how to effectively use feedback and revise their papers over the course of the semester.

Because it is extremely difficult to control for teacher instruction in a study such as this, four times throughout the semester the students completed assignments in which they were required to practice using feedback on papers. This was done as a way to provide a standard method for all classes participating in the study to practice or learn these skills. For each activity, they received essays written by previous students at their level that had already been reviewed and had the student comments written on them, along with questions asking them to look at the different parts of the essay and state how they would revise that paper if they were the author, based on the feedback that was provided. For example, they were asked to describe how they would improve the thesis
statement, introduction, body paragraphs, or conclusion based on the peer comments written on the paper. Most of the questions focused on global writing issues such as organization or development because that is one of the main objectives of most writing classes at the ELC, as well as a focus of this study. The focus of the assignments was on global skills to determine if the control group could develop the advanced thinking skills through revising that were assumed to be gained through critically reviewing writing, as measured by improvement in global writing aspects. The assignments were included as part of the coursework of the class because learning how to revise is a part of the writing curriculum at the ELC and students are more responsible in completing the assignments when they are accountable. After each activity was completed they were collected and given to the researcher.

*Treatment Group*

The treatment group participated in similar activities throughout the semester, but their focus was on reviewing and looking at writing critically, rather than on revising and using feedback. Like the control group, they did not participate in traditional peer review activities where peers exchange feedback, but only participated in activities in which they offered peer feedback. To help them with this focus and to once again attempt to offer a standard for types of acceptable activities and lessons, teachers of the experimental groups were also given lesson plan ideas from McMurry (2004), but with a slightly different focus. These lesson plans also offered ideas relating to what to look for in a good paper, and why feedback is necessary in writing essays, but instead of receiving lesson plan ideas on how to use advice and revise a paper, they received lesson plan ideas on how to offer helpful feedback to a writer (see Appendix E). These lesson plans were
intended to help teachers find ways to effectively incorporate the focus on reviewing writing into their classroom throughout the semester.

To support the focus on reviewing and to help control for differences in teacher instruction, four times throughout the semester students in the experimental group received the same four essays that the control group received but without the peer feedback on them. They were then given an assignment sheet asking them to provide specific feedback to the author of the essay about the various parts of the paper, such as the introduction, thesis statement, and conclusion, looking once again specifically for problems with global issues like content, organization, and development. These activities were also conducted as part of the normal classroom activities for the reasons stated above and were then collected by the teachers and given to the researcher.

Finally, the students were asked to complete a short survey the last week of class that addressed how they felt about the writing process in general and peer review specifically, as well as providing background information on the students (see Appendix B). This information brought out attitudes or perceptions that may have affected the students’ writing but was not necessarily related to their ability, and it gave more information on the students involved in the study. The questions were generally open-ended and students were able to write their responses freely, allowing the researcher to gain a greater understanding of the reasons behind the results of the tests and of the connections between some of these perceptions or attitudes and the students’ writing ability. Seventy-six out of ninety-one students (83.5%) completed the survey.
Statistical Design and Data Analysis

The data collected from rating the pre-test and post test essays were sorted by proficiency level (level two and level four) and group (treatment or control). The first step in examining the data was to look at some of the descriptive statistics of the scores themselves, such as the mean scores both by group and by level. Such comparisons showed some general trends and allowed for a clearer understanding of the inferential statistics.

To examine the results of the study more closely, the data were then reorganized to be able to determine if the gains in any of the groups were statistically significant. In order to make this determination, the data were run through FACETS, a statistical program based on the multi-faceted Rasch analysis (MFRA) model, which is in turn founded in item response theory (IRT). FACETS, as based on these models, is useful in this study because it examines the interactions of the different facets of an assessment, such as item, student, or rater. The Rasch model was used because it adjusts the data to account for variable aspects of the data collection, such as test items, or, in this case, raters. It looks for certain items or students, for example, that are not fitting the expected scores and provides fit statistics so test developers can know where to make adjustments in their tests or locate the source of potential inconsistencies. Because of this, inconsistencies in raters or students can be spotted and looked at more closely to determine the cause of the inconsistency. If the test reasonably fits the expectations, then it can be assumed that it is acceptably valid.

The FACETS program analyzed the data in this study according to four facets: rater, student, pre or post test, and writing aspect. In this way the data could be examined
from many different points of view, and the scores for the essays could be adjusted to account for rater severity or leniency, providing more accurate data. For example, the program looked at all of a rater’s scores and determined how severe or lenient he or she was compared to other raters, and then adjusted the scores given by that rater accordingly. It also reported the relative severity or leniency of each rater. FACETS then adjusted each student’s pretest and post test scores as assigned by the raters and produced a measure score, expressed as a logit value, which is a value ranging in this case from negative nine to about eight. Although the mathematical calculations are complex, if the overall essay score for the diagnostic essay of student 102 was given a 4 by rater two and a 3 by rater five, FACETS would take those scores and adjust them according to the rater severity measure assigned to each rater before producing one logit score including both raters’ scores and accounting for both raters’ known level of severity. Therefore, by using FACETS, the scores that were used to calculate gain were adjusted for rater severity or leniency and were more accurate representations of student writing ability independent of rater.

FACETS also provided data on internal rater consistency and the validity of the scale used to rate the essays, which was used to validate the method of assessment. FACETS produced proficiency distribution curves which showed the extent to which raters were using the whole range of the rating scale. It also calculated fit statistics, which are important because they indicate internal rater consistency, which is essential for a valid test because unexpected ratings from a rater cannot be accounted for in the calculation of the logit scores. The fit statistics could then be used to calculate the acceptable range of internal rater variance which is generally done by calculating the
population infit mean square plus or minus two times the standard deviation (Lynch & McNamara, 1998; Park, 2004).

Once the logit scores were obtained for all the students’ diagnostic and final essays, the data were analyzed by running a series of two-tailed paired sample t-tests on the data using the pretest and the post test scores for both the treatment and control groups at the p < 0.01 level. The p value was set at .01 based on the Bonferroni procedure to account for the large number of multiple t-tests. The t-tests were run to determine if improvement in student writing, which is the dependent variable in this case, was statistically significant for either the treatment or control group in any of the seven writing aspects scored by the raters. Then, to determine if proficiency level affected these results, another series of two-tailed paired sample t-tests was run for the level two control group, level four control group, level two treatment group, and level four treatment group over all seven writing aspects also at the p < 0.01 level. The t values obtained from the t-tests were compared with the critical t value to determine if they were statistically significant.

The affective survey was used as a source of qualitative information to find reasons for the results of the statistical analyses. The survey provided demographic information about the students, such as age, gender, and native language and country. It also provided information on the students’ previous experiences with peer review and the writing process in general, which may have affected how they viewed the activities used in the study. To correlate the results of the survey with the pretest and post test data, the data from the survey were grouped into categories and then a step-wise multiple regression analysis was run to see whether the attitudes, perceptions, and background of
the students predicted the gain scores from pre to post test, which was the dependent variable.

Not all the questions on the survey were analyzed, however, because the responses to some questions were so varied that they were very difficult to group into categories. Questions about students’ comfort level with the writing process (#1), whether they find it hard to know how to revise (#2), whether they find it useful to review papers (#5), whether they find it helpful to learn how to use feedback (#6), the kinds of suggestions that are most helpful (#7), their previous experience with peer review (#8), their native language (#10), the amount of time they have studied English (#12), their age (#13), and their gender (#14) were analyzed. Questions about the hardest part of the writing process (#3), the purpose of sharing writing with peers (#4), previous peer review activities (#9), and their native country (#11) were not. For questions two, five, and six, the responses were categorized as positive, negative, or neutral because students were asked a yes or no question about their feelings about the writing process. The responses to question seven were organized into four categories: organization/development, grammar/structure, ideas/content, and other. The responses to question eight were organized into yes or no responses based on which box the students checked. The students’ native languages (#10) were categorized as Romance (Spanish, Portuguese, and French), or Asian (Japanese, Korean, Mandarin, Cantonese, and Mongolian). Their ages were divided up into categories of less than 20 years, 21-25 years, and more than 25 years. Time spent studying English was organized into 0-6 months, 7-12 months, 13-24 months, and 25+ months.
Once the data were organized into categories and identified by a number (1, 2, 3, etc. depending on the category), the multiple regression analysis could be run. For example, students who answered positively to question five about whether students find it useful to help others with their papers were given a ‘1’, students who answered negatively were given a ‘2’, and neutral answers were given a ‘3’. The data were then analyzed to determine which responses were significant predictors of writing improvement and which were not. The information gathered in the survey allowed for a greater understanding of the students and the effect of outside factors on their writing ability.
CHAPTER FOUR

Data Analysis

Introduction

The purpose of this study was to investigate more thoroughly the benefits of peer review, particularly for the student who is reviewing a peer’s writing, or offering feedback. This study focused on determining if reviewing another student’s paper helps a student improve his or her own writing. Based on the methods explained in the previous chapter, the pretest and post test scores of the students who participated in the study were analyzed in order to answer the research questions shown below. The scores of the control group as a whole were compared with the scores of the treatment group as a whole, as well as comparing them within the level two and level four groups. In each case, the results were also examined according to the six writing aspects assessed in the grading rubric. The FACETS statistical program was used to modify student scores to account for rater severity. FACETS was also used to validate the method of assessment by examining both the instrument and the raters. Additionally, the results of the affective/demographic survey were analyzed to show which student attitudes or preferences were predictors in writing improvement. The following data were collected and analyzed in response to the research questions posed in Chapter 2:

1. Are reviewing peer writing and giving feedback more helpful in improving student writing than receiving and using peer feedback, as measured by:
   a. improvement in overall writing ability?
b. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

2. Does the proficiency level of the students affect the extent to which they improve their writing, as measured by:
   a. improvement in overall writing ability?
   b. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

3. Do students’ attitudes toward writing and peer review affect the extent to which they improve their writing?

In order to answer these questions, the validation of the testing method will be discussed, the descriptive data will be presented, and then the inferential statistics will be used to respond to the above research questions.

**FACETS Analysis**

As explained in the previous chapter, a multi-faceted Rasch analysis (MFRA) was used to obtain information on the validity of the rating scale and the reliability of the raters. The FACETS program was used to run this analysis, and provided data for all seven aspects of writing (organization, development, cohesion, structure, vocabulary, mechanics, and overall writing ability) and all seven raters. The dependent variable in this case was the validity of the instrument. This data can verify that the method of testing used was reasonably accurate by showing that both the pretest and post test scores
for each student as well as the scores given by each rater fit the expected scores within 
the given range and that the raters were able to use the scale fully and effectively.

Validation of the Instrument

The proficiency distribution curve of the scale, which is shown on a graph 
produced by FACETS (see Figure 1), was first examined to determine if the test, or in 
this case the rating scale used to rate the essays, was valid. For the instrument to be 
considered valid, each curve on the graph, which is labeled according to the rating it 
represents, should be distinct from the other curves, showing that the raters could 
distinguish one rating on the scale from another. If a rating’s curve is difficult to see or 
blends in with other curves, then it is not showing a distinct level of proficiency in the 
area being rated and is probably not necessary. Figure 1 illustrates the overall shape of 
the proficiency distribution curve of the ten-point rating scale used in this study, 
including all six rating aspects on the scale as well as overall score. As is demonstrated, 
raters were able to differentiate between each of the points on the scale, with the 
exception of the six rating, whose curve blends in with the curve for the five rating and 
the curve for the seven rating. This indicates that raters were unsure how to use the six 
rating because the six does not show a difference in proficiency from the five or the seven 
rating. This could mean that the six rating is not necessary and should be removed in 
future revisions of the instrument. The nine and ten ratings do not even appear on the 
graph, indicating that they were not used by the raters in this study, most likely because 
they designate near native-like proficiency which the students did not demonstrate.
Similar analyses were run for the pretest and post test score of each aspect rated on the scale (organization, development, cohesion, structure, vocabulary, and mechanics), and all showed similar results. As the analyses indicate, the middle of the scale from four to seven seemed to be the hardest for raters to use, with six being the most difficult rating for each aspect of writing. Figure 2 and Figure 3 compare what appears to be the most difficult writing aspect to rate, mechanics, with the most clearly rated writing aspect, organization. The proficiency distribution curves of the other four writing aspects fell between these two. As is demonstrated in Figure 2, the proficiency distribution curve for the six rating in mechanics is almost completely underneath the curves for five and seven, and even the seven curve is mostly undefined, indicating that the six and seven ratings were both difficult for raters to understand and did not clearly differentiate between

Figure 1 Proficiency distribution curves for all writing aspects
students at those levels. In future studies, it may be more accurate to collapse those ratings together because raters see them as one rating anyway.

![Figure 2 Proficiency distribution curve for mechanics](image)

However, in Figure 3 each rating for organization is a distinct curve, showing that the raters used each one to clearly show a different level of proficiency in organization. Overall, this data indicate that raters were able to use the scale more accurately when rating organization than mechanics. However, overall the scale was acceptably accurate, with each rating generally pointing to a different level of proficiency and raters largely being able to distinguish between the points on the scale when giving scores. Although it may be beneficial to examine this data more closely before using the instrument in future studies, it is acceptably valid as a measure of writing ability as used in this study.
Figure 3 Proficiency distribution curve for organization

**Internal rater reliability**

Another major factor that could have affected the validity of the scores assigned to each student was the raters. Rating writing samples is by its very nature somewhat subjective, even with a rating scale with detailed criteria such as the one used in this study. Even if the scale itself is valid and functional, if the ratings are not consistent across raters, then the scores given to the students will not be valid. Naturally, some raters scored essays more severely than others, but FACETS was able to take this into account when calculating the students’ scores by determining rater severity and then adjusting the scores accordingly. The measure scores in Table 4 show rater leniency or severity averaged over all aspects for each rater, from the least severe (lowest score), to the most severe (highest score). As is shown in the table, rater seven was the least severe and rater four was the most severe among the seven raters who helped score the essays.
This information was then used to adjust the essays scores given by each rater accordingly, providing a more accurate assessment of student writing ability.

Table 4

*Rater Severity over All Aspects*

<table>
<thead>
<tr>
<th>Rater ID</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>-1.54</td>
</tr>
<tr>
<td>1</td>
<td>-0.12</td>
</tr>
<tr>
<td>6</td>
<td>0.08</td>
</tr>
<tr>
<td>5</td>
<td>0.11</td>
</tr>
<tr>
<td>3</td>
<td>0.36</td>
</tr>
<tr>
<td>2</td>
<td>0.43</td>
</tr>
<tr>
<td>4</td>
<td>0.69</td>
</tr>
</tbody>
</table>

Although FACETS was able to adjust the raters’ scores according to their severity and thus greatly minimize the effects of rater severity or leniency on the students’ scores, a rater’s inconsistency within his or her own ratings is a bigger problem because this could not be accounted for by FACETS. However, although FACETS could not adjust the students’ scores for internal rater consistency, it did provide descriptive data on rater consistency, or fit statistics, which were then examined to determine if the raters were sufficiently consistent to give valid scores. As described in the previous chapter, in order to determine the acceptable range of internal inconsistency for raters, the population infit mean square was doubled, plus or minus two times the standard deviation ($\text{InfitMS} \pm 2(s.d.)$). The infit mean square represents the degree to which the raters are inconsistent, and an infit mean square outside of this range would indicate an unacceptable level of internal rater inconsistency. In this case, with a population infit mean square of 1.09 and a standard deviation of 0.36, the raters should fall within the range of 0.37 to 1.81. Table
5 shows the infit mean squares for all writing aspects. As is displayed, all raters fell within this range, indicating that rater consistency was acceptable and the scores they provided can be considered valid.

Table 5

*Rater Consistency over All Aspects*

<table>
<thead>
<tr>
<th>Rater ID</th>
<th>Infit Mean Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>0.72</td>
</tr>
<tr>
<td>1</td>
<td>0.72</td>
</tr>
<tr>
<td>5</td>
<td>0.75</td>
</tr>
<tr>
<td>4</td>
<td>0.97</td>
</tr>
<tr>
<td>6</td>
<td>1.35</td>
</tr>
<tr>
<td>2</td>
<td>1.49</td>
</tr>
<tr>
<td>3</td>
<td>1.63</td>
</tr>
</tbody>
</table>

This data indicate that the scale was used correctly and the raters were sufficiently consistent internally to produce valid scores. Although the student scores calculated by FACETS are more accurate than the actual scores assigned by the raters because the FACETS scores account for rater severity, they are difficult to display to see the trends in the data because they are expressed in logit values ranging from negative ten to eight. Therefore, it is more convenient to look at the actual mean student scores to get a basic understanding of the results of the study, after which the statistical analyses, which are based on the scores calculated by FACETS, will be presented.

Once all the pretest and post test scores were collected from the raters, they were sorted into groups by student, group (control or treatment), and level (level two or level four) and the pretest and post test scores were examined to see what trends could be
found in the data. Figure 4 shows the mean overall pretest and post test essay scores for both the control and treatment groups, collapsed over both levels. Based on this graph, the treatment group seemed to show a greater gain in writing ability from the pretest to the post test.

Additionally, Table 6 contains the mean pretest and post test scores and the difference between them for all the writing aspects rated by the graders, including the overall score assigned by the raters. As shown in the table, the treatment group had a greater gain in each writing aspect rated, although some gains were much larger than others.
Table 6

*Mean Scores of Essays by Group*

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th></th>
<th></th>
<th>Treatment</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Post test</td>
<td>Difference</td>
<td>Pretest</td>
<td>Post test</td>
<td>Difference</td>
</tr>
<tr>
<td>Organization</td>
<td>4.12</td>
<td>5.01</td>
<td>0.89</td>
<td>3.93</td>
<td>4.98</td>
<td>1.05</td>
</tr>
<tr>
<td>Development</td>
<td>4.01</td>
<td>4.78</td>
<td>0.77</td>
<td>3.87</td>
<td>4.87</td>
<td>1.00</td>
</tr>
<tr>
<td>Cohesion/Coherence</td>
<td>3.85</td>
<td>4.40</td>
<td>0.55</td>
<td>3.71</td>
<td>4.68</td>
<td>0.97</td>
</tr>
<tr>
<td>Structure</td>
<td>3.89</td>
<td>4.44</td>
<td>0.55</td>
<td>3.78</td>
<td>4.41</td>
<td>0.63</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>4.10</td>
<td>4.55</td>
<td>0.45</td>
<td>3.83</td>
<td>4.62</td>
<td>0.79</td>
</tr>
<tr>
<td>Mechanics</td>
<td>3.91</td>
<td>4.27</td>
<td>0.36</td>
<td>3.97</td>
<td>4.46</td>
<td>0.49</td>
</tr>
<tr>
<td>Overall</td>
<td>4.00</td>
<td>4.57</td>
<td>0.57</td>
<td>3.85</td>
<td>4.67</td>
<td>0.82</td>
</tr>
</tbody>
</table>

This same data can be examined when sorted by level (level two vs. level four) to ensure that the two populations examined were different. This is important because if the means were very similar, it would be difficult to compare results by proficiency level because it would not be certain that there were two different proficiency levels. Also, the placement policy at the ELC is to place students in one level according to their language proficiency across all skill levels, not just in writing. For example, a student who is very proficient in grammar and speaking but with lower writing and reading skills may place at a higher level than their literacy skills would merit alone. This makes it possible for students in one class to have very different proficiency levels across the different skills.

Figure 5 shows the mean overall scores of the students by level, indicating that the level two and level four students were different populations because the level four students’ diagnostic essays had a higher mean for their overall score than the level two students.
Figure 5 Mean overall scores by proficiency level

Also, Table 7 displays the pretest mean scores for each writing aspect at both proficiency levels, showing that the level two students started at a lower level of proficiency than the level four students and verifying that they were different populations.

Table 7

Mean Pretest Scores of Essays by Proficiency Level

<table>
<thead>
<tr>
<th></th>
<th>Level 2</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Post test</td>
</tr>
<tr>
<td>Organization</td>
<td>3.23</td>
<td>4.83</td>
</tr>
<tr>
<td>Development</td>
<td>3.15</td>
<td>4.52</td>
</tr>
<tr>
<td>Cohesion/Coherence</td>
<td>2.96</td>
<td>4.26</td>
</tr>
<tr>
<td>Structure</td>
<td>2.83</td>
<td>3.96</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>3.11</td>
<td>4.23</td>
</tr>
<tr>
<td>Mechanics</td>
<td>3.07</td>
<td>4.03</td>
</tr>
<tr>
<td>Overall</td>
<td>3.09</td>
<td>4.29</td>
</tr>
</tbody>
</table>

With an understanding of the validity of the scores assigned by the raters using the ten-point scale and the general trends in the data, the inferential statistics could be conducted in order to address the three research questions of the study.
Analysis of the Research Questions

1a. Are reviewing peer writing and giving feedback (treatment group) more helpful in improving student writing than receiving and using peer feedback (control group), as measured by improvement in overall writing ability?

The first part of the first question asks if the treatment group, which focused on reviewing peer essays, made larger gains in their overall writing scores from pretest to post test than did the control group, which focused on how to use peer feedback. This information can show how much of an effect the treatment, or reviewing of peer essays, had on the students participating in the study. To answer this question, two sets of two-tailed paired sample t-tests with a significance level of p < .01 were conducted using the overall pretest and post test scores for both the treatment and control groups (collapsed over both proficiency levels) to determine which if any of them improved significantly over the course of the semester. As discussed previously, FACETS scores adjusted for rater severity were used to run the statistics because they were more accurate assessments of student ability than the actual mean scores of the students. Two different overall scores for each student were used in this analysis. The first score (Overall 1) was a mathematical average of scores for the six writing aspects scored by the raters (organization, development, cohesion, structure, vocabulary, and mechanics) but excluding the rater-assigned overall score. This overall score was calculated by FACETS using the modified logit values. The second score that was analyzed (Overall 2) for each student was the rater-assigned overall score. In this way a comparison could be made between a mathematically calculated overall score and a rater-assigned overall score.
In both these calculations of overall score, the treatment group improved significantly (ts: 2.817 < t < 2.841; p < .01), while the control group did not (ts < 1.18; p > .01). Figure 6 illustrates the results for Overall 2, showing the mean pretest and post test scores for both the treatment and control groups. The asterisk indicates a statistically significant gain. Once again, although the logit scores calculated by FACETS were used to run the statistics, the mean scores are shown here because many of the logit scores are negative numbers and therefore difficult to display. It is important to note that these results include all the students at both levels of proficiency. Table 8 contains the statistical results of the test for both overall scores. Again, the asterisk indicates a statistically significant gain.

