COMPUTER-MEDIATED AND FACE-TO-FACE PEER FEEDBACK IN SECOND LANGUAGE WRITING

BY

HA THI PHUONG PHAM

A thesis submitted to Victoria University of Wellington
in fulfilment of the requirements for the degree of Doctor of Philosophy
in Applied Linguistics

Victoria University of Wellington, New Zealand
2019

ABSTRACT

With the ongoing development and application of technology in the writing classroom, peer feedback through computer-mediated communication (CMC) has been increasingly practiced and researched in the past couple of decades. Researchers have been interested in examining how CMC peer feedback differs from the traditional pen and paper or face-to-face (F2F) peer feedback. Results of previous research have indicated that CMC and F2F each has its own merits, and simply replacing the latter with the former is not advisable (Guardado & Shi, 2007; Ho, 2015; Liu & Sadler, 2003). Instead, researchers have suggested using the two means of communication together; and when that is the case, written asynchronous computer-mediated communication (WACMC) and traditional oral F2F (OF2F) commenting are recommended. While some researchers have suggested that WACMC should come *before* OF2F commenting, others recommended putting WACMC *after* OF2F commenting. Though the field has seen numerous studies that compare CMC with F2F commenting, both in written and oral forms, little has been done to examine the effects of WACMC and OF2F peer feedback when they are used together.

To address these gaps, this study investigates how WACMC in Google Docs and traditional OF2F peer feedback affect three aspects: student comments, revisions, and writing quality. It also examines whether WACMC followed by OF2F (WACMC–OF2F sequence, henceforth) or OF2F followed by WACMC (OF2F–WACMC sequence, henceforth) works better regarding the three aspects mentioned above.

In order to achieve the above aims, both quantitative and qualitative approaches were used. A quantitative approach, descriptive statistics in particular, was employed to understand the outcomes of student feedback, revisions, and writing quality from the two feedback forms and sequences. A qualitative approach was used to examine attitudinal aspects and to support quantitative findings. By means of interviews, student opinions about the feedback forms and sequences, their review and revision strategies were explored. Thematic analyses were employed to process qualitative data and results were reported in themes.

Data analysis yielded several major findings. First, the student participants typically offered feedback on grammar and vocabulary in the form of suggestions, and they revised at surface and word levels. Second, the students' last drafts had higher scores than the first, suggesting the effectiveness of student revisions. Third, in terms of feedback forms, WACMC was used

as the main feedback tool for both feedback and revisions. Fourth, regarding feedback sequences, the students made more quality comments, i.e., comments that were revision-oriented, on both local and global areas in the WACMC–OF2F sequence. Fifth, also in the WACMC–OF2F sequence, the students made more revisions at global level. Sixth, the students' writing mean scores were higher in the WACMC–OF2F than in the OF2F–WACMC sequence. Finally, results of the end-of-study survey questionnaire and student opinions showed that a majority of the students found the WACMC–OF2F sequence to be more helpful because the WACMC step better prepared them for the OF2F step.

This study explores the affordances of WACMC and OF2F peer feedback. The overall conclusion of the study is both WACMC and OF2F commenting should be used together, and when that is the case, WACMC should be followed by OF2F feedback. The study contributes to the existing literature on computer-assisted language learning in two regards: (1) it examines two feedback forms that are underexplored: the WACMC and traditional OF2F commenting, and (2) it confirms that the WACMC commenting followed by traditional OF2F commenting is more helpful to student writing.

ACKNOWLEDGEMENTS

My sincerest gratitude to my two supervisors: Dr. Jean Parkinson and Dr. Keith Comer, for their unceasing support, insight, and guidance. I am always thankful to how they work together to supervise, challenge, and care for their students. It is my great honour to have such dedicated mentors.

I would like to thank the Vietnam International Education and Development (VIED), Victoria University of Wellington, New Zealand, and the Faculty of Humanities and Social Sciences for their financial support and for the research grant provided which allowed me to conduct my research project and to present my work domestically and oversea.

I am especially indebted to all the participants at the Ho Chi Minh University of Technology and Education (HUTE) for their enthusiastic and supportive participation during my project. Also at HUTE, my appreciation goes to the Dean and the teachers of the English Department for allowing me to carry out research at their institution. I am grateful to Hoang Ngoc Trang (Anna), my PhD fellow, who kindly connected me with the HUTE so that I could collect data here. Without the generous help of these people, my project would not have been possible.

Most of my thesis was written at two Shut up and Write (SUW) groups. At the university-wide SUW group, I am thankful to Dr. Lizzie Towel, who was the former coordinator, and Dr. Sara Coterall, who later took the role, for creating a great community conducive to writing. Special thanks to each of the following friends: Micky Vale, Miranda Williamson, Corrina Connor, Lehyla Heward, and Mike Ritchie. Thank you for not only being great writing buddies, but also for the joy of baking, hiking, cello recitals, coffee, and beyond. At SUW within the School of Linguistics and Applied Linguistics (LALS), to Vola Ambinintsoa Razafindratsimba, Honiara Salanoa, and Mengzhu Yan: Thank you for your warm collegiality and for keeping the group standing firm.

I extend my thanks to the Staff at the Student Learning Centre: Dr. Xiao Dan for her helpful workshops when I was at the early stage of my PhD; Dr. Kirsten Reid for her valuable advice for my oral presentation skills; Dr. Deborah Laurs for her help with my writing skills. Dr. Lisa Woods's (School of Mathematics and Statistics) unfailing patience and assistance in statistical analysis is much appreciated.

To Hoang Thi Doan Ha, Le Hong Phuong Thao, Pham Thi Anh Dao, Bui Thi Bich Thuy,

Yen Dang: I thank you for your help during the process of establishing reliability of my data. Your hard work and perseverance were a great source of motivation.

My warmest thanks to the people in Vietnam and New Zealand who have supported me in different ways. They are my family members, friends, officemates, staff members at LALS, and my colleagues at the FPT University, Hanoi. Especially, my special thanks to Chi Nguyet, Chi Hien, Chi Linh, Ban Thu, and Em Hanh for their wonderful friendship.

Lastly, my gratitude to my family during these times and always: my Mum and Dad for their unwavering love; my mother-in-law for her kind support, my dearest younger sister for her trust and understanding. To my loving nephews: I have been longing to cuddle you and as a give-back for your love, I think a trip to the ice-scream shop would be a good start. To my beloved husband, Anh, for being a pleasant companion and a constant inspirer.

I thank you *all*.

TABLE OF CONTENTS

Abstract ..... **i**

Acknowledgements ..... **iii**

Table of contents ..... **v**

List of Tables ..... **xi**

List of Figures ..... **xiii**

List of appendices ..... **xiii**

List of abbreviations ..... **xiv**

Definition of terms ..... **xv**

Chapter 1: Introduction **1**

1.1 Introduction 1

1.2 Research context 3

1.3 Aims and scope of the present thesis 4

1.4 Significance of the research 5

1.5 Organisation of the research 6

Chapter 2: Literature review **8**

2.1 Introduction 8

2.2 Peer feedback in second language writing 8

2.2.1 Theoretical frameworks for peer feedback 8

2.2.2 Benefits of peer feedback 11

2.2.3 Student feedback and revisions in ESL/EFL writing 13

2.3 Computer-mediated communication peer feedback 19

2.4 Google Docs and peer feedback 20

2.5 Recent research in CMC and F2F peer feedback 22
2.5.1 Research findings in favour of CMC peer feedback mode 22
2.5.2 Research findings in favour of F2F peer feedback mode 23
2.6 The present study 25
2.7 Research questions 26
2.8 Summary 27
Chapter 3: Methodology 28
3.1 Introduction 28
3.2 Research design 28
3.3 The research site 28
3.4 The participants 29
3.5 Commenting in Google Docs 33
3.6 Data collection methods 34
3.6.1 Students' textual data 35
3.6.2 Observations 35
3.6.3 Interviews 35
3.6.4 Post-study questionnaire 37
3.7 Data collection procedures 38
3.7.1 Ethics 38
3.7.2 Piloting 39
3.7.3 Main data collection 40
3.8 Research data 44
3.9 Data analysis 45
3.9.1 Coding student feedback 45
3.9.2 Coding student revisions 49
3.9.3 Coding student interviews 54
3.9.4 Evaluating student writing 54
3.9.5 Quantifying student feedback, revisions, and writing from the two feedback forms and sequences. 57

3.9.6 Analysing questionnaire data 57

3.10 Strategies to enhance reliability and validity 58

3.10.1 Reliability 58

3.10.2 Validity 58

3.11 Summary 59

Chapter 4: Student feedback from the WACMC and OF2F feedback and from the WACMC–OF2F and OF2F–WACMC sequences 60

4.1 Introduction 60

4.2 Student feedback 61

4.2.1 The areas of feedback 61

4.2.2 The nature of feedback 61

4.2.3 The areas and nature of feedback 62

4.3 Student feedback in WACMC and OF2F commenting 63

4.3.1 The areas and nature of WACMC and OF2F feedback 63

4.3.2 Discourse functions in WACMC and OF2F feedback 65

4.3.3 Evaluations of the affordances of WACMC and OF2F feedback 69

4.4 Justification for combining student feedback of Essay 1 with Essay 3, and of Essay 2 with Essay 4 70

4.4.1 Variance between the two sequences in terms of areas and nature of feedback 70

4.4.2 Variance between the two sequences in terms of discourse functions 71

4.5 Student feedback in the WACMC–OF2F and OF2F–WACMC sequences 73

4.5.1 The areas and nature of feedback from the WACMC–OF2F and OF2F–WACMC sequences 73

4.5.2 The discourse functions of feedback from the WACMC–OF2F and OF2F–WACMC sequences 77

4.6 Repetition rates of feedback from the WACMC–OF2F and OF2F–WACMC sequences 79

4.7 Summary 81

Chapter 5: Student revisions from WACMC and OF2F feedback and from WACMC–OF2F and OF2F–WACMC sequences 83

5.1 Introduction 83

5.2 Students' revision patterns: A macro view 83

5.2.1 Student uptake of peer feedback 84

5.2.2 Revision types 85

5.2.3 Revision areas 86

5.2.4 Revision levels 87

5.2.5 Revision origins 88

5.3 Justification for combining revisions of Essay 1 with Essay 3, and of Essay 2 and Essay 4 90

5.3.1 Variance between the two essay pairs in terms of revision types 91

5.3.2 Variance between the two essay pairs in terms of revision areas 92

5.3.3 Variance between the two essay pairs in terms of revision levels 92

5.3.4 Variances between the two essay pairs for revision origins 93

5.4 Student revision in the WACMC–OF2F and OF2F–WACMC sequences 94

5.4.1 Revision types in the WACMC–OF2F and OF2F–WACMC sequences 94

5.4.2 Revision areas in the WACMC–OF2F and OF2F–WACMC sequences 95

5.4.3 Revision levels in the WACMC–OF2F and OF2F–WACMC sequences 95

5.4.4 Revision origins in the WACMC–OF2F and OF2F–WACMC sequences 96

5.5 Summary 98

Chapter 6: Writing quality from the two feedback sequences 100

6.1 Introduction 100

6.2 Research questions 100

6.3 Statistical analysis 100

6.4 Descriptive statistics of the writing scores 101

6.5 The students' first and last drafts 106

6.6 Student writing quality in the two feedback sequences 107

6.6.1 Variance within each feedback sequence 107

6.6.2 The students' writing from the two feedback sequences 109

6.7 Summary 109

Chapter 7: Student opinions ABOUT WACMC and OF2F feedback and feedback sequences 110

7.1 Introduction 110

7.2 Research question 111

7.3 The usefulness of WACMC and OF2F peer feedback 111

7.3.1 On textual usefulness 111

7.3.2 On cognitive usefulness 114

7.3.3 On motivational usefulness 116

7.4 Students' descriptions of their feedback strategies 117

7.5 Students' descriptions of their revision strategies 120

7.5.1 Students' revision strategies 120

7.5.2 When students decided to use their peers' comments 121

7.6 Student opinions about the two feedback sequences 122

7.6.1 The WACMC–OF2F sequence 123

7.6.2 The OF2F–WACMC sequence 124

7.7 Summary 125

Chapter 8: Discussion 127

8.1 Introduction 127

8.2 Computer-mediated versus traditional peer feedback 128

8.2.1 Student feedback from WACMC and OF2F forms 128

8.2.2 WACMC and OF2F feedback and their effects on discourse functions of feedback 130

8.2.3 Student revisions from the WACMC and OF2F forms 133

8.3 The effects of sequences on student feedback, revisions, and writing quality 134

8.3.1 The effects of WACMC–OF2F and OF2F–WACMC sequences on student feedback 134

8.3.2 The effects of the WACMC–OF2F and OF2F–WACMC sequences to discourse functions 135

8.3.3 The effects of sequences on students' revisions 138

8.3.4 The effects of sequences on students' writing quality 140

8.4 The interactions of WACMC and OF2F feedback and their effects 141

8.5 Summary 145

Chapter 9: Contributions, limitations, and future research 146

9.1 Introduction 146

9.2 Theoretical contributions 146

9.3 Methodological contributions 148

9.4 Pedagogical implications 149

9.5 Limitations 152

9.6 Directions for future research 153

9.7 Summary 154

References 155

Appendices 176

LIST OF TABLES

Table 3.1 Descriptive statistics of the two data sets 33
Table 3.2 The analysis rubric of e-feedback 46
Table 3.3 Tuzi's (2004) analysis rubric for analysing student revisions 51
Table 3.4 The adapted revision taxonomy 52
Table 3.5 Coding reliability 53

Table 4.1 The areas of student feedback 61
Table 4.2 The nature of student feedback 62
Table 4.3 The areas and nature of student feedback 63
Table 4.4 The areas and nature of WACMC and OF2F feedback 64
Table 4.5 Revision-oriented functions in WACMC and OF2F feedback 66
Table 4.6 Non-revision-oriented functions from WACMC and OF2F forms 68
Table 4.7 Differences in areas and nature of feedback between Essay 1 and Essay 3 71
Table 4.8 Differences in areas and nature of feedback between Essay 2 and Essay 4 71
Table 4.9 Differences in discourse functions of feedback between Essay 1 and Essay 3: Revision-oriented functions 72
Table 4.10 Differences in discourse functions of feedback between Essay 2 and Essay 4: Revision-oriented functions 72
Table 4.11 Differences in areas and nature of feedback between Essay 1 and Essay 3: Non-revision-oriented functions 72
Table 4.12 Differences in areas and nature of feedback between Essay 2 and Essay 4: Non-revision-oriented functions 73
Table 4.13 The areas and nature of feedback in the two feedback sequences 74
Table 4.14 Revision-oriented discourse functions of feedback in the WACMC–OF2F and OF2F–WACMC sequences 77
Table 4.15 Non-revision-oriented discourse functions of feedback in the WACMC–OF2F and OF2F–WACMC sequences 78
Table 4.16 Repeated comments in the two feedback sequences 80

Table 5.1 Revision-oriented comments and actual revisions 84
Table 5.2 Revision types 85

Table 5.3 The two areas of student revisions 87
Table 5.4 Levels of revisions 87
Table 5.5 Origins of revisions 89
Table 5.6 Peer-prompted and self-initiated revisions 90
Table 5.7 Differences in revision types between two times of measures 91
Table 5.8 Differences in revision areas between two times of measures 92
Table 5.9 Differences in revision levels between two times of measures 92
Table 5.10 Origins of student revisions in the two feedback sequences 93
Table 5.11 Types of student revisions in the two feedback sequences 95
Table 5.12 Areas of student revisions in the two feedback sequences 95
Table 5.13 Levels of student revisions in the two feedback sequences 96
Table 5.14 Origins of student revisions in the two feedback sequences 97

Table 6.1 The students' writing scores for the four essays 103
Table 6.2 Descriptive statistics of the students' writing scores in the first drafts of the four essays 104
Table 6.3 Descriptive statistics of the students' writing scores in the last drafts of the four essays 105
Table 6.4 Descriptive statistics of the differences between the students' first and last drafts across the four essays..... 105
Table 6.5 Differences between the first and last drafts of student writing..... 107
Table 6.6 Variance between Essay 1 versus Essay 3 and Essay 2 versus Essay 4 108

Table 7.1 Students' comments on the usefulness of peer feedback..... 112

LIST OF FIGURES

Figure 3.1 Reviewing in Google Docs 34
Figure 3.2 Peer feedback procedures 42
Figure 3.3 Student writing with accompanying peer feedback 43
Figure 3.4 Student revisions identified and recorded using the Compare functionality in Google Docs 44

Figure 4.1 Repeated comments in the WACMC–OF2F and OF2F–WACMC sequence 81

Figure 6.1 Outliers in the students' writing scores 106
Figure 6.2 Graphic summaries of variances 108

Figure 9.1 Student revision sheet 152

LIST OF APPENDICES

Appendix 1: Student interview questions 176
Appendix 2: Writing and peer feedback survey 177
Appendix 3: Ethic approval 184
Appendix 4: Request to do research 185
Appendix 5: Letter to the Dean of the Faculty of Foreign Languages 187
Appendix 6: Student participants' information sheet 188
Appendix 7: Teacher information sheet 191
Appendix 8: Student participants' consent form 194
Appendix 9: Teachers' consent form 197
Appendix 10: Student feedback sheet in the WACMC–OF2F sequence 198
Appendix 11: Student feedback sheet in the OF2F–WACMC sequence 201
Appendix 12: Discussion in the WACMC–OF2F sequence 203
Appendix 13: Discussion in the OF2F–WACMC sequence 204
Appendix 14: Student revision sheet 205
Appendix 15: Coding definitions of discourse functions of feedback 207
Appendix 16: Definitions and example of types, areas, levels, and origins of revisions 208
Appendix 17: Scoring rubrics 211

LIST OF ABBREVIATIONS

CALL	Computer-assisted language learning
CMC	Computer-mediated communication
F2F	Face-to-face
WACMC	Written asynchronous computer-mediated communication
OF2F	Oral face-to-face
EFL	English as a foreign language
ESL	English as a second language
ICT	Information and Communications Technology
L1	First language
L2	Second language
SLA	Second language acquisition
SLW	Second language writing

DEFINITION OF TERMS

Computer-mediated communication (CMC): process of human communication via computers. This communication may be carried out in a synchronous, i.e., real time, or in an asynchronous, i.e., delayed form (Roux-Rodriguez, 2003). This study involves the use of Google Docs, a cloud-based word processor similar to Microsoft Word (MW). The main difference between Google Docs and MW, however, is that instead of storing documents on personal computer, users can save them in the cloud services in Google's online storage system (Google Drive). In this research, Google Docs is used as an asynchronous CMC for peer feedback. Even though Google Docs now allows real-time chat, the student participants of this study were requested not to use that feature. Instead they were asked to discuss feedback face-to-face. In Google Docs, the students were requested to use its editing function only, which allowed them to give comments on their peers' writing.

Peer feedback: a process in which the student writers provide reviews on each other's writing. The student feedback studied in this thesis includes written feedback given in Google Docs and oral feedback delivered face-to-face. Elsewhere, peer feedback is also called *peer response*, *peer review*, or *peer editing* (Lee, 2017; Liu & Edwards, 2018). These terms can be used interchangeably, but they differ from *peer assessment* which may refer to the act of giving feedback *and* grading a peer's work (Liu & Edwards, 2018). In my research, I use the term 'peer feedback' to refer to comments, suggestions, or evaluations the student reviewers offered their peer writers after reviewing their written work.

Revision: The term refers to any textual changes, alterations or modifications that appear in the second/last draft (Roux-Rodriguez, 2003).

Feedback mode: Two feedback modes used in this thesis include CMC (in written, asynchronous form) and F2F mode (in spoken, synchronous form), following Liu and Sadler (2003).

Feedback form: Refers to the written or spoken feedback, be it in CMC or F2F mode, following Strobl and Satar (2018). This study uses the written form in CMC and spoken form in F2F communication.

Affordance: According to McAteer, Tolmie, Duffy, and Corbett (1997), the concept of 'affordance' was first advanced by Gibson (1966) in the field of ecological psychology and

later developed by Gaver (1992) to apply to computer-mediated communication. According to Gaver, affordances refer to the properties of an object which stand in such relation to the properties of an organism that they allow some actions to be carried out by that organism. For example, in the context of CMC resources, a system which allows real-time voice chat might afford more rapid communication than a system without this functionality.

Global feedback: Feedback on idea development, organization, and content.

Local feedback: Feedback on grammar, vocabulary, spelling, and mechanics.

Global revisions: Changes to idea development, organization, and content.

Local revisions: Changes to grammar, vocabulary, spelling, and mechanics.

CHAPTER 1: INTRODUCTION

1.1 Introduction

In second language (L2) writing, feedback plays a crucial role in supporting student writing development. In comparison with discussion of teacher feedback, peer feedback research is relatively recent and less examined. Being grounded in several theoretical frameworks, such as process approach, collaborative learning theory, interactionist theory in second language acquisition (SLA), and socio-cultural theory (Ferris & Hedgcock, 2013; Lee, 2017; Liu & Edwards, 2018), peer feedback is regarded as important motivation for the multi-drafting process approach to writing (Hyland & Hyland, 2006). In EFL/ESL writing classes, peer feedback is also considered an important component of the feedback and revision process (Paulus, 1999). This is because peer feedback provides the opportunity to enhance a sense of audience awareness, contributes to learner autonomy, fosters self-reflection, and benefits both writing and language development (Berg, 1999b; Lee, 2014; Liu & Edwards, 2018; Min, 2005; Saeed & Ghazali, 2016; Tsui & Ng, 2000). Because of the benefits of peer feedback just mentioned above, and of the increasing applications of computer-mediated communication in writing classrooms, peer feedback research has been on the increase.

In the past two decades, research on peer feedback has seen positive changes. First, unlike before when studies of peer feedback most often came from ESL contexts, the U.S.A. in particular, recently more research has been reported from different contexts (Liu & Edwards, 2018). This suggests that peer feedback has gained attention from both researchers and practitioners around the world. Second, with the rapid development and application of technology, peer feedback research using CMC tools such as wikis, BlackBoard, blogs, and Google Docs has proliferated accordingly, resulting in further understanding of how technology can be integrated or assist peer feedback activity in process writing.

Of central concern to researchers is how CMC and traditional F2F peer feedback methods compare, be it in written or spoken form (Chen, 2016). To this end, research either juxtaposes or combines the two feedback modes so that comparisons can be made (Braine, 1997, 2001; Chang, 2009, 2012; Ebadi & Rahimi, 2017; Ho, 2015; Liu & Sadler, 2003; Schultz, 2000). For example, researchers can compare feedback outcomes from a CMC sequence, e.g., Word

followed by MOO[1], with an F2F sequence, e.g., paper-based feedback followed by oral feedback, in a side-by-side manner (Liu & Sadler, 2003). In their study, Liu and Sadler compared MS Word with paper-based commenting, and synchronous feedback in MOO with OF2F commenting. Another way researchers have done is to arrange several modes together so that their effects can be evaluated. Chang (2012), for instance, administered a writing cycle to her students using asynchronous CMC (within the Blackboard LMS), OF2F, and synchronous CMC for three writing steps: drafting, writing, and revising. The above-mentioned body of research, has, in the main, established that each mode has its advantages, and therefore previous research has commonly suggested that both CMC and F2F peer feedback should be used together. However, in an age where Strobl and Satar (2018) think we are "spoilt for choice" when it comes to electronic feedback tools, little has been done on asynchronous CMC, e.g., Google Docs, combined with OF2F feedback. In addition, regarding the methods of combining modes, researchers have not agreed on, when used together, how CMC and F2F modes should be sequenced. While some suggested that CMC should be followed by F2F peer feedback (Ho, 2015; Ho & Savignon, 2007; Liu & Sadler, 2003), others suggested taking an opposite order (Chang, 2012; DiGiovanni & Nagaswami, 2001). Therefore, more study on the use of CMC and F2F modes, particularly the written and spoken forms within them, and the effects of their sequences is necessary. Considering the rapid development of computer-mediated applications, such research could be helpful to writing teachers as well as to application developers who might want to better understand the affordances of modes/forms, so that technological products can be better developed and employed for educational purposes.

The preceding paragraph has provided a global view of CMC and F2F peer feedback research. Looking locally to the context of Vietnam where data of this thesis was collected, to date, only two studies have been conducted, Nguyen (2013) and Pham and Usaha (2016). In Nguyen (2013), the author evaluated the participation and interaction of student peer feedback in wikis. Pham and Usaha (2016), however, explored the effects of blog-based peer feedback on student revision. Since there are many computer-mediated applications/tools on offer, an issue which concerns teachers and researchers alike is which tool suits their purposes. It is important to consider this because tools can help fulfil teachers' goals or ruin them. On the one hand, wikis provide a favourable online environment for collaborative

[1] A MOO is an online chatroom that allows users to hold virtual real-time conversations with other users connected to the same MOO via the Internet.

writing and social interaction, whereas blogs allow students to actively construct content and establish identity online (Dippold, 2009). But on the other, wikis often involve the use of complex codes and access to specialised sites (Zheng, Lawrence, Warschauer, & Lin, 2015), whilst blogs were found not to be a helpful medium for providing feedback because they only allow for general comments, not on-the-spot or specific comments (Dippold, 2009). This suggests that further research on the affordances of other CMC tools is necessary.

In sum, Section 1.1 has established that further investigations into the effects of CMC and F2F feedback modes and the effects of different methods of combining them are needed. It has also established that further research on tools other than the much explored wikis is necessary.

1.2 Research context

So far, the research contexts in which CMC and F2F peer feedback have been studied involved ESL settings, most often the U.S.A. Recently, more research from EFL contexts worldwide have appeared (Liu & Edwards, 2018). With particular reference to the EFL context of Asia, peer feedback research has centred on student learners from China and Japan, while has remained scant in other EFL contexts such as Laos, Thailand, and Vietnam. Therefore, a call for research to be extended to other under-represented contexts in Southeast Asian countries has been made (Chang, 2016).

In the context of Vietnam specifically, the teaching and learning of foreign languages has seen various changes over time, due to the country's long colonial history. Nowadays, even though Chinese, Russian, and French are still being taught, English has taken the central position in the nation's foreign language education. It can be said that the launch of the *Đổi mới* (Renovation) policy, an economic rreform, in 1986 was the catalyst for many changes in the society, including education. Together with joining the World Trade Organisation (WTO) in 2007, the teaching of English has been much attended to with a view to serving the country's economic development and global integration.

In order to realise the goal stated above, the national English curriculum has been renewed, taking the communicative approach, which targets students' communicative competence, as the key teaching approach (Le & Nguyen, 2017). In addition, a national foreign languages project was launched in 2008, called Project 2020, to oversee the teaching and learning of

foreign languages in Vietnam. One of the highlights of the Project was a pressing call for the use of technology in teaching foreign languages. However, more focus went to using technology for teaching listening and speaking skills (Government of Vietnam, No. 2080/QĐ-TTg, 2017)[2]. As such, the remaining skills, including writing, have been left largely ignored even though the country's global integration goal should require language users to be able to both speak and write in English.

From my professional experience as a teacher of English for eight years, I believe that the teaching and learning of writing in Vietnam should receive more attention and could be better carried out. One way of improving the situation is to turn writing from a solitary activity to a more social activity. Peer feedback is an example of making writing a more social act. To this end, technology can help.

1.3 Aims and scope of the present thesis

This study is carried out with three primary aims in mind. The first aim is to examine the affordances of the two peer feedback forms: WACMC (Google Docs in this case) and OF2F. It investigates how student feedback is given in each mode separately. In detail, it explores what kinds of feedback are given and whether they are helpful to student revisions.

The second aim of the study is to examine the possible influence of two feedback sequences: WACMC–OF2F and OF2F–WACMC. As mentioned in Section 1.1, empirical evidence is needed to understand how the two forms, WACMC and OF2F, when put together in different sequences, might exert effects to student feedback, revisions, and writing quality.

The third aim of the study is to investigate the student participants' perspectives on the effects of feedback forms and sequences. These qualitative investigations of student opinions also cover the descriptions of their review and revision strategies. The purpose of doing so is to get a fuller understanding of the effects of feedback forms and sequences.

Intentionally, the present research uses an asynchronous CMC mode, i.e., Google Docs, and traditional OF2F feedback for several reasons. First, in the context of Vietnam, though teachers are becoming more and more aware of the benefits of ICT in classrooms, actual use of ICT has been modest. In a study surveying the use of ICT in the language classroom,

[2] This is a governmental document on foreign language teaching and learning in the national education system period 2008-2020.

Dang, Nocholas, and Lewis (2012) found that language teachers most often use ICT tools for listening and speaking skills. In addition, Word, PowerPoint, and search engines were most routinely used in language classrooms. The application of more complicated tools such as wikis or web-based peer review (e.g., Peerceptive®) is not yet possible at present, given constraints teachers have (Dang et al., 2012). As such, Google Docs appears to be the most suitable tool for peer feedback because of its simplicity in interface and because it is similar to others tools, e.g., Microsoft Word, with which students were already familiar. Also, except for the costs of internet access, it is free of charge, which makes it accessible to all students.

As far as oral feedback is concerned, research has established that it is an irreplaceable part of a peer feedback procedure because it creates the opportunity for clarification and negotiation of meaning, both of which are helpful to revision (Liu & Edwards, 2018). Even though oral feedback can be conducted online, via tools such as Skype, Google Hangouts, online chat in BlackBoard, etc., research (e.g., Guardado & Shi, 2007; Ho, 2015; Liu & Sadler, 2003) has established that simply replacing traditional F2F peer feedback with online CMC peer feedback is not advisable for the advantages of the traditional mode that the online mode does not possess, such as paralinguistic features.

1.4 Significance of the research

The present thesis is significant in several regards. First, it extends the extant literature on CMC peer feedback research which lacks insights into the affordances of asynchronous CMC and OF2F commenting when the two forms are used together and combined in different sequences. This study hopes that its findings will provide grounds for further research on CMC and F2F peer feedback and their effects on student writing.

Second, given the current teaching approach in Vietnam, which is still popularly teacher-led, and the notion that writing is a solitary activity (Nguyen, 2017), it is hoped that the findings of this research will provide evidence for advocating collaborative and out-of-class learning of writing, and hence will encourage students to be active in their study. Also, this research benefits writing instructors from many contexts, who seem always to have to deal with large class sizes and its accompanying challenges to the provision of feedback on student writing, in that these instructors may want to consider using peer feedback outside of class hours to give their students the opportunity to get more and ongoing feedback.

Finally, the present study provides emic perspectives from students on peer feedback. These perspectives can inform the practice of writing teachers who are considering CMC peer feedback in their classes. Further, students' perspectives can also inform the work of course designers who consider incorporating peer feedback using CMC as an official component of writing courses.

1.5 Organisation of the research

This study has nine chapters. The current chapter, **Chapter 1 – Introduction**, has made a case for the investigation of CMC and F2F modes and sequences. Following this chapter are:

> **Chapter 2 – Literature Review** surveys the extant literature related to CMC and F2F peer feedback in order to situate the present study in this tradition.
>
> **Chapter 3 – Methodology** presents the methodology for the thesis. Included in the chapter are research context, the participants, instruments, data analysis methods, and the establishment of reliability and validity.

The next four chapters present the results of the data analyses. Chapters 4, 5, and 6 present quantitative findings, and Chapter 7 reports qualitative findings. Specifically:

> **Chapter 4 – Student feedback** reports findings of the student feedback outcomes from the two feedback forms, CMC and F2F, and from the two feedback sequences, WACMC–OF2F and OF2F–WACMC. The feedback outcomes examined comprise feedback *areas*, *nature*, and *discourse functions* of feedback.
>
> **Chapter 5 – Student revision** reports findings of student revision in general and from the two feedback sequences, WACMC–OF2F and OF2F–WACMC. The report covers *types, areas*, *levels*, and *origins* of student revisions.
>
> **Chapter 6 – Writing quality** presents findings of assessment of student writing. Results of paired-samples *t*-tests will be reported to show to what extent student writing quality from the two sequences differs.
>
> **Chapter 7 – Student opinions** investigates attitudinal aspects of the student participants using CMC and F2F peer feedback by means of interviews. It reports in themes what the student participants had to say about the two forms and the two

sequences. It also reports the students' delineations of their reviewing and revising strategies.

The above quantitative and qualitative findings of the thesis are brought together in a discussion in **Chapter 8 – Discussion** in which results will be discussed in connection to the research questions. Thereafter:

Chapter 9 – Contributions, limitations, and future research concludes the thesis with a discussion on theoretical and methodological contributions, pedagogical implications, limitations, and future research.

In the next chapter, I will review the literature relevant to the present study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This thesis explores two feedback forms: WACMC and OF2F, and two feedback sequences: WACMC–OF2F and OF2F–WACMC. Its purpose is to help teachers and learners of ESL/EFL writing understand the affordances of the two forms and sequences. This chapter surveys relevant research on CMC and F2F peer feedback with a focus on student feedback, revision, writing quality, and student opinions.

The chapter begins reviewing the case for peer feedback, focusing particularly on the theoretical frameworks underpinning it, its benefits, and recent research on student feedback and revisions in EFL/ESL writings (Section 2.2). After that, the chapter examines the potential of CMC tools in facilitating peer feedback (Section 2.3). Next, how Google Docs can facilitate peer feedback is explored (Section 2.4). In Section 2.5, the chapter presents a survey of recent research on peer feedback using CMC and F2F communication, with a focus on student comments, revision, writing quality, and opinions. Then, the chapter points out the gaps in the literature and shows how these gaps are addressed in the present study (Section 2.6). The research questions guiding this research are presented in section 2.7. The last section summarises the main points of the chapter (Section 2.8).

2.2 Peer feedback in second language writing

This section demonstrates the case for the use of peer feedback in L2 writing classrooms. First, it presents several theoretical frameworks supporting peer feedback and computer-mediated peer feedback. Then, benefits of peer feedback are reviewed.

2.2.1 Theoretical frameworks for peer feedback

Peer feedback receives strong support from several theories, which can complement but at the same time overlap each other. These theories include: the interaction account of SLA, the process writing approach, and Vygotskian learning theory (Liu & Hansen, 2002). In what follows, each of these frameworks will be discussed in turn.

Developed from Krashen's (1985) input hypothesis, the interaction account (IA) of SLA recognised that input alone was not enough for language acquisition, and that interaction and learner output were also necessary (Long, 1996). The IA especially emphasised the role of F2F interaction in L2 development, the centre of which is the negotiation of meaning. The negotiation requires the learner to create productive output, and hence contributes to L2 acquisition and development (Swain & Lapkin, 1995). The IA has certain influences on process writing approach. One of those influences involves the interaction and negotiation of meaning that occur during pair/group work, which can assist acquisition by making input available and comprehensible while providing learners with important opportunities for practice, or for revision in a multiple-draft process. The second influence of the IA is that it has shaped the writing-as-a-social-activity perspective. That perspective posits that writing should create a dialogue between the reader and the writer, and writing is always an act of communication between two individuals (Hyland, 2016). As such, peer feedback has the potential for bridging student writers' work to a wider audience—those who are not merely restricted to their teacher/instructors. As Hyland and Hyland (2006) put it, effective peer response is a key element in helping novice writers to understand how readers see their work. This feedback thus offers students opportunities to improve their own written work through interaction with their peers. With reference to computer-mediated language learning (CALL) – including computer-mediated peer feedback – the IA has been used as a sound theoretical base (Levy & Stockwell, 2006). CMC tools, such as email, chat, Google Docs, and wikis, have provided language learners with even more opportunities to interact with their peers for they do not have time and space constraints as the traditional F2F mode does.

The second theoretical support of peer feedback is the process writing approach. In the 1950s when the product-oriented tradition was widely practiced, the writing process was viewed as a linear procedure in which the student writer moved through fixed steps, (i.e., brainstorming, drafting, revising, and editing) until a written product was completed. Within this tradition, also known as current-traditional rhetoric, the five-paragraph model essay was a popular teaching approach. The student writer is encouraged to mimic a model text, which is presented and analysed at an early stage. During the presentation of the model text, the writing teacher would highlight its noteworthy features and the student is expected to imitate those features in their own writing. Typically, students produce one draft and this draft is graded without the opportunity to receive feedback or to revise. As such, the product-oriented approach was criticised for its over attention to the final product, which ignores how the

product was achieved. In response to the product-oriented approach, the process writing approach was introduced to teaching pedagogy of composition to native speakers of English in the U.S.A. in the late 1960s (Javadi-Safa, 2018; Leki, 2010; Matsuda, 2003). In the 1970s and 1980s, under the influence of the cognitive process theory, writing became to be regarded as a recursive and more complex activity, involving the integration of a wide range of different skills (Flower & Hayes, 1981). Advocates of this approach emphasise that it is important to help student discover their own voice, that students get teacher and peer feedback during the drafting process, and that revision should be made (Matsuda, 2003). Adopting a view of writing as process, peer feedback can be employed at any stage in the writing process (and is not limited, for example, to steps that follow pre-writing and writing stages). It can provide a dynamic and recursive process in which feedback helps learners discover and negotiate meaning and revise their writing accordingly (Saeed & Ghazali, 2016). Peer feedback is regarded as important support for the drafting and redrafting involved in the process approach to writing (Hyland & Hyland, 2006; Zamel, 1985), especially with regard to developing audience awareness.

The third framework which supports peer feedback is the Vygotskian sociocultural theory of learning, which has been employed as a major theoretical framework in many studies of peer feedback (Hyland & Hyland, 2006). This theory views human learning as mainly a social and cultural process that occurs through meaningful negotiation and interaction between less capable learners and more knowledgeable ones, who Vygotsky called More Knowledgeable Other (MKO). MKO can be teachers, adults (such as parents or mentors), or peers (Vygotsky, 1978). The most often discussed concept in Vygotsky's theory is the Zone of Proximal Development (ZPD), which Vygotsky defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (p. 86). Later, the concept of MKO was further developed, and the associated term *scaffolding* was introduced for the first time in Bruner (1978). Bruner used the concept to describe young children's oral language acquisition, which can only happen with help from adults. This theory is thus similar to the concept of MKO in that the learning happens when an expert assists a novice or an apprentice. According to Hyland and Hyland (2006), scaffolding also comes under other labels such as *guided participation*, *negotiated interaction*, or *assisted performance*. Donato (1994) even expanded the notion of scaffolding further to make the theory more justifiable for peer

feedback activities in process writing. According to Donato, scaffolding should not only refer to experts helping novices, it should also include mutual peer scaffolding, where help/learning can go in two directions, and both writers and reviewers help to extend each other's writing competence. As such, compared with earlier interpretations of Vygotsky's theory, the expanded notion of scaffolding reflects more closely the practice of peer feedback activities.

In short, the three frameworks reviewed above provide solid ground for the use of peer feedback in L2 writing instruction. In the next section, benefits of peer feedback will be presented.

2.2.2 Benefits of peer feedback

Positive effects of peer feedback have been well documented in the literature. First, a number of studies have established that peer feedback in L2 writing leads to improved writing at all levels (Diab, 2011; Ebadi & Rahimi, 2017; Min, 2006; Ruegg, 2015; Villamil & Guerrero, 1998). These studies have shown that peer feedback helps improve the quality of student writing. For example, Min (2006) found that the trained students in their study not only incorporated a large number of peer-triggered revisions (90%), but they also made quality revisions which resulted in improved quality of texts. Meanwhile, Diab (2011) found that, compared with self-feedback, peer feedback could help EFL university students improve their writing accuracy, which could lead to better writing quality. In Villamil and Guerrero (1998), the authors reported that peer feedback had the potential to direct students' attention to both local and global issues equally. The authors suggested that peer feedback can help L2 intermediate learners realise their potential for effective revision and that peer feedback should be seen as an important source of feedback in the ESL classrooms.

Besides the potential in improving student writing quality, peer feedback also gives the student writer a sense of audience, which not only benefits the writers but also the reviewers in that it helps them develop the sense of how actual readers feel and respond to their writing (K. Hyland & Hyland, 2006; Lee, 2017; Liu & Hansen, 2002). Consequently, they will learn to write in ways that will better persuade their intended readers. Berg (1999b) identified two reasons that lead to revisions: incongruities and viable text alternatives. Incongruities refer to mismatches between a writer's intention and a reader's understanding. Writers will revise if they think their intended reader will not understand. However, recognising mismatch does

not guarantee revisions because that does not ensure the ability to produce a clearer alternative. Given that experienced writers can both sense the mismatches and offer viable solutions to the problem of incongruity (Sommers, 1980; Zamel, 1983), peer review has the potential to support both reviewers and writers become more effective communicators by self-identifying where they should revise to help their message get across. As such, over the long term, peer feedback can enhance learning autonomy and make the student writers become independent thinkers, which is the ultimate aim of teaching writing (Hyland & Hyland, 2006).

The benefits of peer feedback can also be viewed when it is juxtaposed with teacher feedback. In fact, though previous research has reported students' preferences for teacher feedback (Zacharias, 2007), several limitations exist if teacher feedback is the only source of input. This is because teacher feedback may make students become passive writers because they are highly likely to automatically adopt teacher feedback without fully understanding it. For example, in Zhao (2010), despite a higher percentage of incorporated teacher feedback, students' understanding of teacher feedback showed a lower percentage compared to peer feedback. According to Zhao, this consequence comes from the fact that Chinese students hardly ever question or challenge their teachers even though they may not fully understand teacher feedback. However, they do ask their peers during interactions for more clarification of the points they are unclear about. Looking a bit further, incorporating teacher feedback with little or no efforts would not help much for internalisation may not happen, while, as Vygotsky (1978) argued, the key to effective language development lies in its successful internalisation. In addition, due to the common time and resource constraints in ESL/EFL writing classrooms, teacher feedback as the only source of feedback appears inadequate and undesirable for the student writing process. Because of these constraints, teachers may have to rush their commenting on students' papers with "several lines of general comments" (Zhao, 2010). Consequently, a common result sees students write just one draft, and that draft is then assessed by their teachers without any revision, reflection or reconsideration—a writing procedure that works against the process approach.

In short, not only does peer feedback have the potential to help students improve their work, but it can also can help raise audience awareness. This is important, especially when writing is regarded as a social act where written work is perceived as an interaction between writers and their intended audience. Also, teacher feedback should not be the single source because it

restricts student writing to an only one audience. While feedback is indispensable to students, especially when teaching pedagogy moves from the product-driven approach to the multiple-draft process-oriented one, teachers alone find it difficult to implement this approach due to the constraints mentioned earlier. An alternative approach is peer feedback.

In the coming sections, 2.2.3 and 2.2.4, I am going to review previous research on the kinds of feedback that students offer on their peer writing and how peer feedback is used in student revisions.

2.2.3 Student feedback and revisions in ESL/EFL writing

Being a crucial component in the student writing process, peer feedback has been extensively researched. One of the biggest questions regarding peer feedback in ESL/EFL writing is whether students can offer effective comments. This is because some studies have shown that students are sometimes wary of the quality of peer review, particularly in ESL/EFL contexts, due to student belief which holds that teacher feedback is of more value for its authority and trustworthiness (Nelson & Carson, 1998; Zhang, 1995). Zhang (1995) studied opinions from eighty-one first-year students and found that 75% of them preferred teacher feedback to all other forms. As found in Sengupta (1998), students tend to trust their teachers rather than peers, believing that the teacher is the expert whereas their peers might not be knowledgeable enough to detect problems in their writing. However, other studies found favourable findings of peer feedback. For example, Mangelsdorf (1992) examined student perceptions toward peer feedback among advanced ESL students and found that 69% had positive reactions to peer reviews. Similarly, Mendonça and Johnson (1994), through the medium of interviews, found that all participants in their study found peer review helpful regarding the higher-order aspects of writing such as audience perspective and idea development. Though there has not been a settled answer to this question, there is ample evidence, as presented in Section 2.2.2, substantiating that the student peer reviewer is capable of providing useful feedback.

An array of aspects have been examined, but one important strand of inquiry is textual analyses of peer feedback in terms of areas, types, and nature (Li & Li, 2017). Previous studies have considered two categories of feedback areas, to include: global areas (e.g., idea development, content, and organisation), and local areas (e.g., wording, grammar, spelling, and mechanics. Feedback types refer to functions of comments such as evaluation (comments on the good and bad features in peer's work), clarification (asking for further explanations),

suggestion (showing specific directions for changes) (Liu & Sadler, 2003). Meanwhile, nature of feedback considers whether a certain comment is revision-oriented, evident in reviewers' intention of asking for trouble-source revisions (Li & Li, 2017), or non-revision-oriented, i.e., comments not showing specific suggestions for revisions (Chang, 2012). It should be noted here that, in the studies cited above, the nature of feedback refers to the specificity of feedback rather than the directness of feedback. Previous research has reported mixed findings in both CMC and F2F settings. On the one hand, some studies found that CMC peer feedback enables students to provide feedback that focuses more on global issues in comparison with traditional F2F feedback (e.g., Jones et al., 2006). Other research, however, reported opposite findings, showing that students make the most global-revision-oriented comments in the traditional face-to-face mode (e.g. Chang, 2012; Liu & Sadler, 2003, and Wu et al., 2015). Explaining for this finding, Liu and Sadler (2003) suggested that it could be attributed to the inherent difference between modes of communication, which means between synchronous and asynchronous interactions. Comparing two modes of feedback: CMC, which included MS Word and an online chat tool called MOO, with F2F, which included paper-based feedback and F2F oral interactions, Liu and Sadler found that students made similar number of comments on global areas in MS Word and paper commenting (both being asynchronous communication) and that global comments were minor in both modes.

There is ample evidence in ESL/EFL peer feedback research (e.g., Hu, 2005; Lam, 2010; Liou & Peng, 2009; Min, 2005, 2006; Mohammad Rahimi, 2013) substantiating that, with proper training, students are capable of proving helpful feedback, i.e., feedback which is revision-oriented in nature and on global areas. In Min (2005), for example, peer feedback training was provided for a group of Taiwanese EFL university students. The training component did not only include in-class demonstration and teacher modelling of peer feedback procedure, but it also covered two teacher-student conferences with each student outside of class. The examination of the effects of training yielded the following results: (1) after training the number of comments increased, and more comments on global areas were made, and (2) training significantly influenced students' incorporation of peer comments into text revisions and improved student writing quality. Positive findings of the effects of peer feedback training in CMC mode were also reported in Liou and Peng (2009). In this study, a two-phase training session was carried out. In the first phase, the writing teachers used peer

feedback sheets adapted from Min (2005) to guide students to offer helpful feedback. In the second phase, the teachers guided the student participants to analyse two drafts on an article and discuss the difference between them. Examples of good peer feedback were highlighted by the writing teachers. Liou and Peng found that their students made more revision-oriented comments and had more success in revising their writing after peer feedback training.

Do student incorporate peer feedback in revisions, however? This is another question central to peer feedback research. A varying degree of peer feedback incorporation has been reported in the literature. Connor and Asenavage (1994) investigated the impact of peer and teacher response on the revisions of first-year ESL students. The authors analysed students' revised drafts to determine whether student revisions came from teacher, peer, or outside feedback. Findings showed that most of the revisions did not result from either teacher feedback, which accounted for 35% of revisions, or peer feedback, which represented 5% of revisions. Instead, the majority of revisions had outside origin, influencing 60% of revisions. Tuzi (2004) examined how peer electronic feedback impacted the revisions that first-year university L2 writers made to their academic compositions. Tuzi's findings corroborated Connor and Asenavage's in that the author found most of the student revisions were self-initiated and peer feedback only contributed 15% of the total revisions. At the higher end of the spectrum, Ting and Qian (2010) studied peer feedback provided by 11 students in a Chinese EFL context and found that, of the 340 revisions made to the first drafts of an essay, 84.7% of them were the direct consequence of peer feedback.

Regarding the types of revisions that the student writers make, the answer seems to be clearer than student feedback with ample evidence showing that L2 students tend to make local revisions, i.e., changes to grammar, vocabulary, spelling, and mechanics (Can, 2017; Chang, 2009; Liu & Sadler, 2003; Paulus, 1999; Saeed & Ghazali, 2016; Shami & Mahmoudi, 2017; So & Lee, 2012; Ting & Qian, 2010), rather than global revisions, i.e., changes to content, organisation, and idea development. In Saeed and Ghazali (2016) study, the author examined modelling online peer feedback among 15 EFL students. Analyses of online feedback exchanges and written drafts showed that revisions happened at sentence, clause, phrase, word, and below-word levels – all of which were local revisions. In a study which compared peer feedback and their impacts on revision between CMC and F2F modes, Liu and Sadler

(2003) found that their student participants most often made local revisions from both modes and that global revisions were only minor.

A number of factors which might influence student revisions have been reported. First, student proficiency level was found to be one of those. A body of research has found that skilled and unskilled writers use different writing strategies (Chien, 2012; Roca de Larios, Manchón, Murphy, & Marín, 2008; Shami & Mahmoudi, 2017; Zamel, 1983). Results from this body of work showed that proficient or skilled writers are inclined to do more planning and revision at global level, while unskilled writers tend to do less planning and do more revision at the below-sentence level, e.g., word and phrase level. Zamel (1983), for example, examined the composing process of six ESL advanced writers. The author found that while all of the writers attended to surface level issues and changes, the skilled writers were inclined to be much less concerned with these at the early stage of the writing process and only attended to them toward the end of the process. The unskilled writers, on the contrary, were almost concerned with local issues from the beginning; instead of making meaning changes they focused on changing words and phrases. Corroborated results could be seen in Chien (2012). In this study, Chien used the cognitive approach of writing to explore the role of students' use of writing strategies and their writing achievements among 40 Taiwanese EFL students (20 low and 20 high achievers). The author found that compared with low-achieving students, high-achieving student writers were more aware of and focused more on making meaning changes in their revisions. It was also found in previous research that skilled writers tend to separate revising from editing, seeing the former as an ongoing and recursive process to change their writing in relation to their overall writing goals. The unskilled writers, on the other hand, do not distinguish between editing and revising (Barkaoui, 2007). To them, revision is viewed as a separate stage at the end of the writing process that involves only cosmetic changes such as those concerning grammar and vocabulary (Barkaoui, 2010).

Second, the feedback itself and its characteristics could be predictors of student revisions. A number of studies in both L1 and L2 writing research have identified the features of student comments that make them more likely to be incorporated into revisions (e.g., Cho & MacArthur, 2010; Leijen, 2017). These studies have important implications to writing class because knowing what particular characteristics of feedback are helpful to revisions enables writing instructors to train students to produce exactly that kind of feedback. In L1 research,

Cho and MacArthur studied feedback from a web-based peer review system (SWoRD™) among three groups ($N = 28$) of students who received comments from a single subject-matter expert, a single peer, and multiple peers. The participants were psychology undergraduates taking a 12-week writing intensive course in research methods of psychology. Using a protocol in their previous study (Cho, Schunn, & Charney, 2006), the authors analysed student feedback using the categories of directive (feedback that involves explicit suggestions of specific changes), non-directive (non-specific suggestions, e.g., "General, your essay could be improved if you use better grammar. I found many errors. You may also need to reread your writing and make sure some sentences are more clearly written."), and praise (encouraging remarks for a part of the whole writing), criticism (negative evaluations), summary, and off-task feedback. Results showed that non-directive feedback made by the multiple-peer group predicted complex repairs, i.e., changes at the micro-level of meaning, clarifying meaning at the sentence or paragraph level, and these repairs were associated with improved quality. In L2 research, also using SWoRD™ , Leijen (2017) explored types and traits of student feedback and how they influenced student revisions among 43 Estonian students who were in their first, second, and third year majoring in Chemistry and were taking a four-month academic writing course. Results indicated that *alteration* (one type of feedback indicating whether it points to a specific change, e.g., "I would change this sentence into 'Many people do not agree with the proposal' to make it clearer") and *recurring* (trait of feedback, different peers referred to the same/similar aspect in their feedback) are important predictors of revisions. According to Leijen, feedback that contains an *alteration* is revision-oriented. This was also concurred by researchers in L1 (e.g., Nelson & Schunn, 2009) and L2 research (e.g., Liu & Sadler, 2003). Nelson and Schunn collected 1,073 feedback segments from SWoRD. These segments were student reviews of their peers' writing. Results of analysis showed that feedback was more likely to be implemented if a solution was provided. Ferris (1997) suggested that in order for feedback to be effective, it needs to "explicitly ask or tell the student to do something." (p.332), otherwise the student writers would be unclear of what they are expected to do to improve their writing. In fact, Leijen found that students are more than twice as likely to revise comments that includes an *alteration* than those that do not. Furthermore, an *alteration* accompanied with a justification increased uptake rates by three times and a half. Regarding *recurring*, the author found that similar comments given by at least two reviewers were three times and a half as likely to be incorporated into revisions. In Leijen's study, the web-based peer review system enabled peer

reviewers to independently give feedback. However, it has remained unclear whether the same results could be found when peer reviews are given in wikis or Google Docs where reviewers can see each other's comments, or when they are given by the same reviewers who give feedback in sequential forms, such as written before oral feedback, or vice versa.

It was also reported in previous research that when reviewing writing, students may make use of affective feedback, i.e., comments that carry emotion (Nelson & Schunn, 2009), most often of which is praise. Liu and Sadler (2003) found that students were more comfortable writing praise comments, while Tuzi (2004) reported that praise was the second most common type of comments. Though often included in feedback, a typical finding is that praise almost never leads to changes in college students' writing (Cho & MacArthur, 2010; Ferris, 1997). In Leijen (2017), praise was regarded as non-revision-oriented comments and hence excluded from the analysis of student revisions. Despite this, according to Nelson and Schunn (2009), praise is still suggested in models of good feedback, including peer and teacher feedback (Hyland & Hyland, 2001), perhaps to provide necessary motivation and to enhance students' positive attitudes towards writing.

Finally, the modes of communication could be another factor influencing revisions. As will be presented in Section 2.5.1 and 2.5.2, the two mode CMC and F2F each has its own influences on student revisions.

The section above has presented three theoretical frameworks that support peer feedback: the interaction account of SLA, the process writing approach, and Vygotskian learning theory. It also reviewed major benefits of peer feedback, to include its positive effects to student writing quality and its potential in enhancing audience awareness. In section 2.2.3, student feedback and revisions were reviewed. Regarding the former, feedback types, areas, and nature were in the coverage, and for the latter, the extent to which peer feedback is incorporated, the types of revisions, and factors influencing revisions. Overall, research has provided empirical evidence to substantiate values of peer feedback as well as positive outcomes of student feedback and revisions. For both feedback and revisions, research has established that training plays an essential role. In the next section, I will go on to exclusively review peer feedback with the support of computer-mediated communication.

2.3 Computer-mediated communication peer feedback

This section examines how CMC can facilitate peer feedback. It presents several advantages that peer feedback can gain from using CMC, which could take either written or spoken form.

Over more than the past two decades, internet-connected devices have become an integral part of writing classrooms. Among many of its applications, using CMC for peer feedback has become more and more popular (Chen, 2016), and research has argued that CMC brings positive effects on peer feedback (Lee, 2017). Besides helping address the time and space constraints (Liu & Edwards, 2018), the reason for incorporating CMC in peer feedback is to increase students' motivation. Research such as Guardado and Shi (2007), Ho (2012), Liu and Sadler (2003), and Warschauer (1996) reported that the use of computers increases learners' motivation in second or foreign language writing. The presence or generation of the larger number of written comments created online than on paper is commonly used to explain for the motivation students exhibit with CMC peer feedback (Liu & Sadler, 2003). Most of these above-mentioned researchers reported that participants in their studies felt excited about the new means of communication.

Another justification for the inclusion of CMC in L2 peer feedback comes from the great capacity of information storage and instant access to feedback. Due to the affordances of technology, teachers and students can also monitor or access the students' peer feedback activities more closely and promptly than they could using traditional paper-based written feedback options (Chen, 2016). In terms of logistics, using technology helps reduce the number of hard copies teachers and students have to handle in the writing class.

In addition, research has also found that, compared with the traditional F2F peer feedback format, CMC peer feedback offers a less threatening environment for students and create opportunities for more equal participation among students (Ho & Savignon, 2007). When necessary, student identities can be made anonymous, making peer feedback more constructive and objective (Coté, 2014; Guardado & Shi, 2007; Lu & Bol, 2007) (cf. Robinson, 2002).

In sum, research has established that CMC tools can benefit peer feedback due to theirs affordances such as non-restricted time and space, enhanced motivation, and less-threatening environment. In prior research, most attention has been paid to peer feedback using wikis and blogs. However, given recent research has found that there has been a shift to other

web/cloud-based tools (Çiftçi & Aslan, 2019), little has been done on collaborative writing process, e.g., peer feedback, using Google Docs (Zheng & Warschauer, 2017).

The next section examines the potential of Google Docs as a prominent CMC tool.

2.4 Google Docs and peer feedback

In this section, I will first present some technical advantages of Google Docs (more information on the technical aspects of Google Docs used for this study can be seen in Section 3.4). Next, I will examine the affordances of Google Docs in connection with peer feedback. Then, I will point out research gaps which this thesis aims to address.

Google Docs, developed by Google and is part of Google Apps Education Edition, is a cloud-based word processor that allows users to create and share different kinds of documents (word processor documents, spreadsheets, and presentations) with their collaborators. One of Google Docs' advantages is that the tool is user-friendly because documents can be easily created, shared, and edited with multiple users (Ebadi & Rahimi, 2017). Another favourable feature of Google Docs is that users can access their document at any time, and via multiple devices such as computers, phones, and tablets, as long as they are connected to the internet. Advantages of Google Docs can also be seen when it is compared with other Web 2.0 tools, such as blogs and wikis. Not only is Google Docs more user-friendly than wikis in terms of interface, but it is also free in comparison with other charged tools such as BlackBoard, Turnitin, or SWoRD, making it accessible to all students as long as they are connected to the internet. Considering Chao and Lo's (2009) criterion in choosing a CMC tool – the ease of using it – Google Docs might be a more helpful alternative to wikis or blogs.