![Figure 6 Rater-assigned overall mean scores for both treatment and control groups](image-url)
Table 8

*Significance of Overall Scores by Group*

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th></th>
<th>Treatment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
<td>p</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td>Overall 1</td>
<td>.749</td>
<td>p = 0.458</td>
<td>2.817</td>
<td>*p = 0.01</td>
</tr>
<tr>
<td>Overall 2</td>
<td>1.18</td>
<td>p = 0.243</td>
<td>2.841</td>
<td>*p = 0.01</td>
</tr>
</tbody>
</table>

*p < .01

1b. Are reviewing peer writing and giving feedback more helpful in improving student writing than receiving and using peer feedback, as measured by improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

To investigate more specifically the ways in which peer review can help writing students, the scores for each writing aspect (organization, development, cohesion, structure, vocabulary, and mechanics), in addition to the overall scores discussed above, were examined to determine which were statistically significant. The only aspect that improved significantly in the control group was structure (t = 2.721; p < .01); all other aspects did not improve significantly (t <= 1.905; p > .01). In the treatment group, however, organization, development, structure, and vocabulary were the writing aspects that were found to improve significantly (t > 2.817; p < .01), while only cohesion and mechanics did not make significant gains (ts: 2.055 < t < 2.065; p > .01). The statistical results of the test for the six writing aspects are shown in Table 9. The asterisk indicates a statistically significant gain.
Table 9

*Significance of Writing Aspects by Group*

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th></th>
<th>Treatment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
<td>p</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>1.499</td>
<td>p = 0.036</td>
<td>3.602 *</td>
<td>p = 0.001</td>
</tr>
<tr>
<td><strong>Development</strong></td>
<td>1.905</td>
<td>p = 0.063</td>
<td>2.964 *</td>
<td>p = 0.01</td>
</tr>
<tr>
<td><strong>Cohesion</strong></td>
<td>.730</td>
<td>p = 0.469</td>
<td>2.265</td>
<td>p = 0.028</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>2.721 *</td>
<td>p = 0.009</td>
<td>2.947 *</td>
<td>p = 0.01</td>
</tr>
<tr>
<td><strong>Vocabulary</strong></td>
<td>.982</td>
<td>p = 0.331</td>
<td>2.972 *</td>
<td>p = 0.005</td>
</tr>
<tr>
<td><strong>Mechanics</strong></td>
<td>.702</td>
<td>p = 0.486</td>
<td>2.055</td>
<td>p = 0.04</td>
</tr>
</tbody>
</table>

*p < .01

Because the activities that the students completed in class focused on global issues of writing and in order to investigate the assumption that the development of critical thinking skills would be most evident in improvement in global writing aspects such as organization, development, and cohesion, it is interesting to note which of these global aspects improved significantly, as well as which of the local aspects made significant gains. This information is displayed in the following graphs. Figure 7 shows the mean pretest and post test scores of the global aspects for both the control and the treatment groups (organization, development, cohesion). Figure 8 shows the same information but for the local writing aspects (structure, vocabulary, mechanics). In both figures, the asterisk indicates a statistically significant gain. Once again, the actual mean scores are displayed because the FACETS data cannot be easily displayed in graphs. As is shown, in the global writing aspects only the treatment group improved significantly in organization and development, and neither group made significant improvements in cohesion. In the local writing aspects, only the treatment group improved significantly in vocabulary, both groups did in structure, and neither did in mechanics.
This first research question addressed the issue of whether the treatment group made significant gains in both the overall score and in each of the six writing aspects evaluated in this study. It also examined whether the significant gains were more
prevalent in the global writing aspects or the local writing aspects, because this information can show which specific skills the students participating in these activities, which focused largely on global skills, really gained. The data indicate that the treatment group did have more significant gains in overall score as well as in two of the three global areas while the control group did not make significant gains in any of these areas. The treatment group also improved significantly in two of the three local aspects, but the control group also gained significantly in one local aspect.

2a. Does the proficiency level of the students affect the extent to which they improve their writing, as measured by improvement in overall writing ability?

The second question asks if the results of the study were affected by the proficiency level of the students, both in their overall score and in the six writing aspects examined in this study. This information shows if students at a lower or higher level of proficiency received greater gains in their writing from these activities. To help answer this question, the students were divided by proficiency level, and four series of two-tailed paired sample t-tests with a significance level of p < .01 for both the level two students and the level four students were run on the pretest and post test scores for both the treatment and control groups to determine which if any of them improved significantly over the course of the semester. In this way the proficiency levels could be compared to see more specifically where the significant improvement was located.

As with the first research question, two overall scores were analyzed for each student because they were calculated in different ways. The first overall score (Overall 1) is based on an average of all six writing aspects, with the exclusion of the rater-assigned overall score, calculated by FACETS using the scores adjusted for rater severity.
The second score (Overall 2) is the rater-assigned overall score. The results of the t-tests showed that for level two, both overall scores indicated a significant improvement for the treatment group (ts: 5.354 < t < 6.334; p < .01) but not for the control group (t < 2.406; p > .01). For the level four students, Overall 1 showed significant improvement for the treatment group (t = 2.876; p < .01) but not the control group (t = .275; p > .01), but for the Overall 2 score, which was the overall score assigned by the raters, neither group showed a significant improvement (t < 2.577; p > .01). Therefore, except for the level four Overall 2 score, the treatment group scored significantly better while the control group did not at both levels. Table 10 displays the overall scores for both treatment and control groups at both proficiency levels. The asterisk indicates a statistically significant gain.

Table 10

<table>
<thead>
<tr>
<th></th>
<th>Level 2</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall 1</td>
<td>Control</td>
<td>Treatment</td>
</tr>
<tr>
<td></td>
<td>t = 2.220</td>
<td>*t = 5.354</td>
</tr>
<tr>
<td>Overall 2</td>
<td>t = 2.406</td>
<td>*t = 6.334</td>
</tr>
</tbody>
</table>

*p < .01

2b. Does the proficiency level of the students affect the extent to which they improve their writing, as measured by improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

Level 2 In addition to the overall scores, the data were examined by each of the six writing aspects at each proficiency level to determine which of these aspects made significant gains. The results for the level two students showed that all writing aspects
improved significantly in the treatment group, but only two of the writing aspects did in the control group. Development, cohesion, vocabulary, and mechanics showed significant improvement for the treatment group (ts: 4.353 < t < 5.209; p < .01) but not the control group (t < 2.708; p > .01). Organization and structure, however, improved significantly in both the treatment and control groups (ts: 3.316 < t < 6.134; p < .01). The statistical results of these tests are displayed in Table 11. The asterisk indicates a statistically significant gain.

Table 11

*Significance of Aspects for Control and Treatment Groups for Level Two*

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Control</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>*t = 4.061</td>
<td>*t = 6.134</td>
</tr>
<tr>
<td>Development</td>
<td>t = 2.708</td>
<td>*t = 4.855</td>
</tr>
<tr>
<td>Cohesion</td>
<td>t = 2.654</td>
<td>*t = 4.535</td>
</tr>
<tr>
<td>Structure</td>
<td>*t = 3.316</td>
<td>*t = 5.824</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>t = 1.685</td>
<td>*t = 5.209</td>
</tr>
<tr>
<td>Mechanics</td>
<td>t = 2.083</td>
<td>*t = 4.353</td>
</tr>
</tbody>
</table>

*p < .01

Because of the focus of the activities used in the study on global issues, it is also helpful to look at the data according to the global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) aspects of writing. The following graphs illustrate these differences by showing the mean pretest and post test scores for both level two groups. Once again, the writing aspects were split into global and local groups to look for patterns in improvement in either the global or local areas, possibly pointing to which skills the students are acquiring as they complete these
activities. The treatment group improved significantly in all three global aspects, and the control group only did in organization. Similarly, the treatment group showed significant improvement in all three local aspects, and the control group only did in structure. Figure 9 shows the global aspects and Figure 10 shows the local aspects. In both figures, the asterisk indicates a statistically significant gain.

**Figure 9** Mean pretest and post test scores for level two global aspects

**Figure 10** Mean pretest and post test scores for level two local aspects
**Level 4** The same analysis by writing aspect in addition to overall scores was performed on the level four writing students’ scores. In this case, the treatment group improved significantly only in structure \((t = 3.068; p < .01)\), while the rest of the writing aspects in the treatment group did not improve significantly \((t_s: .507 < t < 1.614; p > .01)\). In addition, none of the writing aspects for the level four control group improved significantly \((t_s: .145 < t < .426; p > .01)\). Table 12 displays the six writing aspects and their statistical significance. The asterisk indicates a statistically significant gain.

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>(t = .145)</td>
<td>(t = .507)</td>
</tr>
<tr>
<td>Development</td>
<td>(t = .317)</td>
<td>(t = 1.13)</td>
</tr>
<tr>
<td>Cohesion</td>
<td>(t = 1.165)</td>
<td>(t = 1.148)</td>
</tr>
<tr>
<td>Structure</td>
<td>(t = .670)</td>
<td>(*t = 3.068)</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>(t = .416)</td>
<td>(t = 1.389)</td>
</tr>
<tr>
<td>Mechanics</td>
<td>(t = .809)</td>
<td>(t = 1.1614)</td>
</tr>
</tbody>
</table>

\(*p < .01\)

Once again, dividing the writing aspects into global and local areas is of interest to this study because it shows where students seem to find more significant gains. To see this more clearly, the mean scores of the pretests and post tests for all six writing aspects are displayed in the following graphs. In the global aspects, neither the treatment nor the control group made any significant gains. In the local aspects, the treatment group improved significantly only in structure and the control group did not improve significantly in any area. Figure 11 shows the global aspects, and Figure 12 shows the
local aspects. In both figures, the asterisk indicates a statistically significant gain. The significant improvement in structure shown in Figure 12 indicates that students did not improve, but the discrepancy can be explained by the use of the mean scores of the students to display the data, while the logit scores, which take into account rater severity, were used to run the statistics.

**Figure 11** Mean pretest and post test scores for level four global aspects

**Figure 12** Mean pretest and post test scores for level four local aspects
This question addressed the impact that proficiency level had on the different areas which improved significantly from pretest to post test. It also looked at which specific areas made significant improvements and whether those areas were largely global writing aspects or local aspects because the activities in which the students participated focused on the global areas of writing. The results of the t-tests showed that level two students had more significant areas of improvement than level four students. The level two treatment group improved significantly in all areas, and the level two control group improved significantly in one global and one local area. The level four treatment group only improved significantly in their overall scores and one local aspect, and the level four control group did not make significant gains in any area.

3. Do students’ attitudes toward writing and peer review affect the extent to which they improve their writing?

The third question examines student attitudes and backgrounds to see whether they are correlated with improvement in essay scores. This information is valuable because it can show whether certain attitudes increase the likelihood that these activities will be successful. Information on student perceptions was collected in the survey, including questions about students’ comfort level with the writing process (#1), whether they find it hard to know how to revise (#2), whether they find it useful to review papers (#5), whether they find it helpful to learn how to use feedback (#6), the kinds of suggestions that are most helpful (#7), their previous experience with peer review (#8), their native language (#10), the amount of time they have studied English (#12), their age (#13), and their gender (#14) were analyzed. Questions about the hardest part of the
writing process (#3), the purpose of sharing writing with peers (#4), previous peer review activities (#9), and their native country (#11) were not.

The data can also be examined by looking at frequencies of student responses. Table 13 displays the frequencies for student responses to question one, which indicated their level of comfort with the writing process. Most students are neutral to comfortable, which would be helpful when participating in peer review activities.

Table 13

*Frequencies of Responses to Question One of the Survey*

<table>
<thead>
<tr>
<th>Response</th>
<th>Very comfortable</th>
<th>Very uncomfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>28.3</td>
<td>26.8</td>
</tr>
</tbody>
</table>

The second question on the survey asked students whether they find it hard to know what to fix in their own papers. Responses were categorized as affirmative, negative, or neutral. Table 14 displays the frequencies of the students’ responses. The majority of the students indicated that they do find it difficult.

Table 14

*Frequencies of Responses to Question Two of the Survey*

<table>
<thead>
<tr>
<th>Response</th>
<th>Affirmative</th>
<th>Negative</th>
<th>Neutral</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>51</td>
<td>8</td>
<td>15</td>
<td>74</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>68.9</td>
<td>10.8</td>
<td>20.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The fifth survey question asked students if they find it useful to learn how to use the feedback others write on a paper to improve the paper. Responses were indicated as
positive, negative, or neutral. The majority of the students indicated that they do find it useful. Table 15 displays the frequencies of the student responses to question five.

Table 15

*Frequencies of Responses to Question Five of the Survey*

<table>
<thead>
<tr>
<th>Response</th>
<th>Positive</th>
<th>Negative</th>
<th>Neutral</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>54</td>
<td>7</td>
<td>15</td>
<td>76</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>71.1</td>
<td>9.2</td>
<td>19.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Question six of the survey asked students if they find it helpful to learn how to use feedback in revising a paper. The large majority of students who responded indicated that they did find it useful. Table 16 displays the frequencies for the student responses to question six.

Table 16

*Frequencies of Responses to Question Six of the Survey*

<table>
<thead>
<tr>
<th>Positive</th>
<th>Neutral</th>
<th>Negative</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>59</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>80.8</td>
<td>9.6</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Question seven asked students which suggestions on their papers were most helpful. Their responses were categorized into four categories: organization/development, grammar/structure, ideas/content, and other. The results indicate that most students find grammar or structural suggestions most helpful, and then organization and developmental suggestions. Ideas/content and all other suggestions were less helpful to them. Table 17 displays the frequencies for the responses to question seven.

Table 17
Table 17

*Frequencies of Responses to Question Seven of the Survey*

<table>
<thead>
<tr>
<th>Response</th>
<th>Org/Dev</th>
<th>Gram/Struct</th>
<th>Ideas/Cont</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>19</td>
<td>25</td>
<td>9</td>
<td>7</td>
<td>60</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>31.7</td>
<td>41.7</td>
<td>15.0</td>
<td>11.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Question eight of the survey asked students if they had ever participated in a peer review activity before the semester in which they participated in the survey. About half of the students had previous experience with peer review (53.5%), and about half did not (46.5%). Table 18 displays the frequencies of the responses to question eight.

Table 18

*Frequencies of Responses to Question Eight of the Survey*

<table>
<thead>
<tr>
<th>Response</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>38</td>
<td>33</td>
<td>71</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>53.5</td>
<td>46.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Question ten asked students their native language, which were categorized as Romance (Spanish, Portuguese, and French), or Asian (Japanese, Korean, Mandarin, Cantonese, and Mongolian). Table 19 displays the results, which indicate that the majority of the students spoke a Romance language as their first language.

Table 19

*Frequencies of Responses to Question Ten of the Survey*

<table>
<thead>
<tr>
<th>Response</th>
<th>Romance</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>42</td>
<td>31</td>
<td>73</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>57.5</td>
<td>42.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Question twelve asked students how long they have been studying English. Most of the students had less than a year of experience learning English, but many had more than two years’ experience. Table 20 displays the results of the student responses of question eleven of the survey.

Table 20

*Frequencies of Responses to Question Twelve of the Survey*

<table>
<thead>
<tr>
<th>Months</th>
<th>0-6 mo</th>
<th>7-12 mo</th>
<th>13-24 mo</th>
<th>25+ mo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>11</td>
<td>27</td>
<td>5</td>
<td>27</td>
<td>70</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>15.7</td>
<td>38.6</td>
<td>7.1</td>
<td>38.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Question thirteen asked students how old they were. The majority of students (41.1%) were 21-25 years old. Thirty-four percent of the students were younger, and twenty-five percent of the students were older. Table 21 displays the student responses to question thirteen of the survey.

Table 21

*Frequencies of Responses to Question Thirteen of the Survey*

<table>
<thead>
<tr>
<th>Years</th>
<th>&lt; 20 yrs</th>
<th>21-25 yrs</th>
<th>26+ yrs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>25</td>
<td>30</td>
<td>18</td>
<td>73</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>34.2</td>
<td>41.1</td>
<td>24.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Question fourteen of the survey asked students their gender. Slightly more than half of the students were male (54.1%), and slightly less were female (45.9%). Table 22 displays the responses to question fourteen of the survey.
Table 22

*Frequencies of Responses to Question Fourteen of the Survey*

<table>
<thead>
<tr>
<th>Response</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequencies</td>
<td>40</td>
<td>34</td>
<td>74</td>
</tr>
<tr>
<td>Percentages (%)</td>
<td>54.1</td>
<td>45.9</td>
<td>100.0</td>
</tr>
</tbody>
</table>

This data were then quantified, and a multiple regression analysis was run to see which if any of the student attitudes examined predicted student gains in essay scores (entry criterion: p < .05). Two different factors from the survey were found to predict student gains in three of the writing aspects. A student’s overall level of comfort with the writing process (from 1 to 5) in both their native language and in English accounted for 9.6% of the unique variance of overall writing ability and 13.1% of the unique variance of organization. A student’s belief that it is useful to his or her own writing to learn how to use feedback received from other people accounted for 8.8% of the unique variance of mechanics. This information indicates that the student attitudes measured in this survey are more closely correlated with overall writing ability, organization, and mechanics than they are with development, cohesion, structure, and vocabulary. No other factors were found to be significant predictors of improvement in any of the writing aspects assessed in the study.

The data were examined by looking at the results according to writing aspect to determine which attitudes and perceptions best predicted improvement for each of the writing aspects included in the scoring rubric. These results were also examined according to global and local writing aspects. The results of the multiple regression analysis showed that organization, a global writing aspect, was best predicted by a
student’s level of comfort with the writing process. Mechanics, a local aspect, was best predicted by a student’s perception that learning how to use feedback to improve a paper is beneficial to his or her own writing. Overall writing ability, which includes both global and local aspects, was also predicted by a student’s level of comfort with the writing process. Table 23 contains the statistical data for the writing aspects and their predictors. The asterisk indicates a statistically significant gain.

Table 23

*Statistical Data for Results of Multiple Regression Analysis by Writing Aspect*

<table>
<thead>
<tr>
<th>Writing Aspect</th>
<th>R</th>
<th>R²</th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feelings about the writing process</td>
<td>.310</td>
<td>.096</td>
<td>1</td>
<td>4.785</td>
<td>.034</td>
</tr>
<tr>
<td>Organization/Unity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feelings about the writing process</td>
<td>.362</td>
<td>.131</td>
<td>1</td>
<td>6.783</td>
<td>.012</td>
</tr>
<tr>
<td>Mechanics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding it useful to learn how to use feedback</td>
<td>.296</td>
<td>.088</td>
<td>1</td>
<td>4.334</td>
<td>.043</td>
</tr>
</tbody>
</table>

Other results are interesting in that they were not predictors of the different writing aspects. For example, a student’s previous experience with peer review was not found to be a significant predictor in any of the writing aspects. Also, students’ perceptions of difficulty in revising a paper were not found to be significant predictors of gains in any of the writing aspects. None of the demographic information, such as native language, months studying English, age, or gender accurately predicted writing improvement.
Conclusion

The data analysis discussed in this chapter helps illustrate the effectiveness of reviewing and revising across several basic writing areas. The method of assessment, including the grading rubric and the raters, were found to be valid, which is important to establish before examining the data from the study. Also, the mean scores of the pretests and post tests showed that the level two students really were a different population than the level four students, which makes the comparison of the results between proficiency levels valid. Finally, the research questions were addressed through several statistical procedures. The treatment group as a whole did improve significantly in many more areas than the control group as a whole, and when examined by proficiency level, it was found that most of the difference between the treatment and control groups were obtained at the lower (level two) proficiency level, which made significant gains in all areas for the treatment group and some for the control group. The level four control group did not improve significantly in any areas, and the level four treatment group did only in the mathematically calculated overall score and structure.

The results of the affective survey were tallied to look at the frequencies of the student responses. The results were also quantified and a step-wise multiple regression analysis was run to determine which attitudes were found to be predictors of writing improvement. Only two predictors were found to significantly predict three writing aspects. One factor, a student’s level of comfort with the writing process, significantly predicted overall writing ability and organization. The other factor, a student’s belief that it is useful to his or her own writing to learn how to use feedback, predicted mechanics. Previous experience with peer review, students’ perceptions of difficulty in revising a
paper, and demographic information (native language, age, gender, and amount of time studying English) were not found to be significant predictors for any writing aspects. These results can be used to make certain implications about the usefulness of peer review in the second language writing classroom, which will be discussed in the next chapter.
CHAPTER FIVE

Discussion and Conclusion

This study examined the extent to which reviewing peer writing helped students improve their own writing ability by assessing students on a pretest taken at the beginning of the semester and a post test taken at the end of the semester. The students were assessed on their overall writing ability as well as six specific writing aspects (organization, development, cohesion, structure, vocabulary, and mechanics) in order to more accurately determine where the benefits of learning to review writing really lie. The study also used student scores in these writing aspects to investigate the assumption made by some researchers that reviewing peer writing teaches students advanced thinking skills, which would most likely manifest itself in students’ increased skills in the global writing aspects (Rollinson, 2005). Finally, students were given an affective/demographic survey to determine whether certain attitudes or backgrounds were significant predictors of an increased writing ability in any of these aspects. This chapter will discuss the findings of the current study as it relates to the research questions proposed in previous chapters, as well as the implications and limitations it involves. It will then offer suggestions for future research relating to the current topic as well as some conclusions.

To review, the research questions of this study were:

1. Are reviewing peer writing and giving feedback more helpful in improving student writing than receiving and using peer feedback, as measured by:
   a. improvement in overall writing ability?
b. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

2. Does the proficiency level of the students affect the extent to which they improve their writing, as measured by:
   a. improvement in overall writing ability?
   b. improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

3. Do students’ attitudes toward writing and peer review affect the extent to which they improve their writing?

Discussion of Results

1a. Are reviewing peer writing and giving feedback more helpful in improving student writing than receiving and using peer feedback, as measured by improvement in overall writing ability?

The data presented in the previous chapter with respect to the control versus the treatment group indicated that the treatment group’s overall scores did improve more significantly than the control group’s scores. This was true both in the mathematical calculation performed by FACETS and in the rater-assigned overall score, showing that the treatment group’s overall writing improvement exceeded that of the control group. The overall scores are interesting because one is a mathematical calculation based on an average of all the aspects rated for an essay, and the other is raters-assigned overall score based on the rater’s overall perception of the essay. In both cases, whether the score was
calculated mathematically from other scores or assigned holistically by a rater, the treatment group improved significantly in their overall writing scores, and the control group did not.

These results seem to support the results found by previous studies in writing research as discussed previously. For example, studies in first language writing research conducted by Sager (1973), Bruffee (1978), and Marcus (1984) all found that students who reviewed other students’ writing improved significantly in their own writing. In second language writing research, Min’s (2005) study also indicated that students who practiced reviewing peer writing became better writers themselves.

As mentioned before, some researchers attribute this improvement in writing ability to the students’ development of self-evaluating skills in which they learn to critically examine their own writing and then make appropriate revisions (Rollinson, 2005). The findings of the current study suggest that these assumptions about the development of effective student self-evaluators may be true. However, it is still difficult to determine whether this improvement in overall writing ability is due to the development of critical thinking skills. For example, it may be that when students are trying to review each others’ work, their teachers are forced to provide better instruction to prepare them for this activity. Whatever the reasons, though, the results do indicate that the skills the students developed through reviewing peer writing led to writing improvement in the reviewers’ own writing. Examining the different writing aspects evaluated on the grading scale used in this study can help indicate more specifically where these gains in writing ability are found in students who learn to review their peers’ writing.
1b. Are reviewing peer writing and giving feedback more helpful in improving student writing than receiving and using peer feedback, as measured by improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

Next, when looking at the individual writing aspects, the treatment group still generally outperformed the control group, but not in all writing aspects. Because the development of critical thinking skills as discussed in the literature is more closely associated with the global aspects of writing than the local aspects (Gieve, 1998; Rollinson, 2005), the assignments given to the participants of this study focused on global features such as locating the main ideas, the organization of ideas, and the content. The assignments never asked the students to critically examine the essays for local aspects such as grammar, vocabulary, or sentence structure. This was done to focus the study on the global aspects of writing so as to more clearly see whether students gained critical thinking skills, as manifested through improvement in global areas of writing. The only difference in the assignments given to the treatment group and those given to the control group was that the treatment group focused exclusively on reviewing and the control group on revising.

The students’ improvement in the various writing aspects assessed by the rating scale was therefore examined according to this division of global and local writing aspects. In the global writing aspects, the treatment group did improve significantly in more aspects than the control group, but not in all areas. For example, the treatment group improved in organization and development, but not in cohesion. The control group did not improve significantly in any of the areas. In the local writing areas, the treatment
group made significant gains in structure and vocabulary, but not in mechanics. The control group also improved significantly in structure, but not in vocabulary or mechanics.

There is very little research available that addresses the development of specific writing aspects, both global and local, and their relation to peer review activities, because researchers generally just report overall writing improvement. In this study, however, there does not appear to be a more significant improvement in global writing aspects than in local areas. Thus, despite the emphasis on global writing aspects in the assignments completed by the students throughout the semester, the treatment group improved in two out of the three local aspects as well as two out of the three global aspects. Because the benefits were not concentrated in the global aspects for the treatment group, these results do not indicate that reviewing peer writing helps students develop critical thinking skills, if we assume that those skills would be manifest by improvement in students’ global writing aspects. This may be because reviewing does not develop critical thinking skills, or it may be that the advanced thinking skills acquired by the students who review peer writing are manifest not only in global aspects, but also in local aspects.

Structure was the only aspect in which both groups improved significantly, despite the focus in the activities completed by both groups on solely global writing aspects. These results indicate that learning how to revise as well as learning how to review effectively may help students improve the structure of their writing. The reason for this improvement in structure in both groups would mostly likely lie in some aspect of the activities which they completed that was similar for both groups. For example, it may be that simply being exposed to a greater amount of peer writing helps students improve
the structure of their own writing. However, it may also be that focusing on global skills somehow transfers to the students’ local writing ability and helps them improve the structure of their writing. It would be very interesting to see other studies examine this issue to be able to further understand the relationship between the skills developed through reviewing peer writing and giving feedback, and the improvement made in the reviewer’s own writing ability, because the direct relationships between the activities and the skills they develop are still unclear.

It is also important to note that although the improvement in the control group was not statistically significant, the mean scores of the students, both overall and in specific areas, still increased over the course of the semester. This suggests that revising is also a beneficial activity and when combined with reviewing in a peer review session, students may gain even greater benefits than those found in the groups separately in this study. This is supported by many studies showing that traditional peer review activities are beneficial to student writing (e.g. Bell, 1991; Min, 2005; Paulus, 1999). In addition to this information, the current study points to the reviewing, or giving of feedback, as the major source of those benefits.

Therefore, in response to the first research question, teaching students to review their peers’ writing does seem to result in improvement in their own writing ability. This improvement was not concentrated in the global aspects of writing, however, but was spread out over both global and local writing aspects. This may indicate that something in the reviewing process helps students develop both the global and local aspects of their writing that is not as readily developed by students through just learning how to use peer feedback to revise essays.
2a. Does the proficiency level of the students affect the extent to which they improve their writing, as measured by improvement in overall writing ability?

Another interesting finding of the study was the improvements in overall scores for both level two students and level four students. The overall scores for each level show that both level two and level four treatment groups improved significantly in the mathematically calculated overall score, but only the level two treatment group showed significant improvement in the rater-assigned overall score; the level four treatment group did not. Neither the level two nor the level four control groups improved significantly in either of the overall scores. From this data, it appears that reviewing activities are beneficial for both proficiency levels, but that it may be slightly more beneficial for lower levels because the level four treatment group only improved significantly in one of the two overall scores, while the level two treatment group showed clear improvement in both scores.

Although there is not much research investigating at what level of writing proficiency students benefit most from peer review, examining the studies that have been conducted in both L1 and L2 writing research show some interesting correlations. Min’s (2005) study, which is the only study in a second language classroom that examines the benefits of peer review on the student who is doing the reviewing, looked at university sophomores who were at an intermediate level. Although it is difficult to compare these students to the students in the current study, the students in Min’s study may be comparable to the level four students at the ELC. If this is the case, the results of this study suggest that the students in Min’s study may have received even greater benefits
had they received training on reviewing peer writing at an earlier stage in their language study.

The level two students’ greater gain in overall writing ability could also be interpreted to mean that students at higher proficiency levels do not benefit enough from peer review to make the time it takes to set up and implement effectively worthwhile for writing teachers. However, it is important to remember that the level four students did improve significantly in the mathematically calculated overall score, which indicates that peer review may still be useful at that level. Rather, students at the higher proficiency levels may have already developed more of the skills that are gained from peer review, so the improvement in their writing is not as marked, but peer review is nonetheless a helpful practice and review for them all the same. Clearly, this issue needs to be investigated further in other second language writing classrooms in order to support the findings of this study that students at a lower level of proficiency seem to improve more significantly than those at a higher level, as well as indicate how useful peer review is at more advanced proficiency levels.

2b. Does the proficiency level of the students affect the extent to which they improve their writing, as measured by improvement in specific global (organization, development, and cohesion) and local (structure, vocabulary, and mechanics) writing aspects?

The results reported in response to the first part of the second research question can also be examined according to the global and local writing aspects discussed previously to determine whether certain writing aspects are more likely to be learned through these activities at a certain proficiency level. In the level two treatment and control groups, the level two treatment group improved significantly in all three global
writing aspects as well as all three local writing aspects. The level two control group improved significantly in one global aspect, organization, but not in the other two, development and cohesion. In the local aspect, the level two control group made significant gains in structure but not in vocabulary or mechanics. This may indicate that students at a lower level of proficiency make significant gains in many writing aspects through learning to review peer writing. However, as also seen previously in question one, the gains made by the students in the treatment group were not concentrated in the global aspects, but rather included all writing aspects assessed by the grading scale. The level two control group also showed gains, but only in one global and one local area, indicating that revising is also beneficial to student writing at this level, but not in all aspects.

In comparison to the level two groups, the level four treatment and control groups did not show significant improvement in as many areas. The level four treatment group did not improve significantly in any of the global aspects, and only one of the local aspects, structure. The level four control group did not make significant gains in any of the global or local writing aspects. Thus, structure seems to be the only writing aspect that improved significantly for level four students over the course of the semester. Once again, the reason for the improvement in structure is unclear, but may be related to an increased exposure to peer writing. This may also be connected to language proficiency gained simply from being immersed in the language, which may be more noticeable in those areas measured by structure, causing both treatment and control groups to improve significantly.
There is very little research that indicates which writing skills are more likely to be developed through peer review activities at various proficiency levels. One study of interest, however, is Sager’s (1973) study in which sixth-grade students were trained in evaluating their peers’ essays using a rating scale. The scale contained four writing aspects, two of which appear to be global aspects (organization and elaboration), and two of which appear to be local aspects (vocabulary and structure). Unfortunately, Sager does not report specific student improvement in each area, but only that student writing improved. Another study similar to Sager’s but that examines improvement in each area would be very beneficial.

In general, students at the lower proficiency level seemed to receive greater benefits than those at the higher level, although treatment groups at both levels did improve significantly. Neither reviewing nor revising activities appear to be as beneficial for level four students as they are for level two students. Once again, however, it is important to remember that although their writing improvement did not show significant gains, writing scores of students at the higher proficiency level still improved, which means that peer review may still be a beneficial activity for more advanced students. Whether this observation is related to language learning in general or this study in particular would need further investigation.

Several reasons may account for this difference in significant writing improvement between less proficient and more proficient students. One possible reason is that students at the lower proficiency level may have had a steeper learning curve. Because their language skills were less developed, the lower proficiency group had more room for improvement than did the higher proficiency group and therefore the effects of
new skills they developed resulted in a greater relative improvement in their writing ability. Also, students at the higher proficiency level may have had more experience with peer review than those at the lower level, pushing them further along the learning curve. This could mean that the more advanced students had already received the greatest initial benefits to be gained from peer review, and therefore the improvement they made seemed less significant relative to where they started.

As with the findings from the first research question, students in the treatment groups appeared to show more significant improvement for overall writing ability in both less proficient and more proficient students than students in the control groups. However, when examining the specific writing aspects at both levels, the less advanced students showed more significant improvement than students in the more advanced groups. In addition, the aspects in which students improved were not concentrated in the global areas, but were also found in the local aspects, offering further support to the idea that reviewing peer writing helped students develop both global and local skills, particularly at a lower level of proficiency.

3. Do students’ attitudes toward writing and peer review affect the extent to which they improve their writing?

The survey that was administered to the students was intended to capture their attitudes about peer review and the writing process as well as their demographic backgrounds and previous experience with peer review. The results of the survey do not point to demographic information or previous experience as predictors of improvement in writing ability, however. Rather, a student’s level of comfort with the writing process, including drafting, receiving feedback, and making revisions, appeared to predict overall
writing ability and organization, and a student’s belief that learning how to use feedback on a paper also improved his or her writing was a significant predictor of mechanics.

It is also interesting to note that the writing criteria that were affected were found in both global (organization) and local (mechanics) areas, as well as overall ability, which includes all writing aspects. Organization and overall writing ability were predicted by students who felt comfortable with the writing process, possibly because students who are comfortable with the writing process are more likely to also be familiar with activities that are commonly used in peer review. In fact, many researchers claim that one of the benefits of peer review is that it teaches the writing process (Bell, 1991; Tang & Tithecott, 1999). Mechanics was predicted by students who found it useful to learn how to use feedback. This factor may have been a predictor because students who are interested in learning how to use feedback are also more likely to seek out feedback on their writing anyway, much of which is likely to encompass simple mechanical errors for a second language writer.

The factors that did not predict significant gains in student writing are equally informative. For example, a student’s previous experience with peer review was not found to be a significant predictor in any of the writing aspects, although many researchers stress training students in peer review because they seem to improve the more they practice (Hansen & Liu, 2005; Schaffer, 1996). Therefore, if peer review helps students improve their writing (as this study indicates), and students improve in their effectiveness with peer review activities the more they practice it (as claimed by researchers), then more experience with peer review should lead to more effective peer review sessions and greater writing improvement. Also, students’ perceptions of
difficulty in revising a paper were not found to be significant predictors of gains in any of the writing aspects, possibly indicating that student confidence in their own writing is not a major predictor of writing ability. In addition, none of the demographic information, such as native language, months studying English, age, or gender accurately predicted writing improvement. This is interesting especially with respect to native language because, as discussed previously, many researchers claim that students from collectivist cultures have a more difficult time with peer review and may therefore not receive as many benefits from it (Carson & Nelson, 1994; Ramanathan & Atkinson, 1999). However, the large proportion of Spanish speakers who participated in this study makes it difficult to draw any substantial conclusions about the effect of native language on writing improvement from this data without a more representative sample of other languages used.

Implications for Teaching

This study offers some interesting findings that could be very useful in the second language writing classroom. Because it suggests that having students review their peers’ writing really does help them to improve their own writing in both global and local aspects, classroom activities that allow students to practice this skill, whether as a part of a peer review activity or not, could be very beneficial to them. Teaching students how to look at a paper and identify the different parts (introduction, thesis, body, conclusion), as well as evaluate both content and the development of ideas may help them to be able to do the same in their own papers, particularly in the areas of organization, development, structure, and vocabulary.
Also, the findings of this study support the idea that peer review seems to be a very viable classroom activity, which can benefit students on several levels (Bell, 1991; Paulus, 1999). First, peer review addresses the initial problem that led to this study of the difficulty in providing sufficient writing feedback to students. Not only do students receive a greater quantity of feedback from each other, but with training and practice they should also improve in the quality of feedback they offer each other. Also, this study suggests that students may in addition develop their ability to critically examine even their own writing, which offers them more feedback and greatly improves their writing skills. Creating a classroom environment in which students have positive attitudes toward sharing feedback with each other and the writing process in general could lead to writing improvement.

Finally, it is important to remember that a traditional peer review session would offer the benefits received by both the treatment and control groups as students both give and receive feedback. Thus, they would ideally develop the thinking skills necessary to effectively evaluate a paper, as well as practice using feedback they receive from their peers. There would still be complications, and many other factors could affect the results of the peer review activities, but in most classroom settings it would be a feasible activity. Therefore, although effective peer review activities take time and training to make them work, they can be very effective in developing student writers, particularly at lower proficiency levels.

**Implications for Teacher Training**

For these reasons, the implementation of successful peer review activities must begin with teacher training. If teachers cannot effectively conduct peer review activities
in which students actually realize the benefits that have been found in L2 research, both students and teachers will not find peer review worth the class time it requires. For example, teachers need to be sufficiently familiar with the many options of peer review to be able to adjust the activities to the specific needs of their class. Some activities focus on content and ideas, others on writing strong thesis statements, and others on organization. Teachers must understand which activities can best help their students in order to maximize the benefits of peer review. Also, teachers need a thorough understanding of the benefits of peer review in order to overcome the negative student reactions to time spent with peer review. Teachers must be able to tell their students that these activities have been shown to be worthwhile and will improve their writing ability. Without effective teacher training, however, teachers will not be able to conduct effective activities or have the confidence necessary to continue working with students through the initial stages of peer review when they are still learning how to be effective peer reviewers.

Institutions who want to implement effective peer review in their classrooms, therefore, need an institutional plan for teacher training because implementing peer review in the L2 classroom is so involved. Teachers must learn how to teach students the reasons for peer review, train them in appropriate peer review strategies, and allow them time to practice their reviewing skills until they are more effective. It is unlikely that students can master peer review in one semester, and if one writing teacher uses peer review in one way and then the next does not use peer review or uses it in significantly different ways, then students may never fully understand how peer review can improve their writing and will not receive the full benefits it has to offer. Also, they may become
frustrated that the activity is not working as it should, increasing their negative attitudes toward it and decreasing its efficacy. Thus, institutions need to train teachers and teach them how to be consistent and work together in order to teach students how to effectively review essays and use feedback, helping them obtain the benefits that come from peer review.

*Implications for Writing Theory*

The results of this study also offer some findings that could be useful in writing theory. For example, these findings indicate that peer review activities are beneficial to student writing, which supports the idea of a student-centered writing classroom in which students work together and discover new ideas, rather than quietly taking notes while the teacher talks (Bell, 1991; Tang & Tithecott, 1999). These results could also indicate that the process approach to writing, in which students go through a circular process of drafting, receiving feedback, and revising (Bell, 1991; Tang & Tithecott, 1999), is also beneficial to student writing ability. It would be interesting to see if other activities for writing students that create a more student-centered classroom or reinforce the writing process also help students significantly improve their writing.

*Limitations*

The biggest limitation to this study was probably the logistical issues of finding teachers willing to let their classes participate in the study and then communicating to them what they would need to do. Much of the study was dependent on the teacher’s approach to teaching writing, his or her emphasis and conscientiousness in following instructions received from the researcher, and overall teaching ability. Ideally, because the research was conducted over two semesters, the same teachers would have been used
but switched from control to treatment or vice versa the second semester. Because of the nature in which teachers are assigned to classes at the ELC, this was not possible. Therefore, four new teachers were used each semester, and although they received as much guidance as possible from the researcher, the extent to which they followed the objectives of the study was largely unknown. This limitation was minimized as much as possible, however, by giving all students the same four activities for the control and treatment groups, the same diagnostic topics for the students’ pretest essays, the same final exam topics for their post test essays, and giving teachers lesson plan ideas to help focus on either reviewing or revising, as well as periodic reminders throughout the semester.

Also, finding teachers qualified to rate the student essays that were willing and available was a challenge, so a stratified randomization method of assigning teachers to rate certain essays was not possible. Instead, whichever teachers were available to help were given whichever essays were ready to be rated. For this reason some raters rated many more essays than others, and some rated more essays in the treatment or control groups or in level two or level four than others. The large number of essays that were rated made these differences less important, however, and having third raters help resolve differences in the initial ratings also kept the essays spread out among the various raters rather than being concentrated with two or three raters.

Finally, the disproportionate number of Spanish-speaking students who participated in the study makes it difficult to analyze the data by native language or possibly even culture, since language and culture are so difficult to separate. Therefore, it is difficult to draw any conclusions about any correlations between writing
improvement and attitudes about peer review or group work that may be influenced by culture, as indicated by many researchers (Carson & Nelson, 1994; Ramanathan & Atkinson, 1999).

**Future Research**

Clearly, much further research is needed on this topic to more fully understand where the benefits of peer review truly lie and how teachers can maximize those benefits in their classrooms. This is particularly true with respect to the idea of critical thinking and peer review because of the lack of current research on the topic in even first language (L1) classrooms, and the almost total lack of research for the second language (L2) classroom. This study is a preliminary one and needs to be replicated in order to solidify the initial findings presented in this paper, as well as investigate some of the questions raised here.

For example, more information is needed on what activities stimulate critical thinking so it can be incorporated into peer review activities. In this study, the activities were very simple and direct, but it may be that other activities or methods of peer review produce even more significant results and can be better incorporated into the classroom, such as working in groups or communicating orally or through computers, for example. Also, the activities in this study were only conducted four times throughout the semester, but it may be that more exposure would increase the benefits, or that the same benefits could be achieved through just one or two activities. Finally, the students were all given the same papers to either review or revise in order to add some control to the process, but at times these papers did not exactly match what the class was studying or did not completely fit the situation. For example, the writing class may have been working on a
descriptive paper, but the assignment they completed for the study was based on a persuasive essay. Normally, a teacher would have the flexibility to choose essays that would more closely match the needs of the students, which may also improve the results of the activities.

Another question that arose from this study is the relationship between peer review and the global and local aspects of writing. For example, the activities conducted in class as well as the lesson plans provided for the teachers focused almost exclusively on global aspects, yet the improvement scores from pretest to post test for some local aspects were found to be significant, even in the control groups. Future research could investigate the reasons for this, as well as what would happen in the development of both global and local writing skills if the activities that the students received were focused largely on local rather than global aspects. It would be interesting to note the differences in improvement for various writing areas depending on the type of activity conducted.

Finally, some researchers suggest that students can receive much of the gain of peer review without the complications of forming groups (Graner, 1987). An interesting study would be to determine whether this is true. In other words, are the benefits that students receive from reviewing and revising so influential that groups do not add a significant number of learning opportunities? Or are groups important in helping students develop their writing skills? Comparing the writing improvement of students working in groups to that of students completing peer review activities on their own may help identify which are more beneficial to second language writing students.
Conclusions

This study has examined the effect of peer reviewing on student writing, or the giving of feedback to a peer, and compared it to the effect of revising on student writing, or learning how to use feedback received from peers. The results indicate that reviewing peer writing may be more beneficial in developing many aspects of a student’s writing than simply learning how to use peer feedback. Although it is difficult to claim that students develop critical thinking skills through these activities, it seems that the skills they do gain through reviewing peer writing leads to significant improvement in their own writing. In this way, peer review can offer students additional feedback on their writing by supplementing the teacher feedback they receive. In addition to increasing the amount of feedback, peer review can teach students valuable skills that are essential to their future academic success, such as group work, language skills, and other thinking skills that are difficult to measure but are nonetheless demonstrated by overall improved student writing. Teachers and institutions that learn how to use this activity will be able to offer their students additional help in the development of their writing.