Having considered arguments about the technical advantages of Google Docs, this section now moves on to consider the affordances of Google Docs for peer feedback. In fact, Google Docs can support both synchronous and asynchronous editing and commenting by multiple users on different computers, allowing users to edit and revise documents anywhere and anytime (Ebadi & Rahimi, 2017; Zheng & Warschauer, 2017). Unlike synchronous commenting, asynchronous commenting allows the student reviewers to review at their own pace. Due to its time-delayed affordance, users are provided with a flexible learning environment so they have more time to think about the task at hand (Ebadi & Rahimi, 2017). Besides facilitating both real time and delayed commenting, Google Docs features a revision

history function, which automatically saves any changes users made for later reference. This function allows for more transparency and ease of use among collaborators in the writing process (Zheng & Warschauer, 2017), and can help writers and reviewers consider and reflect on potential changes and revision pathways.

Despite the above-mentioned advantages of Google Docs, only a limited number of studies have explored the impact of Google Docs for peer feedback (Ebadi & Rahimi, 2017; Zheng & Warschauer, 2017). In Apple, Reis-Bergan, Adams, and Saunders (2011), not only did the student participants report that Google Docs was more enjoyable to use than Microsoft Word, but they also wrote longer essays and were able to work collaboratively on writing more efficiently, finishing more quickly when using Google Docs. Zhou, Simpson, and Domizi (2012) investigated the impact of Google Docs on undergraduates' collaborative writing performance and learning skills inside and outside class. The researchers found that students' who used Google Docs for out-of-class writing activity developed their collaborative writing performance and learning skills. Moreover, Google Docs had a positive influence on the students' attitudes.

Other more recent studies, e.g., Ebadi and Rahimi (2017) and Seyyedrezaie, Ghonsooly, Shariari, and Fatemi (2016), similarly reported positive findings of Google Docs in connection with student writing performance. In a study by Seyyedrezaie, Ghonsooly, Shariari, and Fatemi (2016), students were assigned into either Google Docs (in written form) and OF2F commenting (blended group), or F2F commenting only, in both written and oral forms (traditional group). Results showed that the blended group had better post-test results, suggesting the potential role of Google Docs in a writing course. Similar findings were reported in research by Ebabi and Rahimi (2017), in which an experimental group that used Google Docs for peer feedback outperformed the control group which did traditional written F2F peer feedback in both short and long term performance.

Findings of the studies presented in the preceding paragraphs suggest that using Google Docs for peer feedback is helpful for EFL/ESL learners. However, research on peer feedback using Google Docs is rare, and Google Docs combined with F2F is even rarer.

This section has presented some key advantages of Google Docs. In the next section, I will present an extended survey of peer feedback, with a focus on a comparison of peer feedback from CMC and F2F feedback. More specifically, findings related to student feedback,

revision, writing quality, and student opinions will be reviewed.

2.5 Recent research in CMC and F2F peer feedback

Appearing in its early form in the 1960s, it was not until the late 1980s that computer-assisted, also known as computer-mediated communication became widespread (Kern & Warschauer, 2000). When used for peer feedback, researchers are interested in knowing how peer feedback in CMC mode compares with that in the F2F mode (Chen, 2016). The following section reviews what was found in previous research regarding CMC and F2F peer feedback.

2.5.1 Research findings in favour of CMC peer feedback mode

A number of studies comparing student feedback in CMC and F2F modes (Chang, 2012; Ciftci & Kocoglu, 2012; Liu & Sadler, 2003; Tahriri et al., 2015; Tuzi, 2004) has reported that CMC is more helpful in terms of areas (global and local), nature (revision-oriented and non-revision-oriented), and discourse functions of feedback (e.g., *suggesting*, *praising*, *clarifying*). This is because a larger quantity and a higher quality of student comments were recorded using the CMC mode than using the F2F mode. For example, Liu and Sadler (2003) found that students in CMC group, which did both written and oral commenting, not only made more comments in total, especially those in written form, but their comments were also more useful than those given by students in the F2F group. Similarly, positive findings of the affordances of CMC peer feedback were also reported in Chang (2012) who showed there were more local revision-oriented feedback (e.g., grammar and vocabulary) in WACMC (87%) than in OF2F feedback (58%). This finding suggests that WACMC facilitates student commenting at local level. The WACMC mode was also found to yield more helpful discourse functions of feedback. For example, Liu and Sadler (2003) found that the more alterations (offering specific changes) and fewer evaluations (comments on either good or bad aspects of writing) appeared in the CMC than in the F2F group. Similarly, Chang (2012), found that alterations were mainly made in written CMC feedback, accounting for 70% of all local comments, while they were not present in the OF2F form, be online of offline.

With regard to revisions, the CMC mode has also been reported to have certain advantages. Findings in Liu and Sadler (2003) and Tuzi (2004) suggested the effectiveness of CMC in several regards. First, CMC was reported to have the potential to encourage students to revise

more. In Liu and Sadler (2003), a larger number of revisions were made by the students in the CMC group (written and oral feedback) than by those in the F2F group (written and oral feedback), although most of the revisions were on local issues. Second, CMC was also found to have greater influence on the extent of revision than F2F. In a study which evaluated the effects of three feedback media (oral F2F, written F2F, and written e-feedback), Tuzi (2004) reported that students revised more at clause, sentence, and paragraph level in written CMC than in F2F mode, which, according to some authors (e.g., Alharbi, 2018; Liu & Sadler, 2003; Tuzi, 2004), could be because the word processor-like functionality in the asynchronous CMC mode makes it more convenient for editing, especially revisions beyond sentence level, than the traditional pen-and-paper method.

Affectively, preferences for CMC peer feedback have also been documented. One of the reasons given to explain students' preferences is that the CMC mode makes them more motivated. Results in Tahriri, Jaleh and Azadeh (2015), for example, showed significantly higher motivation in the two experimental CMC groups (written and oral) than in the traditional written F2F feedback group. Positive findings with respect to students' opinions were also reported in some other studies such as Cifci and Kocoglu (2012) and Liu and Sadler (2003). In the post-study interviews, students in Liu and Sadler said that they liked oral synchronous CMC peer feedback because talking with their peers via a chat tool in real time was "fun" (2003, p. 218).

In sum, the section above has reviewed research which reported the usefulness of the CMC feedback mode in comparison with the F2F mode. Next, I will look at the studies with some quite different findings.

2.5.2 Research findings in favour of F2F peer feedback mode

Some research has conversely substantiated the merits of the F2F mode. Regarding feedback areas, traditional written and oral feedback forms, when used together, were found to make students focus less heavily on local aspects. As reported in Liu and Sadler (2003), while local comments given by students in the CMC group, which carried out both written an oral feedback, were more frequent, this tendency was less significant in the F2F group, which also to performed written and oral peer feedback. Using similar feedback procedures as Liu and Sadler, Ho (2015) compared written and oral commenting from CMC and F2F feedback and found that students made more global alteration comments and fewer local alteration

comments in F2F than in CMC commenting.

It has also been argued that the F2F spoken feedback creates the opportunity to clarify uncertainties, negotiate meaning, and improve communicative competence (Liu & Edwards, 2018), as well as to question what writers and reviewers have in mind (Liu & Hansen, 2002). In fact, research has indicated that F2F spoken feedback plays an effective and irreplaceable role in a peer feedback procedure (Chang, 2009, 2012; Ho & Savignon, 2007; Liu & Sadler, 2003). Ho and Savignon (2007) surveyed student opinions about the usefulness of written CMC feedback (written comments in MS Word) and F2F peer feedback (oral comments accompanied by written notes on peer feedback sheet). Results showed that most of the participants opted for F2F peer feedback, saying it enabled them to clarify ideas and exchange opinions. In a study which examined written asynchronous and synchronous CMC peer feedback, Chang (2009) found that students did not fully understand peers' comments, which, according to the author, was due to the absence of OF2F interaction. The author concurred with Min (2005) in noting "the lack of negotiation may result in reviewers' misinterpretation of a writer's intended meaning, [which] may cause them to skip ambiguous writing problems, and ultimately lead to providing useless or unhelpful comments" (p. 59).

Together with its benefits in clarifying meaning, the benefits of F2F mode, either in written or spoken form, to revisions were also recorded. Some research noted that more peer-prompted revisions were made in this mode than in the CMC mode (e.g., Ho, 2012; Ho, 2015; Liu & Sadler, 2003; Vaezi &Abbaspour, 2015). Liu and Sadler (2003), for instance, found that a higher percentage of revisions was made using peer revision-oriented comments in the F2F than in the CMC mode (41% vs. 27%). Similarly, Vaezi and Abbaspour (2015) reported that students incorporated more peer comments in the last drafts when they worked in the F2F mode than in the CMC mode.

Concerning attitudes towards feedback modes, research has indicated written an oral F2F has an important role in the peer feedback process. In Guardado and Shi (2007), findings of students' experience with online peer feedback were not satisfactory because the student writers avoided clarifying meaning as suggested by the peer reviewers. The lack of oral F2F interactions turned peer feedback into a one-way communication process, which, according to the authors, resulted in a high percentage of comments being unincorporated. The authors recommended that oral F2F discussion should be used together with written online peer feedback for the best outcomes. Evaluating the effects of written and spoken online and F2F

peer feedback on student writing, Ho (2012) found that though students showed positive attitudes towards oral synchronous CMC feedback, they did not think it could replace oral F2F interactions. According to Ho, this was because the F2F mode has the immediacy and paralinguistic features that aid communication in ways the spoken CMC form lacks. Meanwhile, DiGiovanni and Nagaswami (2001) and Ho (2015) suggested that a preference for F2F could be because students were more familiar with this mode than with the CMC mode. In Chang (2012), the author examined three modes[3] of peer feedback: WACMC, OF2F, and SCMC for three stages of writing: brainstorming, drafting, and revising, respectively. Results presented in Chang (2012) indicated that though students expressed mixed feelings, saying that each mode had its own advantages, some students stated strongly their preferences for oral F2F feedback because of its immediacy and highly interactivity. Echoing Chang's findings, Prichard and Morrow (2017) reported that 60% of their student participants preferred oral F2F feedback to online feedback because more useful feedback was provided by their peers in this environment than in the online one.

Overall, in contrast to research presented in Section 2.5.1, studies presented in this section showed that the F2F mode has its own advantages, too, and it seems not to be able to be replaced altogether by CMC mode. As a whole, the survey of previous research on CMC and F2F peer feedback indicated that using CMC and F2F modes together is recommended.

2.6 The present study

The review above suggests that the discussion on the merits of the two feedback modes is far from being settled. While further research can be done to explore further the affordances of CMC and F2F modes, especially when more CMC tools have been developed, one that only compares CMC with F2F mode may no longer be helpful because, as argued in Chen (2016), the comparison between the two modes "could not offer a satisfying answer to the value of using the technology in the peer-feedback writing classes" (p. 368). Also, while there is a widely acknowledged suggestion that both modes should be combined (Chen, 2016; DiGiovanni & Nagaswami, 2001; Guardado & Shi, 2007; Ho & Savignon, 2007; Tuzi, 2004; Warschauer, 1996), researchers have not agreed on the methods of combination, for example,

[3]Strobl and Satar (2018) argued that synchronous and asynchronous CMC are not modes, but rather "a temporal quality of the written or spoken mode in digital communication" (p. 396). While I agreed with Strobl and Satar, in this study I use *mode* to present Chang's findings to retain the author's choice of term.

which form within each mode should be used. Some authors, such as Ho and Savignon (2007) and Liu and Sadler (2003), suggested using WACMC form *before* OF2F form. Chang (2012) and DiGiovanni and Nagaswami (2001), however, suggested putting WACMC *after* OF2F commenting. To date, only Chang (2012) has attempted to evaluate multiple feedback media. Chang found that students typically made local comments in WACMC (Blackboard), while they made balanced comments, i.e., comments that targeted both global and local areas, in OF2F feedback and SCMC (*MSN* online chat). The author therefore suggested using OF2F feedback and SCMC before WACMC, so that more global comments could be given for the first draft before local ones for the last draft. However, Chang's study is limited in that only one sequence of media of feedback was administered, leaving it unclear as to how different arrangements of them may influence feedback outcomes.

2.7 Research questions

Drawing on findings of previous research, this study was conducted to provide empirical evidence to further understand the affordances of the WACMC (in Google Docs) and OF2F form individually and in two sequences that they formed (i.e., WACMC–OF2F and OF2F–WACMC) in terms of student feedback, revision, and writing quality. The study was guided by the following research questions:

1. What are the affordances of the WACMC–OF2F and OF2F–WACMC sequences in terms of student feedback?

(a) What are the differences in the feedback generated from the WACMC and OF2F commenting forms?

(b) How does student feedback in the WACMC–OF2F and OF2F–WACMC sequences differ?

2. What are the affordances of the WACMC–OF2F and OF2F–WACMC sequences in terms of student revisions?

3. How do the WACMC–OF2F and OF2F–WACMC sequences affect student writing quality?

4. What are the students' opinions about the affordances of WACMC and OF2F commenting

and of the two feedback sequences?

2.8 Summary

This chapter has surveyed research employing CMC and F2F modes for peer feedback activities. It was found from the literature that using both modes is widely recommended. However, little is known about the most effective ways in which modes should be combined, or what influences different combinations or sequences might have on feedback outcomes, particularly with respect to student comments, revisions, and writing quality. My thesis aims to address this gap. The next chapter discusses the methods and methodologies used in this thesis.

CHAPTER 3: METHODOLOGY

3.1 Introduction

In this chapter, I will describe the methods used in the present study. I will begin with the research design (Section 3.2). Then, I will describe the research site and participants (Sections 3.3 & 3.4). Next, Google Docs and its features used for peer feedback will be presented (Section 3.5). The data collection methods and procedures will then be reported (Sections 3.6 and 3.7). Data of the thesis will be presented in Section 3.8. After that, I will describe how the data were analysed (Section 3.9). I will next discuss how the issues of reliability and validity were addressed (Section 3.10). I summarise the chapter in Section 3.11.

3.2 Research design

This thesis adopted the case study approach (Yin, 2017) with multiple data sources being used to investigate the impacts of written electronic feedback in Google Docs and oral F2F feedback as well as the sequence of feedback forms to student writing. The study used fata from student texts, which included student comments and revisions, audio-recorded discussions, post-study interviews, and questionnaire. The variables examined included student feedback, revisions, writing quality, and student opinions. This study used both quantitative and qualitative analysis approach to gain insights into the effects of WACMC and OF2F feedback and feedback sequences to EFL student writing.

3.3 The research site

Data for the present study was collected at the Ho Chi Minh University of Technology and Education (HUTE), Vietnam. During a four-year Bachelor's study programme, the participants of this research, who were training to become teachers of English for specific purposes (ESP, and English for technology in particular), were required to take five writing courses. The first two courses (Writing 1 and 2) were on paragraph writing, while the next two (Writing 3 and 4) were on essay writing. The last one (Writing 5) was on academic writing, and it was taught in the last year of the students' study. At the time the present research was undertaken, all of the 26 participants were either taking the Writing 4 course or had just finished this course. The kind of writing the present thesis targeted was the essay,

which includes an introductory paragraph that has a thesis statement, followed by two or three body paragraphs that support the thesis, and ends with a concluding paragraph, whose function is to summarise the main point of the essay. Essentially, the essay format taught at the institution was the five-paragraph essay structure. Although this format has been critically reviewed, (see, for example, Brannon et al., 2008; 2016; Wesley, 2000), in the context where this study was conducted, this essay form still prevailed, most possibly because it is regarded as helpful to prepare students for the standardized tests such as IELTS or TOEFL. As with most other tertiary educational institutions in the country, writing instructions has traditionally been product-oriented. Students write on a given topic once, and they often do not have a second chance to revise their work. Their audience is usually limited to one only: their writing teachers (Pham & Usaha, 2009).

This study was conducted outside of the students' normal class hours and under the supervision of the researcher, who at the time was not serving in the principal teaching role. During a 15-week semester, the student participants were requested to write four essays, the purpose of which were to develop student writing skills in problem-solution/cause-effect, compare-contrast, and argumentative essays.

3.4 The participants

Students who were taking or had taken Writing 4, were recruited for the study. At the time when this study took place, there were two classes in which the Writing 4 course were being taught. Invitations were sent to all 58 of the students from these two classes. The invitation included details such as who the researcher was, what the study was about, and what students were expected to do if they considered taking part in the study. In addition, the invitation stressed that participating in this research was voluntary and all data, including the formative assessment of their essays, would be used strictly for the stated research purpose.

Subsequently, 20 students from the two intact classes agreed to participate. However, because the sample was still quite small, the researcher decided to open the recruitment circle for more participants. Invitations were then sent to the students who had just finished the Writing 4 course the previous year. In the end, 30 students, aged between 19 and 21, got involved, with 20 of those being in the second year and 10 in the third year of study. However, it should be noted that since four out of 30 students had participated in a pilot prior to the main data collection, their data was excluded from the main study in order to avoid the

overfamiliarity effects. Following this, the data of the thesis was collected from the remaining twenty-six students.

The second-year and third-year students were treated as one group for two purposes: to create a larger sample size and to report the data more logically. Several grounds for the merging of the two groups of participants can be reasoned as follows. First, both groups of students shared the same drive in participating in this research: to work more on their writing skills to improve them. Unlike studies which are conducted in a nesting manner, e.g., classroom-based intervention research, this research was carried out outside the existing curriculum as a supplementary activity. This was because at the time peer feedback had not been incorporated into the study programme at this institution. Students who agreed to participate in this project understood that their work would be evaluated as to writing quality; however, they were informed that any evaluations were exclusively for research purposes, and would not affect the participants' summative evaluation in any way. As such, the participation of both groups of students were completely voluntary, and their motivations for taking part were shared: to improve their writing skills rather than to achieve higher scores at class writing tests.

Secondly, with reference to language competency, these students were categorized into the same level. As per details specified in the teaching curriculum of this university, these participants' proficiency was considered on the B2 level of the Common European Framework of Reference for Languages, or an equivalent of the upper-intermediate level. It is also worth noting that at the time when this study took place, the second-year students were taking the course Writing 4, whereas the third-year students were taking a gap year without writing. After finishing the course Writing 4 was completed, the third-year students did not take any writing classes until they entered the fourth year of study. One can argue, however, that the third-year group's writing skills might have become more advanced than that of the second-year's thanks perhaps to their taking other courses in English. This can be true to some extent, but in fact, none of the courses that the third-year students had taken targeted writing skills, for both progress assessments and final exams involved oral presentations, short answers to multiple questions, and multiple-choice tests. In addition, after reading student essays which were written previously, and which were used for peer feedback training, my evaluations were that student writing ability within each group varied, as in any writing classes, and that some students in the second-year group could even write better than

some others in the third-year group.

Thirdly, the second- and third-year students were requested to deal with the same kind of writing. Though they were asked to produce different types of tasks, e.g., problem-solution, compare-contrast, and argumentative, these tasks were similar in genre: the essay, which all students were well familiar with (Moore & Morton, 1999). The kind of essay students wrote took the form of the IELTS Writing task 2 – short essays of about 250 words about topics of general interest. Functioning within an exam-oriented setting like Vietnam, both teachers and students at this context were driven by familiarising the learners with standardized tests and test types, specifically with the IELTS writing task 2 when it came to learning writing skills.

As a side note, on the one hand, the IELTS writing task 2 is often criticized for being unauthentic compared with the university essay and its topics tend to vary in content and complexity, making it incomparable, which might consequently be unfair to writers of different backgrounds (Uysal, 2010). In addition, it has also been found that task types and task topics affect writing performances. Research to date has indicated that different topic tasks may exert different effects on writing outcomes (e.g., content, fluency, syntax, and lexis) and generally the argumentative essay is considered more difficult than others. For example, Nemati (1999), who studied the effect of four task types (i.e., narration, description, exposition, and argumentation), found that argumentation was more difficult than the rest. In Rashid and Chan (2017), the student participants were requested to write two essays, one was a narration task and the other was an argumentation task. Results showed that the students wrote more in narration while more mature syntax was found in argumentation. Regarding task topics, Ji (2011) found that their participants better performed on a more focused topic (Golf Course essay) than on a broad topic (Education Essay) in terms of fluency, syntactic complexity, accuracy, and writing quality. Student opinions revealed that they preferred the Golf Course essay since they remarked they had more to say.

Having said that, as argued by Moore and Morton (1999), the type of writing which the students of the present study were required to write for the IELTS task 2 shares the same genre and the same functions: to ask the writer to express their opinion on a topic of general interest. In addition, it is also acknowledged that making tasks comparable is a challenge (Uysal, 2010; Rashid & Chan, 2017), maybe because it is difficult, if not impossible, to

gauge the student writer's knowledge of topics and modes[4], among others. To deal with this "much neglected" (Ruth & Murphy, 1988) issue, it is commonly suggested that teachers select topics carefully so that they are as most comparable as possible (Raimes, 1983; Reid, 1990; Uysal, 2010). In my study, the topics that the students from both groups wrote were carefully selected in several regards. For the second-year group, the topics used for the Writing 4 course were agreed upon by the two in-practice teachers. Before the course began, the two teachers had met and discussed potential topics for the course, and those used for the course had both teachers' agreement. It is also worth noting that with this course, for each writing mode that the students learnt to write, two topics, which the teachers thought comparable, were available so that students could choose the topic that they thought they could comfortably write about. For the third-year students, the topics used were assigned by me. To make sure that the topics the students were going to write did not coincide with those they had written before, and that they were not unusual to their knowledge of general interest, a pool of topics were presented to the students. We then discussed them at the end of the training sessions, and only the topics which were agreed by most of the students were used.

Fourthly, regarding quantitative aspects of the four essays, as reported here and later in Section 4.4, it is reasonable for data of these two groups to be combined. In terms of length, the texts that these students wrote can be considered short texts, with average word count being less than 400 words. Compared with the university essay, which is usually more than 1,000 words long, these participants' writing is fairly short. More importantly, though the groups' writing varied in length, for the first drafts ($t(3) = 8.87$, $p = 0.003$) and last drafts ($t(3) = 5.959$, $p = .009$), their discussions (measured in minutes), the number of comments and revisions made per 100 words did not significantly differ (see Table 3.1). I included their F2F discussions because they were transcribed and used for spoken feedback, together with written feedback in Google Docs. Results of the analyses of student discussions provided further grounds for the combination of the two groups.

All things considered, including student competency, possible effects of task types and task topics, and the actual data, it seems reasonable to assume that the two groups' writing skills did not markedly differ, and all of the participants were novice writers in terms of writing experience. Therefore, I decided to treat them as a mixed-level group. All discernible differences will be discussed in the Discussion chapter of this thesis.

[4] Mode of essays.

Table 3.1 Descriptive statistics of the two data sets

	Mean length (first draft) (in words)	Mean length (last draft) (in words)	Mean length (Discussion) (in minute)	Comments per 100 words	Revision per 100 words
Second-year	376	393	10	6.14	2.0
Third-year	319	338	11	5.16	2.2
p value	.003	.009	.126	.166	.457

Note: $N = 26$

After 26 students, five males and 21 females, were recruited, they selected their own partners to form pairs for feedback purposes. The pairing process followed the self-selecting method, following Yang, Badger, and Yu (2006). Though triads or large groups of peers were reported to have certain advantages, such as a broader variety or perspectives and increased reliability of feedback (Chang, 2016), I opted for peer feedback in pairs. As argued by Paulus (1999), as well as Ferris and Hedgecock (2013), students have greater opportunities for intensive discussion and more time to engage in thoughtful consideration of peers' writing when they work in pairs. Other advocates of pair work believe that not only is peer collaboration more intimate in dyads (Ferris, 2003), but it is also optimal for teachers/researchers to closely supervise it (Liu & Hansen, 2002). Moreover, it was found in Chang (2016) that dyad peer feedback is more popular in ESL/EFL settings. Finally, in practical terms, it was more manageable for the present study to form pairs than groups, given the students' dissimilar class schedules. All students stayed in the same pair throughout the study. This decision was made following results of a poll carried out after the first half of the data collection which showed that almost all students wished to continue working with their current peers.

3.5 Commenting in Google Docs

In Section 2.4 I reviewed some advantages of Google Docs and research using Google Docs. In this section, I will present technical aspect of Google Docs when it is used for commenting.

Google Docs was used in this study as an asynchronous CMC tool for peer feedback. Google Docs was chosen due to its ease of use and free-of-charge accessibility to all students as long as they are connected to the Internet (Zheng et al., 2015). Besides, Google Docs facilitates the

invention, commenting, and editing process of writing, allowing quick, easy, and reversible reshaping of text (Kern & Warschauer, 2000).

Google Docs enables the author of the text have the option to permit their reviewers to view, edit, and comment on their writing. In addition, Google Docs also has a revision history function, making it possible to track what students did to the original text. As such, Google Docs is an ideal tool for collaborative writing in general and for peer feedback in particular. Shown in Figure 3.1 below is an excerpt of an essay reviewed by a student reviewer.

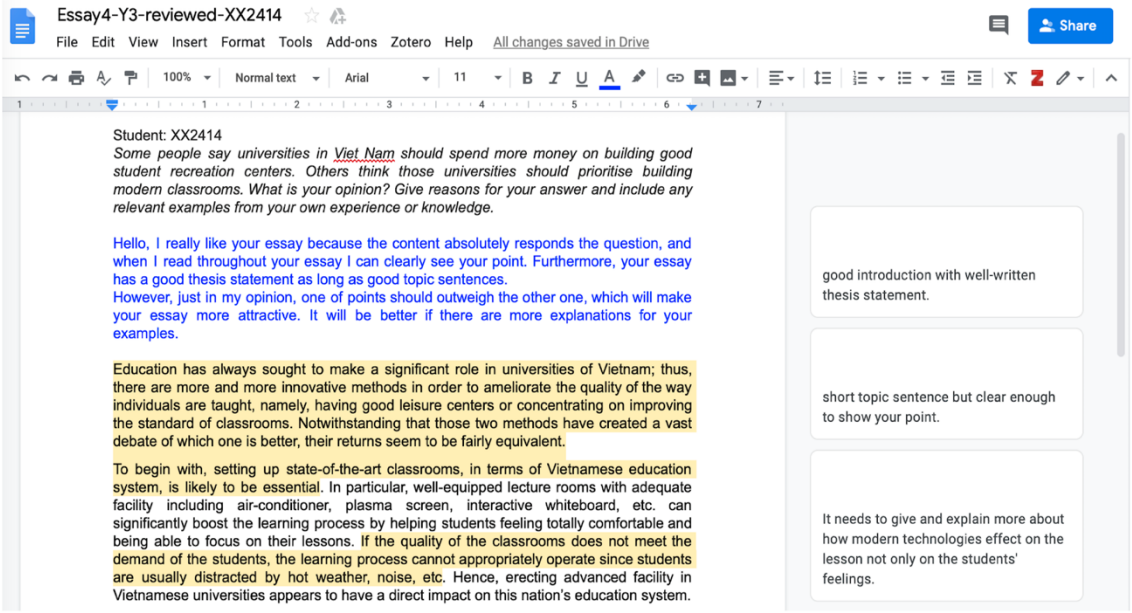


Figure 3.1 Reviewing in Google Docs

With similar editing functionality as in Microsoft Word, the student reviewers could easily give feedback in Google Docs simply by turning on the editing feature, symbolized as a pen (upper right corner of the picture). As Figure 3.1 shows, general comments are given at the top of the essay. Other detailed comments are written in the right margin. In order to know which part of the text a specific comment referred to, students only need to click on that comment.

The past three sections have described the research site, the participants, and reviewing in Google Docs. The next section outlines the data collection methods of the study.

3.6 Data collection methods

This section describes the methods I employed to collect data in this thesis. In order to

answer the research question stated in Section 2.7, a descriptive approach was used. I chose the term 'descriptive' for the present research to mean both qualitative and quantitative analysis and descriptions of phenomena will be accompanied by explanations (Ellis, 2012).

In order to understand the two feedback forms and sequences, following Hyland (2016), I exercised the rigour of combining several methods to gain a more complete picture of a complex reality. In particular, methods used in this study included text analysis, observations, which were comprised of audio-recorded F2F discussions and classroom observations, interviews, and questionnaires. The following section discusses each of these methods in turn.

3.6.1 Students' textual data

Text data is the most common object of studies in writing research (Hyland, 2015). In the present research, text data appeared in the form of written peer feedback, student revisions, and transcribed spoken discussions. Also, text data included students' first and last drafts.

3.6.2 Observations

Two methods of observations were carried out during the main data collection. The first method involved the students' audio-recorded F2F discussions, with student consent for recording being obtained in advance. Student consent was obtained for the discussions to be recorded. The second method was classroom observation which was used as a supplementary source of data. The purpose of doing classroom observation was to get further insight into students' commenting and revising behaviour. The observations were carried out twice, once with each class. The reason for limited opportunities for classroom observations was because peer feedback was not scheduled as a regular pedagogy, but was included by writing teachers as an add-on activity.