Although it is still unclear exactly which writing aspects are more affected by these activities than others, students’ overall writing does show significant improvement. As more research is conducted, teachers will be able to better understand exactly what skills their students learn through these activities. For now, however, it would be wise for teachers and institutions to recognize the benefits that peer review offers their students in both global and local writing aspects. Also, student attitudes may have a significant effect on writing improvement, possibly because they allow students to gain more from the activities in which they participate. Therefore, although setting up peer
review does require time and commitment from the teacher, as well as coordination and consistency at institutions that try to make peer review an effective activity over time, the benefits it offers students seem to be worth the time and effort it demands.
References


Butler, S. (1981). The bridge to real writing: Teaching editing skills. Presented at the University of British Colombia 1981 (British Colombia, Canada).


### APPENDIX A

**Essay Scoring Rubric**

<table>
<thead>
<tr>
<th>Organization/Unity</th>
<th>Development</th>
<th>Cohesion/coherence</th>
<th>Structure</th>
<th>Vocabulary</th>
<th>Mechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No development</td>
<td>Not coherent; no relationship of ideas evident</td>
<td>Attempted simple sentences; serious, recurring, unsystematic grammatical errors obliterate meaning; non-English patterns predominate</td>
<td>Meaning obliterated; extremely limited range; incorrect/unsystematic inflectional, derivational morpheme use; little to no knowledge of appropriate word use regarding meaning and syntax</td>
<td>Little or no command of spelling, punctuation, paragraphing, capitalization</td>
</tr>
<tr>
<td></td>
<td>Suggestion of organization; no clear thesis; ideas listed or numbered, often not in sentence form; no paragraphing/grouping; no unity</td>
<td>Development severely limited; examples random, if given.</td>
<td>Uses simple sentences; some attempts at various verb tenses; serious unsystematic errors, occasional clarity; possibly uses coordination; meaning often obliterated; unsuccessful attempts at embedding may be evident</td>
<td>Meaning severely inhibited; very limited range; relies on repetition of common words; inflectional/derivational morphemes incorrect, unsystematic; very limited command of common words; seldom idiomatic; reader greatly distracted</td>
<td>Some evidence of command of basic mechanical features; error-ridden and unsystematic</td>
</tr>
<tr>
<td>3</td>
<td>Some organization; relationship between ideas not evident; attempted thesis, but unclear; no paragraphing/grouping; no hierarchy of ideas; suggestion of unity of ideas</td>
<td>Lacks content at abstract and concrete levels; few examples</td>
<td>Partially coherent; attempt at relationship, relevancy and progression of some ideas, but inconsistent or ineffective; limited use of transitions; relationship within and between ideas unclear/non-existent; may occasionally use appropriate simple referential ties such as coordinating conjunctions</td>
<td>Meaning not impeded by use of simple sentences, despite errors; attempts at complicated sentences inhibit meaning; possibly uses coordination successfully; embedding may be evident; non-English patterns evident; non-parallel and inconsistent structures</td>
<td>Meaning inhibited; limited range; some patterns of errors may be evident; limited command of usage; much repetition; reader distracted at times</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Evidence of developing command of basic mechanical features; frequent, unsystematic errors</td>
</tr>
<tr>
<td>Organization/Unity</td>
<td>Development</td>
<td>Cohesion/coherence</td>
<td>Structure</td>
<td>Vocabulary</td>
<td>Mechanics</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------</td>
<td>--------------------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------</td>
</tr>
<tr>
<td>4</td>
<td>Organization present; ideas show grouping; may have general thesis, though not for persuasion; beginning of hierarchy of ideas; lacks overall persuasive focus and unity</td>
<td>Underdeveloped; lacks concreteness; examples may be inappropriate, too general; may use main points as support for each other</td>
<td>Partially coherent, main purpose somewhat clear to reader; relationship, relevancy, and progression of ideas may be apparent; may begin to use logical connectors between/within ideas/paragraphs effectively; relationship between/within ideas not evident; personal pronoun references exist, may be clear, but lacks command of demonstrative pronouns and other referential ties; repetition of key vocabulary not used successfully</td>
<td>Relies on simple structures; limited command of morpho-syntactic system; attempts at embedding may be evident in simple structures without consistent success; non-English patterns evident</td>
<td>Meaning inhibited by somewhat limited range and variety; often uses unnecessarily informal lexical items; systematic errors in morpheme usage; somewhat limited command of word usage; occasionally idiomatic; frequent use of circumlocution; reader distracted</td>
</tr>
<tr>
<td>5</td>
<td>Possible attempted introduction, body, conclusion; obvious, general thesis with some attempt to follow it; ideas grouped appropriately; some persuasive focus, unclear at times; hierarchy of ideas may exist, without reflecting importance; some unity</td>
<td>Underdeveloped; some sections may have concreteness; some may be supported while others are not; some examples may be appropriate supporting evidence for a persuasive essay, others may be logical fallacies, unsupported generalizations</td>
<td>Partially coherent; shows attempt to relate ideas, still ineffective at times; some effective use of logical connectors between/within groups of ideas/paragraphs; command of personal pronoun reference; partial command of demonstratives, deictics, determiners</td>
<td>Systematic consistent grammatical errors; some successful attempts at complex structures, but limited variety; clause construction occasionally successful, meaning occasionally disrupted by use of complex or non-English patterns; some non-parallel, inconsistent structures</td>
<td>Meaning occasionally inhibited; some range and variety; morpheme usage generally under control; command awkward or uneven; sometimes informal, unidiomatic, distracting; some use of circumlocution</td>
</tr>
<tr>
<td>Organization/Unity</td>
<td>Development</td>
<td>Cohesion/coherence</td>
<td>Structure</td>
<td>Vocabulary</td>
<td>Mechanics</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
<td>---------------------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------</td>
</tr>
<tr>
<td>6</td>
<td>Clear introduction, body, conclusion; beginning control over essay format, focused topic sentences; narrowed thesis approaching position statement; some supporting evidence, yet ineffective at times; hierarchy of ideas present without always reflecting idea importance; may digress from topic</td>
<td>Partially underdeveloped, concreteness present, but inconsistent; logic flaws may be evident; some supporting proof and evidence used to develop thesis; some sections still undersupported and generalized; repetitive</td>
<td>Basically coherent in purpose and focus; mostly effective use of logical connectors, used to progress ideas; pronoun references mostly clear; referential/anaphoric reference may be present; command of demonstratives; beginning appropriate use of transitions</td>
<td>Some variety of complex structures evident, limited pattern of error; meaning usually clear; clause construction and placement somewhat under control; finer distinction in morpho-syntactic system evident; non-English patterns may occasionally inhibit meaning</td>
<td>Meaning seldom inhibited; adequate range, variety; appropriately academic, formal in lexical choices; successfully avoids the first person; infrequent errors in morpheme usage; beginning to use some idiomatic expressions successfully; general command of usage; rarely distracting</td>
</tr>
<tr>
<td>7</td>
<td>Essay format under control; appropriate paragraphing and topic sentences; hierarchy of ideas present; main points include persuasive evidence; position statement/thesis narrowed and directs essay; may occasionally digress from topic; basically unified; follows standard persuasive organizational patterns</td>
<td>Acceptable level of development; concreteness present and somewhat consistent; logic evident, makes sense, mostly adequate supporting proof; may be repetitive</td>
<td>Mostly coherent in persuasive focus and purpose, progression of ideas facilitates reader understanding; successful attempts to use logical connectors, lexical repetition, synonyms, collocation; cohesive devices may still be inconsistent/ineffective at times; may show creativity; possibly still some irrelevancy</td>
<td>Meaning generally clear; increasing distinctions in morpho-syntactic system; sentence variety evident; frequent successful attempts at complex structures; non-English patterns do not inhibit meaning; parallel and consistent structures used</td>
<td>Meaning not inhibited; adequate range, variety; basically idiomatic; infrequent errors in usage; some attention to style; mistakes rarely distracting; little use of circumlocution</td>
</tr>
<tr>
<td>Organization/Unity</td>
<td>Development</td>
<td>Cohesion/coherence</td>
<td>Structure</td>
<td>Vocabulary</td>
<td>Mechanics</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
<td>-------------------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------</td>
</tr>
<tr>
<td>8</td>
<td>Definite control of organization; may show some creativity; may attempt implied thesis; content clearly relevant, convincing; unified; sophisticated; uses organizational control to further express ideas; conclusion may serve specific function</td>
<td>Each point clearly developed with a variety of convincing types of supporting evidence; ideas supported effectively; may show originality in presentation of support; clear logical and persuasive/convincing progression of ideas</td>
<td>Coherent; clear persuasive purpose and focus; ideas relevant to topic; consistency and sophistication in use of transitions/referential ties; effective use of lexical repetition, derivations, synonyms; transitional devices appropriate/effective; cohesive devices used to further the progression of ideas in a manner clearly relevant to the overall meaning</td>
<td>Manipulates syntax with attention to style; generally error-free sentence variety; meaning clear; non-English patterns rarely evident</td>
<td>Meaning clear; fairly sophisticated range and variety; word usage under control; occasionally unidiomatic; attempts at original, appropriate choices; may use some language nuance</td>
</tr>
<tr>
<td>9</td>
<td>Highly effective organizational pattern for convincing, persuasive essay; unified with clear position statement; content relevant and effective</td>
<td>Well-developed with concrete, logical, appropriate supporting examples, evidence and details; highly effective/convincing; possibly creative use of support</td>
<td>Coherent and convincing to reader; uses transitional devices/referential ties/logical connectors to create and further a particular style</td>
<td>Mostly error-free; frequent success in using language to stylistic advantage; idiomatic syntax; non-English patterns not evident</td>
<td>Meaning clear; sophisticated range, variety; often idiomatic; often original, appropriate choices; may have distinctions in nuance for accuracy, clarity</td>
</tr>
<tr>
<td>10</td>
<td>Appropriate native-like standard written English</td>
<td>Appropriate native-like standard written English</td>
<td>Appropriate native-like standard written English</td>
<td>Appropriate native-like standard written English</td>
<td>Appropriate native-like standard written English</td>
</tr>
</tbody>
</table>

APPENDIX B

Affective Survey

Dear Student, please answer the following questions as honestly as possible. Your teacher will not see your paper and your answers will not affect your grade. Your answers will only be used to understand how to improve the teaching of writing to second language learners. Thank you!

1. How do you feel about the writing process?

<table>
<thead>
<tr>
<th></th>
<th>Very comfortable</th>
<th>Very uncomfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your first language</td>
<td>1 2 3</td>
<td>4 5</td>
</tr>
<tr>
<td>In your second language</td>
<td>1 2 3</td>
<td>4 5</td>
</tr>
</tbody>
</table>

2. Do you find it hard to know what to fix in your own papers? Why or why not?

3. What is the hardest part of the writing process?

4. What do you think is the purpose of sharing your writing with your classmates?

5. Do you find it useful to learn how to help others with their papers? Why or why not?

6. Do you find it helpful to learn how to use the feedback others write on a paper to improve the paper?

7. What kinds of suggestions on your papers are most helpful to you?
8. Have you ever used peer review (where you and your classmates read each other’s papers and make suggestions) in a writing class before? ___ Yes    ___ No

9. If yes, when was it and what did you do?

10. What is your native language? ______________________________

11. What is your native country? ________________________________

12. How long have you been studying English? ____________________

13. How old are you? ________ years

14. Are you male or female? ____ Male    ____ Female

APPENDIX C

Sample essays

Level 2 experimental group

My mother

My mother was born in Gifu and she grew up there. She lives in Kyoto now. She has three daughters. She has warm heart. She is always very busy. But she has free at Sunday I would like to talk about her daily routine.

My mother is very busy in the morning. She always gets at 6:00am, and prepares breakfast for us every morning. It is usually rice and miso soup. It’s good and health for us. She makes lunch boxes for us. Between washing and cleaning, she is very busy after I go to school.

My mother has time herself in the afternoon. She has a job. It’s to work in the insuranceing business. So she goes to her job after she eats lunch. About for six hours. She takes a nap after she comes back home, and she goes to the store to buy the ingredients for dinner, and she prepares dinner.

My mother rests in the evening. She washes the dishes after we eat dinner. She cooks very well, and very health. Then she watches TV, and she has a leisurely bath. She reads a book, and she probably talks my father. Finally, she goes to bed.

Between cooking, washing, cleaning, and shopping, she is very busy everyday. She feels tired everyday. She always gets up at 6:00am. She prepares meals for us, and she cleans our house, so my house is always clean. She is a wonderful mother for me, and a wonderful woman.
Sample assignment

Level 2 experimental group

Reviewing the Essay

Imagine that one of your peers wrote the first draft of your essay and you are asked to review it. Use the following questions to help you decide how it can be improved for the next draft. You may write on the paper if you want.

1. How could you improve the introduction?

2. How could you improve the main idea?

3. How could you improve the body paragraphs?

4. How could you improve the conclusion?

5. What information would you take out of the essay? Why?

6. What information would you add to the essay? Why?

7. What would you change about the organization of the essay (including the order of the ideas and the paragraphs)?
Sample essay

Level 2 control group

**Utah is boring?**

Sometimes, in the time that I passed, in here-USA. A lot of times I hear the same phrase. “Utah is boring” and others phrases that support that idea. Now the question is why? Why did the people say that? Most times, the people who say this are the young people. Those who not lived through all his life here-immigrants. Maybe the reason is because in Utah. The culture is different, is more calm and serene. For example, the stores close very early. Another is the people don’t go outside in the night very much and this is strange for some ones.

From my perspective. Utah and specially my home city- Provo. Is not so boring, yes it is quiet and calm, but I think when the people said those, is because they are boring or always thinking in negative part. I saw this many times. For example, one French friend always said. “In this city didn’t enjoy the life, and then all the things, when we are talking. He looked the bad or the boring part of the things. In my point of view, the most of this people have that problem; always they view the negative part. Unconsciously they fall into the same monotonous negative routines and that is boring for everyone.

In this situation my advice is easy and for everyone. Enjoy the life with simple things and try to look the positive thing, however is not easy, but this is the best way to pass a good time and enjoy the life. For example see the things around you and count yours blessings. In my opinion, with this one can enjoy more and improve your stile life.

**Conclusion? Can you summarize your paper in one paragraph for the conclusion?**
Sample assignment

Level 2 control group

Revising the Essay

Imagine that you are the author of the essay and one of your peers has given you some feedback on the first draft of your essay. Use the feedback written on the paper and the following questions to help you decide how you can improve it for the next draft. You may write on the paper if you want.

1. How could you improve the introduction?

2. How could you improve the main idea?

3. How could you improve the body paragraphs?

4. How could you improve the conclusion?

5. What information would you take out of the essay? Why?

6. What information would you add to the essay? Why?

7. What would you change about the organization of the essay (including the order of the ideas and the paragraphs)?
Sample essay

*Level 4 experimental group*

A better way to look the future

The technology in most part of the world are increasing most fast than we can imaging now, scientific of many parts of the world are creating robots for any kind of use for example for nannies, construction jobs, in conclusion for dangerous jobs but how we can compete with machines who they can work all day or all week, because they not slept, they don’t need to take a rest when they worked a lot and the most important thing they don’t win anything because the bosses don’t pay them because they are robots and they don’t have to support a family like the humans do, but if the companies tried to work with robots and dismiss all the persons how they can sell their products with without money the people can’t buy their products. Robots can be very useful sometime more than humans but the companies need to work with humans to sell their products whatever they sell.

And with this idea we can compare robots and humans, robots how most of the people know can be a very hard goal to win because, all the people think that robots can do everything perfect and if the scientific create a robot who can do all the thing than humans do, they can take their places in the most important jobs in many parts of the world because the most bigger companies need a very good employments to create more new things, for example many years ago, most of the people used to work in food factories but now the robots or machines do all the kind of jobs and that one of the reason that most of the people don’t work in that kind of jobs any more.
But why the humans, in one of the reasons need to compete with this machines the most important reason is because that machines don’t support a family most of the people who work to companies or work in factories have children, they need to pay principal the food and the education of their children too, and we know that o the robots occupied all the business we know that most of the companies are going to try with machines.

But maybe if the companies think about if can be a possibility to work robots and humans together, this can be the most exciting thing that companies can do because apart the robots are going to do a very good job, they have the humans to give their opinions and if they want to change something, they can talk with the robot and tell him for example this machine is not working or is doing the thing bad please change it or maybe in a construction job is the architect see that the building is ugly they can tell the robot that they are changing the plans and they are going to change the position of the rooms or whatever they want.

But most of the people don’t know that scientific in many parts of the world for example Japan, who is experiment with many robots and do it them too, how we can see in the TV or maybe in some magazines like in the magazine POPULAR SCIENCE who talk about make our own robots and a nice quote of this book was “It’d be cool to make your own robot but didn’t, Robotics Design System is the ultimate option…” I don’t understand how this can be cool because is you want to make your own robot the first option is for clan the house but most of the people know that this job that robots are doing do the humans too, and sometime the people who do this kind of job can be people who need it sometime to feed their families or sometime to feed themselves, this option to make a robot can be a good for many people because the think, they aren’t going to spend
money and time in clean or hire people to do it but this job can be the last option for many people.

And my conclusion is that robots are going to compete always with the people, because many of the companies are going to think robots can do an excellent job and sometimes a perfect job, and if they work more with robots, the human beings are going to move to the side and lend robots do all the jobs, but is the humans beings don’t work they wouldn’t have money to buy the things that they need and the companies are going to interrupt and because they only work with robots and save money with them.
Sample assignments

Level 4 experimental group

**Reviewing “Compare/Contrast”**

Imagine that one of your peers wrote “A better way to look the future” and has asked you for some feedback on the first draft of the essay. Use the following questions to help you decide how you can improve it for the next draft. You may write on the paper if you want.

1. How could you improve the introduction?

2. How could you improve the thesis statement?

3. How could you improve the body paragraphs?

4. How could you improve the conclusion?

5. What information would you take out of the essay? Why?

6. What information would you add to the essay? Why?

7. What would you change about the organization of the essay (including the order of the ideas and the paragraphs)?
Sample essay

*Level 4 control group*

**Topic sentence: ‘In Some Countries Women Can’t go Out to Work’**

There are a lot of articles and books that discuss women’s position and rights because there is a big misconception about it. That is to say, in some countries women own all their rights, while in others they can’t even go out freely. Consequently, and trying to improve and change their position, they have tried to protest and fight for an equal and safe life. They have protested, especially, for the right to work as it is the only way to survive and prove their capacities.

While in some countries women go out and work, in others they can’t. In other words, in some European countries, for example, women have the right to go to school, to work and vote. In others, unfortunately, they are badly treated and deprived from all their rights. Taliban in Afghanistan, for example, deprived women from the least things. Following tribal norms justified by Islam, they don’t allow women to go out for schools even that Islam obliges the seeking of knowledge. Also, they prohibit women’s going outside without a male relative. Professional women, such as professors, translators, doctors, lawyers, artists, and writers have been forced from their jobs and stuffed into their homes. And the windows of these homes should be painted, so outsiders can’t see them. Consequently, because they can not work, those without relatives or husbands are either starving to death or begging on the street even if they hold Ph. D’s which is a higher degree. So they become desperate and depressed of the bad life that they are enduring. A reporter found in a hospital nearly lifeless bodies lying motionless on the top of beds, unwilling to speak, eat or do something. Others have gone mad. I think this illustrates women’s suffering in some countries because of men’s traditions and wrong belief that...
women are just good in childbearing and home making. Then, no change can be made if no one tried to rebel against these kinds of people to change their wrong beliefs.

Trying to improve and change their conditions, many women all over the world have protested for their rights. It was the result of five decades of drastic changes that they were living. I read in an article in the internet that there are a lot of women who rebelled for different rights. For example, they protested first in 1800's for the inhumane working conditions and low wages. Then in March 25, 1911, 15000 women marched through New York City demanding shorter work hours, better pay, voting rights and an end to child labor. They adopted the slogan ‘Bread and Roses’ symbolizing economic security and better quality of life. These protests continued till women have gained same rights and same conditions of life as men in politics, in medicine, for example, which proves their competences. It also, put an end to the segregation and inhumane conditions that they lived.

During many decades women have really endured bad conditions. Fortunately and thanks to all brave women that have fought for their rights, we can notice today that they have reached higher degrees and they have accomplished difficult tasks. They should have the most respect, dignity, equality and pride, because If they are well treated and educated, they will prepare a good generation.
Sample assignment

*Level 4 control group*

**Revising “Compare/Contrast”**

Imagine that you are the author of “A better way to look the future” and one of your peers has given you some feedback on the first draft of your essay. Use the feedback written on the paper and the following questions to help you decide how you can improve it for the next draft. You may write on the paper if you want.

1. How could you improve the introduction?

2. How could you improve the thesis statement?

3. How could you improve the body paragraphs?

4. How could you improve the conclusion?

5. What information would you take out of the essay? Why?

6. What information would you add to the essay? Why?

7. What would you change about the organization of the essay (including the order of the ideas and the paragraphs)?
## APPENDIX D
Control group lesson plans
From McMurry (2004)

### Chapter 2
**Knowing what to look for**

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
</table>
| **Day One**  
Chapter 1: Knowing each other—Teamwork building | **Day Two**  
Chapter 1 continued: Knowing each other—Forming peer groups | **Day Three**  
Chapter 2: Knowing what to look for | **Day Four**  
Chapter 3: Knowing why to give advice |
| **Day Five**  
Chapter 4: Knowing how to give advice  
Part one: Being a good peer reviewer | **Day Six**  
Chapter 4: Knowing how to give advice  
Part two: Using rubrics | **Day Seven**  
Chapter 5: Knowing how to use advice | **Day Eight**  
Chapter 6: Practicing everything |
| **Day Nine**  
Chapter 6: Practicing everything | **Day Ten**  
Chapter 6: Practicing everything | The rest of the semester  
Refer to Chapters 7 & 8 as needed | Midsemester  
Chapter 8 |

### Experts’ Advice

**Flynn (1982)**

Students abilities to evaluate critically and well would improve if they were taught the rhetorical structures and genres used in essays.

**Chenoweth (1987)**

Because unskilled ESL writers see revision as error correction, they need to be taught how to focus on revising global issues of their writing.

### Goal & Objectives

The goal is to build critical reading and writing skills to enable students to evaluate essays—both their own and others.

To accomplish this, the teacher should help students
- Understand paragraph structure
- Understand paper structure

**Stanley (1992)**

“Students who received coaching [looked] at each other’s writing more closely and [offered] the writers more specific guidelines for revision” (91).
Chapter 2
Knowing what to look for

*Suggested Procedure*

There are three steps to the procedure, which are listed below. Choose from the activities and materials included on the following pages to help implement this procedure.

*Photocopyable layouts of the materials are included in appendix A.*

*Essays that could be used in these activities are included in appendix B.*

**Step One: Teach main idea and detail**

To provide sufficient scaffolding for the students to learn how to write and evaluate essays in English. This also helps build knowledge about global issues of writing before teaching local ones.

**Activity I: Main idea & Detail**

(p. 21)

**Step Two: Teach paper and paragraph organization (structure).**

Begin increasing the complexity of the information as well as modeling how good essays should be organized.

**Activity J*: Papers & paragraphs**

(p. 21-22)

**Example Lesson Plan**

This procedure is modeled here in a one day plan (p. 26), with homework evaluated on the following class day.
Activities and Materials

Activity I: Main Idea & Detail

Objectives
The goal is to understand the basic building blocks of essay organization.

Preparation before class
Be prepared to write sample essay with students.

In class
First, explain that the main idea is what the whole thing is about, and the details are specific pieces of information that explain more about the main idea.

Second, illustrate this concept in an abstract example, such as a drawing or flowchart. The main idea is a point at the top, and the details are multiple lines connected to the main idea hanging below it.

Time
5 to 10 minutes

Evaluation
Give the students one more essay topic (an easy one!) and have them write it on their own.

Time
5 to 10 minutes

Third, write a paragraph or essay as a class to model this concept.

Time
5 to 10 minutes
Activity J: Papers & Paragraphs

Objectives
The goal is to help students recognize main ideas and details in essays. Students should be able to identify parts of an essay.

Preparation before class
Copy the worksheet, if desired.

In class
Use the previous activity as scaffolding to teach the students about essays and paragraph organization. Use the essays from the previous activity to bridge the gap.

First, teach and show the students that the main idea of the essay is the thesis statement and the details of an essay are in the body paragraphs.

Second, teach the students about paragraphs: The main idea is the topic sentence and the details are the rest of the sentences in the body paragraphs.

Third, go over the worksheet, if desired.

Time
5 to 10 minutes

Evaluation
Have the students reexamine the previous essays and label the parts of the essays and paragraphs.

Time
5 to 10 minutes
Activity J: Papers & Paragraphs

The Essay

Introduction
- Ideas go from general to specific
- No details
- Thesis Statement (main idea of the paper)

Body
- Details that support the thesis statement.
- It is made up of paragraphs.
- You might have only one paragraph, or you might have many. It doesn’t matter as long as you say everything you need to and the paragraphs are correct.
- A paragraph must be at least 5 sentences long.

Conclusion
- Summarize the details.
- Give a revised thesis statement.
- It is like a mirror to the introduction. They are about the same length, and both have the thesis statement.

The Paragraphs

*Topic Sentence* (main idea of the paragraph)

*Details*
- **Detail 1** You might have more
- **Detail 2** than three details.
- **Detail 3**

*Conclusion sentence*
Chapter 3
Knowing why to give advice

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
</table>
| **Day One**  
Chapter 1:  
Knowing each other—Teamwork building | **Day Two**  
Chapter 1 continued:  
Knowing each other—Forming peer groups | **Day Three**  
Chapter 2:  
Knowing what to look for | **Day Four**  
Chapter 3:  
Knowing why to give advice |
| **Day Five**  
Chapter 4:  
Knowing how to give advice  
Part one: Being a good peer reviewer | **Day Six**  
Chapter 4:  
Knowing how to give advice  
Part two: Using rubrics | **Day Seven**  
Chapter 5:  
Knowing how to use advice | **Day Eight**  
Chapter 6:  
Practicing everything |
| **Day Nine**  
Chapter 6:  
Practicing everything | **Day Ten**  
Chapter 6:  
Practicing everything | **The rest of the semester**  
Refer to Chapters 7 & 8 as needed | **Midsemester**  
Chapter 8 |

**Goal & Objectives**

The goal is to help students understand the importance of revision and the role of peer evaluation as part of the revision process.

To accomplish this, the teacher should help students

- Understand and be able to use the writing process
- Understand the role of revision in the writing process
- Understand the difference between revising and editing
- Recognize the various sources of feedback for revision, including their peers

**Experts’ Advice**

**Berg (1999a)**

“Establish the role of peer response in the writing process and explain the benefits of having peers, as opposed to just teachers, respond to students’ writing” (21).

**Raimes (1998)**

“Editing needs to be seen as distinct from revising” (154).

**Connor and Asenavage (1994)**

“The concepts of revision at text-based and surface levels should be clarified in both the teacher’s and the students’ minds” (267).
Chapter 3
Knowing why to give advice

Suggested Procedure

There are three steps to the procedure, which are listed below. Choose from the activities and materials included on the following pages to help implement this procedure.

Step One: explain the writing process, emphasizing the difference between revising and editing.

Activity L*: The writing process (p. 29)

Step Two: identify sources of feedback the students can use to help with revision.

Activity M: Revision and feedback: Who can help? (p. 30)

Step Three: have students practice the first few steps of the writing process—brainstorming through outlining.

Activity N*: Practice the process (p. 30-31)

*Photocopyable layouts of the materials are included in appendix A.

 Essays that could be used in these activities are included in appendix B.

Example Lesson Plan

This procedure is modeled here in a one day plan (p. 32), with homework evaluated on the following class day.

This is the beginning of discussion about revision; the discussion continues in chapter five.
Chapter 3
Knowing why to give advice

Activities and Materials

Activity L: The Writing Process

Objectives
The goals are to model the thinking process of expert writers and to help the students understand the role of peer review in that process.

Preparation before class
Copy the worksheet.

In class
First, bridge the gap between Activity K and Activity L. Ask: How do you write good essays? Then overview the writing process. The students could read silently, and then discuss it as a class. Or groups could be assigned to present different sections. No matter how this is taught, emphasize the difference between revising and editing.

Time: 5 to 15 minutes

Evaluation
Quiz: list the steps of the process.

Time
5 to 10 minutes

Worksheet Information
- Brainstorming
  Pick a topic and think of ideas. This may involve research.

- Narrowing
  Only one topic per paper. Be specific!
  Be academic and professional.

- Outlining
  This is a very important step. Because papers and paragraphs are organized by main ideas and details, outlining helps you organize. Put your main ideas and details in order.

- Drafting/Revising
  You will have many drafts of your papers. First, just write to get your ideas on paper. Follow your outline! In later drafts, change (revise) things. Add, delete, or move information. Fix the introduction, conclusion, and vocabulary.

- Review
  Reviewing helps you find what you need to revise in your drafts. When you review, judge your organization, thesis statement, details, and all the parts of your essay. Decide what to change and make a plan for how to fix it.

- Editing
  After you have your essay almost perfect (organization, details, vocabulary, etc) then you are ready to look at the grammar. You think grammar is very important, but it isn’t.

- Publishing
  Have someone else read your paper. You could submit your essay to a newspaper, publish it on the Internet, or put it up in the computer lab.
Chapter 3
Knowing why to give advice

Activity M: Revision and feedback: Who can help?

Objectives
The goals are to help the students understand the role of feedback in the writing process and sources of feedback.

Preparation before class
Bring examples of your own work that has been reviewed by peers (optional).

In class
Emphasize the difference between revising and editing, as well as the importance of getting feedback to help revise essays. Ask the students to name sources of feedback. The list could include teachers, tutors, themselves, classmates, roommates, and friends.

Time
5 to 10 minutes

Evaluation
Individual reflection: have the students list the people or sources they think they will use for feedback during the semester.

Time
5 to 10 minutes

Activity N: Practice

Objectives
The goals are to have the students review what they have learned about paper and paragraph organization and practice the writing process, from brainstorming to outlining. (They will practice with drafting, revising, evaluating, and editing later in the semester.) This could be done in class, or done as homework.

Preparation before class
Choose at least 4 topics. Copy worksheets if desired.

Example Topics
- Native country
- Food
- Holidays
- Family

In class
Give topics. Model first topic—do it together as a class. For example:

Example Brainstorm/Narrowing (This works better using a flowchart or wordweb, such as the one in appendix A).

1. Food
   - Tacos
   - Sushi
   - Pasta
2. Pasta
   - How to make it
   - Italy
   - Taste
3. Taste
   - Noodles
   - Sauce
Chapter 3
Knowing why to give advice

Activity N: Practice continued

4. Sauce
- Spices
  - Garlic
  - Onions
- Meats
  - Meatballs
  - Sausage
- Other
  - Cheese
  - Mushrooms
  - Tomatoes

Conclusion: The taste of the spaghetti sauce is great because of the ingredients.

Time
5 to 10 minutes

Total Time
10 to 20 minutes

Example Thesis Statement
The taste of the spaghetti sauce is great because of the ingredients.

Example Outline
Introduction: The taste of the spaghetti sauce is great because of the ingredients.

First topic: The spices in the sauce help make it great.
  - Garlic
  - Onions

Second Topic: The meat in the sauce helps make it great.
  - Meatballs
  - Sausage

Third Topic: The other ingredients in the sauce help make it great.
  - Tomatoes
  - Cheese
  - Mushrooms

Time
5 to 10 minutes

Evaluation
Collect and evaluate their practice sheets. Look for detailed brainstorming and outlining, with definite transfer of ideas from the brainstorm to the outline. Look for thesis statements and topic sentences and details on topic. Especially look for problems common to most of the class and review as needed!

Time
Variable

Worksheet Information
- Blank brainstorming web
- Blank outline chart
Chapter 3
Knowing why to give advice

Example Lesson Plan

Day Four
Help students understand the importance of revision and the role of peer evaluation as part of the revision process.

Preparation before class

Terminal Objectives
- understand the role/importance of peer review
- practice what they have learned so far

Enabling Objectives
- Understand the writing process

Activities
- Activity L: The Writing Process
- Activity M: Revision and Feedback: Who can help?
- Activity N: Practice the process

Materials
- Copies of the worksheets.

In class

Warm Up (Daily Routine Activity)
- Activity H
  Time
  5 to 10 minutes (recommend 5)

Announcements
- N/A
  Time
  1-2 minutes

Continue (review) previous lesson
- Correct, or review the homework (Activity K). If the students did not understand or perform well, review and evaluate a few more sample essays for this day in class. It will throw off the lesson plan, but it is worth spending some extra time to get Activity K right. If this happens, save Activities L through N for the following class day.
  Time
  5 to 15 minutes

Introduce New lesson
- Activity L
  Time
  10 to 25 minutes (recommend 15)
- Activity M
  Time
  10 to 20 minutes (recommend 10)

Guided practice
- Start Activity N
  Time
  10 to 20 minutes (recommend 20)

Evaluation
- N/A
  Time
  0 minutes

Contingency
- N/A
  Time
  As needed

Homework
- Activity N

Total Time
Approx 65 minutes
Appendix A
Copyable Materials

Activity L: The Writing Process

1a. Brainstorming
- Pick a topic and think of ideas.
- This may involve research.

1b. Narrowing
- Only one topic per paper.
- Be specific!
- Be academic and professional.

2. Outlining
- This is a very important step.
- Because papers and paragraphs are organized by main ideas and details, outlining helps you organize.
- Put your main ideas and details in order.

3a. Drafting/Revising
- You will have many drafts of your papers.
- First, just write to get your ideas on paper.
- Follow your outline!
- In later drafts, change (revise) things.
- Add, delete, or move information.
- Fix the introduction, conclusion, and vocabulary.

3b. Reviewing
- Reviewing helps you find what you need to revise in your drafts.
- When you review, judge your organization, thesis statement, details, and all the parts of your essay.
- Decide what to change and make a plan for how to fix it.
- Sometimes other people can help you review your work.

4. Editing
- After you have your essay’s organization, details, and vocabulary almost perfect, then you are ready to look at the grammar.
- You think grammar is very important, but it isn’t.
- TWE says grammar will not count unless your paper is hard to understand.

5. Publishing
- Have someone else read your paper.
- You could submit your essay to a newspaper, publish it on the Internet, put it up in the computer lab, or just have a friend read it.
Appendix A
Copyable Materials

Activity N: Practice the process
Brainstorming and Narrowing

Outlining

Introduction (Thesis Statement)

First Topic Sentence
- Detail 1
- Detail 2
- Detail 3

Second Topic Sentence
- Detail 1
- Detail 2
- Detail 3

Third Topic Sentence
- Detail 1
- Detail 2
- Detail 3

Conclusion (Revised Thesis Statement)
Chapter 5
Knowing how to use advice

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day One</strong></td>
<td><strong>Day Two</strong></td>
<td><strong>Day Three</strong></td>
<td><strong>Day Four</strong></td>
</tr>
<tr>
<td>Chapter 1:</td>
<td>Chapter 1 continued:</td>
<td>Chapter 2:</td>
<td>Chapter 3:</td>
</tr>
<tr>
<td>Knowing each other—Teamwork building</td>
<td>Knowing each other—Forming peer groups</td>
<td>Knowing what to look for</td>
<td>Knowing why to give advice</td>
</tr>
<tr>
<td><strong>Day Five</strong></td>
<td><strong>Day Six</strong></td>
<td><strong>Day Seven</strong></td>
<td></td>
</tr>
<tr>
<td>Chapter 4:</td>
<td>Chapter 4:</td>
<td>Chapter 5:</td>
<td></td>
</tr>
<tr>
<td>Knowing how to give advice</td>
<td>Knowing how to give advice</td>
<td>Knowing how to use advice</td>
<td></td>
</tr>
<tr>
<td>Part one: Being a good peer reviewer</td>
<td>Part two: Using rubrics</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day Nine</strong></td>
<td><strong>Day Ten</strong></td>
<td><strong>Midsemester</strong></td>
<td></td>
</tr>
<tr>
<td>Chapter 6:</td>
<td>Chapter 6:</td>
<td>Chapter 8</td>
<td></td>
</tr>
<tr>
<td>Practicing everything</td>
<td>Practicing everything</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Goal & Objectives**

The goal is to help students bridge the gap from peer review to making effective revisions in the paper.

To accomplish this, the teacher should

- Remember the role of revision (and peer comments) in the writing process
- Understand how to evaluate and use peer evaluation comments
- Understand revision strategies
- Adequately revise their work

**Expert's Advice**

**Berg (1999a)**

“Provide revision guidelines by highlighting good revision strategies” (21), such as reorganizing, deleting, adding, and modifying.

She adds that teachers should “emphasize the importance of [revising] to clarify the meaning of the text before focusing on sentence (surface) level revisions, such as correcting grammar, punctuation, or spelling, because entire sentences might be replaced in the revision process” (24).

**Berg (1999b)**

found that “trained students [make] more meaning revisions that untrained students” (229).

**Chenoweth (1987)**

suggests that unskilled ESL writers should be taught rewriting skills; because they see revision as error correction, they need to be taught how to focus on revising global issues of their writing.

**Paulus (1999)**

found that students often use their classmates’ advice to make meaning-level (global) changes to their writing.
Chapter 5
Knowing how to use advice

Suggested Procedure

There are three steps to the procedure, which are listed below. Choose from the activities and materials included on the following pages to help implement this procedure.

Step One: explain revision strategies.
Activity U: Revision strategies (p. 45)

Step Two: model how review comments affect revision.
Activity V: Review comments and revision (p. 45)

Step Three: practice revising
Activity W*: Practice revision (p. 46-49)

*Photocopyable layouts of the materials are included in appendix A.

Essays that could be used in these activities are included in appendix B.

Rubrics are included in appendix C.

Example Lesson Plan

This procedure is modeled here in a one day plan (p. 50), with homework evaluated on the following class day.

This is the continuation of discussion about giving advice which started in part one of chapter four.
Chapter 5
Knowing how to use advice

Activities and Materials

Activity U: Revision strategies

Objective
The goal is to teach the students the process expert writers use when revising essays.

Preparation before class
Develop an understanding of the revising skills to be able to teach them well.

In class
Overview revising skills:
- Move
- Add
- Delete
- Change

Time
5 to 10 minutes

Evaluation
The evaluation comes in a following activity.

Activity V: Review comments and revision

Objective
The goal is to help students see how comments can help them revise.

Preparation before class
Obtain at least one rubric.

In class
Try to link the comments students might get in revision, from a rubric or other comments, to the revision process.

Time
5 to 10 minutes

Evaluation
The evaluation comes in a following activity.
Activity W: Practice revision
Adapted from Berg (1999a).

Objective
The goal is to help the students understand how to revise.

Preparation before class
Copy the worksheets. Make overheads of the answer key.

In class
First, discuss with the students that it is hard to fix everything at once, and that revision takes a few tries. They might have several drafts where they fix a little bit each time.

Second, hand out the example student essay and the example review rubric. Give the students time to decide how they would revise this essay if it were theirs. They should be able to refer to the review rubric for help. Remind them to think about the four parts of revision: move, add, change, delete. If they are stuck, perhaps the following questions will help them:

Questions
- Which sentences are the main ideas?
- Which one is the thesis statement?
- Which ones are topic sentences?
- Which sentences are details?
- To which main ideas do the details belong?
- What is the introduction?
- What is the conclusion?

Their goal is to make a plan of how to revise the essay. They do not have to actually revise.

Time
10 to 15 minutes

After some time has passed, show the answer key. The answer key only shows some possibilities for revision. It is not the only answer.

Review the essay together as a class and discuss possible revisions. Then compare the first draft with the second draft.

Time
10 to 15 minutes

They may seem overwhelmed by how much work goes into revision. But assure them that they will get better at it with practice and that it is very important if they want to get good grades not only in class, but also at a university.

Evaluation
How would they revise the second draft?

Give the students the second draft of the essay discussed in class and the rubric with comments about that draft. For homework, have the students plan how to revise the second draft of the essay.
Americans and Alcohol

First Draft
[1] Americans drink alcohol because of many reasons. One reason is that it is easy to buy. People buy alcoholic beverages in liquor stores, bars, and restaurants, and they can even found it on airplanes, trains, and boats. In some states all they have to do is to visit the nearest grocery store to buy alcohol. Also, many commercials on the radio and TV show how happy people is when they are drinking beer. Another reason is that alcoholic beverages is quite cheap. A final reason is that media tell Americans to drink alcohol. Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle. James Bond is famous for ordering martinis that are “stirred, not shaken.”

Topic B: A final reason is that media tell Americans to drink alcohol.
- Also, many commercials on the radio and TV show how happy people is when they are drinking beer.
- Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle.
- James Bond is famous for ordering martinis that are “stirred, not shaken.”

Conclusion: The end.

Step Two: DELETE
Thesis Statement: Americans drink alcohol because of many reasons.

Topic A: One reason is that it is easy to buy.
- [Another reason is that alcoholic beverages is quite cheap. DELETE] People buy alcoholic beverages in liquor stores, bars, and restaurants, and they can even found it on airplanes, trains, and boats.

Peer Review Rubric for Americans and Alcohol
Berg (1999a) first draft is included in appendix A.

Activity W: Practice revision continued
Adapted from Berg (1999a).

Worksheet Information
Americans and Alcohol

People buy alcoholic beverages in
Chapter 5
Knowing how to use advice

Activity W: Practice revision continued
Adapted from Berg (1999a).
- do is to visit the nearest grocery store to buy alcohol.

Topic B: A final reason is that media tell Americans to drink alcohol.
- [Also DELETE], many commercials on the radio and TV show how happy people is when they are drinking beer.
- Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle.
- James Bond is famous for ordering martinis that are “stirred, not shaken.”

Conclusion: [The end. DELETE]

Step Three: ADD DELETE
Introduction:
- [ADD GENERAL INFORMATION]
- Americans drink alcohol because of many reasons.

Topic A: One reason is that it is easy to buy.
- ADD GENERAL STATEMENT People buy alcoholic beverages in liquor stores, bars, and restaurants, and they can even found it on airplanes, trains, and boats.
- In some states all they have to do is to visit the nearest grocery store to buy alcohol.

Topic B: A final reason is that media tell Americans to drink alcohol.

Many commercials on the radio and TV show how happy people is

- when they are drinking beer.
- Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle.
- James Bond is famous for ordering martinis that are “stirred, not shaken.”

Conclusion: ADD A CONCLUSION

Step Four: CHANGE
Introduction:
Alcohol is very popular in the United States. Most Americans drink a lot of alcohol even though it can cause many problems. But why is drinking alcohol so common? Americans drink alcohol because of many reasons.