3.6.3 Interviews

Stimulated recall and semi-structured interviews with the students were conducted at the end of the semester using a set of questions adapted from Mendonça and Johnson (1994) (See Appendix 1). The purpose of doing student interviews was to obtain insights that cannot be inferred from observations alone (Mackey & Gass, 2015).

Stimulated recall was used to provide the students with contexts so that they could recall,

reflect, and spell out the rationales for their commenting or revising behaviours. During the interviews, the students were presented with their own reviewed and revised texts so that details of the students' commenting and revising could be further probed.

Together with stimulated recall, the in-depth interviews sought even more elaborations on the studied issues, i.e., student feedback, student revision, feedback forms, and feedback sequences. I followed a list of questions devised in advance as a guiding framework for every interview session. However, I relied on students' answers as prompts for follow-up questions (Hyland, 2016b; Mackey & Gass, 2015). The semi-structured format was used for two reasons. First, because I could prepare a list of questions beforehand, it made me feel prepared and appear competent during the interviews. Second, while questions were prepared in advance, this interview format also allows for flexibility. As such, it allows the participants to discuss their interpretations and perspectives, sharing ideas and opinions rather than only responding to preconceived ones. Because of its flexibility and responsiveness, the semi-structured format is widely used in writing research (Hyland, 2016).

In this study, individual interviews were carried out instead of group interviews. The reason for this decision was because individual interviews were argued to yield significantly more relevant and unique ideas related to the topic under examination (Heary & Hennessy, 2006). In addition, Guest, Namey, Taylor, Eley, and McKenna (2017) found that individual interviews were more effective at generating a broad range of items. This means individual interviews allow for more in-depth discussion on the concerned issues. In the present study, each interview lasted for around 45 minutes, during which the student participants were encouraged to speak English because it was their target language. However, they were also told they could use their mother tongue, Vietnamese, for precision, if necessary.

Finally, the stimulated recall and semi-structured interviews helped ensure reliability because the researcher could cross-check consistency of the student answers. For both stimulated recall and in-depth interviews, I tried to take a neutral stance to avoid judgement or biases that may arise when an interviewer seeks support for his or her pre-determined concepts (Cohen, Manion, & Morrison, 2017). During the interviews I observed and listened carefully to the interviewees, with occasional back-channelling supportive responses such as 'I got it', 'uh-huh', 'yes', etc. When I needed to ask further, I usually started with *Why*-focused questions. For example, 'Why do you/don't you incorporate this comment?', or 'Why do you think your peer's feedback is useful?' I also asked some other question forms, e.g., 'Could

you please say a little more about that point?', or 'Could you explain a little?' for further elaborations. After each interview, I made notes on the details I found striking for future reference. For the parts where students spoke in Vietnamese, translations into English were provided, and the original speech in Vietnamese was kept in brackets next to the English translations for research purposes.

3.6.4 Post-study questionnaire

The questionnaire was completed by the participants as the last part of the data collection. It was self-administered and delivered electronically through Qualtrics® – a survey tool which allows researchers to collect responses via the Internet and supports data analysis afterwards. Several types of questions were employed, such as the 5-point Likert scale (with one indicating strong disagreement to five indicating strong agreement), multiple choice, and open-ended response items.

This 25-item survey instrument was divided into four parts, to include: (a) peer feedback forms and sequences, (b) in-class peer feedback, (c) teacher feedback, and (d) demographic information. The survey can be seen in Appendix 2.

The first part of the survey, which was comprised of fifteen questions, was designed to investigate the most important issue of the present thesis: student opinions on the usefulness of peer feedback, and the influences of forms and sequences. The survey also probed further in getting more details of the students' reviewing and revising strategies.

The above section was followed by a second section on in-class peer feedback activities which the students had done under their writing teachers' instruction. The purpose of this section was to get to know the history of the previous peer feedback activities that the students had done. The results of this section could help explain their present commenting and revising behaviours.

The third section, which had four questions, was on teacher feedback. Acknowledging that students are likely to imitate their teachers in giving feedback, this section investigated the most concerning issues regarding teacher feedback such as the amount of feedback, its usefulness, and the focus of feedback.

Lastly, the survey had four more items on the students' demographic information. Covered in

the survey were questions on the length of time students had been learning English, and how they prioritised the four language skills.

Together, the questionnaire survey aimed to provide further information to supplement the results obtained from the text analyses and interviews.

3.7 Data collection procedures

In what follows, I will present the data collection procedures. The section includes three main issues: Ethics, piloting, and the main data collection.

3.7.1 Ethics

I obtained ethics approval from the Human Ethics Committee, Victoria University Wellington, New Zealand in order to collect data with student participants. I also received permissions from the Dean of the Foreign Languages Faculty at the HUTE and of the two in-service writing teachers. The permissions allowed me to be able to approach the potential participants. All people involved, i.e., the Dean of Faculty, teachers, and students, were introduced to the research through written accounts and their consent was obtained before the data collection. The related forms can be seen in Appendices 3–9.

Important points emphasised with the student participants were, first, that participating in this research was voluntary and should not interfere with their academic performance because their teacher's assessment and mine would be carried out independently from each other. However, taking part in my study might help them improve their writing scores because their essays would be reviewed by their peers and then revised before being sent to their teachers for assessment. Second, the students were informed that they reserved the right to withdraw from my research at any point if they so wished. The students were also encouraged to consult anyone they wished to e.g., teachers, classmates, families, before participating. Additionally, I told the students that their identities would not be identified in anyway because I would use pseudonyms throughout.

In this research, I was an outside researcher rather than a writing teacher. By serving this role, I hoped the authoritativeness that students may have from their teachers was reduced.

3.7.2 Piloting

My study was trialled three weeks prior to the main data collection. The purpose of this pilot study was to test procedures and make necessary revisions to the research instruments. In addition, because I had not previously worked at this university, learning about a new setting was important. Besides testing my research instruments, I also needed to build rapport with my participants, learning as much as I could about them, getting used to logistic issues, and evaluating possible risks. Building data-collecting skills was another crucial purpose.

First of all during the pilot, the four participants were requested to attend two training sessions. One session was on how to give useful feedback (both in written and spoken forms) and how to revise after receiving feedback, and the other was on how to give feedback in the two sequences: WACMC–OF2F and OF2F–WACMC. In total, the two training sessions took eight hours (four hours each). The students were provided with peer feedback sheets (see Appendices 10-11). The peer feedback sheets were adapted from Min (2005, 2006), in which prompts helped guide the students through different stages of the reviewing procedures, depending on the feedback sequence being used. That means the peer feedback sheets were tailored to the feedback sequences, i.e., WACMC–OF2F sequence and OF2F–WACMC sequence. While in the WACMC–OF2F sequence, the student discussions followed electric written feedback in Google Docs, in the OF2F–WACMC sequence, however, they preceded it. Following these procedures, instructions to OF2F interactions in the two sequences differed. For more detail, see Appendices 12-13.

Due to limited time, instead of asking the students to produce new writing, I asked them to have two essays they had written earlier with them so that I could walk them through the commenting and revising procedures in both sequences. For both sequences, the instructions covered issues such as how to upload writing onto Google Docs, how to share it with their reviewer, how to make comments, and how to respond to peer's feedback.

In peer feedback research, researchers tend to pay more attention to training students to give feedback (e.g., Altstaedter, 2018; Berg, 1999a; Min, 2006; Rahimi, 2013) and focus less on guiding students to revise their work using peer feedback. In this study, I developed a revision sheet (see Appendix 14) with the purpose of helping students learn how to deal with the feedback they received to prepare a revised draft. The development of the sheet was based on suggestions in Liu and Hansen (2002).

The focus of training on peer feedback was developed based on previous research (Berg, 1999b; Min, 2005; Rahimi, 2013). Essentially, the training aimed to help the students to give balanced feedback that targets both content and form. This is because over-attention to content, which could benefit peer feedback (Leki, 1990), might not be suitable for EFL students who "are still grappling with English in expressing their ideas" and hence may "need input on both content and form so that they can generate writings that are rich and organised in content and acceptable in form" (Min, 2005, p. 305). Adopting Min's perspective, the training in the present thesis aimed to guide the students to offer balanced feedback and to start commenting on global issues before commenting on local ones. In addition, the training stressed the importance of pairing praise and criticism, criticism and suggestion, and praise-criticism-suggestion patterns.

At the end of the pilot study, the students were also asked to do one-on-one interviews with me before taking a survey. All of the data and information collected from this pilot study was used to hone my research instruments as well as my data collection skills.

Several adjustments to the research instruments were made after the pilot study. These were based on the tentative findings of the pilot study. First, the feedback and revision sheets were edited to make sure the language was simple and easy to follow. This was because one student told me she did not understand one of the questions in the peer feedback sheet, which initially asked, 'Does the essay make sense to you?' However, a rephrasing of 'Can you see the writer's purpose in the essay?' made more sense to her. Another example was that a subject from the first pilot reported that he did not understand what 'get side-tracked' was. An equivalent but simple word, 'irrelevant', was used in the peer feedback sheet, and no one from the second pilot and the main study asked for meaning of that word.

Second, the peer feedback sheets were reduced in length and with fewer prompts following students' suggestions. This was to help prevent students from becoming confused and overwhelmed due to dealing with too much information.

This section has reported ethics and piloting. In the next section, I will present on the main data collection.

3.7.3 Main data collection

The main data collection had two components: the peer feedback training and the data

collection. The following paragraphs outline these.

The main data collection started off with the 26 participants being trained to do peer feedback and revision in the two feedback sequences. This training was carried out two weeks prior to the semester. The training process was similar to the training conducted in the pilot study. Also, it was conducted with small groups of no more than four students each time, so that they could have hands-on experience in practicing giving feedback in Google Docs, as well as have the opportunity to ask questions if needed. However, unlike the pilot, the students were not asked to participate in an interview or take a survey immediately after the training because these two methods were carried out at the end of the data collection.

As with the pilot, the student participants were also requested to bring two essays which they had written previously to the training: one was used for the WACMC–OF2F sequence, the other for the OF2F–WACMC sequence. Peer feedback and revision sheets, which had been revised after the pilot, were also provided to help the students during the training.

At the end of each training session, I checked with the students whether they had any concerns about the process. Most of the students said they found my verbal instructions as well as the feedback/revision sheets easy to follow. However, several questions came up, most of which concerned editing in Google Docs. These questions were then addressed. In total, each student went through four hours of training.

After the two-week period involving these training sessions, the main data collection began. During a fifteen week long semester, the students wrote four essays, which were used for peer feedback activities. For the first and third essays, the students did peer feedback and revision in the WACMC–OF2F sequence, whereas for the second and fourth they used the OF2F–WACMC sequence. The research used this design to counterbalance the possible effects of the carryover effects (Foley, 2004). This means the WACMC–OF2F sequence was used with the first and third essays, while the OF2F–WACMC sequence was used with the second and fourth ones. The feedback procedures from the two sequences are illustrated in Figure 3.2.

As can be seen from the above figure, the two sequences share some similarities. First, in both sequences, the initial step involved writing the first drafts of the assigned essays. Then the students shared their writing with their peers and with me via Google Docs. Next, in the WACMC–OF2F sequence, the students commented on their work via Google Docs before

they discussed the feedback with their peer writers face-to-face. In the OF2F–WACMC sequence, however, after reading peers' work, the students scheduled in time to meet with the writer to discuss their work before the reviewer worked on reviewing the writing. Finally, the students revised their work using their peers' feedback. In both sequences, the students wrote four formal out-of-class essays. They also did online feedback and revision out of class. They only met on campus for F2F discussion, which was audio-recorded and later transcribed for analysis. And after revising their writing, the students sent their work to their writing teachers for assessment.

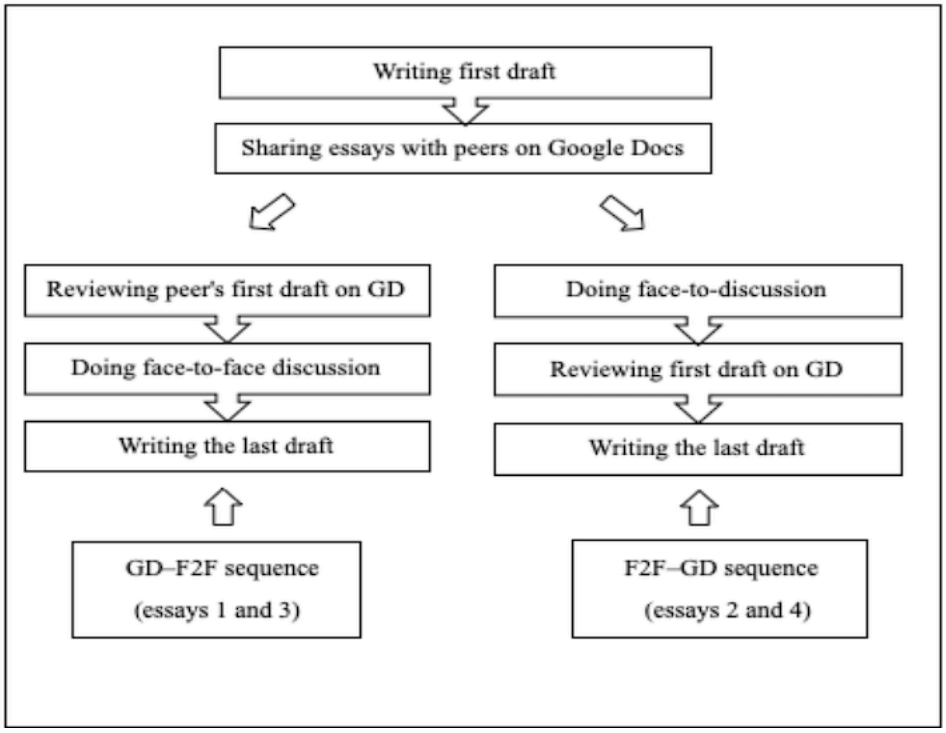
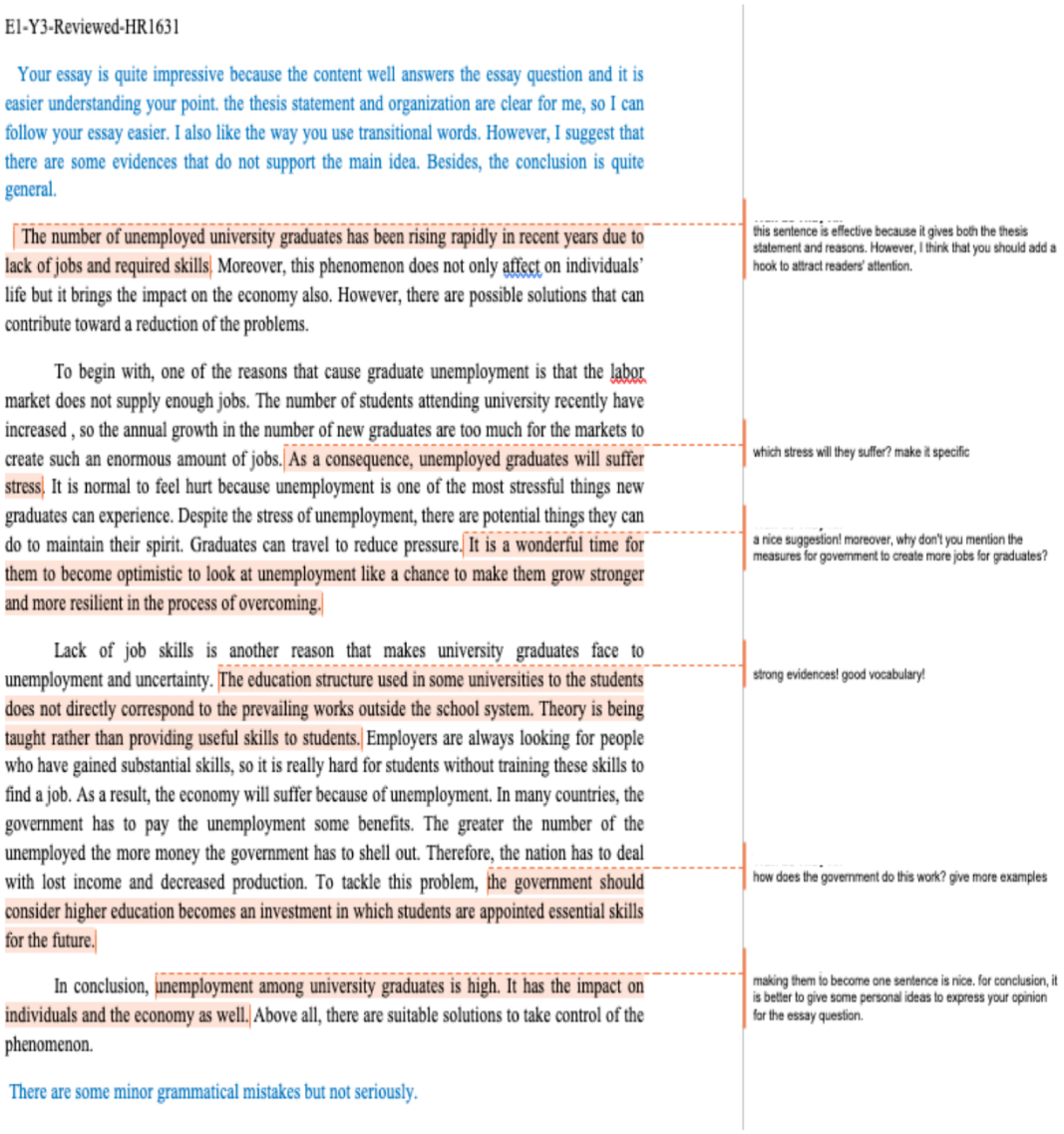


Figure 3.2 Peer feedback procedures

For each essay, the student writing with accompanying peer feedback (see Figure 3.3) was downloaded from Google Docs and saved in my personal computer to avoid being accidentally deleted.

As Figure 3.3 shows, the student reviewer offered a general comment written at the top and bottom of the essay. The comments at the top are on global aspects, such as content and idea development, while the one at the bottom is about local issues. Other in-text feedback is shown on the right of the figure. All of these feedback details were later used for feedback analyses.

With regard to student revision, after the students finished revising their work, their revised drafts were also downloaded and saved to my personal computer. Then the first drafts were compared with the last drafts using the Compare function in Microsoft Word, which is circled as shown in Figure 3.4, to see where revisions were made. Also in this figure, the edited details, e.g., deletions, addition, re-arrangements, were highlighted and underlined, as well as recorded in the right margin. These details were later used for analyses of student revisions.


E1-Y3-Reviewed-HR1631

Your essay is quite impressive because the content well answers the essay question and it is easier understanding your point. the thesis statement and organization are clear for me, so I can follow your essay easier. I also like the way you use transitional words. However, I suggest that there are some evidences that do not support the main idea. Besides, the conclusion is quite general.

The number of unemployed university graduates has been rising rapidly in recent years due to lack of jobs and required skills. Moreover, this phenomenon does not only affect on individuals' life but it brings the impact on the economy also. However, there are possible solutions that can contribute toward a reduction of the problems.

this sentence is effective because it gives both the thesis statement and reasons. However, I think that you should add a hook to attract readers' attention.

To begin with, one of the reasons that cause graduate unemployment is that the labor market does not supply enough jobs. The number of students attending university recently have increased , so the annual growth in the number of new graduates are too much for the markets to create such an enormous amount of jobs. As a consequence, unemployed graduates will suffer stress. It is normal to feel hurt because unemployment is one of the most stressful things new graduates can experience. Despite the stress of unemployment, there are potential things they can do to maintain their spirit. Graduates can travel to reduce pressure. It is a wonderful time for them to become optimistic to look at unemployment like a chance to make them grow stronger and more resilient in the process of overcoming.

which stress will they suffer? make it specific

a nice suggestion! moreover, why don't you mention the measures for government to create more jobs for graduates?

Lack of job skills is another reason that makes university graduates face to unemployment and uncertainty. The education structure used in some universities to the students does not directly correspond to the prevailing works outside the school system. Theory is being taught rather than providing useful skills to students. Employers are always looking for people who have gained substantial skills, so it is really hard for students without training these skills to find a job. As a result, the economy will suffer because of unemployment. In many countries, the government has to pay the unemployment some benefits. The greater the number of the unemployed the more money the government has to shell out. Therefore, the nation has to deal with lost income and decreased production. To tackle this problem, the government should consider higher education becomes an investment in which students are appointed essential skills for the future.

strong evidences! good vocabulary!

how does the government do this work? give more examples

In conclusion, unemployment among university graduates is high. It has the impact on individuals and the economy as well. Above all, there are suitable solutions to take control of the phenomenon.

making them to become one sentence is nice. for conclusion, it is better to give some personal ideas to express your opinion for the essay question.

There are some minor grammatical mistakes but not seriously.

Figure 3.3 Student writing with accompanying peer feedback

The peer feedback cycles continued until each student had finished working on four essays. After that, the students were invited to participate in post-study interviews with me. Fifteen

out of 26 students accepted the invitation. Semi-structured interviews were carried out with these students. The interviews were audio-recorded and transcribed for later analyses. Finally, all of the student participants were requested to take a post-study questionnaire, which was described in Section 3.6.4.

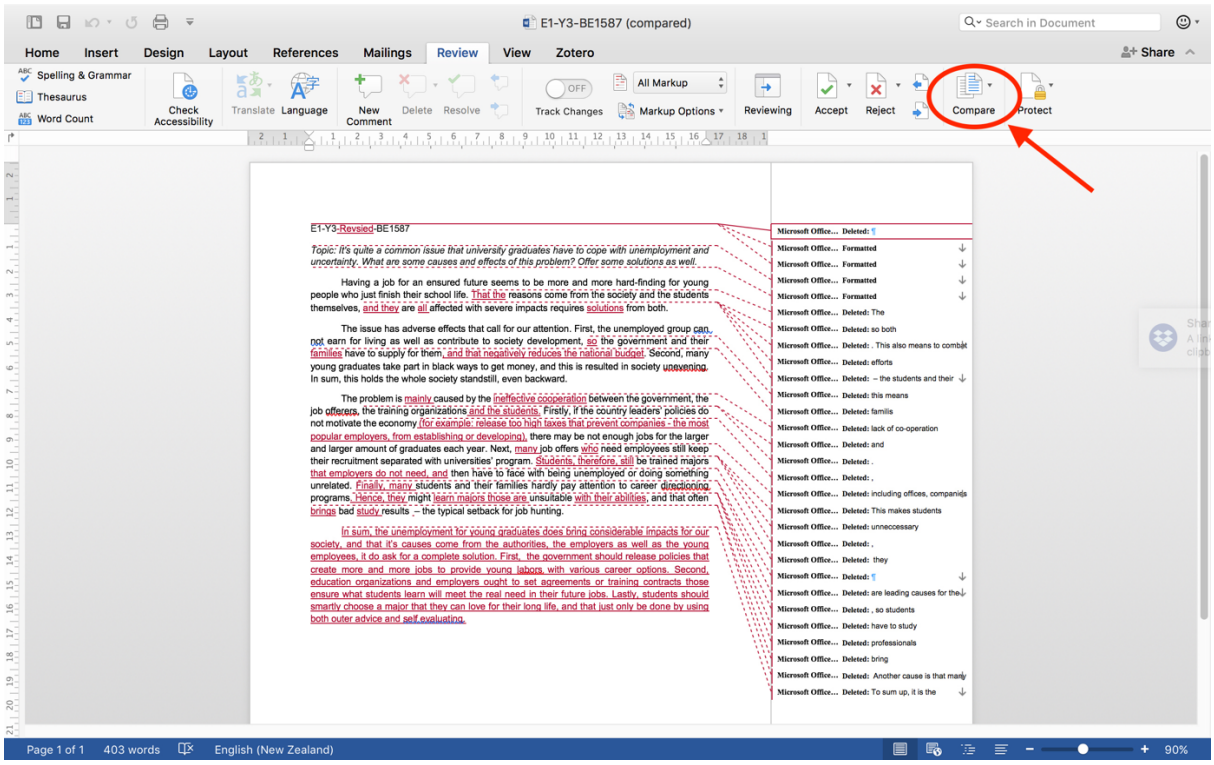


Figure 3.4 Student revisions identified and recorded using the Compare functionality in Google Docs

The last section has outlined the data collection procedures, including ethics, piloting, and the main data collection. The next section describes analysis of the data collected.

3.8 Research data

Although this research has both qualitative and quantitative data, the former formed the majority of the data collected and included students' written feedback, F2F audio-recorded discussions, student revisions, students' first and last drafts (26 students*2 drafts*4 essays = 208 papers), notes from class observations, and student interviews. Quantitative data included results from the post-study questionnaire. Once collected, the data was prepared to get it ready for analyses. Data preparations included the following activities: transcribing students' F2F discussions and student interviews, coding student feedback, revision, and interview

data, and evaluating student writing.

In the next section, I will present how the above data was analysed.

3.9 Data analysis

The analyses in this thesis took both qualitative and quantitative approaches. Regarding the qualitative approach, the analyses involved coding text data and evaluating student writing. The coding covered student feedback, student revisions, and student interviews, as will be described in Sections 3.9.1 to 3.9.3. The evaluation of student writing was carried out using scoring rubrics (Section 3.9.4).

Quantitative analysis involved quantifying student feedback and revisions from the two feedback sequences (Section 3.9.5), together with analysing questionnaire data (Section 3.9.6). Descriptive statistics were used in both cases.

In what follows, I describe the data analyses in detail.

3.9.1 Coding student feedback

The analysis of student feedback involved coding and quantifying written feedback in CMC mode and spoken feedback in F2F mode. Regarding the feedback given by the student reviewers in Google Docs, the coding covered all of the overall comments written at the top and bottom of each essay as well as all of the marginal comments. A coding rubric, presented in Table 3.2, was adapted based on Liu and Sadler's (2003) scheme. This scheme was chosen, first, because it was the most widely used in research which investigates peer feedback in EFL/ESL writing, (e.g., Chang, 2012; Ho, 2012, 2015; Li & Li, 2017; Liou & Peng, 2009; Pham & Usaha, 2016). Second, this scheme allows for a thorough investigation of student feedback. Specifically, the scheme allowed me to do a three-level examination of student feedback, including feedback *areas*, *nature*, and *discourse functions*, which is called *types* in Liu and Sadler (2003).

By areas, feedback was divided into two categories, *global* and *local* areas. Feedback on global areas concerned the larger chunks or high-order concerns of the text, including all or part of the following items: content, idea development, audience and purpose, organisation, and evidence. Local areas, or lower-order concerns, referred to feedback that is related to copy-editing, such as wording, grammar, punctuation, and spelling.

The nature of feedback considered whether comments were *revision-oriented* or *not revision-oriented*. Revision-oriented comments were likely to render revisions (e.g., 'This sentence is too long. Break it into two sentences.'), whereas it would not be the case with not revision-oriented comments (e.g., 'Your essay is very good,' or 'Hard to follow'). Revision-oriented comments are those that show the student writers where problematic issues are, e.g., this sentence, and make a suggestion to fix them. On the contrary, non-revision-oriented comments tend to be positive evaluations and/or general comments. While the former implies the writing is already good and no further work is required, the latter is not specific enough to encourage revisions.

Table 3.2 The analysis rubric of e-feedback

Area	Global areas		Local areas	
Nature	Revision-oriented	Not revision-oriented	Revision-oriented	Not revision-oriented
Function Evaluating	No example	'The essay is well written.'	No example	'Good word use.'
Clarifying	'Could you explain this idea a bit further?'	No example	'What do you mean by *it*?'	No example
Identifying	'In the introduction you introduced the problem of sleep disorders of teenagers, while the essay question is about sleep deprivation, so this is off topic.'	'There is something not OK with your essay.'	'"Kinda" is informal. This sentence is not clear enough.'	'Some words you use are informal.'
Suggesting	'You should add supporting details to the second paragraph to make	'Your thesis statement is good. Keep it as it is.'	'You should use *physical issues* instead	'You may not need to work on your grammar

	your ideas more convincing.'		of *physical health*.'	because it's very good already.'
Other	'Are you sure of this point?'	'I simply don't agree with you here.'	'I don't think this word is formal.'	'Can't you use other structures?'

Note. The Other feedback function includes *disagreeing*, *questioning*, *questioning and suggesting*

Discourse functions of feedback referred to the discourse functions that the students perform on their peers' writing. Examples of these discourse functions are: suggestion, evaluation, and clarification. In the present thesis, changes were made to Liu and Sadler's scheme, however, to cater to the data of this study. In Liu and Sadler's rubric, the authors advanced four categories of feedback types, to include: *evaluating* (comments on the quality of writing), *clarifying* (asking for explanation or justification), *suggesting* (offering alternatives), and *altering* (providing specific changes). However, since no altering was recorded in my study, this function was dropped, but *identifying* (identifying problems without providing a suggestion, as in 'I think something is not ok here') was added. Also, for the comments which did not fit into any of the pre-determined groups, I put them in *Other*. Examples of the Other group are *disagreeing* (e.g., 'I don't agree with you here'), or *socialising* (e.g., 'Keep going with the revised draft or I hope you produce a better draft). Furthermore, some feedback may have the form of a question but it may play some other functions. For example, a peer reviewer asked the writer, 'Where did you get this information?' Despite taking the form of a question, this functions as a suggestion in that the reviewer expected the writer to supply the source of evidence. This kind of feedback will be coded as suggestion. Consequently, the feedback functions of my research included the following five sub-categories: evaluating, clarifying, identifying, suggesting, and Other. The adding of categories is common among researchers who study comments, such as Liou and Peng (2009), Ho (2015), Pham and Usaha (2016). For definitions of these coding categories, see Appendix 15.