Topic A:
One reason that Americans drink alcohol is that it is easy to buy. It is available almost everywhere in the United States. People [CHANGE] buy alcoholic beverages in liquor stores, bars, and restaurants, [CHANGE] and they can even found it on airplanes, trains, and boats. In some states all they have to do is to visit the nearest grocery store to buy alcohol.

Topic B:

A [final CHANGE] reason is that media tell Americans to drink alcohol. Many commercials on the radio and TV show how happy people is when they are drinking
beer. Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle. James Bond is famous for ordering martinis that are “stirred, not shaken.”

Conclusion: Americans drink a lot of alcohol. They drink it because it is easy to get and because the media makes it seem cool.

2nd draft
[1] Alcohol is very popular in the United States. Most Americans drink a lot of alcohol even though it can cause many problems. But why is drinking alcohol so common? Americans drink alcohol because of many reasons.

[2] One reason that Americans drink alcohol is that it is easy to buy. It is available almost everywhere in the United States. People can buy alcoholic beverages in liquor stores, bars, and restaurants. They can even found it on airplanes, trains, and boats. In some states all they have to do is to visit the nearest grocery store to buy alcohol.

[3] Another reason that Americans drink alcohol is that media tell Americans to drink alcohol. Many commercials on the radio and TV show how happy people is when they are drinking beer. Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle. James Bond is famous for ordering martinis that are “stirred, not shaken.”

[4] In conclusion, there are many reasons why Americans drink a lot of alcohol. Sometimes they drink it because it is easy to get. They also drink it because the media makes it seem cool. But, regardless of the reason, Americans drink a lot of alcohol.

Review Rubric for Americans and Alcohol second draft is included in appendix A.
Example Lesson Plan

Day Seven
Help students bridge the gap from review to making effective revisions in the paper.

Preparation before class

Terminal Objective
- Prepare the students for revision

Enabling Objectives
- review the writing process
- explain some revising skills/steps
- explain the connection between peer review comments and revision

Activities
- Activity L: The Writing Process
- Activity U: Revision Strategies
- Activity V: Review comments and revision
- Activity W: Practice revision

Materials
- Copies of the worksheets
- Sample essays and rubrics
- Overhead transparencies

In class

Warm Up (Daily Routine Activity)
- Activity H

Continue (review) previous lesson
- N/A

Introduce New lesson
- Quickly review Activity L

Guided practice
- Activity U
- Activity V
- Start Activity W (revise first draft)

Homework
- Activity W (revise second draft)

Total Time
Approx 65 minutes
**Appendix A
Copyable Materials**

**Activity W: Practice Revision**
Adapted from Berg (1999a, 20-25).

**Americans and Alcohol First Draft**

[1] Americans drink alcohol because of many reasons. One reason is that it is easy to buy. People buy alcoholic beverages in liquor stores, bars, and restaurants, and they can even found it on airplanes, trains, and boats. In some states all they have to do is to visit the nearest grocery store to buy alcohol. Also, many commercials on the radio and TV show how happy people is when they are drinking beer. Another reason is that alcoholic beverages is quite cheep. A final reason is that media tell Americans to drink alcohol. Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle. James Bond is famous for ordering martinis that are “stirred, not shaken.” The end.

**Review Rubric for Americans and Alcohol**

<table>
<thead>
<tr>
<th>Overall Organization</th>
<th>The information is difficult to follow because the it is not in order</th>
<th>Most of the information is not in order.</th>
<th>Most of the information is in order.</th>
<th>The information is easy to follow because it is in order.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusion</td>
<td>No conclusion.</td>
<td>Restated thesis statement with no conclusion.</td>
<td>Conclusion with no thesis statement.</td>
<td>The essay has a conclusion with a rephrased thesis.</td>
</tr>
<tr>
<td>Body Paragraphs</td>
<td>No body paragraphs.</td>
<td>There are body paragraphs. Some paragraphs have topic sentences while others don’t.</td>
<td>All paragraphs have topic sentences, but they are weak or unspecific.</td>
<td>Each body paragraph has a strong topic sentence that summarizes the main idea.</td>
</tr>
<tr>
<td>Details</td>
<td>The details are not on topic.</td>
<td>The details are unspecific and mostly not on topic.</td>
<td>The details are specific and mostly on topic.</td>
<td>The details are very specific and on topic.</td>
</tr>
<tr>
<td>Paragraph Length</td>
<td>Each paragraph is too short or is missing.</td>
<td>Some paragraphs are too short.</td>
<td>Most paragraphs are the correct length.</td>
<td>Each paragraph has five or more sentences that are on topic.</td>
</tr>
</tbody>
</table>
Activity W: Practice Revision continued

Answer Key

Step One: MOVE

Thesis Statement: Americans drink alcohol because of many reasons.

Topic A: One reason is that it is easy to buy.
Another reason is that alcoholic beverages is quite cheap.
People buy alcoholic beverages in liquor stores, bars, and restaurants,
and they can even found it on airplanes, trains, and boats.
In some states all they have to do is to visit the nearest grocery store to buy
alcohol.

Topic B: A final reason is that media tell Americans to drink alcohol.
Also, many commercials on the radio and TV show how happy people is when
they are drinking beer.
Even movie characters such as James Bond drink a lot of alcohols as part of
their rich and exciting lifestyle.
James Bond is famous for ordering martinis that are “stirred, not shaken.”

Conclusion: The end.

Step Two: DELETE

Thesis Statement: Americans drink alcohol because of many reasons.

Topic A: One reason is that it is easy to buy.
[Another reason is that alcoholic beverages is quite cheap. DELETE]
People buy alcoholic beverages in liquor stores, bars, and restaurants,
and they can even found it on airplanes, trains, and boats.
In some states all they have to do is to visit the nearest grocery store to buy
alcohol.

Topic B: A final reason is that media tell Americans to drink alcohol.
[Also DELETE], many commercials on the radio and TV show how happy people
is when they are drinking beer.
Even movie characters such as James Bond drink a lot of alcohols as part of
their rich and exciting lifestyle.
James Bond is famous for ordering martinis that are “stirred, not shaken.”
Activity W: Practice Revision continued

Step Three: ADD
Introduction: ADD GENERAL INFORMATION
  Americans drink alcohol because of many reasons.

  Topic A: One reason is that it is easy to buy.
  ADD GENERAL STATEMENT People buy alcoholic beverages in liquor stores, bars, and restaurants, and they can even found it on airplanes, trains, and boats.
  In some states all they have to do is to visit the nearest grocery store to buy alcohol.

  Topic B: A final reason is that media tell Americans to drink alcohol.
  Many commercials on the radio and TV show how happy people is when they are drinking beer.
  Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle.
  James Bond is famous for ordering martinis that are “stirred, not shaken.”

Conclusion: ADD A CONCLUSION

Step Four: CHANGE
Introduction:
Alcohol is very popular in the United States. Most Americans drink a lot of alcohol even though it can cause many problems. But why is drinking alcohol so common? Americans drink alcohol because of many reasons.

  Topic A: First Body Paragraph
  One reason that Americans drink alcohol is that it is easy to buy. It is available almost everywhere in the United States. People [CHANGE] buy alcoholic beverages in liquor stores, bars, and restaurants, [CHANGE] and they can even found it on airplanes, trains, and boats. In some states all they have to do is to visit the nearest grocery store to buy alcohol.

  Topic B: Second Body Paragraph
  A [final CHANGE] reason is that media tell Americans to drink alcohol. Many commercials on the radio and TV show how happy people is when they are drinking beer. Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle. James Bond is famous for ordering martinis that are “stirred, not shaken.”

Conclusion:
Americans drink a lot of alcohol. They drink it because it is easy to get and because the media makes it seem cool.
Activity W: Practice Revision continued

Americans and Alcohol 2nd draft

[1] Alcohol is very popular in the United States. Most Americans drink a lot of alcohol even though it can cause many problems. But why is drinking alcohol so common? Americans drink alcohol because of many reasons.

[2] One reason that Americans drink alcohol is that it is easy to buy. It is available almost everywhere in the United States. People can buy alcoholic beverages in liquor stores, bars, and restaurants. They can even find it on airplanes, trains, and boats. In some states all they have to do is to visit the nearest grocery store to buy alcohol.

[3] Another reason that Americans drink alcohol is that media tell Americans to drink alcohol. Many commercials on the radio and TV show how happy people is when they are drinking beer. Even movie characters such as James Bond drink a lot of alcohols as part of their rich and exciting lifestyle. James Bond is famous for ordering martinis that are “stirred, not shaken.”

[4] In conclusion, there are many reasons why Americans drink a lot of alcohol. Sometimes they drink it because it is easy to get. They also drink it because the media makes it seem cool. But, regardless of the reason, Americans drink a lot of alcohol.

<table>
<thead>
<tr>
<th>Overall Organization</th>
<th>The information is difficult to follow because the it is not in order.</th>
<th>Most of the information is not in order.</th>
<th>Most of the information is in order.</th>
<th>The information is easy to follow because it is in order.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusion</td>
<td>No conclusion.</td>
<td>Restated thesis statement with no conclusion.</td>
<td>Conclusion with no thesis statement.</td>
<td>The essay has a conclusion with a rephrased thesis.</td>
</tr>
<tr>
<td>Body Paragraphs</td>
<td>No body paragraphs.</td>
<td>There are body paragraphs. Some paragraphs have topic sentences while others don’t.</td>
<td>All paragraphs have topic sentences, but they are weak or unspecific.</td>
<td>Each body paragraph has a strong topic sentence that summarizes the main idea.</td>
</tr>
<tr>
<td>Details</td>
<td>The details are not on topic.</td>
<td>The details are unspecific and mostly not on topic.</td>
<td>The details are specific and mostly on topic.</td>
<td>The details are very specific and on topic.</td>
</tr>
<tr>
<td>Paragraph Length</td>
<td>Each paragraph is too short or is missing.</td>
<td>Some paragraphs are too short.</td>
<td>Most paragraphs are the correct length.</td>
<td>Each paragraph has five or more sentences that are on topic.</td>
</tr>
</tbody>
</table>
APPENDIX E
Treatment group lesson plans
From McMurry (2004)

Chapter 2
Knowing what to look for

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day One</strong></td>
<td><strong>Day Two</strong></td>
<td><strong>Day Three</strong></td>
<td><strong>Day Four</strong></td>
</tr>
<tr>
<td>Chapter 1: Knowing each other—Teamwork building</td>
<td>Chapter 1 continued: Knowing each other—Forming peer groups</td>
<td>Chapter 2: Knowing what to look for</td>
<td>Chapter 3: Knowing why to give advice</td>
</tr>
<tr>
<td><strong>Day Five</strong></td>
<td><strong>Day Six</strong></td>
<td><strong>Day Seven</strong></td>
<td><strong>Day Eight</strong></td>
</tr>
<tr>
<td>Chapter 4: Knowing how to give advice Part one: Being a good peer reviewer</td>
<td>Chapter 4: Knowing how to give advice Part two: Using rubrics</td>
<td>Chapter 5: Knowing how to use advice</td>
<td>Chapter 6: Practicing everything</td>
</tr>
<tr>
<td><strong>Day Nine</strong></td>
<td><strong>Day Ten</strong></td>
<td><strong>The rest of the semester</strong></td>
<td><strong>Midsemester</strong></td>
</tr>
<tr>
<td>Chapter 6: Practicing everything</td>
<td>Chapter 6: Practicing everything</td>
<td>Refer to Chapters 7 &amp; 8 as needed</td>
<td>Chapter 8</td>
</tr>
</tbody>
</table>

*Goal & Objectives*

The goal is to build critical reading and writing skills to enable students to evaluate essays—both their own and others.

*Experts’ Advice*

**Flynn (1982)**
Students abilities to evaluate critically and well would improve if they were taught the rhetorical structures and genres used in essays.

**Stanley (1992)**
“Students who received coaching [looked] at each other’s writing more closely and [offered] the writers more specific guidelines for revision” (91).

**Chenoweth (1987)**
Because unskilled ESL writers see revision as error correction, they need to be taught how to focus on revising global issues of their writing.
Chapter 2
Knowing what to look for

Suggested Procedure

There are three steps to the procedure, which are listed below. Choose from the activities and materials included on the following pages to help implement this procedure.

*Photocopyable layouts of the materials are included in appendix A.

Essays that could be used in these activities are included in appendix B.

Step One: Teach main idea and detail to provide sufficient scaffolding for the students to learn how to write and evaluate essays in English. This also helps build knowledge about global issues of writing before teaching local ones.

Activity I: Main idea & Detail
(p. 21)

Step Two: Teach paper and paragraph organization (structure). Begin increasing the complexity of the information as well as modeling how good essays should be organized.

Activity J*: Papers & paragraphs
(p. 21-22)

Example Lesson Plan

This procedure is modeled here in a one day plan (p. 26), with homework evaluated on the following class day.
Chapter 2
Knowing what to look for

Activities and Materials

Activity I: Main Idea & Detail

Objectives
The goal is to understand the basic building blocks of essay organization.

Preparation before class
Select some essays from appendix B.

In class
First, explain that the main idea is what the whole thing is about, and the details are specific pieces of information that explain more about the main idea.

Second, illustrate this concept in an abstract example, such as a drawing or flowchart. The main idea is a point at the top, and the details are multiple lines connected to the main idea hanging below it.

Third, use one paragraph or essay to model this concept.

Evaluation
Give the students one more essay (an easy one!) and have them evaluate it on their own.

Activity J: Papers & Paragraphs

Objectives
The goal is to help students recognize main ideas and details in essays. Students should be able to identify parts of an essay.

Preparation before class
Copy the worksheet, if desired.

In class
Use the previous activity as scaffolding to teach the students about essays and paragraph organization. Use the essays from the previous activity to bridge the gap.

First, teach and show the students that the main idea of the essay is the thesis statement and the details of an essay are in the body paragraphs.

Second, teach the students about paragraphs: The main idea is the topic sentence and the details are the rest of the sentences in the body paragraphs.

Third, go over the worksheet, if desired.

Evaluation
Have the students reexamine the previous essays and label the parts of the essays and paragraphs.
Chapter 2
Knowing what to look for

Activity J continued

Worksheet Information
The Essay

Introduction
- Ideas go from general to specific
- No details
- Thesis Statement (main idea of the paper)

Body
- Details that support the thesis statement.
- It is made up of paragraphs.
- You might have only one paragraph, or you might have many. It doesn’t matter as long as you say everything you need to and the paragraphs are correct.

Activity K: Evaluating and Problem Solving

Objectives
The goal is to begin practicing for peer review. This is accomplished by evaluating essays, and fixing problems with the organization. Try to get the students to look closely at the global structural errors and help them to begin to give specific suggestions for revising an essay’s structure.

Preparation before class
Obtain and copy at least four essays. Decide how the students are going to do this activity. They could underline and label the parts, fill in a chart, or cut up the essays.

In class
Do at least one essay together in class.

First, identify the sections of the essay—i.e. introduction, thesis statement, topic sentences, details, and conclusion.

Second, based on the identification, evaluate the essay for problems. Is anything missing? Is the thesis statement the main idea of the whole paper? Are the topic sentences the main ideas for each individual paragraph? Are the paragraphs too long or too short?
Chapter 2
Knowing what to look for

Activity K continued

Third, if there are missing thesis statements, topic sentences, conclusions, etc., identify how to fix the problem.

Time
10 to 20 minutes

Have the students finish the remaining essays for homework.

Evaluation
This will probably need to be done as on the following class day.
First, have them compare answers within their groups. Then review the essays as a class.

Most of the students will be able to notice that something is wrong, and many of them will be able to explain what and why.

It is very important that they understand essay structure. Therefore, if most of the class is confused, give them more essays and spend another day on this topic. It is worth spending extra time to get this right.

Time
10 to 15 minutes

Example essays and answer keys

Essay: An Unforgettable Travel Experience (Sokmen and Mackey, 1998, 30).

[1] My trip to the United States was a terrible experience, one that I will never forget! My first problem was the food on the airplane. I am a vegetarian, and there was almost nothing for me to eat for almost twenty-four hours. I didn't realize that you could order special meals in advance for an airplane trip.

[2] I had arranged everything through a travel agent in my country. Unfortunately, I only told the travel agent, “I’m going to the University of Washington.” She didn’t know much about the United States. I was supposed to go to Seattle, Washington. Instead, I arrived in Washington, D.C. Can you imagine how I felt?

[3] The next day I was able to fly to Seattle. However, I had to change planes in Chicago, and my suitcases didn't arrive in Seattle on my plane. As a result, I had no extra clothes and no toothbrush for the first days!

[4] I went to the hotel where I had reservations, but there was no longer a room for me because I was a day late. When I called the university, I started crying. I felt like going back home!

Answer Key
First, identify and evaluate the paragraphs. The essay currently has only body paragraphs. The introduction is one sentence that was tacked on to the first body paragraph. The conclusion is only two sentences that were tacked on to the last body paragraph. Separate the essay into the correct
Chapter 2
Knowing what to look for

Activity K continued

paragraphs. Here is the essay with the paragraphs separated:

[1] My trip to the United States was a terrible experience, one that I will never forget!

[2] My first problem was the food on the airplane. I am a vegetarian, and there was almost nothing for me to eat for almost twenty-four hours. I didn't realize that you could order special meals in advance for an airplane trip.

[3] I had arranged everything through a travel agent in my country. Unfortunately, I only told the travel agent, “I'm going to the University of Washington.” She didn't know much about the United States. I was supposed to go to Seattle, Washington. Instead, I arrived in Washington, D.C. Can you imagine how I felt?

[4] The next day I was able to fly to Seattle. However, I had to change planes in Chicago, and my suitcases didn't arrive in Seattle on my plane. As a result, I had no extra clothes and no toothbrush for the first days!

[5] I went to the hotel where I had reservations, but there was no longer a room for me because I was a day late.

[6] When I called the university, I started crying. I felt like going back home!

Second, identify and evaluate the thesis statement, topic sentences, and details. There is a good thesis statement in the introduction (in fact, that is all there is!) Paragraphs [3], [4], and [5] need topic sentences similar to paragraph [2]. For example, “My second problem was the ignorant travel agent that helped me,” or, “My third problem was losing my baggage.” The details are fairly good. The conclusion needs a revised thesis statement.

Third, evaluate the length of the paragraphs. Paragraphs [1], [2], [4], [5], and [6] need more information. Ask the students to supply details that would complete the paragraphs appropriately.

Essay: Nonverbal Communication
(Sokmen and Mackey, 1998, 41).

[1] People talk a lot, but about 60 percent of all our communication is nonverbal (without words). There are about 700,000 ways to communicate nonverbally. For about a third of those ways we use our faces. Our eyes, eyebrows, noses, mouths, and eyelids can say a lot. We also use at least 5,000 hand gestures. The third way we communicate nonverbally is through body movement—the way we sit or stand, and even how far we stand from someone.
Chapter 2
Knowing what to look for

Activity K continued

[2] Gestures have different purposes. They give instructions or warnings. For example, if you hold up the palm of your hand toward someone, it means “Don’t come here!” or “Stay back!” Gestures also communicate warmth. A smile means “I like you” or “Welcome.” A handshake says “Hello.” Finally, body language, such as a thumb pointing down or a frown, can express negative feelings.

[3] Although gestures are easy to make, they can be very confusing across cultures. For example, in the United States, it’s polite to look people in the eye when you talk to them. This look says, “I am listening to you” and “I am honest.” However, in many Asian countries, it is impolite to look someone in the eye.

Answer Key
First, identify and evaluate the paragraphs. Again, the introduction is one sentence that was included in the first body paragraph. But, in this essay, there is no conclusion.

[1] People talk a lot, but about 60 percent of all our communication is nonverbal (without words).

[2] There are about 700,000 ways to communicate nonverbally. For about a third of those ways…and even how far we stand from someone.

[3] Gestures have different purposes. They give instructions or warnings. For example…can express negative feelings.

[4] Although gestures are easy to make, they can be very confusing across cultures. For example, in the United States, it’s polite to look people in the eye when you talk to them. This look says, “I am listening to you” and “I am honest.” However, in many Asian countries, it is impolite to look someone in the eye.

[5] ???

Second, identify and evaluate the thesis statement, topic sentences, and details. The body paragraphs are fine, once the introduction sentence is removed from the first one.

Third, evaluate the length of the paragraphs. In this example, the introduction and conclusion need to be fixed (or added).
Example Lesson Plan

Day Three
Build critical reading and writing skills to enable students to evaluate essays

Preparation before class

Terminal Objective
- Enable students to write and critically evaluate essays

Enabling Objectives
- Understand main idea and details
- Understand paper and paragraph structure
- Understand how to evaluate essays and suggest changes in global problems

Activities
- Activity I: Main idea and detail
- Activity J: Papers & Paragraphs
- Activity K: Evaluating & problem solving

Materials
- Copies of the worksheets.
- Copies of essays.

In class

Warm Up (Daily Routine Activity)
- Activity H
  Time
  5 to 10 minutes

Announcements
- N/A
  Time
  1-2 minutes

Continue (review) previous lesson
- N/A
  Time
  0 minutes

Introduce New lesson
- Activity I
  Time
  15 to 30 minutes

Guided practice
- Activity J
  Time
  10 to 20 minutes
- Start Activity K
  Time
  10 to 20 minutes

Evaluation
- N/A
  Time
  0 minutes

Contingency
- Continue Activity K
  Time
  As needed

Homework
- Activity K

Total Time
Approx 65 minutes

Chapter 2
Knowing what to look for
Appendix A
Copyable Materials

Activity J: Papers & Paragraphs

The Essay

Introduction
- Ideas go from general to specific
- No details
- Thesis Statement (main idea of the paper)

Body
- Details that support the thesis statement.
- It is made up of paragraphs.
- You might have only one paragraph, or you might have many. It doesn’t matter as long as you say everything you need to and the paragraphs are correct.
- A paragraph must be at least 5 sentences long.

Conclusion
- Summarize the details.
- Give a revised thesis statement.
- It is like a mirror to the introduction. They are about the same length, and both have the thesis statement.