In order to avoid ambiguities in analysis, the coding was based on meaningful units (Liu & Sadler, 2003). For instance, the following sentence made one unit of analysis: 'The content of

the second reason is not clear'. However, for a complex sentence like this: 'Although the supporting ideas are clear and logical, I suggest you to add a few examples to make the idea more persuasive', I divided the sentence into two units of analysis. This division was governed by meaningful unit formation. As such, the above sentence had two analysis units: 'the supporting ideas are clear and logical' and 'I suggest you to add a few examples to make the idea more persuasive.'

Below is an example of the coding of student feedback according to areas, nature, and discourse functions. A student's feedback was italicized, followed by a demonstration of how the feedback was coded:

> In this introduction, you state the problem of sleep disorders of teenagers, while the topic is problem of sleep deprivation, which is somehow off the topic, so I suggest that you should mainly state the problem of lack of sleep in the introduction.

In the first sentence of the example, the student reviewer addressed the focus of their peer's essay and pointed out that it was not exactly what the essay topic was asking. By commenting on the focus of the essay, the student reviewer was targeting the macro aspect of the text. Therefore, this feedback was coded as global area. Since the comment 'which is somehow off topic' triggers revision, it was categorised as revision-oriented. In the second part of the sentence, a suggestion was made to fix the problem: 'I suggest that you should mainly state the problem of lack of sleep in the introduction.' As a whole, the sentence was coded as global revision-oriented in terms of feedback area and nature, and as suggestion regarding discourse function.

Regarding the coding of F2F spoken feedback, similar coding techniques were applied to F2F feedback. After being transcribed, the spoken data was entered into NVivo (version 11) to be analysed. I identified feedback items and put them into the pre-defined coding categories. Apart from the categories presented in Table 3.1, two more categories were added: new feedback and repeated feedback. This was because peer feedback in this study was carried out in a two-step sequence, repeated comments were unavoidable. In addition, the researcher was also aware that spoken data is different from written data (Tuzi, 2004). For example, unlike written comments, spoken comments involved backchannel cues. However, because backchannels did not serve any reviewing purposes, e.g., clarifying, suggesting, they were not considered for coding, following Goldstein and Conrad (1990), even though they have

their own functions to play, i.e., to show that the listener is attending. Meaningful units were used to code spoken data.

As mentioned in the preceding paragraph, since peer feedback happened in a sequence, i.e., CMC before F2F feedback, or vice versa, usually, there were some overlaps or repeated feedback between the two forms. These reiterated comments were not counted as new feedback, except when additional information was added. For example, one student received this comment in Google Docs on his essay: 'I think you should replace "remarkable" with "adverse".' Later, his reviewer brought this comment up again in the F2F step, saying: 'It's better if you use the word "adverse impact" or "negative impact", or may be "bad impact". I think "remarkable", as in "remarkable achievement", is positive, not negative.' Because the comment in the CMC feedback step was then repeated in the F2F feedback step, it was only counted once. However, when snippets of information were added to the original feedback, they were counted as new entries. For example, the reviewer above added an explanation on why he thought it was better to replace "remarkable" with "adverse". He said: 'I think "remarkable", as in "remarkable achievement", is positive, not negative,' which was new information. This further provided information was then treated as new information. Consequently, the analysis rubric of F2F feedback included two more categories: repeated information and new information.

In order to avoid biases, I conducted blind coding, which means students' real names were not displayed on their writing. Instead, each student was assigned a code, generated automatically and randomly from Excel software, which was used throughout this process.

3.9.2 Coding student revisions

The analysis of revisions involved coding and quantifying what the students changed in the last drafts after receiving their peers' CMC and F2F comments on the first drafts. Two rubrics most popularly used by previous researchers to analyse student revision were originally advanced by Faigley and Witte (1981) and Sommer (1980b). I describe the schemes in these two studies below.

In Faigley and Witte's scheme, hierarchical coding was applied to each revision. The hierarchy refers to two levels of revision. At the higher level, revisions on meaning or text-based revisions are carried out; at the lower, revisions on surface or form are performed. Each

level was divided into two sub-levels: microstructure changes and macrostructure changes under the text-based level, formal changes and meaning-preserving changes under the surface level. The authors further categorised the above-mentioned sub-categories to cover even more specific changes. For example, under the Meaning/Macrostructure changes, Faigley and Witte devised six sub-categories of revision: additions, deletions, substitutions, permutations (rearrangements), distributions, and consolidations (two or more units are joined into one). See Figure 3.5 for further details of the rubric.

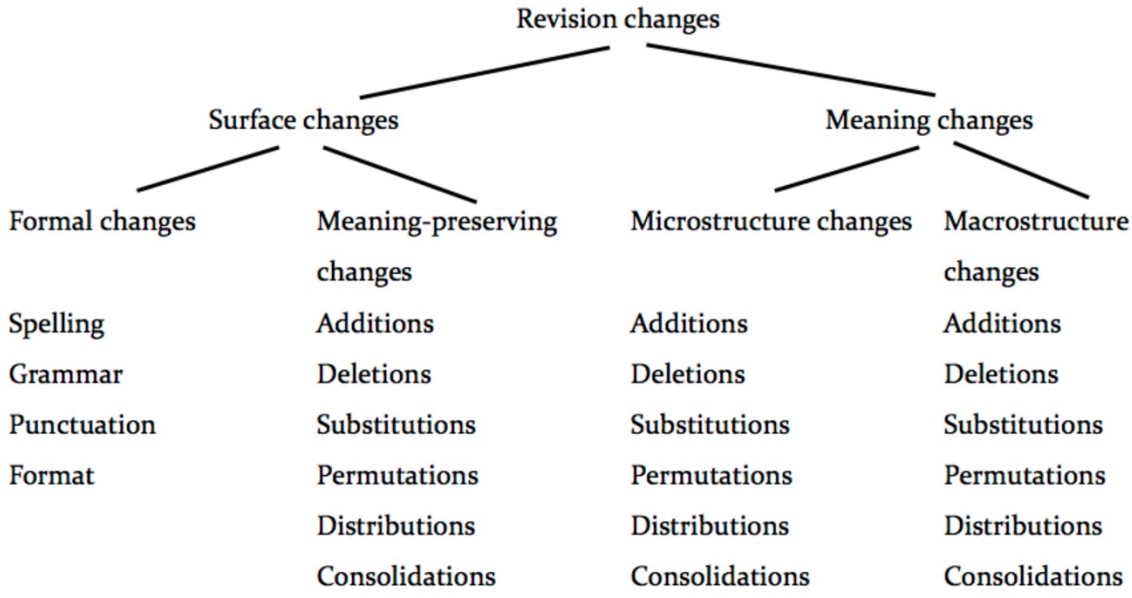


Figure 3.5 Faigley and Witte's revision taxonomy

In Sommer (1980b), however, multiple coding was applied to each change. In this study, the author advanced a three-level coding rubric of student revision, to include level and type of revision. Within each category, Sommer devised sub-categories. For example, subsumed under the level of revision were word, phrase, sentence, and theme; under the type category were substitution, deletion, addition, and re-ordering which were the revising activities that students performed. Sommer's taxonomy was later adapted by Hall (1990) who examined the stage, type, level, and purpose of student revision. Hall's scheme was in turn adapted by Tuzi (2004) who devised a framework which allowed the researchers to investigate the type, level, purpose, and origin of student revision, as can be seen in Table 3.3.

The present thesis adapted Tuzi's model to examine four dimensions of student revision, to include *types*, *areas*, *levels*, and *origins* (see Table 3.4). Some modifications were made to

meet the needs of this study. For example, Tuzi examined different levels of revision, starting from punctuation, to word, phrase, sentence, paragraph, and ending at the highest level: the essay or text level. Despite this full coverage of revision spectrum, the gap between sentence and paragraph was not addressed in Tuzi's model. That means, what if more than a sentence, but not as much as a whole paragraph, is re-worked? To address this gap, a sub-category *inter-sentence* will be added for a fuller description of revision level. In addition, Tuzi had *rewrite* as one type of revision under the umbrella category type. But I reasoned that *rewrite* could encompass other sub-categories such as addition, deletion, or substitution. Therefore, this sub-category was taken out of my model. The type category was thus comprised of six sub-categories: *addition*, *deletion*, *substitution*, *re-arrangement*, *distribution*, and *consolidation*. Next, instead of examining the *areas* of revision, the present thesis investigated its area, i.e., global or local, to align it with the same categories in student feedback. Finally, while Tuzi used several sources of feedback, including e-feedback, teacher feedback, peer feedback, and feedback from writing centre, students in my study only have three sources. Therefore, the category *origins* is made out of four sub-categories: e-feedback, oral feedback, combined feedback (feedback from both e-feedback and oral feedback), and self-revision.

Table 3.3 Tuzi's (2004) analysis rubric for analysing student revisions

Level	Type	Purpose	Stimulus
No change	Add	Clarify intended meaning	E-feedback
Punctuation	Combine	Grammar	No changes
Word	Delete	Impact	No recall
Phrase	Move	New information	Notes
Clause	No change	Structure	Oral
Sentence	Replace	Surface (spelling, capitalization, punctuation)	Self
Paragraph	Rewrite	Unnecessary	Unknown
Essay	Split		Writing center

There were several reasons behind opting for Tuzi's model instead of Faigley and Witte's, the first of which related to coding reliability. In order to ensure robustness of the features for the analysis, I solicited another coder to code four student papers using both schemes with me. After an hour of training with each coding scheme, we tried coding two papers using Tuzi's and another two using Faigley and Witte's model. The coding involved two steps:

segmenting revisions and categorising the segmented revisions into the appropriate pre-set categories. To gauge the level of agreement between me and the second coder, I used the simple percentage agreement for various categories of the two analysis models. The agreement between the two coders was computed as the number of matched segmentations and categorisations divided by the number of total segments.

Table 3.4 The adapted revision taxonomy

Level	Type	Area	Origin
Surface	Addition	Global	E-feedback
Word	Deletion	Local	Oral feedback
Phrase	Substitution		Combined
Clause	Re-arrangement		Self -revision
Sentence	Distribution		
Inter-sentences	Consolidation		
Paragraph			

Note. For coding definitions of categories and example, see Appendix 16.

Results showed that, using the .70 cut-off point (Lombard, Snyder-Duch, & Bracken, 2017), agreements were obtained with all of the coding categories for Tuzi's model. Meanwhile, we could not agree on micro-macro changes for Faigley and Witte's model, resulting in unsatisfactory agreement level (.66). Therefore, I decided to use Tuzi's model for the research. The other coder and I continued coding 15% of the student papers, or 32 essays. The percentage of texts coded was within the range of 10% (Leijen, 2017), 14% (Paulus, 1999), and 20% (Tuzi, 2004). The two coders collaboratively coded two categories of revision: area and level. The other two categories did not require inter-coding because after the first round of pilot coding, I found that they were fairly straightforward to code and hence did not cause any ambiguities. Results of the coding, presented in Table 3.5, were then entered into SPSS (version 23), a statistical package for the social sciences, to calculate agreements using Cohen's Kappa test, following Leijen (2017) and Lombard et al. (2017).

As the results of Table 3.4 show, the study achieved satisfactory reliability for all the

collaboratively coded categories. Backed by the results above, I coded the remaining data.

The second advantage of Tuzi's model compared with Faigley and Witte's meaning-formal categorization is that Tuzi's taxonomy offered a multi-layered approach to examine revision. This means more thorough analyses of student revisions could be made.

Table 3.5 Coding reliability

Student revision	Coding category	Agreement score
Area	Global	.85
	Local	.84
Level	Surface	.95
	Word	.99
	Phrase	.97
	Clause	.97
	Sentence	.99
	Inter-sentences	1
	Paragraph	1

I took several issues into careful considerations when coding student revisions. The first one related to the unit of analysis. In many cases with previous research, it was unclear what unit researchers used to code student revision (Polio, 2012). This issue is important for future replications or follow-up research. In some rare cases, the unit of analysis is explicitly stated, as in Connor and Asenavage (1994), Faigley and Witte (1981), and Hall (1990). While in the first two studies, the authors stated that they used the sentence as a unit of analysis, Hall did not define what he meant by 'discourse unit'. In this present thesis, T-unit was used as a unit of analysis, following Polio and Knibloe (1999). Developed by Hunt (1965), T-unit is defined as a main clause plus all subordinate clauses and non-clausal structures that are attached to or embedded in it. It allows for measuring the smallest word group that can be considered a grammatical sentence, and hence this was intended to be an index of syntactic complexity. In L2 writing, T-unit was used to examine student revisions, that is to measure what is developed in the subsequent or last drafts in comparison with the previous ones (Polio and Knibloe, 1999). I used this unit for two reasons. First, I obtained satisfactory inter-coder reliability, as discussed earlier. Furthermore, the sentence coding unit revealed a loop. That is, if a student made a revision which is smaller in its linguistic unit, that unit is not

legitimately applied to the sentence unit.

The second issue that the coding raised was whether incorrect revisions should be coded. To deal with this issue, the study still included incorrect revisions, following Schultz (2000) who regarded incorrect revisions as indicative of the students' effort to improve their work.

Finally, revisions were measured as the number of revisions in every 100 words in order to standardise the measurement among various lengths of writing. This method was also used by Woo, Chu, and Li (2013).

3.9.3 Coding student interviews

Interviews were conducted at the close of the project. These employed a one-to-one, semi-structured format. The qualitative findings of student interviews were intended to support quantitative findings of student feedback and revisions from the two forms and two sequences.

After being transcribed and imported into a qualitative software package (NVivo, version 11), the interviews were analysed using the thematic analysis approach (Evans, 2018). The unit of analysis employed was meaningful unit, following Hyland (2014). Drawing on this approach, I examined the transcription data recursively, identifying the meanings of expressions by grouping similar ideas, which could come in the form of phrases or complete sentences. I looked for obvious or recurring topics to ultimately establish themes. Several rounds of examining data helped me generate and refine groups of key ideas, as well as the links between them. At the point where the analyses reached saturation, which means no more new theme was found, I could gradually formulate a picture of the data. The themes and categories were refined to prepare for the write-up stage.

3.9.4 Evaluating student writing

Student writing was assessed to provide another lens to view the effects of the two feedback sequences. With respect to evaluating student writing, teachers/instructors have typically used two approaches: *holistic*, (e.g., Berg, 1999b) and *analytic* (e.g., Ho, 2012; Paulus, 1999; Woo et al., 2013). Holistic scoring , also referred to as impression scoring (Hamp-Lyons, 2016b), was developed by the Educational Testing Service. It involves evaluating based on a general sense of the entire text. Raters who use holistic scoring may judge the content,

organisation, and conventions of a text, but none of these features is evaluated independently. Rather, the score comes from the judgement of all features at once. Holistic evaluation is widely practiced for its cost-effectiveness and flexibility, making it an ideal tool for large-scale assessments (Davis, 2018; Ghalib & Al-Hattami, 2015; Huot, 1990). Analytic scoring, in contrast, allows the rater to evaluate different components separately. Text components such as content, grammar, rhetoric, organisation, and so on are pre-assigned a maximum numerical value, with decreasing step-scales or bands described within each component (Ferris & Hedgcock, 2013). The final score is the average of the sub-scores for different traits. An example of this is the IELTS writing rubric.

Though both of these scoring rubrics are commonly used in writing assessment practice, they do not come without criticisms. For holistic scoring, it is criticised for not being able to provide diagnostic information as it does not explicitly reflect components that refer to specific traits of a text such as content, coherence, and evidence. (Ferris & Hedgcock, 2013). Also, empirical evidence indicates that the most important expectation of a scoring rubric, reliability, is not secured in holistic scoring (Hamp-Lyons, 2003). Meanwhile, analytic scoring is commonly criticised for being time-consuming (Davis, 2018), which explains why it is not popular in large-scale writing assessment. Another problem of analytic scoring concerns its authenticity (Hillocks, 1995; White, 1994). White, for example, argued that measuring a text merely by tallying the accumulated component or sub-skill scores has two possible disadvantages: (1) reducing the interconnectedness of written discourse and (2) creating a false impression that writing can be understood and fairly assessed by analysing separated text characteristics. In fact, these text characteristics may cause a halo effect in which one component score may influence another, positively or negatively, raising a question about the internal criteria of the component scales (Davis, 2018; Ferris & Hedgcock, 2013).

With both scoring approaches considered, analytical scoring was used to evaluate student writing quality in the present study for several reasons. First, a number of studies have reported that results of analytic scoring is usually more reliable than that of holistic scoring (East, 2009; Ferris & Hedgcock, 2013; Hamp-Lyons, 2016a). Second, though holistic scoring has its own merits as mentioned above, it is argued not to be suitable for ESL/EFL writing assessment because of its limitations in details, such as in correction, diagnosis, and feedback, the first two of which are regarded as taking the central educational role in

ESL/EFL contexts (Hamp-Lyons, 1991). This was especially important in this study because of the researcher's evaluation purpose, which was formative rather than summative. Analytic approach provides the student writers with diagnostic information, which I believe helpful to student writing, such as information about content, coherence, evidence, etc. Third, taking into consideration Broad's (2003) concerns over the lack of contextual relevance and purposefulness of rubrics, analytic scoring was chosen because the adaptation of previously devised rubrics allowed for those concerns to be addressed. For specific scoring, rubrics for three types of essays (problem and solution, compare and contrast, and argumentative essays) were used in this study. The scoring rubrics used in the present research was adapted from Ruegg (2015) and can be seen in Appendix 17.

So as to enhance rating reliability, the evaluation of student writing went through two rounds of evaluation involving two other inter-raters. In the first round, a research colleague was solicited to rate 32 out of 208 papers, or fifteen per cent. These were the students' first and last drafts. It should be noted, however, that both raters were blind as to which version of the essays they were grading in order to avoid biases. This first inter-rater was chosen because she was an ESL teacher who was experienced in teaching second language writing. After a training session, she and I independently rated the students' papers. Later, we looked at the papers together to see how close our evaluations were to each other. Using simple calculation of percentage agreement, the difference between our scores for one essay was determined by subtracting one rater's score from the other's on the same paper. The reliability achieved was 6.4. Compared with the generally accepted reliability rate of 7.5 or higher (Zhang & Li, 2004), this score was below the acceptance level. Despite training and discussion before the evaluation, our scores differed significantly. Adjustments were made afterwards, and the reliability score was now at 7.2. Though this score is generally considered acceptable, it is still less than desired, given the higher scores generally reported in the field of second language writing research (usually 8.5 or above). It was clear to me after the first round of rating student papers with the first rater that training, rater subjectivity, and teaching experiences contributed to the final inter-rater reliability score. With regard to the training, further elaborations on the traits in the rubrics should have been made so as to make sure both raters' understandings were matched to a certain extent. In addition, subjectivity could have been reduced had there been more thorough discussion. Only after our discussion did I realise that our perceptions of the concepts in the scoring rubrics were more or less similarly understood, but rather differently practiced, especially when it came to the concept of

coherence, which is said to be usually challenging (Ruegg & Sugiyama, 2013). Furthermore, our different teaching experiences might also have contributed to the rating reliability. Because of these reasons, I decided that another round of rating should be conducted.

In the second round of rating, another rater with a more similar education and professional background was solicited. Taking into consideration the lessons learnt from the first round, mainly in the descriptions of the writing aspects written in the rubrics, the second rating was a more successful endeavour. Using Intraclass Correlation Coefficient (ICC) to calculate reliability score. Cohen's kappa showed that, at 9.5 the assessment could be considered to achieve satisfactory reliability (Zhang & Li, 2004), with $\varkappa = 9.5$ (95% CI, .300 to .886), $p <$ .05.

3.9.5 Quantifying student feedback, revisions, and writing from the two feedback forms and sequences.

After coding student feedback and revision, I quantified all of the coded items from these two types of data by tallying each from the two feedback forms and sequences. Then, I used paired-samples *t*-tests to compare student feedback, revisions, and writing quality from the two feedback forms and sequences. In order to arrive at the mean scores, I averaged the number of comments, revisions, or writing scores from each form or sequence. The study used people as cases rather than texts. This is because texts from the same individual are correlated, and they are not independent, while most analyses assume independent observations. Moreover, running analyses on all texts would result in more information about the subject-to-subject variation than it actually has (L. Woods, personal communication, September 10, 2019). These quantitative analyses were performed in SPSS (version 23).

3.9.6 Analysing questionnaire data

The questionnaire required both quantitative and qualitative analysis. The quantitative data were analysed by Qualtric® (https://www.qualtrics.com), an online data collection and analysis survey application. The qualitative data of the survey, which was collected from the open-ended responses, was coded and analysed using the thematic approach, similar to the one used for the interview data which was presented in Section 3.9.3.

The last section has presented the qualitative and quantitative analyses the data. The section described how student feedback, revisions, and writing quality were coded. It also detailed

the evaluation of student writing. The last part of the section described the quantitative analyses of student feedback, revisions, writing quality, and questionnaire survey. In the next section, I will present the strategies I applied to establish the reliability and validity of the analyses.

3.10 Strategies to enhance reliability and validity

The following section provides a stocktaking of what I did to enhance validity and reliability of the study.

3.10.1 Reliability

Reliability refers to the replicability the a study's results, meaning whether the same results can be achieved if the same methods are used (Creswell, 2014). This study met reliability standards in several ways. First, I explicitly described the research context, the research participants, and data collection methods. Second, I described in detail the analysis of different kinds of data, especially the unit of analysis and the standardisation of student revisions. Also, results of inter-coder reliability yielded satisfactory scores. In addition, I also cross-checked CMC and F2F feedback to make sure repeated feedback in either mode was coded the same. Furthermore, though the sample was small (N=26), it still enabled comparisons with findings in other contexts, provided caution was exercised. Finally, the rating of student essays achieved the consistency; according to Ferris and Hedgcock (2013), consistency is attained when a sample of student writing is assigned the same rank or score after multiple ratings by the researcher and another trained rater. In this study, the formal inter-rater tests returned satisfactory results.

3.10.2 Validity

Validity of a study refers to how accurate the results are in achieving what it proposes to examine (Creswell, 2014; Mackey & Gass, 2015). This study meets validity standards in certain ways. First, since it set out to investigate student feedback outcomes from two feedback forms and sequences, the research design took into consideration research questions and data sources. Second, not only was piloting carried out with data collection procedures, but it was also conducted with data analysis and the development of coding and rating rubrics to enhance the rigour of research. The participants taking part in the pilot study were not the same as the participants in the main study. This was to ensure that the students in the main

study were not overly familiar with the process. Third, the multiple sources of data allowed for support between the quantitative and qualitative findings. They also provided a triangulation between data sources, e.g., between student interviews and questionnaires. Fourth, the data of this study was collected in a naturalistic setting, which is a preferred method in L2 writing (Hyland, 2016) and enhances the ecological validity of the research. Finally, as far as statistical validity is concerned, Phakiti (2015) states that it involves using appropriate statistical tests. I consulted a statistician at my university to seek advice on the most appropriate test to use for the data (L. Woods, personal communication, February 6, 2017). We decided that, for the research questions that I asked, the paired-samples *t*-tests would be helpful to evaluate student feedback, revisions, and writing quality from two feedback sequences. However, in order to perform the chosen tests, in light of Phakiti (2015) in which the author pointed out that in order to enhance statistical validity, statistical assumptions of a particular test are met. As will be seen in the coming chapters, this concern was addressed.

3.11 Summary

In this chapter, I have presented the methodology and methods used to answer the research questions. The chapter described the research site, the participants, a CMC tool (Google Docs), data collection methods, data collection procedures, data analysis, and strategies to enhance reliability and validity.

In the next four chapters (Chapters 4, 5, 6, and 7), results of the study will be presented. The presentation of the results starts with Chapter 4, which is about student feedback from the two feedback forms and sequence.

CHAPTER 4: STUDENT FEEDBACK FROM THE WACMC AND OF2F FEEDBACK AND FROM THE WACMC–OF2F AND OF2F–WACMC SEQUENCES

4.1 Introduction

As presented in Chapter 2, there is a need to do a comprehensive evaluation of the effects of the two feedback modes, CMC and F2F, and their possible influence on feedback outcomes when they are employed together in different sequences. To address this need, the quantitative analysis of this study seeks to understand the affordances of each feedback mode – first separately and later collectively – as to how the two forms under the two modes and the two sequences they form affect peer feedback outcomes (i.e., feedback, revision, and writing quality). The qualitative analysis, which examines the attitudinal aspects of the study, offers an additional dimension to understanding student peer feedback processes.

Findings of the study will be organized in four chapters, 4, 5, 6, and 7, with the first three of these presenting the quantitative results of student feedback, revision, and writing quality, respectively, and the last presenting the qualitative results. Later, qualitative and quantitative findings will be brought together in the Discussion (Chapter 8).

This chapter (Chapter 4) presents findings of the first aspect: student feedback. It provides answers to the first research question: What are the affordances of the WACMC–OF2F and OF2F–WACMC sequences in terms of student feedback? As stated in Section 2.7, this question, however, was split into two sub-questions: (1a) What are the differences in the feedback generated from WACMC and OF2F commenting? and (1b) How does student feedback in the WACMC–OF2F and OF2F–WACMC sequences differ? To answer these questions, descriptive statistics were used.

The chapter is organised as follows. First, it presents what kinds of feedback the students offered their peer writers (Section 4.2). This section provides an overview of student peer feedback. Then, the chapter reports on feedback from the two forms: WACMC and OF2F (Section 4.3). Next, after providing a justification for the feedback outcomes of two pairs of essays to be combined: essays 1 and 3, and essays 2 and 4 (Section 4.4). Student feedback from the two sequences are examined in Section 4.5. Repetition rates of student feedback from the two sequences will be reported in Section 4.6. Section 4.7 provides a recap of the

chapter.

4.2 Student feedback

The purpose of this section is to investigate the types of comments that the student reviewers offered their peer writers in writing and in speaking using the areas, nature, and discourse functions taxonomy presented in Section 3.9.1. The subsections which follow will report what was found.

4.2.1 The areas of feedback

This section examines two areas of feedback: global or local comments. As Table 4.1 indicates, the number of global comments was found to be markedly larger than local comments, 1,173 as against 891 comments. These occurrences equalled 57% of the comments being on global issues and 43% of them on local issues. An example of a global comment is: 'You should add an example to the first idea of the second paragraph,' whereas a local comment could be: 'I think you should use a more formal word here.' One possible explanation for the substantial attention to global aspects of peer writing could have been because of the training.

Table 4.1 The areas of student feedback

Feedback nature	Global comments	Local comments
Essay 1	306	199
Essay 2	254	220
Essay 3	314	279
Essay 4	299	193
Sum	1,173 (57%)	891 (43%)

Note. $N = 26$

4.2.2 The nature of feedback

The nature of feedback considered whether each comment the student reviewer offered was likely to be taken up or not. Table 4.2 shows that the number of the revision-oriented comments was similar to that of the non-revision-oriented comments, 49% and 51% respectively.

This finding suggests that the students' comments were balanced between revision-oriented

and non-revision-oriented feedback. As will be reported later in Section 4.3.2, students' comments were comprised of multiple discourse functions, some of which were conducive to revision (e.g., suggesting, identifying, suggesting and explaining), while some were not (e.g., praising, non-specific comments). The finding reported in this paragraph suggests that besides offering feedback that the students deemed beneficial to their peers' writing (e.g., 'You should not repeat "On the other hand" many times'), they also offered feedback which was not likely to be acted upon, such as praise, as in 'I like the main ideas of your essay', or vague feedback. It should be noted that, the feedback that was praise in nature, though it was not regarded as helpful to revisions in the present research, it might have positive influence on students, for example, keeping them motivated.

Table 4.2 The nature of student feedback

Feedback nature	Revision-oriented feedback	Non-revision-oriented feedback
Essay 1	279	226
Essay 2	215	259
Essay 3	294	299
Essay 4	214	278
Sum	1002 (49%)	1062 (51%)

Note. $N = 26$

4.2.3 The areas and nature of feedback

Table 4.3 presents written and spoken feedback given by the student reviewers. When the nature and areas of feedback were brought together, results in Table 4.3 show that although more global comments were made, two thirds of them were non-revision-oriented in nature (67%), whereas only one third was facilitative of revision (33%). The local comments, however, presented quite a contrasting picture, because two-thirds of them were helpful to revision (69%) and only one third was not (31%).

Overall, findings reported in the section above have showed that the students attended more to global aspects in their peers' writing. However, most of these global comments were not conducive to revision. This finding supports the work of other studies in this area, such as Liu and Sadler (2003) and Pham and Usaha (2016), who found that most of the global comments students made did not show any potential for being incorporated in revision. Regarding

feedback nature, half of their comments were non-revision-oriented, and the other half were revision-oriented. When their comments were revision-oriented, they most often targeted local aspects of their peers' text.

Table 4.3 The areas and nature of student feedback

	Feedback	Global revision-oriented	Global non-revision-oriented	Local revision-oriented	Local non-revision-oriented
Essay 1	W	82	96	94	39
	S	59	69	44	22
Essay 2	W	31	81	108	36
	S	29	113	47	29
Essay 3	W	51	96	134	40
	S	47	120	62	43
Essay 4	W	46	124	44	32
	S	44	85	80	37
Sum		389 (33%)	784 (67%)	613 (69%)	278 (31%)

Note. $N = 26$. Data comprise written and spoken comments, W = Written, S = Spoken

In the next section, the chapter goes on to investigate student feedback from the two feedback forms, WACMC and OF2F.

4.3 Student feedback in WACMC and OF2F commenting

This section answers the second research question: What are the differences in the feedback patterns generated from the WACMC and OF2F commenting? It examines student feedback using a three-level scheme which was comprise of areas, nature, and discourse functions. The purpose of doing this is to understand the affordances of the two feedback modalities: asynchronous CMC feedback given in Google Docs and that given via the traditional method of F2F review.

4.3.1 The areas and nature of WACMC and OF2F feedback

This section examines two aspects of student feedback: areas and nature, from the two feedback forms. The areas of feedback concern whether student comments targeted local or global aspects of the writing. Using a pre-determined analysis scheme, the areas of feedback

in this study consider two domains: feedback on global issues, which consists of comments on organization, idea development, and content, and feedback on local issues, which concern grammar, vocabulary, spelling, and mechanics. The nature of feedback considers whether a certain comment is helpful to revisions or not. Two categories of feedback were pre-determined for analyzing feedback nature: revision-oriented and non-revision-oriented, and all measurements were calculated per 100 words to standardize data. In what follows, the areas and nature of feedback from WACMC and OF2F commenting will be presented.

Findings of the analysis of the areas and nature of feedback indicated that, as shown in Table 4.4, three out of four aspects of feedback studied had more comments in WACMC than in OF2F commenting, evident through the mean scores. Global non-revision-oriented comments, however, has a higher frequency in the OF2F mode. These findings suggested that, compared with OF2F feedback, WACMC was used as a major commenting medium.

Table 4.4 The areas and nature of WACMC and OF2F feedback

Area and nature of feedback							
Variables	Feedback form	E1	E2	E3	E4	Mean	*p* value
GL+	WACMC	0.93	0.38	0.57	0.50	0.60	.291
	OF2F	0.53	0.44	0.47	0.44	0.47	
LC+	WACMC	1.15	1.28	1.31	0.90	1.16	.002*
	OF2F	0.53	0.54	0.61	0.44	0.53	
GL-	WACMC	1.10	0.96	1.03	0.95	1.01	.449
	OF2F	0.65	1.58	1.27	1.34	1.21	
LC-	WACMC	0.44	0.40	0.37	0.40	0.40	.836
	OF2F	0.24	0.50	0.43	0.38	0.39	

Note. $N = 26$, $^*p < .05$, GL+ = global revision-oriented, LC+ = local revision-oriented, GL- = global non-revision-oriented, LC- = local non-revision-oriented, E = Essay

Four paired-samples *t* tests with an alpha level of .05 were run to understand whether these differences between the same variables significantly differed in the two forms. Results shown in Table 4.4 show that peer feedback from WACMC and OF2F differed at a significant level concerning the local revision-oriented comments only, ($M_{WACMC–OF2F} = 1.16$, $SD_{WACMC–OF2F} = 0.19$; $M_{OF2F–WACMC} = 0.53$, $SD_{OF2F–WACMC} = 0.07$; $t(3) = 10.175$, $p = .002$). This finding suggests that compared with OF2F feedback, WACMC seems to be more accommodating to student feedback when it comes to comments that concern local issues such as grammar, vocabulary, and mechanics.

Possible explanations for this finding can be found in Section 8.2 of the Discussion chapter.

4.3.2 Discourse functions in WACMC and OF2F feedback

This section investigates the second aspect of student feedback: its discourse functions. In some other studies, such as Choi (2008) and Liang (2010), they are referred to as *types* of comments. In the present study, multiple discourse functions, eleven in total, were found in the two feedback forms. However, since not all of them were regarded as being conducive to revision, they were categorized into two groups: revision-oriented and non-revision-oriented. In the following paragraphs, these functions performed in WACMC and OF2F commenting will be presented.

With respect to the revision-oriented discourse, six functions were recorded from written feedback given in WACMC and spoken feedback in OF2F commenting. Results presented in Table 4.5 indicate that the occurrences of these functions varied and overall they were more often performed in WACMC than in OF2F commenting (e.g., suggesting, identifying, clarifying, and Other). Of these, suggesting (e.g., 'I think you should paraphrase this sentence instead of reusing the sentence from the essay question') was found to be the most common compared with the remaining functions. In comparison with the OF2F feedback, WACMC appeared to be the main medium where other functions were performed, for example, identifying (e.g., 'I find this quite confusing, while the two controlling ideas seem to state only one problem, and there is no evidence or example for the first controlling idea'), clarifying (e.g., 'You mean "respect"?', 'Could you make it clear? I'm quite confused,' 'I don't understand this word "circulation"). I think you want to mention the revenue, right?' and some other minor functions such as disagreeing (e.g., 'But in my opinion this solution is not able to carry out') and questioning (e.g., 'At this point you wrote about rural area, what about the food and environment safety in the city?'), both of which were subsumed under the category Other. Two exceptions, however, were found to include: suggesting accompanied by explaining and suggesting accompanied by identifying (e.g., 'The hook sentence is not clear, the two sentences make it very confusing, they are not linked together. I suggest just keep [sic] one, omit the other') because of their higher occurrences in the OF2F form than in the WACMC form.

Paired-samples *t* tests were then run to find out whether the differences in the frequencies of these functions were significant. Results, as indicated in Table 4.5, show that suggesting,

identifying (potentially problematic issues), and suggesting combined with explaining differed at significant level. Between these three functions, suggesting and identifying appeared at higher frequencies in the WACMC form than in the OF2F form, while higher frequency of suggesting and explaining was found in the OF2F form rather than in the WACMC form.

Table 4.5 Revision-oriented functions in WACMC and OF2F feedback

Function	Feedback form	E1	E2	E3	E4	Mean	*p* value
Suggesting	WACMC	1.37	1.25	1.35	0.94	1.23	.002*
	OF2F	0.59	0.56	0.71	0.44	0.58	
Identifying	WACMC	0.32	0.18	0.22	0.20	0.23	.007*
	OF2F	0.25	0.14	0.14	0.11	0.16	
Suggesting and explaining	WACMC	0.11	0.09	0.04	0.10	0.09	.016*
	OF2F	0.13	0.15	0.08	0.15	0.13	
Suggesting and identifying	WACMC	0.09	0.05	0.06	0.09	0.07	.836
	OF2F	0.03	0.09	0.08	0.11	0.08	
Clarifying	WACMC	0.06	0.05	0.14	0.03	0.07	.244
	OF2F	0.03	0.02	0.05	0.05	0.04	
Other**	WACMC	0.13	0.04	0.09	0.04	0.08	.076
	OF2F	0.03	0.02	0.02	0.02	0.02	

Note. $N = 26$, $*p < .05$. **This function is comprised of other functions such as *disagreeing*, *questioning*, *questioning and suggesting*.

The preponderance of the suggesting and identifying functions in WACMC commenting could be attributed to the significantly larger number of the local revision-oriented comments given in this mode, as reported in Section 4.3.1, Table 4.4. This finding can be explained by the fact that, CMC (Google Docs) with the word processor-like editing functions, is conducive to making local comments. With built-in spelling and grammar checker, possibly

the student reviewers employed these features as an additional and convenient source of suggestions for feedback beside their own feedback. Meanwhile, with its immediate and direct response nature, the OF2F form tended to direct the students' attention more to global issues, especially the non-revision-oriented ones, and to put aside smaller details. That substantial comments on local issues were made in Google Docs and more comments on global issues were made in the F2F mode confirms findings of previous research such as Chang (2012) and Liu and Sadler (2003). Liu and Sadler (2003), for example, found that local comments with regard to copy-editing dominated in the WACMC form (MS Word), whereas global comments accounted for the majority in the OF2F form. Similarly, Chang (2012) also found numerous comments on local issues, e.g., sentence-level corrections, were made in the WACMC commenting (asynchronous BlackBoard) due to the delayed-time nature which the mode allows.

In the OF2F mode, there were significantly more suggestions that were accompanied by explanations. As suggested by previous researchers, (e.g., Chang, 2012; Liu & Sadler, 2003; Schultz, 2000; Wang et al. 2014), the purpose of the OF2F discussions was to provide extra feedback which might reinforce, clarify, or explain the comments given prior; the outcomes found in the OF2F mode of this study confirm that this mode served those purposes. This finding also confirms previous research which suggests that both WACMC and OF2F forms be used together.

With reference to the non-revision-oriented discourse of student feedback, this study found five functions performed in the two feedback forms (see Table 4.6). These functions were non-revision-oriented since they either addressed the affective[5] aspects of feedback (e.g., praising), or were not specific enough to trigger revisions (e.g., general suggesting and identifying). Comments such as 'You should use more academic vocabulary' (general suggesting) or 'You made many grammar mistakes' (general identifying) were not helpful for revision because they were not specific enough to point the student writers to where and what further work should be done to improve their writing. As a result, these comments were coded as non-revision-oriented functions.

For the non-revision-oriented functions recorded, three of them, i.e., praising (e.g., 'The ideas are well developed'), confirming understanding (e.g., 'I can see your point quite clearly'),

[5] A term to refer to people's feelings and emotions.

and identifying writer's purposes (e.g., 'In this essay you want to convince reader that universities in Vietnam should invest more in recreation centres?') were found to be more numerous in the OF2F form. Of these three functions, praising was most commonly practiced in both forms, evident in their highest mean scores, 1.07 and 1.13 (see Table 4.6), but more often happened in the F2F mode. This can be explained by the fact that the two forms have their distinct affordances. Unlike the asynchronous medium of Google Docs, which does not have as much of a face-threatening element attached (Ho, 2015; Liu & Sadler, 2003), F2F interactions require face-saving strategies. Obviously, the student reviewers did not want their peer writers to lose face by giving overtly critical comments (Nelson & Carson, 1998), but instead often offered comments on positive aspects, hence the use of praising. The other two functions, confirming understanding and identifying writer's purposes, were also better facilitated in the F2F mode. Finally, suggesting is an exception because this function was more often performed in CMC than in F2F mode. As reported earlier, though Google Docs was found to better enhance students' suggesting, especially on local issues, not all of these suggestions were helpful for revision because they were not specific enough.

Table 4.6 Non-revision-oriented functions from WACMC and OF2F forms

Function	Feedback form	E1	E2	E3	E4	Mean	*p* value
Praising	WACMC	1.17	1.01	1.10	0.99	1.07	.751
	OF2F	0.75	1.46	1.20	1.11	1.13	
Confirming understanding	WACMC	0.25	0.23	0.21	0.26	0.24	.267
	OF2F	0.12	0.52	0.32	0.50	0.37	
Identifying	WACMC	0.06	0.05	0.05	0.06	0.06	.827
	OF2F	0.01	0.07	0.10	0.06	0.06	
Suggesting	WACMC	0.09	0.1	0.05	0.06	0.08	.332
	OF2F	0.03	0.0	0.11	0.0	0.04	
Identifying writer's purposes	WACMC	0.0	0.0	0.0	0.0	0.00	.142
	OF2F	0	0.03	0.08	0.15	0.07	

Note. $N = 26, p < .05$

Paired-samples *t* tests were run to find out whether the differences in the frequencies of these functions from the two feedback forms were significant. Results presented in Table 4.6 show that no such significant difference was found.

4.3.3 Evaluations of the affordances of WACMC and OF2F feedback

Sections 4.3.1 and 4.3.2 have examined the effects of the two forms under the two feedback modes. Findings showed that, compared with the OF2F form, the WACMC was a more instrumental medium for students to give feedback. This feedback form had higher frequencies of feedback for three out of four aspects examined: global revision-oriented, local revision-oriented, and local non-revision-oriented comments. The OF2F form, however, had more comments that addressed global issues but were non-revision-oriented in nature. The two forms were found to be significantly different with regard to local revision-oriented feedback only, where significantly more feedback was given in the WACMC form.

As far as the functions of feedback are concerned, the WACMC form was found to be more accommodating to suggesting and identifying, while the OF2F form was found more facilitating to the suggesting accompanied by explaining function.

Overall, the WACMC form seemed to be more helpful to student peer feedback in that it provided an accommodating environment for feedback, often on local issues. This can be explained by the fact that Google Docs, which carries over most of the traditional pen and paper elements (Guardado & Shi, 2007), especially its delayed-time feature, encourages students to pay attention to minor aspects of their peers' writing. The OF2F feedback form, on the other hand, because of its immediacy, requires instant back-and-forth responses and greater attention to global issues rather than local ones. However, because of the face-threatening elements attached to this form, most comments on global issues were praise. In sum, the feedback outcomes of these two feedback modes differ regarding the areas of feedback.

Regarding functions of feedback, it is generally agreed that F2F feedback offers an opportunity for students to comment further and to clarify meaning with the peer writers. That means, clarifying should happen at a higher frequency in the F2F mode than in the CMC mode. However, this study found that the two modes did not differ at a significant level concerning the clarifying function. Having said that, the F2F mode, and the OF2F form in particular, was found to be more helpful compared to the CMC mode because there were more suggestions which were followed by explanations. This could be because the OF2F form better accommodated two-sided interactions in which the student writers could receive suggestions and make inquiries about them, which resulted in explanations to be given.

Interactions in the WACMC form specifically, in contrast, are one-sided, in which the student reviewers had sole authority in commenting. Offering explanations or not was therefore rather idiosyncratic/arbitrary compared to the two-way interactions in OF2F commenting.

Taken together, WACMC was found to be the mode offering most helpful feedback on local aspects of student writing, whereas the OF2F form was shown to better facilitate feedback that was accompanied, preceded or followed, by explanations, which was found to be crucial to revision (Leijen, 2017). Therefore, it seems reasonable to conclude that each mode has its own merits and using them together would benefit student feedback.

4.4 Justification for combining student feedback of Essay 1 with Essay 3, and of Essay 2 with Essay 4

This section provides grounds for the data setup that is considered essential for the two sequences to be compared. In this study, because two measures were carried out with each feedback sequence, the ultimate goal of the data setup was for the results of these two measures to be combined into one so that they can be compared with the combined results of the other sequence. Specifically, for the WACMC–OF2F sequence, which was used for Essay 1 and Essay 3, results of these two essays were combined. The same approach was taken with Essay 2 and Essay 4, where OF2F–WACMC was employed. However, the results of the two essay pairs, i.e., Essay 1 and 3 vs. Essay 2 and 4, could only legitimately be combined when variance between each essay pair was acceptable. The following paragraphs demonstrate that that was achieved.

4.4.1 Variance between the two sequences in terms of areas and nature of feedback

The variance between the two measures of each sequence regarding feedback areas was checked. Multiple paired-samples *t*-tests were run between the global and local feedback, both revision-oriented and non-revision-oriented, of Essay 1 versus Essay 3 and of Essay 2 versus Essay 4. Results of these analyses, summarised in Table 4.7 and Table 4.8 indicate that, except for the global non-revision-oriented feedback of Essay 1 ($M = 1.75$, $SD = 0.80$) and Essay 3 ($M = 2.30$, $SD = 0.72$), $t = 2.51$, $p = 0.02$, no significant difference was found regarding the areas and nature of feedback in the two measures of the WACMC–OF2F sequence. In the case of the global non-revision-oriented feedback in Essay 1 and Essay 3, the Bonferroni correction was then applied to correct for the multiple pairwise comparisons.

According to Larson-Hall (2010), to counteract the effects of multiple pairwise comparisons, the Bonferroni correction can be applied so that a new alpha level can be used. Instead of using the conventional alpha level of .05, a new alpha level was now .0002, which means significant difference happens only when the *p* value of any analyses among the multiple analyses is smaller than this value. According to this, the difference between Essay 1 and Essay 3 regarding the global non-revision-oriented feedback is regarded as insignificant.

In summary, the evidence reported above has established that the two measures of student feedback across the four essays can be combined together for further analyses.

Table 4.7 Differences in areas and nature of feedback between Essay 1 and Essay 3

Areas and nature of feedback	Mean difference	*SD*	*t*	*p* value
Global revision-oriented	0.41	1.27	1.67	0.11
Global non-revision-oriented	-0.55	1.11	-2.51	0.02*
Local revision-oriented	-0.25	1.79	-0.71	0.49
Local non-revision-oriented	-0.13	0.58	-1.12	0.27

Note. $p < .05$

Table 4.8 Differences in areas and nature of feedback between Essay 2 and Essay 4

Areas and nature of feedback	Mean difference	*SD*	*t*	*p* value
Global revision-oriented	-0.12	0.79	-0.79	0.44
Global non-revision-oriented	0.25	1.03	1.21	0.24
Local revision-oriented	0.49	1.75	1.42	0.17
Local non-revision-oriented	0.13	0.76	0.85	0.40

4.4.2 Variance between the two sequences in terms of discourse functions

The variance between the two measures of each sequence regarding the discourse functions or the types of feedback was checked. Paired-samples *t*-tests were run between the two groups: revision-oriented and non-revision-oriented. Specifically, the tests were performed with six subcategories under the revision-oriented group, and five under the non-revision-oriented group. Data presented in Table 4.9 and Table 4.10 indicates that no significant difference was found regarding the discourse functions of feedback in the two measures. This means the two measures can be combined together for further analyses.

Table 4.9 Differences in discourse functions of feedback between Essay 1 and Essay 3: Revision-oriented functions

Discourse functions	Mean difference	Mean	*t*	*p* value
Suggesting	-0.09	2.32	-0.21	0.84
Identifying	0.22	0.74	1.50	0.15
Explaining and suggesting	0.11	0.47	1.19	0.24
Identifying and suggesting	-0.02	0.18	-0.61	0.55
Clarifying	-0.10	0.42	-1.15	0.26
Others	0.04	0.44	0.52	0.61

Table 4.10 Differences in discourse functions of feedback between Essay 2 and Essay 4: Revision-oriented functions

Discourse functions	Mean difference	Mean	*t*	*p* value
Suggesting	0.43	1.73	1.26	0.22
Identifying	0.01	0.63	0.07	0.94
Explaining and suggesting	-0.01	0.32	-0.14	0.89
Identifying and suggesting	-0.06	0.42	-0.75	0.46
Clarifying	0.00	0.19	-0.09	0.93
Others	0.00	0.27	0.01	0.99

As for the non-revision-oriented feedback, also no significant difference between the two measures, i.e., between Essay 1 and 3 (see Table 4.11) and between Essays 2 and 4 (see Table 4.12) was found. This means the two measures can be combined together for further analyses.

Table 4.11 Differences in areas and nature of feedback between Essay 1 and Essay 3: Non-revision-oriented functions

Discourse functions	Mean difference	Mean	*t*	*p* value
Praising	-0.39	1.02	-1.94	0.06
Confirming understanding	-0.16	0.47	-1.75	0.09
General suggesting	-0.03	0.21	-0.64	0.53
General identifying	-0.07	0.31	-1.22	0.24
Identifying writer's purpose	-0.01	0.04	-1.44	0.16

Table 4.12 Differences in areas and nature of feedback between Essay 2 and Essay 4: Non-revision-oriented functions

Discourse functions	Mean difference	Mean	*t*	*p* value
Praising	0.38	1.24	1.58	0.13
Confirming understanding	0.00	0.63	-0.01	0.99
General suggesting	0.03	0.23	0.63	0.54
General identifying	0.00	0.32	-0.07	0.95
Identifying writer's purpose	-0.03	0.12	-1.14	0.26

Overall, the analyses presented in the previous paragraphs have established that little or no discernible variance between the two measures of each feedback sequence was found. As such, it was legitimate to combine results of the two measures within each sequence so that the two sequences could be compared.

4.5 Student feedback in the WACMC–OF2F and OF2F–WACMC sequences

This section examines when the two feedback forms are used together in different sequences, which one is more helpful.

4.5.1 The areas and nature of feedback from the WACMC–OF2F and OF2F–WACMC sequences

The analysis of the areas and nature of comments from 104 papers showed that the two sequences shared two similarities. First, in both sequences, local revision-oriented and global non-revision-oriented comments were most often given. As Table 4.13 shows, local revision-oriented and global non-revision-oriented comments have higher mean scores compared with that of the global revision-oriented and local non-revision-oriented feedback. Second, more global non-revision-oriented comments were made than local revision-oriented comments in both sequences. In the WACMC–OF2F sequence, the frequencies for local revision-oriented and global non-revision-oriented comments are 1.79 and 2.02 comments per 100 words, and those in the OF2F–WACMC sequence are 1.58 and 2.41. This means that sequence might not be the only factor contributing to feedback patterns. This finding is supported by results reported in Section 4.2.3 which showed that students typically offered these two kinds of feedback, irrespective of modes, and as it revealed in the present section, of sequences.

Table 4.13 The areas and nature of feedback in the two feedback sequences

Feedback areas and nature	Mean		*SD*	*t*	*p* value
	WACMC–OF2F	OF2F–WACMC			
Global revision-oriented	1.25	0.89	0.63	2.96	0.007*
Local revision-oriented	1.79	1.58	0.81	1.34	0.189
Global non-revision-oriented	2.02	2.41	0.57	3.47	0.002*
Local non-revision-oriented	0.74	0.84	0.52	0.95	0.347

Note. $N = 26$, $*p < .05$

However, the two sequences also showed differences. A between-sequence examination revealed that, the WACMC–OF2F sequence had more local revision-oriented comments, while the OF2F–WACMC had more global non-revision-oriented comments. In addition, the WACMC–OF2F sequence was also found to be more helpful regarding comments on global revision-oriented issues, with 1.25 comments per 100 words being made, as compared with 0.89 comments in the OF2F–WACMC sequence. The OF2F–WACMC sequence also had more local non-revision-oriented comments.

In order to understand whether the four aspects of feedback significantly differed in the two sequences, paired samples *t* tests with an alpha level of .05 were run. Results summarized also in Table 4.13 showed that two out of four aspects of feedback significantly differed, both of which concerned higher-order issues. These aspects included global revision-oriented feedback, at $t(25) = 2.95$, $p = 0.007$, and global non-revision-oriented feedback, at $t(25) = 3.473$, $p = 0.002$. This means more global revision-oriented comments were given in the WACMC–OF2F sequence, whereas more global non-revision-oriented comments were given in the OF2F–WACMC sequence. Local revision-oriented and non-revision-oriented comments, however, did not markedly differ in the two sequences. Cohen's *d*, used to assess the size of the difference between the two means for these tests, was 0.6 (for global revision-oriented) and 0.7 (for non-revision-oriented), both of which are considered quite large[6]. This means the differences between two sequences in terms of global revision-oriented and global non-revision-oriented comments were considerably large.

Findings presented in the above paragraphs show that local revision-oriented comments and global non-revision-oriented comments were the most important shared feedback outcomes

[6] The interpretation followed Cohen (1988) in which his guidelines for interpreting *d* values are as follows: .01 = small effect, .06 = moderate effect, and .14 = large effect

of the two sequences. A possible explanation for the dominating frequencies of these kinds of feedback was probably because of the students' language competency. Though these students' language competence was regarded of around B2 level of the CPFR band score, or upper-intermediate by their college, their knowledge of English writing skills was still limited. With all of the participants having taken maximum four university courses on writing skills, two of which were on paragraphing and two others were on essay writing, it seems reasonable to regard these students as fairly novice writers. That novice writers tend to give comments on local issues is not surprising because similar findings have been commonly reported (e.g., Allen & Mills, 2016; Bitchener & Ferris, 2012; Chang, 2012; Elola & Oskoz, 2016; Liu & Sadler, 2003). The inherent affordances of each mode can also explain these reviewing strategies. As reported earlier in Section 4.3 on the affordances of WACMC and OF2F commenting, the former was found to facilitate feedback on local issues, while the latter was found to be conducive to global non-revision-oriented comments. When the two forms were brought together and used as a two-step sequence, their dominating character still prevailed, hence resulting in local revision-oriented feedback and global non-revision-oriented feedback being the most common feedback types.

In sum, the two sequences differed in feedback which addressed global issues. Findings showed that the WACMC–OF2F sequence was more beneficial to student feedback, for it had more comments on global aspects and they were revision-oriented, which are helpful to revision. Meanwhile, the OF2F–WACMC sequence was less useful because global non-revision-oriented comments were more frequent in this sequence. The way the two forms were arranged might have accounted for the feedback outcomes in the two sequences. In the WACMC–OF2F sequence, the reviewing procedure began with the student reviewers giving written feedback in Google Docs, which, as revealed later in the post-study interviews, gave them the opportunity to review their peers' texts carefully. For instance, one student said she read her peer's texts several times to make sure that the text was thoroughly reviewed. By "thoroughly" she meant finding as many errors (grammar, vocabulary, spelling, and mechanics) as possible. Consequently, a large majority of the comments made in Google Docs essentially targeted local issues. Actual analysis and observation indicated that by the end of the Google Docs step in the WACMC–OF2F sequence, some students assumed that the reviewing procedure was basically finished and got ready for the F2F step.

The OF2F–WACMC sequence, however, began with a discussion about the text under

review. Through training, the participants were guided to prepare for the discussion by reading their peer's work and making notes about the text on the peer feedback sheet provided. This peer feedback sheet was used during the discussion as requested by the researcher. However, a review of student peer feedback sheet revealed that notes were made in a sketchy fashion in both sequences. Though the purpose of the peer feedback sheet was to direct the student reviewers to look more closely at the global aspects, few students fully followed the guidelines, resulting in only a few notes being taken. In addition, since the OF2F–WACMC sequence did not require the reviewers to give written feedback on the peer writer's writing immediately after they read it, some reviewing details might have been forgotten or ignored in the Google Docs step. Furthermore, some students did not feel ready when the reviewing cycle started with F2F discussion. Because of the reasons above, comments on global issues were mostly non-revision-oriented in nature, and often they were praise of the positive aspects of their peers' writing.

With regard to the considerable difference between the two sequences in terms of global comments, the sequence of modes, and of forms specifically, could again offer some explanations. CMC and F2F interactions require different strategies, with one asking for written interactions and the other demanding spoken interactions. In the WACMC–OF2F sequence, since the students stated that they had more time to review texts, they made as many comments as possible, global as well as local. In addition, the student reviewers might have found making critical comments on global areas in WACMC easier than doing so in person. Therefore, most of the global revision-oriented comments were given in WACMC commenting. In OF2F step of this sequence, the students typically run through global comments again. However, they tended to cover global non-revision-oriented comments (e.g., praising) rather than global revision-oriented ones. Perhaps this was because Google Docs was the tool that the students felt more comfortable using for global revision-oriented comments. The OF2F–WACMC sequence, as revealed in the interviews, did not allow the reviewers the chance to look at their peers' texts as carefully as the WACMC–OF2F sequence. Though a similar period of time was provided for every reviewing cycle, it seems the students still preferred beginning each with the one in which they could give immediate feedback, in this case Google Docs.

4.5.2 The discourse functions of feedback from the WACMC–OF2F and OF2F–WACMC sequences

This section examines feedback discourse functions from the two feedback sequences. These functions were put in two categories, revision-oriented and non-revision-oriented, depending on how useful they were for revision. The frequencies of these functions were achieved by summing those made in the CMC mode with those from the F2F mode. Then, these summed frequencies from Essay 1 and Essay 3 were added so that the frequencies for the WACMC–OF2F sequence could be obtained. Similar procedures were applied to Essays 2 and 4 to achieve frequencies of the functions in the OF2F–WACMC sequence.

With reference to the revision-oriented functions, six categories of functions were recorded in both sequences (Table 4.14). Two prominent similarities between the two sequences include: (1) *suggesting* was the most salient function, and (2) the two sequences shared similar frequency patterns of discourse functions, with suggesting having the highest frequency and *Other* having the lowest. However, the two sequences differed in several regards. First, the WACMC–OF2F sequence had higher frequencies for four out of six functions identified, including suggesting, identifying, clarifying, and Other. The OF2F–WACMC sequence, however, had higher frequencies of two functions: suggesting and explaining and suggesting and identifying, which, as Leijen (2017) reported, made feedback more likely to be incorporated.