The Paragraphs

*Topic Sentence* (main idea of the paragraph)
*Details*
- Detail 1 You might have more
- Detail 2 than three details.
- Detail 3

*Conclusion sentence*
Chapter 3
Knowing why to give advice

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day One</strong></td>
<td><strong>Day Two</strong></td>
<td><strong>Day Three</strong></td>
<td><strong>Day Four</strong></td>
</tr>
<tr>
<td>Chapter 1:</td>
<td>Chapter 1 continued:</td>
<td>Knowing what to look for</td>
<td>Chapter 3:</td>
</tr>
<tr>
<td>Knowing each</td>
<td>Knowing each other—</td>
<td></td>
<td>Knowing why to give advice</td>
</tr>
<tr>
<td>other—</td>
<td>Teamwork building</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day Five</strong></td>
<td><strong>Day Six</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chapter 4:</td>
<td>Chapter 4:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowing how to give advice</td>
<td>Knowing how to give advice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part one:</td>
<td>Part two:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being a good peer reviewer</td>
<td>Using rubrics</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day Nine</strong></td>
<td><strong>Day Ten</strong></td>
<td>The rest of the semester</td>
<td></td>
</tr>
<tr>
<td>Chapter 6:</td>
<td>Chapter 6:</td>
<td>Refer to Chapters 7 &amp; 8 as needed</td>
<td></td>
</tr>
<tr>
<td>Practicing everything</td>
<td>Practicing everything</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day Ten</strong></td>
<td></td>
<td>The rest of the semester</td>
<td></td>
</tr>
<tr>
<td>Chapter 6:</td>
<td></td>
<td>Refer to Chapters 7 &amp; 8 as needed</td>
<td></td>
</tr>
<tr>
<td>Practicing everything</td>
<td>Practicing everything</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Midsemester</strong></td>
<td></td>
<td>The rest of the semester</td>
<td></td>
</tr>
<tr>
<td>Chapter 8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Goal & Objectives**

The goal is to help students understand the importance of revision and the role of peer evaluation as part of the revision process.

To accomplish this, the teacher should help students:

- Understand and be able to use the writing process
- Understand the role of revision in the writing process
- Understand the difference between revising and editing
- Recognize the various sources of feedback for revision, including their peers

**Experts’ Advice**

Berg (1999a)

“Establish the role of peer response in the writing process and explain the benefits of having peers, as opposed to just teachers, respond to students’ writing” (21).

Raimes (1998)

“Editing needs to be seen as distinct from revising” (154).

Connor and Asenavage (1994)

“The concepts of revision at text-based and surface levels should be clarified in both the teacher’s and the students’ minds” (267).
Chapter 3
Knowing why to give advice

Suggested Procedure

There are three steps to the procedure, which are listed below. Choose from the activities and materials included on the following pages to help implement this procedure.

Step One: explain the writing process, emphasizing the difference between revising and editing.

Activity L*: The writing process (p. 29)

Step Three: have students practice the first few steps of the writing process—brainstorming through outlining.

Activity N*: Practice the process (p. 30-31)

*Photocopyable layouts of the materials are included in appendix A.

Essays that could be used in these activities are included in appendix B.

Example Lesson Plan

This procedure is modeled here in a one day plan (p. 32), with homework evaluated on the following class day.

This is the beginning of discussion about revision; the discussion continues in chapter five.
Activities and Materials

Activity L: The Writing Process

Objectives
The goals are to model the thinking process of expert writers and to help the students understand the role of peer review in that process.

Preparation before class
Copy the worksheet.

In class
First, bridge the gap between Activity K and Activity L. Ask: How do you write good essays? Then overview the writing process. The students could read silently, and then discuss it as a class. Or groups could be assigned to present different sections. No matter how this is taught, emphasize the difference between revising and editing.

Time
5 to 15 minutes

Evaluation
Quiz: list the steps of the process.

Time
5 to 10 minutes

Worksheet Information
- **Brainstorming**
  Pick a topic and think of ideas. This may involve research.
- **Narrowing**
  Only one topic per paper. Be specific! Be academic and professional.
- **Outlining**
  This is a very important step. Because papers and paragraphs are organized by main ideas and details, outlining helps you organize. Put your main ideas and details in order.

- **Drafting/Revising**
  You will have many drafts of your papers. First, just write to get your ideas on paper. Follow your outline! In later drafts, change (revise) things. Add, delete, or move information. Fix the introduction, conclusion, and vocabulary.

- **Review**
  Reviewing helps you find what you need to revise in your drafts. When you review, judge your organization, thesis statement, details, and all the parts of your essay. Decide what to change and make a plan for how to fix it.

- **Editing**
  After you have your essay almost perfect (organization, details, vocabulary, etc) then you are ready to look at the grammar. You think grammar is very important, but it isn’t. TWE says grammar will not count unless your paper is hard to understand.

- **Publishing**
  You could submit your essay to a newspaper, publish it on the Internet, or put it up in the computer lab.
Chapter 3
Knowing why to give advice

Activity N: Practice

Objectives
The goals are to have the students review what they have learned about paper and paragraph organization and practice the writing process, from brainstorming to outlining. (They will practice with drafting, revising, evaluating, and editing later in the semester.) This could be done in class, or done as homework.

Preparation before class
Choose at least 4 topics. Copy worksheets if desired.

Example Topics
- Native country
- Food
- Holidays
- Family

In class
Give topics. Model first topic—do it together as a class. For example:

Example Brainstorm/Narrowing (This works better using a flowchart or wordweb, such as the one in appendix A).

1. Food
   - Tacos
   - Sushi
   - Pasta

2. Pasta
   - How to make it
   - Italy
   - Taste

3. Taste
   - Noodles
   - Sauce
Chapter 3
Knowing why to give advice

Activity N: Practice continued

4. Sauce
   - Spices
     - Garlic
     - Onions
   - Meats
     - Meatballs
     - Sausage
   - Other
     - Cheese
     - Mushrooms
     - Tomatoes

Conclusion: The taste of the spaghetti sauce is great because of the ingredients.

   Time
   5 to 10 minutes

Example Thesis Statement
The taste of the spaghetti sauce is great because of the ingredients.

Example Outline
Introduction: The taste of the spaghetti sauce is great because of the ingredients.

First topic: The spices in the sauce help make it great.
   - Garlic
   - Onions

Second Topic: The meat in the sauce helps make it great.
   - Meatballs
   - Sausage

Third Topic: The other ingredients in the sauce help make it great.
   - Tomatoes
   - Cheese
   - Mushrooms

Then have the students do the other three on their own. If they don’t finish, or if time runs out, have them do this as homework.

Evaluation
Collect and evaluate their practice sheets. Look for detailed brainstorming and outlining, with definite transfer of ideas from the brainstorm to the outline. Look for thesis statements and topic sentences and details on topic. Especially look for problems common to most of the class and review as needed!

   Time
   Variable

Worksheet Information
- Blank brainstorming web
- Blank outline chart
# Appendix A

## Copyable Materials

### Activity L: The Writing Process

#### 1a. Brainstorming
- Pick a topic and think of ideas.
- This may involve research.

#### 1b. Narrowing
- Only one topic per paper.
- Be specific!
- Be academic and professional.

#### 2. Outlining
- This is a very important step.
- Because papers and paragraphs are organized by main ideas and details, outlining helps you organize.
- Put your main ideas and details in order.

#### 3a. Drafting/Revising
- You will have many drafts of your papers.
- First, just write to get your ideas on paper.
- Follow your outline!
- In later drafts, change (revise) things.
- Add, delete, or move information.
- Fix the introduction, conclusion, and vocabulary.

#### 3b. Reviewing
- Reviewing helps you find what you need to revise in your drafts.
- When you review, judge your organization, thesis statement, details, and all the parts of your essay.
- Decide what to change and make a plan for how to fix it.
- Sometimes other people can help you review your work.

#### 4. Editing
- After you have your essay’s organization, details, and vocabulary almost perfect, then you are ready to look at the grammar.
- You think grammar is very important, but it isn’t.
- TWE says grammar will not count unless your paper is hard to understand.

#### 5. Publishing
- Have someone else read your paper.
- You could submit your essay to a newspaper, publish it on the Internet, put it up in the computer lab, or just have a friend read it.
Appendix A
Copyable Materials

Activity N: Practice the process
Brainstorming and Narrowing

Outlining

Introduction (Thesis Statement)

First Topic Sentence
- Detail 1
- Detail 2
- Detail 3

Second Topic Sentence
- Detail 1
- Detail 2
- Detail 3

Third Topic Sentence
- Detail 1
- Detail 2
- Detail 3

Conclusion (Revised Thesis Statement)
Chapter 4
Knowing how to *give* advice

*Suggested Procedure*

There are three steps to the procedure, which are listed below. Choose from the activities and materials included on the following pages to help implement this procedure.

*Photocopyable layouts of the materials are included in appendix A.*

*Essays that could be used in these activities are included in appendix B.*

Step One: help them understand their role as reviewers.

*Activity O*: Rules for review
(p. 35)

Step Two: distinguish between good and bad advice, and provide good feedback strategies.

*Activity P*: What to say (p. 35-36)

Step Three: practice giving constructive feedback using a few essays.

*Activity Q*: Practice giving advice
(p. 37-38)

*Example Lesson Plan*

This procedure is modeled here in a one day plan (p. 39), with homework evaluated on the following class day.

This is the beginning of discussion about giving advice; the discussion continues in part two of chapter four.
Chapter 4
Knowing how to give advice

Activities and Materials

Activity O: Rules for review
Adapted from Berg (1999a) and Venia (1987).

Objective
The goal is to help the students understand how to be a good reviewer.

Preparation before class
Make the list of rules into a poster, overhead, or individual copies.

In class
Go over the list of rules. Try to help the students understand their role: They should read the essays and give helpful advice with the goal of helping improve the essays.

Time
10 to 15 minutes

Evaluation
N/A

Rules for good review
1. Read the essay carefully.
2. Remember to focus on the meaning and organization of the essay, not grammar, spelling, or punctuation.
3. Give positive reinforcement. Tell the writer what you like and what he/she did well.
4. Ask Questions! If there is something confusing, try to understand it.
5. Help the writer see how to change the paper to make it easier to understand.
6. Be specific—don’t just say “it is good.” Tell the writer what is good!
7. Do not lie.
8. Be nice.

Activity P: What to say

Objectives
To help the students understand the difference between appropriate and inappropriate comments.

Preparation before class
Copy the example comments, or make an overhead.

In class
Start by asking the students how they want to be treated by teachers, tutors, and their peers. Hopefully the students will generate a list of comments like, “nice” or “helpful.”
Chapter 4
Knowing how to give advice

Activity P: What to say continued
Then ask them what they should say when they are reviewing essays. Generate a list of ideas.

Finally, go over the example comments.

Time
10 to 15 minutes

Evaluation
Have each group or individual write a list of open-ended comments that they could use when they do review. Comments like: I like….I suggest....

Time
5 to 10 minutes

Worksheet Information

Bad Comments
- Your paper is pretty good.
- I don’t like your topic.
- Don’t write on that topic.
- You have many spelling and grammar mistakes.
- Make your paragraph better.
- Your paragraph is not in good order.
- You put ideas together like crazy.
- This is stupid. You are stupid.

Good Comments
- Your paper has a thesis statement that is easy to understand.
- You express your opinion clearly, I can understand your opinion.
- I respect your opinion.
- You have great ideas, but you need to organize them more clearly. Rearrange what you have. Put all the same ideas together and separate it into paragraphs.
- Remember that a paragraph needs to be at least 5 sentences long, and the sentences must be on the same topic.
- You have only one sentence for your introduction. What general ideas could you add there to make it better?
- Add more details to support your topic sentences. For example, you say that alcohol is cheap, but there are no examples that support that idea.
- Add a conclusion. Remember to restate your thesis and summarize the main ideas.
- I really like your example. That is very specific and it makes your paper interesting.
Chapter 4
Knowing how to give advice

Activity Q: Practice giving advice

Objective
The goal is to have the students practice the things they just learned.

Preparation before class
Choose and copy a few essays for the students to review. Choose different ones than they used in Chapter 2.

In class
Do one essay together as a class, and then have the students do the others by themselves. This might be a homework assignment.

Follow the rules given in Activity O and use the list of open-ended responses generated in Activity P.

Encourage the students to
- focus on understanding the essays
- improve meaning and organization of the essays.

Time
20 to 30 minutes

Example essay and advice
Childhood memory
Pablo A.

I have one experience that I always remember, and I'll not forget never.

I was 9 years old and I was in third grade. My family decided to go to the beach and stay there for Christmas time. I was really happy and excited about that trip. I have family at the beach so we slept at my grandmother house. It is a really nice house in front of the sea and there are a lot of things to do. Anyway, I have like a cousin but she is not, we call her cousin because she is a cousin of my cousin but between us, we are just friends, but anyway the thing is that I liked that girl so much, so I didn't want to do anything embarrassing in front of her.

At 12:00 pm my grandmother invited everybody to eat. The dinner was a big chicken called pavo navideno, so I took my plate and my piece of chicken and I walked to one room and everybody was in the living room and in the door of that room there was a curtain. When I passed the curtain to go inside the piece of chicken got tangled with the curtain and everybody began to laugh at me, I didn't know where the chicken was so I began to say, “mom, where is my chicken?” I guess that the chicken is alive and he flew.
Chapter 4
Knowing how to give advice

Activity Q: Practice giving advice continued

Finally I didn’t have any chance with that girl anymore. I think that right now she thinks that I am a big stupid guy, just for one mistake when I was child.

Advice
I like the details about your family, the food, and what happened. They are very specific details and make the story easier to understand.

I suggest adding information to the introduction. What was the experience? Why will you never forget it?

Example Lesson Plan

Day Five
Enable students to perform meaningful peer review.

Preparation before class

Terminal Objective
- Prepare the students for review

Enabling Objectives
- Understand how to give advice

Activities
- Activity O: Rules for review
- Activity P: What to say
- Activity Q: Practice giving advice

Materials
- Copies of the worksheets.
- Essays

In class

Warm Up (Daily Routine Activity)
- Activity H

Time
- 5 to 10 minutes

Announcements
- 1-2 minutes

Continue (review) previous lesson
- Collect the homework (Activity N).
  - Time
  - 5 minutes

Introduce New lesson
- Quick review of Activity M (Who can help?)
  - Time
  - 5 minutes

Guided practice
- Activity O
- Activity P
- Activity Q

Time
- Approx 45 minutes

Homework
- Activity Q

Total Time
- Approx 65 minutes
## Chapter 4
### Knowing how to give advice

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day One</strong></td>
<td><strong>Day Two</strong></td>
<td><strong>Day Three</strong></td>
<td><strong>Day Four</strong></td>
</tr>
<tr>
<td>Chapter 1:</td>
<td>Chapter 1 continued:</td>
<td>Chapter 2:</td>
<td>Chapter 3:</td>
</tr>
<tr>
<td>Knowing each other—</td>
<td>Knowing each other—</td>
<td>Knowing what to look for</td>
<td>Knowing why to give advice</td>
</tr>
<tr>
<td>Teamwork building</td>
<td>Forming peer groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day Five</strong></td>
<td><strong>Day Six</strong></td>
<td><strong>Day Seven</strong></td>
<td><strong>Day Eight</strong></td>
</tr>
<tr>
<td>Chapter 4:</td>
<td>Chapter 4:</td>
<td>Chapter 5:</td>
<td>Chapter 6:</td>
</tr>
<tr>
<td>Knowing how to give advice</td>
<td>Knowing how to give advice</td>
<td>Knowing how to use advice</td>
<td>Practicing everything</td>
</tr>
<tr>
<td>Part one:</td>
<td>Part two: Using rubrics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being a good peer reviewer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day Nine</strong></td>
<td><strong>Day Ten</strong></td>
<td><strong>The rest of the semester</strong></td>
<td><strong>Midsemester</strong></td>
</tr>
<tr>
<td>Chapter 6:</td>
<td>Chapter 6:</td>
<td>Refer to Chapters 7 &amp; 8 as needed</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>Practicing everything</td>
<td>Practicing everything</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Goal & Objectives

The goal is to enable students to perform meaningful peer review in a tactful, helpful manner using a rubric.

To accomplish this, the teacher should

- Model how to respond to a peer’s paper through a rubric.
- Show students how the communication strategies from the previous chapter play out in a “real” peer evaluation.

### Expert’s Advice

**Berg (1999a)**

“Familiarize the students with the response sheet by showing samples and explaining its purpose as a tool designed to help them focus on important areas of the writing assignment” (21).

She also reminds teachers that those important areas of writing the peers need to respond to are issues of meaning and organization. She says, “…peer response does not concern grammar and spelling as much as it does organization and whether the writer has explained his or her ideas in a way that is easy and clear for others to understand” (21).
Chapter 4
Knowing how to *give* advice

*Suggested Procedure*

There are two steps to the procedure, which are listed below. Choose from the activities and materials included on the following pages to help implement this procedure.

*Photocopyable layouts of the materials are included in appendix A.*

*Essays that could be used in these activities are included in appendix B.*

Rubrics are included in appendix C.

**Step One:** model at least one rubric.

Activity R*: Advice in a rubric (p. 41)

**Step Two:** practice using rubrics.

Activity S: Practice using a rubric (p. 41)

**Example Lesson Plan**

This procedure is modeled here in a one day plan (p. 42), with homework evaluated on the following class day.

This is the continuation of discussion about giving advice which started in part one of chapter four.
Chapter 4
Knowing how to give advice

Activities and Materials

Activity R: Advice in a rubric
Objective
The goal is to help the students understand how to use a rubric and be a good reviewer.

Preparation before class
Copy the worksheet or whichever other rubric is preferred.

In class
Show the class at least one rubric and explain what the sections mean. Be sure to explain how the information from the previous lessons fit into the rubric. Remember to focus on the meaning and organization of the essay, not grammar, spelling, or punctuation.

Time
10 to 15 minutes

Evaluation
N/A

Activity S: Practice using a rubric
Objective
The goal is to help the students practice review using a rubric.

Preparation before class
Copy a rubric and essays.

In class
Give the students the rubric and essays. Have them individually review both essays.

Time
10 to 15 minutes

Evaluation
After they are done, have them compare answers within their groups. Finally come to a consensus as a class about these essays.

Time
10 to 15 minutes
Activity O: Rules for review
Adapted from Berg (1999a) and Venia (1987).

Rules for good review

1. Read the essay carefully.

2. Remember to focus on the meaning and organization of the essay, not grammar, spelling, or punctuation.

   “You have to do more than fix the mistakes in a paragraph if you want to be a good [helper]” (Venia, 1987, 9).

3. Give positive reinforcement. Tell the writer what you like and what he/she did well.

4. Ask Questions! If there is something confusing, try to understand it.

5. Help the writer see how to change the paper to make it easier to understand.

6. Be specific—Don’t just say “it is good.” Tell the writer what is good!

7. Do not lie.

8. Be nice.
Appendix A
Copyable Materials

Activity P: What to say
Adapted from Berg (1999a).

Bad Comments
- Your paper is pretty good.
- I don’t like your topic.
- Don’t write on that topic.
- You have many spelling and grammar mistakes.
- Make your paragraph better.
- Your paragraph is not in good order.
- You put ideas together like crazy.
- This is stupid. You are stupid.

Good Comments
- Your paper has a thesis statement that is easy to understand.
- You express your opinion clearly, I can understand your opinion.
- I respect your opinion.
- You have great ideas, but you need to organize them more clearly. Rearrange what you have. Put all the same ideas together and separate it into paragraphs.
- Remember that a paragraph needs to be at least 5 sentences long, and the sentences must be on the same topic.
- You have only one sentence for your introduction. What general ideas could you add there to make it better?
- Add more details to support your topic sentences. For example, you say that this is true, but there are no examples that support that idea.
- Add a conclusion. Remember to restate your thesis and summarize the main ideas.
- I really like your example. That is very specific and it makes your paper interesting.
Appendix A
Copyable Materials

**Activity R: Advice in a rubric**

Remember to focus on the **meaning and organization** of the essay, not grammar, spelling, or punctuation.

1. Review organization:

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Organization</td>
<td>Organization of information is <strong>difficult</strong> to follow because the information is <strong>not</strong> in order</td>
<td>X</td>
<td>X</td>
<td>Organization of information is <strong>easy</strong> to follow because the information is in order</td>
</tr>
<tr>
<td>Introduction</td>
<td>No introduction</td>
<td>Thesis statement with no introduction</td>
<td>Introduction with no thesis statement</td>
<td>The essay has an introduction with a thesis statement</td>
</tr>
<tr>
<td>Conclusion</td>
<td>No conclusion</td>
<td>Restated thesis statement with no conclusion</td>
<td>Conclusion with no thesis statement</td>
<td>The essay has a conclusion with the thesis statement restated</td>
</tr>
</tbody>
</table>

2. Review meaning by giving general comments and asking questions

Questions:

Comments:

**OR by giving specific statements about what you suggest, like, recommend, etc.**

I like...