Table 4.14 Revision-oriented discourse functions of feedback in the WACMC–OF2F and OF2F–WACMC sequences

Discourse functions	Mean		*SD*	*t*	*p*
	WACMC–OF2F	OF2F–WACMC			
Suggesting	2.00	1.59	0.89	2.32	0.02*
Identifying	0.46	0.31	0.41	1.80	0.08
Explaining and suggesting	0.17	0.24	0.28	-1.13	0.26
Identifying and suggesting	0.12	0.16	0.22	-0.84	0.40
Clarifying	0.14	0.07	0.15	2.00	0.06
Other**	0.13	0.06	0.20	1.89	0.07

Note. $N = 26$, *$p < .05$, **This function includes other minor functions such as disagreeing, questioning, questioning and suggesting.

The findings reported in the preceding paragraph accords with the results presented earlier in

Section 4.3.2 which reported that similar functions were found with WACMC (i.e., suggesting, identifying, clarifying, and Other) and with OF2F commenting (i.e., suggesting and explaining, suggesting and identifying). Paired-samples *t* tests were then run to compare the differences between these functions in the two sequences. Results presented in Table 4.14 indicate that a significant difference was found with suggesting only, with $t(25) = 2.32$, $p = 0.02$. As the mean scores of the two sequences suggest, the WACMC–OF2F sequence showed the potential in facilitating suggesting feedback.

Regarding the non-revision-oriented functions, the two sequences showed significant differences with two functions: confirming understanding, $t(25) = 4.96$, $p = 0.00$, and identifying writer's purposes, $t(25) = 2.16$, $p = 0.03$ (Table 4.15). One might argue that these two functions could have been categorized as revision-oriented; however, they were put in the non-revision-oriented category since data analysis showed no specific revision associated with them. Nonetheless, these two functions were still included in the peer review training of this study because the literature indicated that not understanding or misunderstanding the writer's purpose might well lead to unhelpful feedback (Min, 2006). Therefore, the students were trained to identify the writer's purpose when they felt in doubt and to confirm with their peer writer that they understood their writing before offering feedback. Probably because these two functions could only be done face to face and prior to comments, these functions came in larger frequencies in the OF2F–WACMC sequence than in the WACMC–OF2F sequence. Though not regarded as revision-oriented here, their functions should not be underestimated because these might be helpful for more complex writing tasks and less formulaic essays, for example long evaluation or argumentative essays, in which communicative purposes are less likely to be readily clear.

Table 4.15 Non-revision-oriented discourse functions of feedback in the WACMC–OF2F and OF2F–WACMC sequences

Discourse functions	Mean		*SD*	*t*	*p* value
	WACMC–OF2F	OF2F–WACMC			
Praising	2.10	2.28	0.71	1.27	0.21
Confirming understanding	0.44	0.75	0.31	4.96	0.00*
General suggesting	0.08	0.04	0.17	1.14	0.27
General identifying	0.11	0.11	0.16	0.16	0.87
Identifying writer's purpose	0.00	0.04	0.08	2.16	0.03*

Note: $N = 26$, $^*p < .05$

In summary, the analysis of feedback functions revealed that the two sequences differed significantly when they concerned suggesting, confirming understanding, and identifying writer's purpose. The WACMC–OF2F sequence was found to yield more suggesting functions, while the OF2F–WACMC sequence was found to better enhance pre-reviewing activities.

4.6 Repetition rates of feedback from the WACMC–OF2F and OF2F–WACMC sequences

This section supports the investigation of the effects of the two feedback sequences by examining the repetition rates. Though previous researchers who studied peer feedback using different forms in a sequence (e.g., Chang, 2012; Liu & Sadler, 2003) mentioned that some feedback was repeated in a subsequent step of any sequence, they did not particularly discuss or analyse what kind of feedback was often reiterated. Reporting on this aspect of feedback is important because findings may shed light on how peer feedback could be better practiced, especially on how students are trained to offer helpful comments when peer feedback involves multiple steps. This section addresses repeated comments in the subsequent step in a feedback sequence, so that, together with other evaluations reported above, conclusions can be made as to which feedback sequence might better benefit student feedback.

Data for this section was calculated as follows. Written and spoken comments of each sequence were first counted separately. In the WACMC–OF2F sequence, the written comments were then compared with the spoken comments. Whenever comments from the two forms were found to be close in content, they were regarded as repeated feedback. Similarly, in the OF2F–WACMC sequence, the spoken comments were compared with written comments from Google Docs. Those comments which shared overlaps in content were put into the repeated category. By taking these steps, all repeated comments from the two sequences were identified. Then, repeated comments from two essays (Essays 1 and 3, Essays 2 and 4) were averaged to achieve the final number of comments in each sequence.

Descriptive statistics (Table 4.16) show that, first, more comments of all four aspects were repeated in the WACMC–OF2F sequence than in the OF2F–WACMC sequence. Second, in both sequences, global non-revision-oriented comments were most subject to repetition, at 0.75 comments per 100 words in the WACMC–OF2F sequence and at 0.61 comments per 100 words in the OF2F–WACMC sequence.

The results above can also be seen from Figure 4.1 which displays the comments repeated in the second step of each feedback sequences. As the figure shows, global non-revision-oriented comments were the most often repeated comments in both sequences ($_{MWACMC-OF2F} = 0.75$, $M_{OF2F-WACMC} = 0.61$). This could be because non-revision-oriented comments typically comprised positive comments on peers' writing, and repeating them in the subsequent step might have been an easier undertaking than repeating other types of feedback, for example, feedback on content, organization, and idea development.

Paired-sample *t*-tests were run to see if the two sequences differed when it came to the repeated comments. Results summarised in Table 4.16 indicate that the two sequences only differed regarding the global revision-oriented feedback, with more feedback of this type being repeated in the WACMC–OF2F sequence (M=0.53) than in the OF2F–WACMC sequence (M=0.30), $t(25) = 2.74$, $p = 0.01$.

Table 4.116 Repeated comments in the two feedback sequences

Student feedback	Mean difference		*SD*	*t*	*p*
	WACMC–OF2F	OF2F–WACMC			
Global revision-oriented	0.53	0.30	0.42	2.74	0.01*
Local revision-oriented	0.47	0.36	0.36	1.42	1.67
Global non-revision-oriented	0.75	0.61	0.09	1.50	0.14
Local non-revision-oriented	0.24	0.24	0.34	-0.75	0.94

One of the reasons explaining for more global revision-oriented comments being repeated in the WACMC–OF2F sequence was the greater frequency of this feedback type made in the first step of this sequence. That means, since more comments were made in the CMC step of the WACMC–OF2F sequence (632 comments) than in the F2F step of the OF2F–WACMC sequence (464 comments), students had more input to refer to in the second step, i.e., the F2F discussion. Observations showed that the students showed great dependence on written feedback, besides repeating written feedback using other words, some students tended to do it verbatim, resulting in a higher rate of repeated feedback in this sequence than in the OF2F–WACMC sequence.

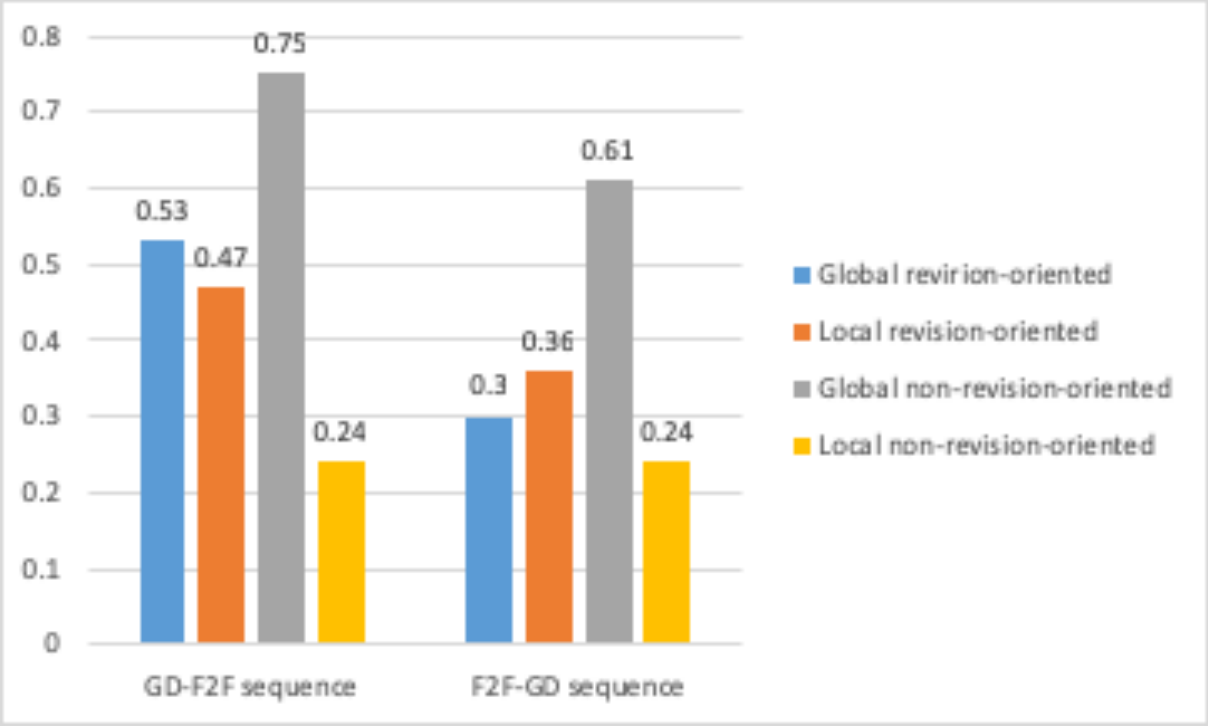


Figure 4.1 Repeated comments in the WACMC–OF2F and OF2F–WACMC sequence

The findings reported above are important because they shed light on peer feedback training. When peer feedback involves a sequence of steps, the findings reported above provide writing instructors with empirical evidence on helpful and less helpful feedback, in this case repeated non-revision-oriented feedback, so that in peer feedback training teachers might want to train their students not to reiterate them in a subsequent step of a feedback sequence. Attention should instead be paid to revision-oriented comments.

4.7 Summary

This chapter has examined three dimensions of student feedback: feedback in general, feedback from the two forms and two sequences. A number of major results were found. First, equal numbers of local and global comments were made, in general. Second, global non-revision-oriented and local revision-oriented comments were the most common feedback types. The global non-revision-oriented comments outnumbered the local revision-oriented, but most of the global comments were non-revision-oriented in nature, whereas, most of local comments were revision-oriented.

Third, between the two forms, WACMC commenting was found to be the major medium for reviewing, resulting in more written than spoken comments being given. For the written

feedback given, feedback on local aspects was the most popular, i.e., feedback on grammar, vocabulary, spelling, and mechanics, and it was the kind of feedback which made the two forms differ significantly. Concerning the feedback functions, suggesting and praising were most often practiced, the former of which had higher frequency in CMC mode, while the latter was more numerous in the F2F mode. However, the two forms only differed markedly in used of the function suggesting.

Fourth, concerning the two feedback sequences, global non-revision-oriented and local-revision-oriented comments were those that were provided most often. However, the two sequences were found to differ significantly regarding global revision-oriented and global non-revision-oriented comments, with more revision-oriented comments in the WACMC–OF2F sequence and more non-revision-oriented comments for the OF2F–WACMC sequence. Fifth, the two sequences also show significant differences in three functions: suggesting, confirming understanding, and identifying writer's purpose. Between these three functions, the WACMC–OF2F sequence outnumbered the OF2F–WACMC sequence in suggesting, while confirming understanding and identifying writer's purpose occurred mainly in the OF2F–WACMC sequence.

Finally, global non-revision-oriented comments were most regularly repeated irrespective of sequence. The two sequences, however, differed at a significant level with respect to the global-revision-oriented feedback, with more of such feedback being repeated in the WACMC–OF2F sequence than in the OF2F–WACMC one. In the next chapter, the study goes on to examine how the student used peer feedback for revision in their last drafts.

CHAPTER 5: STUDENT REVISIONS FROM WACMC AND OF2F FEEDBACK AND FROM WACMC–OF2F AND OF2F–WACMC SEQUENCES

5.1 Introduction

The preceding chapter examined the feedback that the students of this study offered their peers. Findings indicated that equal weight of revision- and non-revision-oriented feedback was given. Global non-revision-oriented and local revision-oriented comments were those most commonly found. In terms of feedback modes, CMC or WACMC specifically was used as the main feedback tool, from which more comments were given. Concerning sequences, the WACMC–OF2F sequence appeared superior in facilitating global revision-oriented feedback.

The current chapter goes on to investigate students' revision consequent on the feedback they received. Results of this chapter provide answers to the second research question: What are the affordances of the WACMC–OF2F and OF2F–WACMC sequences in terms of student revisions?

As set out in Section 3.9.2 of the Methodology chapter, this study investigates four aspects of student revisions in two feedback sequences. The four aspects of revisions include: revision types (e.g., rewriting, substituting vocabulary, correcting grammar errors), areas (e.g., global or local), levels (e.g., word, phrase, sentence, paragraph, text), and origins (e.g., peer-trigged revision, self-revision). The chapter is organized as follows. Section 5.2 presents an overview of student revisions, reporting on the four aspects of revisions mentioned above. Similar to section 4.4, which provided a justification for the results of student feedback of two essay pairs to be combined, section 5.3 provides grounds to combine results of student revisions from essay 1 with that from essay 3, and from essay 2 with essay 4. In Section 5.4, student revisions from the two feedback sequences will be presented. Section 5.5 summarises the key findings reported in the chapter.

5.2 Students' revision patterns: A macro view

This section examines student revision using a quantitative approach. It first looks at the effect of peer feedback by considering to what extent it was used. Then the section goes on to

investigate the characteristics of revision from the four aspects listed above. Overall, this section aims to provide information about student revisions, first on how the students used peer feedback (Section 5.2.1), then on revision itself regarding types, areas, levels, and origins (Sections 5.2.2 – 5.2.5).

5.2.1 Student uptake of peer feedback

Student revisions were analysed by calculating the percentages between actual revisions out of the total number of revision-oriented peer comments. The non-revision-oriented comments (e.g., praise, unspecific or vague comments) were excluded because the analysis of revisions showed no connection between them and the changes the students made. Results in Table 5.1 present the number of peer-triggered revision-oriented comments and the actual revisions, within which two aspects were included: global and local comments and global and local revisions. As the table indicates, 416 revisions were made from 716 comments, which equals to 59% of the revision-oriented peer comments finding their way into revision. Comparison of this finding with those of other studies such as Pham and Usaha (2016) and Min (2006) revealed that student revisions in my study falls within the revision range reported previously. At the lower end of the scale, Pham and Usaha (2016), for example, who investigated the effect of blog-based peer review, found that, of the total revisions, only 22% came from peer revision-oriented comments. At the higher end, however, Min (2006) who studied the effect of extensive peer review training, reported that up to 90% of the peer revision-oriented comments found their way into revisions. Several factors might have contributed to this result, such as student motivation, prior feedback and revision experience, together with training. Further commenting on this finding can been seen in the Discussion chapter.

Table 5.1 Revision-oriented comments and actual revisions

Revision-oriented peer comments	Global comments	Local comments
716 (34%)	244 (34%)	462 (66%)
Revisions from peer comments	Global revisions	Local revisions
416 (66%)	107 (26%)	309 (74%)

An examination into the areas of comments and revisions showed that both reviewers and writers were concerned about the lower-order issues. Table 5.1 shows that local comments

and local revisions play a dominant role, with 66% of comments and 74% of revisions being on local areas, whereas only 34% of comments and 26% of revisions involved global areas. This finding on global and local revisions supports results reported in Section 4.2.3 (Table 4.3) which reported that more local revision-oriented comments were made than global revision-oriented ones. As such, that revisions were largely at the local level seems an understandable consequence.

In what follows, the four aspects of student revision – its types, areas, levels, and origins – will be presented in further detail.

5.2.2 Revision types

Also referred to as "revision strategies" (Sommers, 1980) or "revision operations" (Sengupta, 1998), revision types examines what was actually done in the students' revised texts. Data analysis yielded eight types of revision, as Table 5.2 summarises.

Table 5.2 Revision types

Revision types	Quantity	Percentage
Correction	233	29%
Addition	202	25%
Substitution	199	25%
Deletion	78	10%
Re-write	64	8%
Consolidation	13	2%
Re-order	8	1%
Distribution	7	1%
Total	804	100%

As can be seen from Table 5.2, *correction* is the most frequent type, which accounts for 29% of the total number of revisions. In this study, all of the minor changes by means of "correcting"[7] grammar, punctuation, spelling, and mechanics were treated as correction. For example, in the first draft one writer wrote, 'The life is away from home oblige him to face

[7] The word was put in quotation marks because though not all changes were correct, they were all recognized as students' endeavours to improve their writing.

many hard problems,' and in the revised drafts he made a minor change, as follows (marked in bold and underlined typeface): 'The life is away from home, which obliges him to face many hard problems.' In this example, the writer simply fixed minor errors of subject verb agreement by adding an *s* to the main verb to make it grammatical.

Correction was followed quite closely by two other revision types that shared identical frequencies, *addition* and *substitution* (See examples in Appendix 16), with each representing 25% of all changes. The most typical adding strategy was when the student writers added further information to the original text to either elaborate or to support their points. Between these two strategies, elaboration was found to happen more often than supporting points or ideas. As for substitution, revisions were identified and recorded whenever any traces of replacements were found. Typically, the student writers replaced a word or a chunk of words with their equivalents, most commonly synonyms.

Further down Table 5.2 are five minor revision types: *deletion*, *re-write*, *consolidation*, *re-order*, and *distribution* (See examples in Appendix 16). Together, they account for 21% of the 804 changes. Compared with correction, addition, and substitution, these revision types are more difficult to perform. Obviously, replacing a word with its equivalent is easier to do than deleting text, which may result in reforming text, or rewriting part or all of the whole text, both of which are more time- and energy-consuming than editing at word level.

Overall, the students in this study typically made three major revising moves, including correction, addition, and substitution. Changes made from these strategies took up most of the revisions, at 79%. The remaining moves represented just about 20%. It seemed that inexperienced writers tended to start small as far as revision was concerned.

5.2.3 Revision areas

Two areas of revision were investigated: global and local. Changes to content, organization, and idea development are considered global changes, whereas changes to vocabulary, grammar, spelling, and mechanics are regarded as local changes. Results of the analysis indicate that, as presented in Table 5.3, revisions at the global level happened at a much lower frequency than that at the local level, 18% as opposed to 82%. This finding supports results in Section 5.2.1 which reported that the student participants tended to employ the revising strategies that had a low impact on writing (e.g., correction, addition, substitution).

These findings are not surprising, however, given previous research reported that revising at local level is a typical act among inexperienced ESL/EFL writers (e.g., Berger, 1990; Barkaoui, 2007; Can, 2017; Connor & Asenavage, 1994; Wu, Petit, & Chen, 2015).

Table 5.3 The two areas of student revisions

Revision areas	Quantity	Percentage
Global revisions	147	18%
Local revisions	657	82%
Total	804	100%

5.2.4 Revision levels

The third aspect of revision examined concerned the levels of student revision —a term originally initiated by Bridwell (1980). It was later employed in both L1 (e.g., Sommer, 1980) and L2 research, (e.g., Hall, 1990; Pham & Usaha, 2016). Elsewhere, other researchers (e.g., Falvey, 1993; Sengupta, 1998; Min, 2006), used the term "size" to refer to the same concept: the linguistic extent to which the revision happens. Table 5.4 summarizes eight levels of revision recorded in this study.

Table 5.4 Levels of revisions

Levels of revision	Quantity	Percentage
Word	235	29%
Surface	234	29%
Phrase	139	17%
Sentence	86	11%
Inter-sentence	56	7%
Paragraph	28	3%
Clause	24	3%
Essay	2	0%
Total	804	100%

Note. The percentages were rounded to the nearest whole number

As can be seen from Table 5.4, changes at word (called *token* in Nation & Meara, 2002), surface, and phrase levels happened at the highest frequencies, 29% each for the word and

surface levels and 17% for the phrase level. This means the student writers attended mostly to improving vocabulary, fixing surface errors such as grammar, spelling, and mechanics, and editing at phrase level. A closer examination at word level showed that the student writers typically replaced single words with synonyms or equivalents that their peers or the writers themselves considered more appropriate. Together, changes at word, surface, and phrase levels constitute 75% of all changes. Changes at higher levels, i.e., the ones from sentence and above, account for 25%. Not surprisingly, the higher the syntactic levels get, the less frequently revisions were performed.

These findings lend support to previous research such as Hall (1990), Tuzi (2004), Pham and Usaha (2016) and Can (2017), in that revising at below-sentence level is commonly found among inexperienced writers. The findings of the levels of revision in this study vary, however, in relation to previous research findings. On the one hand, this study shares similarities with research by Hall (1990), Sengupta (1998), and Min (2006), who found that revisions most often happen at surface and word level. However, one significant difference found in this study that was not evident in previous research is that revisions did happen at essay or text level. Though these revisions were of low frequencies (only 2 instances), they served as special cases for future research in which in-depth interviews could investigate why text-level revisions were made. The next section examines the origins of revision.

5.2.5 Revision origins

In what follows, the fourth aspect of student revision will be reported: its origins. The analysing model set forth in Section 3.9.2 allowed for keeping track of where the revisions were rooted, i.e., whether they came from peer comments, or from the writers themselves. Table 5.5 below presents data on these two major sources of input for revisions: one is peer-triggered and the other is self-initiated. For peer-triggered revisions, three sub-categories of input are listed, to include revisions arising from written comments alone, from both written and spoken feedback, or from spoken feedback alone. The combination of both written and spoken comments was analysed because of the two steps in each sequence that the students took. In either sequence, WACMC–OF2F or OF2F–WACMC, a certain number of comments that happened in the first step were repeated. Those repeated comments were counted as one and put into a combined category, i.e., revision from spoken and written comments. As summarized in Table 5.5, the most striking finding was that the self-initiated revisions were as influential as the peer-trigged revisions, at 48% and 52%, respectively.

Table 5.5 Origins of revisions

Origins of revisions	Quantity	Percentage
Peer-triggered revisions from written comments		
Revisions from written comments	217	27%
Revisions from both written and spoken comments	181	23%
Revisions from the spoken comments only	18	2%
	416	52%
Self-initiated revisions	388	48%
Total	804	100%

With reference to peer-triggered revisions, revisions from written comments and from both written combined with spoken comments contributed almost equally to the final revisions, 27% and 23%, respectively. Revisions whose origins could be traced to spoken comments alone present a sharp contrast to the other sources reported above because of their small quantity, only 2% of all changes. This finding indicates that spoken feedback was treated by writers as only a marginal source of feedback input. In fact, this finding aligns with Tuzi (2004), who found that, between several sources of feedback, spoken and written feedback given by peers and tutors at the writing centre, spoken feedback contributed the least to revision.

The results presented in the preceding paragraph suggest that written comments played the most important role in student revisions. These findings lend support to the results reported in Section 4.3 in that written feedback, given WACMC commenting was the major source of input that the student reviewers offered their peer writers. Given that this is one of the major findings of the current study, more comments on it will follow in the Discussion chapter.

Further investigation into peer-prompted and self-initiated revisions showed that the two shared a common characteristic, that is, revisions essentially addressed local issues (Table 5.6). For peer-prompted revisions, 74% of those addressed the local issues, while it was 88% in the self-initiated revisions. Revisions targeting global areas were limited, only 26% of peer-prompted revisions and 12% of self-initiated revisions concerned global areas.

Having said that, results of this study showed that peer feedback resulted in a higher percentage of peer-prompted revision at global level (26%) than self-initiated revisions (12%). This could be because students' knowledge on writing and the writing process was yet to develop to the extent that enables them to attend to global aspects of their writing and to break the habit of attending mainly to accuracy.

Table 5.6 Peer-prompted and self-initiated revisions

Stimuli of revision	Attributes	Total
Peer-prompted	Global revisions 107 (26%)	416 (52%)
	Local revisions 309 (74%)	
Self-initiated	Global revisions 45 (12%)	388 (48%)
	Local revisions 343 (88%)	
Total		804 (100%)

To close this section, the examinations of the use of peer feedback through the four aspects of student revision: types, areas, levels, and origins presented several key findings. Concerning the efficacy of peer feedback, this study found that peer feedback resulted in half of all revisions, an overwhelmingly large percentage of which addressed the lower-order issues of writing. With regard to the types of revision, the student participants most often performed three revision strategies: correcting vocabulary and grammar, adding information, and substituting a word or a chunk of words with their equivalents. This means revisions typically happened at word, surface, and phrase levels, all of which are local areas. Regarding origins, the self-initiated revisions and peer-triggered revisions have similar roles in this study. Peer-triggered revisions predominantly arose from peer feedback, written feedback, whereas spoken feedback alone rarely made its way into revisions. In the next section, justification on data setup will first be provided, followed by the examination of the possible effects of the two feedback sequences on student revisions.

5.3 Justification for combining revisions of Essay 1 with Essay 3, and of Essay 2 and Essay 4

This section provides a basis for the data setup that is essential for the two sequences to be compared. In this study, since each feedback sequence had two measures, the ultimate goal of the data setup was for the results of these two measures to be combined into one so that it

could be compared with the combined results of the other sequence. Specifically, for the WACMC–OF2F sequence, which was used for Essay 1 and Essay 3, results of these two essays were combined. The same procedure was done with Essay 2 and Essay 4, wherein the OF2F–WACMC sequence was employed. However, the results of the two essay pairs can only be legitimately combined when variance between each essay pair was acceptable. The following paragraphs demonstrate that this was achieved.

5.3.1 Variance between the two essay pairs in terms of revision types

Table 5.7 presents findings of the paired-samples *t*-tests to evaluate the difference between two measures of in terms of the types of revision for each sequence. Results show that no significant difference was found between Essay 1 and Essay 3 and between Essay 2 and Essay 4 for all of the eight types of revision recorded.

Table 5.7 Differences in revision types between two times of measures

Types of revision	Sequence	Mean		*t*	*p* value
Correction	WACMC–OF2F (1-3)	0.55	0.67	0.88	0.39
	OF2F–WACMC (2-4)	0.56	0.62	0.48	0.63
Addition	WACMC–OF2F (1-3)	0.69	0.43	-1.86	0.07
	OF2F–WACMC (2-4)	0.55	0.42	-1.00	0.33
Substitution	WACMC–OF2F (1-3)	0.62	0.39	-1.26	0.22
	OF2F–WACMC (2-4)	0.69	0.47	-1.52	0.14
Deletion	WACMC–OF2F (1-3)	0.14	0.27	1.82	0.08
	OF2F–WACMC (2-4)	0.22	0.13	-0.87	0.39
Re-write	WACMC–OF2F (1-3)	0.16	0.22	1.01	0.32
	OF2F–WACMC (2-4)	0.08	0.19	1.95	0.06
Consolidation	WACMC–OF2F (1-3)	0.07	0.02	-1.59	0.12
	OF2F–WACMC (2-4)	0.02	0.03	0.03	0.98
Re-order	WACMC–OF2F (1-3)	0.05	0.01	-1.10	0.28
	OF2F–WACMC (2-4)	0.01	0.02	0.47	0.64
Distribution	WACMC–OF2F (1-3)	0.01	0.01	-0.02	0.98
	OF2F–WACMC (2-4)	0.01	0.04	1.03	0.31

Note. $N = 26$; WACMC–OF2F (1-3) = the sequence WACMC–OF2F administered with Essays 1 and 3, OF2F–WACMC (2-4) = the sequence OF2F–WACMC administered with Essays 2 and 4; $p < .05$

5.3.2 Variance between the two essay pairs in terms of revision areas

Results of the paired-samples *t*-tests for the areas of revision showed that the student participants performed similarly across the two measures (Table 5.8), and no significant variance was found between the two measures of the areas of revisions.

Table 5.8 Differences in revision areas between two times of measures

Areas of revision	Sequence	Mean		*t*	*p* value
Local	WACMC–OF2F (1-3)	1.75	1.69	-0.32	0.75
	OF2F–WACMC (2-4)	1.93	1.60	-1.16	0.26
Global	WACMC–OF2F (1-3)	0.55	0.39	-1.50	0.15
	OF2F–WACMC (2-4)	0.25	0.34	1.19	0.24

Note. $N = 26$; WACMC–OF2F (1-3) = the sequence WACMC–OF2F administered with Essays 1 and 3, OF2F–WACMC (2-4) = the sequence OF2F–WACMC administered with Essays 2 and 4; $p < .05$

5.3.3 Variance between the two essay pairs in terms of revision levels

As for the levels of revision, results of paired-samples *t*-tests, shown in Table 5.9, with an alpha level of .05 reveal that no significant difference between the two measures of each sequence was found, except for the level phrase in Essay 1 ($M = 0.49$, $SD = 0.42$) and Essay 3 ($M = 0.30$, $SD = 0.30$), $t(26) = -2.41$, $p = 0.02$.