I suggest...
## Table A1

### Mean Scores of Level Two Control Group

<table>
<thead>
<tr>
<th>Student ID</th>
<th>Overall</th>
<th>Pre</th>
<th>Post</th>
<th>Organ/Unity</th>
<th>Pre</th>
<th>Post</th>
<th>Development</th>
<th>Pre</th>
<th>Post</th>
<th>Cohesion</th>
<th>Pre</th>
<th>Post</th>
<th>Structure</th>
<th>Pre</th>
<th>Post</th>
<th>Vocabulary</th>
<th>Pre</th>
<th>Post</th>
<th>Mechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td>208</td>
<td></td>
<td>2.5</td>
<td>3</td>
<td>1.5</td>
<td>4.5</td>
<td></td>
<td>2.5</td>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td>1.5</td>
<td>2.5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>212</td>
<td></td>
<td>2</td>
<td>3.5</td>
<td>2.5</td>
<td>4</td>
<td>1.5</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>1.5</td>
<td>3.5</td>
<td>3.5</td>
<td>2.5</td>
<td>3.5</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>221</td>
<td></td>
<td>3.33</td>
<td>4</td>
<td>3.33</td>
<td>5</td>
<td>4.5</td>
<td>5</td>
<td>3.33</td>
<td>4.5</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>3.33</td>
<td>3.5</td>
<td>3.5</td>
<td>2.667</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>231</td>
<td></td>
<td>4.5</td>
<td>3.5</td>
<td>4.5</td>
<td>4.5</td>
<td></td>
<td>4.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>233</td>
<td></td>
<td>3.5</td>
<td>6.5</td>
<td>4.5</td>
<td>7.5</td>
<td>4</td>
<td>6.5</td>
<td>3.5</td>
<td>6</td>
<td>3</td>
<td>4.67</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4.5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>237</td>
<td></td>
<td>3</td>
<td>5.33</td>
<td>4</td>
<td>6.5</td>
<td>3.5</td>
<td>6.5</td>
<td>3</td>
<td>5.33</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5.33</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>238</td>
<td></td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
<td>3.5</td>
<td>2.5</td>
<td>3</td>
<td>3</td>
<td>2.5</td>
<td>3</td>
<td>3.5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>242</td>
<td></td>
<td>4.5</td>
<td>4.5</td>
<td>4.5</td>
<td>5.5</td>
<td>4.5</td>
<td>5</td>
<td>4.5</td>
<td>4.5</td>
<td>3.5</td>
<td>3.5</td>
<td>4.5</td>
<td>4.5</td>
<td>4</td>
<td>4.5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>244</td>
<td></td>
<td>2.5</td>
<td>4.5</td>
<td>2.5</td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>2</td>
<td>3.5</td>
<td>3</td>
<td>4.5</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>109</td>
<td></td>
<td>3</td>
<td>3.5</td>
<td>3</td>
<td>4</td>
<td>2.5</td>
<td>4.5</td>
<td>2.5</td>
<td>3.5</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td></td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>4.5</td>
<td>3.5</td>
<td>4.5</td>
<td>3.667</td>
<td>3.5</td>
<td>4</td>
<td>3.5</td>
<td>4.5</td>
<td>3.667</td>
<td>3</td>
<td>4.5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>118</td>
<td></td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2.5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>128</td>
<td></td>
<td>2</td>
<td>4.5</td>
<td>3</td>
<td>5.5</td>
<td>2</td>
<td>3.5</td>
<td>4</td>
<td>4.5</td>
<td>3.8</td>
<td>4.5</td>
<td>4.4</td>
<td>4.5</td>
<td>4</td>
<td>5.5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>135</td>
<td></td>
<td>4.2</td>
<td>4.5</td>
<td>4</td>
<td>4.5</td>
<td>4</td>
<td>4.5</td>
<td>3.8</td>
<td>4.5</td>
<td>3.5</td>
<td>3.5</td>
<td>4.5</td>
<td>3.333</td>
<td>5</td>
<td>3.5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>138</td>
<td></td>
<td>3.5</td>
<td>5.5</td>
<td>3.5</td>
<td>6</td>
<td>3.5</td>
<td>5.5</td>
<td>3.5</td>
<td>5.5</td>
<td>3.5</td>
<td>3.5</td>
<td>4.5</td>
<td>3.333</td>
<td>5</td>
<td>3.5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>140</td>
<td></td>
<td>2.8</td>
<td>3.5</td>
<td>2.6</td>
<td>4.5</td>
<td>2.8</td>
<td>3.5</td>
<td>2.8</td>
<td>3.5</td>
<td>2.8</td>
<td>2.8</td>
<td>4.5</td>
<td>2</td>
<td>3.5</td>
<td>2.4</td>
<td>3.667</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>143</td>
<td></td>
<td>2.5</td>
<td>3.5</td>
<td>3</td>
<td>4</td>
<td>2.5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>2.667</td>
<td>2.5</td>
<td>3.33</td>
<td>3.333</td>
<td>3.5</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>147</td>
<td></td>
<td>2.5</td>
<td>4.5</td>
<td>2.5</td>
<td>4</td>
<td>2</td>
<td>4.5</td>
<td>2</td>
<td>3.667</td>
<td>2.5</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>148</td>
<td></td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3.333</td>
<td>3.33</td>
<td>3.33</td>
<td>3.333</td>
<td>3.5</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>151</td>
<td></td>
<td>3</td>
<td>4</td>
<td>3.667</td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3.667</td>
<td>4</td>
<td>3.33</td>
<td>4.333</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>155</td>
<td></td>
<td>3</td>
<td>3.5</td>
<td>3</td>
<td>3.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>3.5</td>
<td>2.5</td>
<td>3.5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX F
Mean student scores for all writing aspects
**Table A2**

*Mean Scores of Level Two Treatment Group*

<table>
<thead>
<tr>
<th>Student ID</th>
<th>Overall</th>
<th>Organ/Unity</th>
<th>Development</th>
<th>Cohesion</th>
<th>Structure</th>
<th>Vocabulary</th>
<th>Mechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>202</td>
<td>2.5</td>
<td>3.5</td>
<td>2.5</td>
<td>4</td>
<td>2.5</td>
<td>3.5</td>
<td>2</td>
</tr>
<tr>
<td>206</td>
<td>3</td>
<td>4.5</td>
<td>4</td>
<td>4.5</td>
<td>3.5</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>216</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>4.5</td>
<td>1.5</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td>217</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>5.5</td>
<td>1.5</td>
<td>5.33</td>
<td>1.5</td>
</tr>
<tr>
<td>224</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5.5</td>
<td>4.5</td>
<td>5.5</td>
<td>3.5</td>
</tr>
<tr>
<td>228</td>
<td>2</td>
<td>3.5</td>
<td>2.5</td>
<td>4.5</td>
<td>2</td>
<td>4.5</td>
<td>2</td>
</tr>
<tr>
<td>232</td>
<td>3.5</td>
<td>5.5</td>
<td>4</td>
<td>5.5</td>
<td>4.5</td>
<td>4.5</td>
<td>4</td>
</tr>
<tr>
<td>235</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4.5</td>
<td>3</td>
<td>4.5</td>
<td>2.5</td>
</tr>
<tr>
<td>236</td>
<td>1.8</td>
<td>2.5</td>
<td>2</td>
<td>3.5</td>
<td>2</td>
<td>2.5</td>
<td>1.8</td>
</tr>
<tr>
<td>239</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3.5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>103</td>
<td>3.5</td>
<td>4</td>
<td>3</td>
<td>5.5</td>
<td>2.5</td>
<td>4.5</td>
<td>3.5</td>
</tr>
<tr>
<td>104</td>
<td>2.5</td>
<td>3.5</td>
<td>3.5</td>
<td>4.5</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>111</td>
<td>2</td>
<td>3.5</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>113</td>
<td>3.5</td>
<td>4</td>
<td>3.5</td>
<td>5</td>
<td>3.5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>115</td>
<td>4.5</td>
<td>5.5</td>
<td>5</td>
<td>5.5</td>
<td>4.5</td>
<td>5.5</td>
<td>3.667</td>
</tr>
<tr>
<td>120</td>
<td>3</td>
<td>6</td>
<td>2.5</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>3.5</td>
</tr>
<tr>
<td>122</td>
<td>2.5</td>
<td>5.667</td>
<td>2</td>
<td>5.5</td>
<td>2.5</td>
<td>5.5</td>
<td>2.5</td>
</tr>
<tr>
<td>123</td>
<td>2</td>
<td>3.5</td>
<td>2</td>
<td>4.5</td>
<td>1.5</td>
<td>3.5</td>
<td>1</td>
</tr>
<tr>
<td>137</td>
<td>3.5</td>
<td>5.4</td>
<td>3.5</td>
<td>5.6</td>
<td>4</td>
<td>5.6</td>
<td>3.5</td>
</tr>
<tr>
<td>145</td>
<td>4.5</td>
<td>5</td>
<td>4</td>
<td>5.5</td>
<td>4.5</td>
<td>5.5</td>
<td>4.5</td>
</tr>
<tr>
<td>146</td>
<td>2.5</td>
<td>4</td>
<td>2.5</td>
<td>5</td>
<td>2.5</td>
<td>4.5</td>
<td>2</td>
</tr>
<tr>
<td>152</td>
<td>3</td>
<td>3.5</td>
<td>3.5</td>
<td>4.5</td>
<td>4</td>
<td>3.5</td>
<td>2</td>
</tr>
<tr>
<td>154</td>
<td>3</td>
<td>5.5</td>
<td>3</td>
<td>6</td>
<td>2.5</td>
<td>5.5</td>
<td>2.5</td>
</tr>
<tr>
<td>158</td>
<td>3</td>
<td>3.5</td>
<td>3</td>
<td>4.33</td>
<td>3.5</td>
<td>4.5</td>
<td>4</td>
</tr>
</tbody>
</table>
Table A3

Mean Scores of Level Four Control Group

<table>
<thead>
<tr>
<th>Student ID</th>
<th>Overall Pre</th>
<th>Overall Post</th>
<th>Organ/Unity Development Pre</th>
<th>Organ/Unity Development Post</th>
<th>Development Coherence Pre</th>
<th>Development Coherence Post</th>
<th>Structure Vocabulary Pre</th>
<th>Structure Vocabulary Post</th>
<th>Mechanics Pre</th>
<th>Mechanics Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>5.5</td>
<td>6.5</td>
<td>4.5</td>
<td>6</td>
<td>4.67</td>
<td>6</td>
<td>5.5</td>
<td>6.5</td>
<td>6.5</td>
<td>6.5</td>
</tr>
<tr>
<td>203</td>
<td>5.4</td>
<td>6.5</td>
<td>5.2</td>
<td>7</td>
<td>5.6</td>
<td>7</td>
<td>5.2</td>
<td>6.5</td>
<td>6.5</td>
<td>6.25</td>
</tr>
<tr>
<td>205</td>
<td>4</td>
<td>4.5</td>
<td>4.5</td>
<td>5</td>
<td>4.5</td>
<td>5.5</td>
<td>3.5</td>
<td>4.5</td>
<td>4.5</td>
<td>4</td>
</tr>
<tr>
<td>209</td>
<td>6.5</td>
<td>4.5</td>
<td>7</td>
<td>4.5</td>
<td>5.67</td>
<td>4</td>
<td>6</td>
<td>4.5</td>
<td>5.33</td>
<td>4.5</td>
</tr>
<tr>
<td>210</td>
<td>4.5</td>
<td>3.5</td>
<td>5</td>
<td>4</td>
<td>4.5</td>
<td>3.5</td>
<td>4</td>
<td>3</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>213</td>
<td>4.33</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>3.5</td>
<td>4</td>
<td>4.33</td>
<td>4.5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>215</td>
<td>3</td>
<td>4.5</td>
<td>4</td>
<td>6</td>
<td>2.5</td>
<td>5</td>
<td>2.5</td>
<td>4</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>218</td>
<td>4</td>
<td>4.33</td>
<td>3.5</td>
<td>4.67</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>3.67</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>222</td>
<td>3.5</td>
<td>4</td>
<td>4.5</td>
<td>5.5</td>
<td>3.5</td>
<td>5.5</td>
<td>4</td>
<td>5.5</td>
<td>3.5</td>
<td>4</td>
</tr>
<tr>
<td>225</td>
<td>5</td>
<td>5.5</td>
<td>4.5</td>
<td>6</td>
<td>6.33</td>
<td>5</td>
<td>5.5</td>
<td>5.5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>226</td>
<td>4.5</td>
<td>5</td>
<td>5.5</td>
<td>6</td>
<td>4.5</td>
<td>5</td>
<td>5.5</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>227</td>
<td>5.5</td>
<td>6.5</td>
<td>6</td>
<td>6.5</td>
<td>5.5</td>
<td>7</td>
<td>5.5</td>
<td>6.5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>234</td>
<td>4</td>
<td>5</td>
<td>3.5</td>
<td>4.5</td>
<td>3.5</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>4.5</td>
<td>5</td>
</tr>
<tr>
<td>241</td>
<td>5</td>
<td>6.5</td>
<td>5</td>
<td>7.5</td>
<td>5</td>
<td>6</td>
<td>4.5</td>
<td>5.67</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>106</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>2.5</td>
<td>3</td>
<td>3.5</td>
<td>2</td>
</tr>
<tr>
<td>108</td>
<td>5</td>
<td>5.667</td>
<td>5.5</td>
<td>6.5</td>
<td>5.5</td>
<td>5.667</td>
<td>5.5</td>
<td>5.667</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>124</td>
<td>5</td>
<td>4.333</td>
<td>5</td>
<td>4.5</td>
<td>5.5</td>
<td>4.5</td>
<td>5</td>
<td>3.5</td>
<td>5</td>
<td>4.333</td>
</tr>
<tr>
<td>130</td>
<td>5.5</td>
<td>3.333</td>
<td>5</td>
<td>2.5</td>
<td>5.5</td>
<td>3.5</td>
<td>5.5</td>
<td>2.5</td>
<td>6.5</td>
<td>4.5</td>
</tr>
<tr>
<td>131</td>
<td>4.5</td>
<td>3.5</td>
<td>4.5</td>
<td>4.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4.5</td>
<td>3.5</td>
<td>4</td>
</tr>
<tr>
<td>134</td>
<td>6.5</td>
<td>5.2</td>
<td>6.5</td>
<td>5.4</td>
<td>5.667</td>
<td>5.6</td>
<td>7.5</td>
<td>5.4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>136</td>
<td>5</td>
<td>7</td>
<td>5.5</td>
<td>7.5</td>
<td>3.33</td>
<td>7</td>
<td>6.5</td>
<td>6.5</td>
<td>5</td>
<td>7.533</td>
</tr>
<tr>
<td>139</td>
<td>5</td>
<td>4.5</td>
<td>5</td>
<td>4.5</td>
<td>5.5</td>
<td>4.5</td>
<td>4</td>
<td>4.5</td>
<td>4.5</td>
<td>5.5</td>
</tr>
<tr>
<td>141</td>
<td>5.333</td>
<td>5.5</td>
<td>6</td>
<td>5.5</td>
<td>5.333</td>
<td>6</td>
<td>5</td>
<td>5.5</td>
<td>6.5</td>
<td>5.333</td>
</tr>
<tr>
<td>150</td>
<td>4.5</td>
<td>4.5</td>
<td>3.5</td>
<td>4.5</td>
<td>5</td>
<td>4.5</td>
<td>3.5</td>
<td>5.5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>153</td>
<td>5.5</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>5.5</td>
<td>5.5</td>
<td>4.333</td>
<td>5.5</td>
<td>4.667</td>
<td>5</td>
</tr>
</tbody>
</table>
Table A4

Mean Scores of Level Four Treatment Group

<table>
<thead>
<tr>
<th>Student ID</th>
<th>Overall Pre</th>
<th>Post</th>
<th>Organ/Unity Pre</th>
<th>Post</th>
<th>Development Pre</th>
<th>Post</th>
<th>Cohesion Pre</th>
<th>Post</th>
<th>Structure Pre</th>
<th>Post</th>
<th>Vocabulary Pre</th>
<th>Post</th>
<th>Mechanics Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>204</td>
<td>3.5</td>
<td>2.5</td>
<td>4</td>
<td>2.33</td>
<td>3.5</td>
<td>2.5</td>
<td>3.67</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3.5</td>
<td>3.33</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>211</td>
<td>4.5</td>
<td>5.5</td>
<td>4.5</td>
<td>5</td>
<td>4.5</td>
<td>6.5</td>
<td>3.5</td>
<td>5.5</td>
<td>3.5</td>
<td>5</td>
<td>4.5</td>
<td>5.5</td>
<td>5</td>
<td>5.5</td>
</tr>
<tr>
<td>214</td>
<td>4.5</td>
<td>6.5</td>
<td>5</td>
<td>7</td>
<td>4.5</td>
<td>6.5</td>
<td>4.5</td>
<td>6</td>
<td>5.5</td>
<td>5</td>
<td>5.5</td>
<td>5.5</td>
<td>5</td>
<td>5.5</td>
</tr>
<tr>
<td>219</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
<td>5.67</td>
<td>5</td>
<td>5.33</td>
<td>5.5</td>
<td>4.67</td>
<td>5</td>
<td>5.5</td>
<td>4.5</td>
<td>6.5</td>
<td>4.5</td>
<td>6</td>
</tr>
<tr>
<td>220</td>
<td>6.8</td>
<td>4.5</td>
<td>6.6</td>
<td>5</td>
<td>7</td>
<td>4.5</td>
<td>6.8</td>
<td>4</td>
<td>6.6</td>
<td>5</td>
<td>6.4</td>
<td>4</td>
<td>6.8</td>
<td>4</td>
</tr>
<tr>
<td>223</td>
<td>3.5</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>3.5</td>
<td>5.33</td>
<td>3</td>
<td>5</td>
<td>4.5</td>
<td>5</td>
<td>5.5</td>
<td>5.5</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>229</td>
<td>3</td>
<td>4.5</td>
<td>3</td>
<td>4.5</td>
<td>4</td>
<td>3.5</td>
<td>3.5</td>
<td>5.5</td>
<td>3</td>
<td>3.5</td>
<td>3.5</td>
<td>4.5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>230</td>
<td>5.5</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>5.5</td>
<td>7</td>
<td>4.5</td>
<td>7.5</td>
<td>5</td>
<td>6</td>
<td>4.5</td>
<td>6</td>
<td>4.5</td>
<td>6.5</td>
</tr>
<tr>
<td>240</td>
<td>4</td>
<td>5</td>
<td>3.5</td>
<td>5.5</td>
<td>4</td>
<td>5.5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5.5</td>
<td>4.5</td>
<td>5.5</td>
<td>4.5</td>
<td>5</td>
</tr>
<tr>
<td>243</td>
<td>5</td>
<td>4.33</td>
<td>6</td>
<td>4.5</td>
<td>5.33</td>
<td>4.33</td>
<td>4.5</td>
<td>4</td>
<td>4</td>
<td>3.67</td>
<td>4.5</td>
<td>4.67</td>
<td>3.5</td>
<td>4.5</td>
</tr>
<tr>
<td>245</td>
<td>5.5</td>
<td>5.5</td>
<td>5</td>
<td>6.5</td>
<td>4.67</td>
<td>5.5</td>
<td>5</td>
<td>5.5</td>
<td>5</td>
<td>5.5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5.5</td>
</tr>
<tr>
<td>247</td>
<td>5</td>
<td>6.5</td>
<td>5.33</td>
<td>6.5</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>6.67</td>
<td>5.67</td>
<td>6.33</td>
<td>4.67</td>
<td>5.67</td>
<td>5.67</td>
<td>6.6</td>
</tr>
<tr>
<td>101</td>
<td>6.5</td>
<td>6</td>
<td>6.5</td>
<td>6.333</td>
<td>6.5</td>
<td>6.5</td>
<td>6</td>
<td>6.5</td>
<td>5.5</td>
<td>5.5</td>
<td>5.333</td>
<td>5.5</td>
<td>6.5</td>
<td>5.5</td>
</tr>
<tr>
<td>107</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4.5</td>
<td>4</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4.5</td>
</tr>
<tr>
<td>110</td>
<td>6.5</td>
<td>3.5</td>
<td>5.5</td>
<td>3</td>
<td>6.5</td>
<td>4</td>
<td>6.5</td>
<td>3</td>
<td>6.5</td>
<td>3.5</td>
<td>6.5</td>
<td>3.5</td>
<td>6.333</td>
<td>4</td>
</tr>
<tr>
<td>116</td>
<td>4</td>
<td>4.8</td>
<td>3.5</td>
<td>4.4</td>
<td>4</td>
<td>5</td>
<td>2.5</td>
<td>5</td>
<td>4.333</td>
<td>4.8</td>
<td>4.5</td>
<td>5</td>
<td>4.5</td>
<td>4.6</td>
</tr>
<tr>
<td>121</td>
<td>5.5</td>
<td>5</td>
<td>4.333</td>
<td>5.667</td>
<td>4.667</td>
<td>4.5</td>
<td>5.5</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>4.667</td>
<td>5.5</td>
<td>4.667</td>
<td>5.5</td>
</tr>
<tr>
<td>129</td>
<td>5.667</td>
<td>4.5</td>
<td>6.5</td>
<td>3.5</td>
<td>6</td>
<td>3.5</td>
<td>5.5</td>
<td>3.5</td>
<td>5.5</td>
<td>4.5</td>
<td>6</td>
<td>5</td>
<td>6.5</td>
<td>4.5</td>
</tr>
<tr>
<td>144</td>
<td>4</td>
<td>2.5</td>
<td>3.667</td>
<td>2.5</td>
<td>4</td>
<td>2.5</td>
<td>3.5</td>
<td>2.5</td>
<td>4.5</td>
<td>1.5</td>
<td>3.667</td>
<td>2.5</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>149</td>
<td>4.5</td>
<td>6.333</td>
<td>4.5</td>
<td>6</td>
<td>4.5</td>
<td>6.333</td>
<td>5</td>
<td>5.333</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>6.67</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>156</td>
<td>5</td>
<td>4.5</td>
<td>4.8</td>
<td>5.5</td>
<td>4</td>
<td>5.5</td>
<td>4.4</td>
<td>4.5</td>
<td>5.2</td>
<td>4.333</td>
<td>4.6</td>
<td>3.5</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td>157</td>
<td>5</td>
<td>5.5</td>
<td>3.5</td>
<td>6.5</td>
<td>5.5</td>
<td>6.5</td>
<td>5.333</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
<td>5</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
</tr>
</tbody>
</table>