Table 5.9 Differences in revision levels between two times of measures

Levels of revision	Sequence	Mean		*t*	*p* value
Word	WACMC–OF2F (1-3)	0.60	0.55	-0.28	0.78
	OF2F–WACMC (2-4)	0.71	0.60	-0.80	0.43
Surface	WACMC–OF2F (1-3)	0.55	0.69	1.10	0.28
	OF2F–WACMC (2-4)	0.68	0.49	-1.31	0.20
Phrase	WACMC–OF2F (1-3)	0.49	0.30	-2.41	0.02*
	OF2F–WACMC (2-4)	0.33	0.38	0.49	0.63
Sentence	WACMC–OF2F (1-3)	0.34	0.25	-1.09	0.29
	OF2F–WACMC (2-4)	0.14	0.17	0.75	0.46
Inter-sentence	WACMC–OF2F (1-3)	0.15	0.12	-0.40	0.69
	OF2F–WACMC (2-4)	0.13	0.18	1.00	0.33
Paragraph	WACMC–OF2F (1-3)	0.12	0.05	-1.53	0.14

	OF2F–WACMC (2-4)	0.05	0.06	0.49	0.63
Clause	WACMC–OF2F (1-3)	0.06	0.06	0.17	0.86
	OF2F–WACMC (2-4)	0.11	0.02	-1.56	0.13
Essay	WACMC–OF2F (1-3)	0.00	0.01	1.00	0.33
	OF2F–WACMC (2-4)	0.01	0.00	-1.00	0.33

Note. $N = 26$; WACMC–OF2F (1-3) = the sequence WACMC–OF2F administered with Essays 1 and 3, OF2F–WACMC (2-4) = the sequence OF2F–WACMC administered with Essays 2 and 4; *$p < .05$

5.3.4 Variances between the two essay pairs for revision origins

Finally, results of statistical analysis by means of paired-samples *t*-tests for the origins of revision showed that, as presented in Table 5.10, except for the revision prompted by the student writers themselves in Essay 1 ($M = 1.12$, $SD = 0.96$) and Essay 3 ($M = 0.61$, $SD = 0.63$), $t(26) = -2.14$, $p = 0.04$, no other significant difference was found for the remaining sources of revision, such as revision originating in written comments, in both written and spoken comments, and in spoken comments alone.

Table 5.10 Origins of student revisions in the two feedback sequences

Origins of revision	Sequence	Mean		*t*	*p* value
Written	WACMC–OF2F (1-3)	0.51	0.74	1.68	0.10
	OF2F–WACMC (2-4)	0.59	0.44	-1.06	0.30
Both	WACMC–OF2F (1-3)	0.58	0.61	0.18	0.86
	OF2F–WACMC (2-4)	0.39	0.36	-0.41	0.69
Spoken	WACMC–OF2F (1-3)	0.08	0.07	-0.19	0.85
	OF2F–WACMC (2-4)	0.02	0.03	0.52	0.61
Self	WACMC–OF2F (1-3)	1.12	0.61	-2.14	0.04*
	OF2F–WACMC (2-4)	1.15	1.08	-0.21	0.84

Note. $N = 26$; WACMC–OF2F (1-3) = the sequence WACMC–OF2F administered with Essays 1 and 3; OF2F–WACMC (2-4) = the sequence OF2F–WACMC administered with Essays 2 and 4; *$p < .05$

Findings presented in Tables 5.9 and 5.10 showed that two significant differences were found with respect to the levels and origins of revision: revisions at phrase level and revisions which came from the writers themselves. These differences, which were both found with the

two measures for Essay 1 and Essay 3, are outliers in the data. In the first case (i.e., the differences at phrase level), the mean difference between the two measures was as small as 0.19, with a 95% confidence interval between 0.03 and 0.35. The differences observed between the two measures are actually small, and hence can be considered unimportant (L. Woods, personal communication, February 27, 2018). In the second situation, i.e., revisions prompted by the writers themselves, the mean difference was 0.5, with a 95% confidence interval between 0.04 and 0.96. Though this mean value of difference can be considered large (L. Woods, personal communication February 27, 2018), as we shall see in Section 5.4.4, even with the outlier included in the data set, no significant difference was found between the two feedback sequences concerning the revisions originating in self-prompted feedback.

In conclusion, results of variance analyses established that there was enough evidence for the results of the two measures in each sequence to be combined so that they could be compared with that in the other (i.e., Essay 1 & Essay 3 vs. Essay 2 & Essay 4). The following section presents findings of the evaluations of the two feedback sequences.

5.4 Student revision in the WACMC–OF2F and OF2F–WACMC sequences

This section investigates student revision as the outcomes of two feedback sequences formed by the two feedback forms, WACMC and OF2F, arranged in two orders: WACMC–OF2F and OF2F–WACMC. Essentially, the section seeks to understand whether student revision differed between these two feedback sequences. As presented earlier in Section 3.8.2, student revisions were analysed using a four-level analysis approach that included revision types, areas, levels, and origins. The two sequences are evaluated in terms of these four aspects.

5.4.1 Revision types in the WACMC–OF2F and OF2F–WACMC sequences

Table 5.11 presents findings of students' revision types in the two feedback sequences. Noticeably, eight revision strategies were recorded in both WACMC–OF2F and OF2F–WACMC sequences, with correcting being the most common and distributing texts being the least common revision strategy. This means, irrespective of sequence, the student writers revised their writing simply by proofreading. To examine the effects of the two sequences, individual paired-samples *t*-tests were carried out with each of the eight revision strategies and no significant difference was found. Besides correcting, adding small chunks of text and substituting a single word or a chunk of words with their equivalents were also commonly

performed.

Table 5.11 Types of student revisions in the two feedback sequences

Types of revision	Mean		*t*	*p* value
	WACMC–OF2F	OF2F–WACMC		
Correcting	0.61	0.59	-0.19	0.85
Adding	0.56	0.49	-0.89	0.38
Substituting	0.51	0.58	0.52	0.61
Deleting	0.20	0.17	-0.47	0.65
Re-writing	0.19	0.13	-1.22	0.23
Consolidating	0.05	0.03	-0.99	0.33
Re-ordering	0.03	0.01	-0.84	0.41
Distributing	0.01	0.03	0.85	0.40

5.4.2 Revision areas in the WACMC–OF2F and OF2F–WACMC sequences

With regard to the areas of revision, results of the statistical analysis summarized in Table 5.12 show that the two sequences did not significantly differ in their effect. In both sequences, more revisions were made on local areas – changes in vocabulary, grammar, spelling, and mechanics. This is evident through the significantly higher mean scores for local revisions than for global revisions in both sequences, 1.72 as opposed to 0.47 for WACMC–OF2F sequence and 1.77 against 0.29 in the OF2F–WACMC sequence.

Table 5.12 Areas of student revisions in the two feedback sequences

Areas of revision	Mean		*t*	*p* value
	WACMC–OF2F	OF2F–WACMC		
Local	1.72	1.77	0.19	0.85
Global	0.47	0.29	-1.96	0.06

5.4.3 Revision levels in the WACMC–OF2F and OF2F–WACMC sequences

Analysis of the levels at which student revisions happened indicated that the student writers most often revised at word and surface levels (see Table 5.13). Between these two levels, a significant difference was found at the word levels, where more revisions were made in the

OF2F–WACMC sequence (M = 1.30, SD = 1.263) than in the WACMC–OF2F sequence (*M* = 0.57, *SD* = 0.395), *t*(26) = 3.19, *p* = 0.00. Revision at sentence level in the two sequences is worth noting because though revising at this level was not one of the major revision strategies, accounting for only 11% of all revisions (see Section 5.2.4), a marked difference was found in the two sequences, with more revisions were made in the WACMC–OF2F sequence (*M* = 0.29, *SD* = 0.26) than in the OF2F–WACMC sequence (*M* = 0.15, *SD* = 0.25), *t*(26) = -2.05, *p* = 0.05. This result suggests that the WACMC–OF2F sequence presented the potential of facilitating more revisions at sentence level than the OF2F–WACMC sequence.

Table 5.13 Levels of student revisions in the two feedback sequences

Types of revision	Mean		*t*	*p* value
	WACMC–OF2F	OF2F–WACMC		
Word	0.57	1.30	3.19	0.00*
Surface	0.62	0.58	-0.35	0.73
Phrase	0.39	0.35	-0.43	0.67
Sentence	0.29	0.15	-2.05	0.05*
Inter-sentence	0.13	0.16	0.67	0.51
Paragraph	0.08	0.06	-0.63	0.57
Clause	0.06	0.07	0.31	0.76
Essay	0.00	0.00	0.25	0.81

Overall, results shown in Table 5.13 suggest that the higher the syntactic level was, the less often revisions were made (see the mean scores).

5.4.4 Revision origins in the WACMC–OF2F and OF2F–WACMC sequences

Results of the analysis on the origins of revision indicated that, as shown in Table 5.14, students' revision came from four sources: the writers themselves, written feedback, both written and spoken feedback, and spoken feedback alone. Of these four origins, revisions triggered by the writers themselves and written feedback played the most important roles, for revisions originating from these sources have the highest mean scores. However, the two sequences seem to exert equal influence when it comes to these two sources of feedback. Significant difference was only found with revisions which came from both sources of feedback, i.e., written and spoken, with more revisions being made in the WACMC–OF2F (*M* = 0.60, *SD* = 0.41) than in the OF2F–WACMC sequence (*M* = 0.38, *SD* = 0.33), *t*(26) = -2.60, *p* = 0.00.

Table 5.14 Origins of student revisions in the two feedback sequences

Origins of revision	Mean		*t*	*p* value
	WACMC–OF2F	OF2F–WACMC		
Self	0.87	1.11	1.10	0.30
Written	0.63	0.51	-0.80	0.40
Both	0.60	0.38	-2.60	0.00*
Spoken	0.08	0.03	-1.80	0.10

Note. *p = .05

To summarize this section on the effects of the two feedback sequences on students' revision, several major points should be noted. Regarding the types of revisions, the two sequences showed no significant difference in students' revision strategies. Regardless of sequence, the student writers most typically made corrections of vocabulary and grammar. In terms of the areas of revisions, again, no significant difference was found in the two sequences. Commonly, local revisions were made. On the levels of revisions, revisions happened most typically at word and surface levels, of which significant difference was found at word and sentence level where more word-bound revisions were made in the OF2F–WACMC sequence and more revisions at sentence level in the WACMC–OF2F sequence. This could be because of the higher frequency of revisions prompted by the student writers themselves in the OF2F–WACMC sequence. As presented in Section 4.5.1, the WACMC–OF2F sequence had more global and local revision-oriented comments than the OF2F–WACMC sequence. However, maybe because of this, in the OF2F–WACMC sequence, the students made up for feedback, or lack thereof, with their own ideas of what else could be done to improve their writing. As the results above showed, though the students' ideas for revision did not often reach beyond the surface level, one of the merits of peer feedback is that it has at least some influence in getting students to move beyond a focus on word-level revisions. More revisions at sentence level could be considered an advantage of the WACMC–OF2F sequence.

Lastly, the two feedback sequences presented a significant difference when they concerned revisions which came from both written and spoken feedback, when more revisions were made in WACMC–OF2F sequence than in OF2F–WACMC sequence. One possible explanation could be the arrangement of the two feedback forms in each sequence. In the WACMC–OF2F sequence, because the students began the feedback process with

commenting on peers' writing immediately, they might have spent some time on their peers' work, as well as put careful thoughts into commenting. As such, most of what the students deemed needed further work had been highlighted and realized into concrete feedback before the F2F step. In the F2F sessions, analysis showed that many of these comments were reinforced, which might have made the student writers think that those comments were important, and hence they were supposed to work more on them. This assumption is backed up by empirical research, for example by Leijen (2017), who found that repeated feedback is more likely to be taken up.

In contrast with the WACMC–OF2F sequence, the OF2F–WACMC sequence asked that students start the feedback sequence by reading peers' text and taking notes on a peer feedback sheet so that they would have material to refer to at the F2F session. However, this sequence did not appear effective because most students did the reading only, leaving the note-taking task little attended to. Consequently, they did not have much to say in the discussion section. For the Google Docs step that came later, some students thought since they had given some feedback in the F2F section, repeating those comments in Google Docs would be redundant. Therefore, fewer comments were made in the OF2F–WACMC sequence altogether, which may have resulted in fewer changes made from both written and spoken comments.

5.5 Summary

This chapter examined four aspects of student revision: types, areas, levels, and origins. These aspects were investigated as the outcomes of the two feedback forms of the two feedback modes, CMC and F2F, and of two feedback sequences, WACMC–OF2F and OF2F–WACMC. Results of the chapter revealed some major findings. First, the study found that *correction, addition, and substitution* were the most common revising strategies. Second, revision at local level was more common than at global level. Typically, the student writers incorporated comments on grammar and vocabulary rather than comments on content, idea development, or organization. Thirdly, revisions happened essentially at below-sentence level only, at surface and word level in particular. Fourthly, the students resorted equally to their own ideas and their peers' suggestions for revisions. However, peer feedback was found to be more conducive to revisions at global level than self-prompted feedback. This finding can be regarded as important, given the fact that judgements regarding the value of peer feedback have remained contentious in the field. Further discussion on this finding can be found in the

Discussion chapter (Section 8.3.3). When comparing the influence of written or spoken feedback on revision, written feedback was the major source, whereas spoken feedback was rarely employed.

As far as the two sequences are concerned, this study found that they did not affect students' revision in a marked way. All in all, findings from this chapter have indicated that students' revisions might have been affected by other factors, such as motivation, training, and prior revision experience, among others, and not only by the feedback sequences. Further research on these factors is hence warranted.

The chapter that follows goes on to examine possible effects of the two feedback sequences on students' writing quality.

CHAPTER 6: WRITING QUALITY FROM THE TWO FEEDBACK SEQUENCES

6.1 Introduction

Over the past two decades, ESL/EFL writing assessment has attracted increasing interest. A plethora of topics have been studied, but as pointed out in Chapter 2, usually students' writing quality is not adequately investigated as the end result of a peer feedback process. This chapter addresses the gap by examining student writing quality as another consequence of peer feedback procedures employing CMC and F2F communication. The chapter answers this research question: How do the WACMC–OF2F and OF2F–WACMC sequences affect student writing quality? To this end, students' first and last drafts from the two feedback sequences were graded, using analytic evaluation of writing quality. The aim of the chapter is to understand to what extent the two sequences influence students' writing quality.

The chapter is organized as follows. Section 6.2 presents the research question of the study. Section 6.3 outlines the statistical analysis. Sections 6.4, 6.5, and 6.6 report the results of the analysis. The chapter concludes with a summary of key findings (Section 6.7).

6.2 Research questions

As stated in Section 2.7, the research question that this chapter provides answers to is: How do the WACMC–OF2F and OF2F–WACMC sequences affect student writing quality?

6.3 Statistical analysis

In this analysis, both descriptive and inferential statistics were used. Descriptive statistics were used to provide information about means, standard deviations and skewness. Inferential statistics were used to compare the students' writing quality from the two feedback sequences. To make sure that results of the intended statistical tests—the paired-samples *t*-test—were valid, all the assumptions of the test were checked before analysis. For parametric tests, usually all assumptions on normality and homogeneity of variances, or variances of the same nature, should be met. However, with the paired-samples *t*-test, since it deals with one group of participants only, it is generally suggested that assumptions on homogeneity can be dropped. However, another assumption specific to this test, which requires that there should

be no significant outliers in the data, was to be met. Therefore, all assumptions about outliers and normality were checked using two approaches: numerical and graphical. Since the numerical approach alone should never be taken as the ultimate truth (Larson-Hall, 2010; Eddington, 2016), the purpose of using both approaches was for a more comprehensive understanding of the normality of the data. When any assumption was not met, as will be presented later in the chapter, I will explicitly explain how the data was dealt with.

6.4 Descriptive statistics of the writing scores

This section presents the writing quality of the students which was measured by evaluating student papers using pre-determined assessment rubrics. Using analytic rating scales the evaluation of the student writing went through several trial procedures (See Section 3.9.4) before the final rubrics were used to evaluate the students' essays. The results of the evaluation are presented in Table 6.1, which includes the scores of the first drafts and last drafts and the differences between them (as determined by subtracting the scores of the last draft from the first).

Descriptive statistics of the students' first drafts, last drafts, and the differences between them can be seen in Tables 6.2, 6.3, and 6.4. Data from Table 6.2 indicates that the four first drafts share similar mean scores, with the mean statistic being around 2.5. The standard deviation values suggest that the writing scores of the fourth essay ($SD = 0.38$) most bunched up around this mean score compared with the other remaining three essays. Data on skewness and kurtosis indicates that the students' writing scores on their first drafts are slightly skewed (positive), but this skewness falls within the acceptable values commonly practiced. For example, according to Porte (2002) and Eddington (2016), if the skewness level is under 1 there is no cause for concern. Weinberg and Abramowitz (2002), however, suggested that skewness can be considered acceptable if the skewness ratio, or the skewness level divided by the standard error of the skewness, is smaller than 2. In Table 6.2, for example, the skewness ratio of the first draft of Essay 1 is 0.54/0.46 = 1.18. Some other liberal researchers suggest a skewness level of 3. In this study, I chose the moderate cut-off level of 2 following Weinberg and Abramowitz (2002) for any conclusions related to skewness. As such, the scores on the students' first drafts approximately follow the normal distribution.

For the last drafts, data in Table 6.3 indicates that the students' scores vary, with the third essay having the highest mean value ($M = 3.02$). However, just as with the first drafts, the

standard deviation scores for Essay 3 suggest that the students' writing scores centre on their mean score compared with the remaining three essays. Data on skewness and kurtosis indicates that the distribution of the students' writing scores on the last drafts of the first essay was slightly positive skewed (0.31), whereas that of the second essay was slightly negative skewed (-0.05). Yet both of these values fall within the acceptable range for skewness (any values less than 2), which means the scores of the last drafts of the first and second essays followed the normal distribution. The same held true with the third and fourth essays.

Table 6.4 presents descriptive statistics of the differences of the first and last drafts of the four essays. The differences were achieved by subtracting scores for the first drafts from the last. As can be seen from the table, the biggest difference was between the first and last drafts of the first essay ($M = 0.24$), and the smallest was of the fourth one ($M = 0.12$). The standard deviation scores suggest that the difference or variance is larger in the first essay ($SD = 0.42$) than in the fourth ($SD = 0.21$). This could be because of the outliers in the data, as graphically presented in Figure 6.1.

The first and last drafts both have outliers, as indicated in Figure 6.1. These outliers could have affected the differences between the first and last drafts of the first and fourth essays. However, since none of these outliers appear extreme, they were not removed from the data for statistical tests whose results will be presented later in this chapter.

Table 6.1 The students' writing scores for the four essays

Student	Essay 1			Essay 2			Essay 3			Essay 4		
	First draft	Last draft	Difference	First draft	Last draft	Difference	First draft	Last draft	Difference	First draft	Last draft	Difference
IM1618	2.2	2.4	0.2	2.8	2.8	0.0	2.5	2.5	0.0	2.5	2.5	0.0
CN1242	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
IQ1029	3.0	3.0	0.0	2.3	3.0	0.8	3.8	3.8	0.0	2.8	2.8	0.0
FV1182	2.0	2.5	0.5	1.5	2.0	0.5	2.5	2.5	0.0	2.8	2.8	0.0
DO2009	2.5	2.8	0.3	3.5	3.5	0.0	3.0	3.0	0.0	2.5	2.5	0.0
IL1782	2.5	2.8	0.3	3.5	3.5	0.0	4.0	4.0	0.0	2.8	2.8	0.0
EK1548	2.8	3.0	0.3	2.5	3.5	1.0	2.5	3.0	0.5	3.0	3.25	0.25
GX2663	2.0	2.0	0.0	1.8	2.0	0.3	2.5	3.0	0.5	2.0	2.5	0.5
CP1195	1.8	1.8	0.0	1.5	1.5	0.0	2.0	2.5	0.5	2.3	2.5	0.2
JG2539	2.5	2.5	0.0	1.8	1.8	0.0	2.3	2.3	0.0	2.0	2.0	0.0
WH1904	2.4	2.4	0.0	2.3	2.8	0.5	2.8	2.8	0.0	2.5	2.5	0.0
WY2517	1.8	1.8	0.0	2.3	2.3	0.0	2.5	2.5	0.0	3.0	3.0	0.0
CT2046	2.5	2.5	0.0	2.0	2.3	0.3	1.8	3.0	1.2	2.8	2.8	0.0
JX1197	2.5	3.0	0.5	2.0	2.0	0.0	3.0	3.0	0.0	2.8	2.8	0.0
TG1556	3.4	3.4	0.0	2.5	2.5	0.0	4.0	4.0	0.0	3.0	3.0	0.0
IM1971	2.4	2.4	0.0	2.0	2.0	0.0	3.0	3.0	0.0	2.0	2.0	0.0
BE1587	2.5	2.5	0.0	2.0	2.3	0.3	1.8	3.0	1.3	2.8	2.8	0.0

LH2485	2.5	3.0	0.5	2.0	2.0	0.0	3.0	3.0	0.0	2.8	2.8	0.0
XX2414	3.4	3.4	0.0	2.5	2.5	0.0	4.0	4.0	0.0	3.0	3.0	0.0
MQ2620	2.4	2.4	0.0	2.0	2.0	0.0	3.0	3.0	0.0	2.0	2.0	0.0
CQ2820	2.0	4.0	2.0	3.6	3.6	0.0	3.6	4.0	0.4	2.4	2.6	0.2
JM1019	3.0	3.8	0.8	3.0	3.2	0.2	2.6	3.6	1.0	2.6	2.6	0.0
HR1631	3.0	3.0	0.0	2.8	2.8	0.0	3.6	3.6	0.0	2.6	2.6	0.0
UZ2833	2.3	2.3	0.0	2.8	3.0	0.2	2.4	2.8	0.4	2.8	2.8	0.0
KE2349	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.2	0.2
DK1480	3.8	3.8	0.0	3.0	3.2	0.2	3.8	3.8	0.0	2.6	3.2	0.6
Mean	2.5	2.8	0.2	2.5	2.7	0.2	2.8	3.0	0.2	2.6	2.7	0.1

Note. All of the papers were marked using 0-4 scale, where higher is better.

Table 6.2 Descriptive statistics of the students' writing scores in the first drafts of the four essays

	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
FirstdraftEssay1	1.75	3.75	2.53	0.52	0.54	0.46	-0.34	0.89
FirstdraftEssay2	1.50	3.80	2.54	0.67	0.29	0.46	-0.89	0.89
FirstdraftEssay3	1.75	4.00	2.82	0.65	0.44	0.46	-0.86	0.89
FirstdraftEssay4	2.00	3.40	2.56	0.38	0.04	0.46	-0.47	0.89

Table 6.3 Descriptive statistics of the students' writing scores in the last drafts of the four essays

	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
					Statistic	Std. Error	Statistic	Std. Error
LastdraftEssay1	1.75	4.00	2.77	0.61	0.31	0.46	-0.61	0.89
LastdraftEssay2	1.50	3.80	2.70	0.65	-0.05	0.46	-1.14	0.89
LastdraftEssay3	2.00	4.00	3.02	0.59	0.29	0.46	-0.85	0.89
LastdraftEssay4	2.00	3.40	2.67	0.35	-0.02	0.46	0.09	0.89

Table 6.4 Descriptive statistics of the differences between the students' first and last drafts across the four essays

	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
						Std. Error	Statistic	Std. Error
DifferenceE1	0	2.00	0.24	0.42	3.16	0.46	12.28	0.89
DifferenceE2	0	1.00	0.16	0.27	1.86	0.46	3.16	0.89
DifferenceE3	0	1.25	0.20	0.34	1.80	0.46	2.79	0.89
DifferenceE4	0	0.80	0.12	0.21	2.07	0.46	3.85	0.89

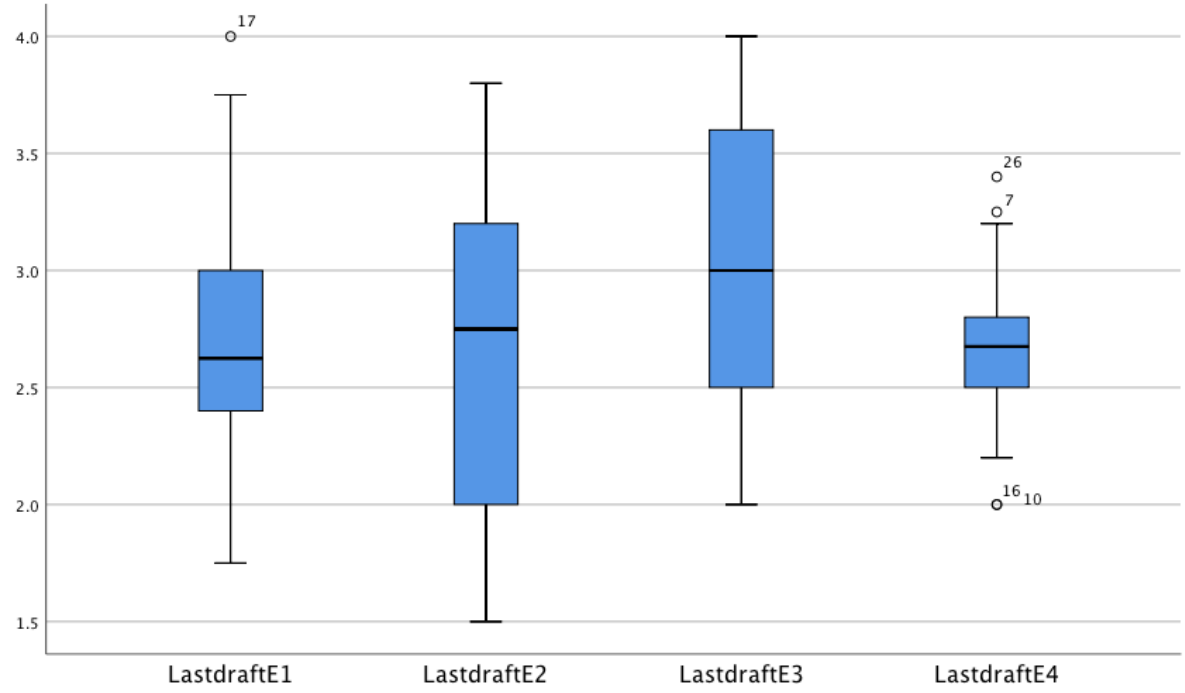


Figure 6.1 Outliers in the students' writing scores. Note: E = Essay

6.5 The students' first and last drafts

Since the results from both numerical and graphical checking showed that all assumptions were met, paired-samples *t*-tests were run to see whether the differences between the first and last drafts of the four essays were statistically significant. Results of the analyses, presented in Table 6.5, reveal that there were significant differences between the first and last drafts across the four essays, with higher scores in the last compared with the first drafts. This finding indicated that the students' revision had significant effects on the writing quality of the papers, evidenced by the higher scores in the last drafts. However, the results did not mean that the students' revision was meaningful at all times, in the sense that revision was carried out at text or meaning level. But, as presented previously, given that the participants of this study were EFL learners of fairly low proficiency level, assessments which do not credit their revision at local level can be misleading. Therefore, the local revisions can be thought of as one possible reason for the higher scores in the last drafts.

Peer feedback can be readily credited for some of the improvements in the last drafts. However, because student revisions were traced to two sources: peer-prompted and self-initiated, both of which shared similar contributions, the significant difference of the last

drafts compared with the first drafts presented above should be cautiously interpreted.

6.6 Student writing quality in the two feedback sequences

This section presents results of the analysis of student writing quality from the two feedback sequences. The first sub-section, 6.6.1, reports the variance of the two measures in each sequence to see whether there was legitimate evidence for them to be combined for further analyses. The second-subsection, 6.6.2, reports results of how one sequence compared with the other.

Table 6.5 Differences between the first and last drafts of student writing

Essay	Mean	*SD*	Std. Error Mean	95% Confidence Interval of the Difference		*t*	*df*	Sig. (2-tailed)
				Lower	Upper			
Essay 1	-0.24	0.42	0.08	-0.41	-0.07	-2.91	25	.008*
Essay 2	-0.16	0.27	0.05	-0.27	-0.06	-3.13	25	.004*
Essay 3	-0.20	0.34	0.07	-0.34	-0.06	-2.93	25	.007*
Essay 4	-0.12	0.21	0.04	-0.20	-0.03	-2.75	25	.011*

Note. *$p < .05$

6.6.1 Variance within each feedback sequence

Variance between the two points of measurement in each sequence was checked, i.e., between Essay 1 & Essay 3 in the WACMC–OF2F sequence and between Essay 2 & Essay 4 in the OF2F–WACMC sequence. The purpose of doing so was to determine whether the variance, if found, was small enough for the two sequences to be combined for further analyses, in this case, the comparison of the two feedback sequences.

As graphically illustrated in Figure 6.2, the median line in each essay suggests that the four essays share a similar median value. However, different variances were found across the four essays. Each of the four data sub-sets had two outliers within it; the first measurement even included an extreme value in it, marked with an asterisk.

Findings of data analyses suggested that the outliers should be treated separately. Following Larson-Hall (2010), subsequent analyses were made both with and without the outliers. That means, results of the differences between the first and last drafts of Essay 1 and Essay 3, as

well as of Essay 2 and Essay 4 were combined, first with the outliers, and later with the outliers being taken out. In what follows, results of those analyses will be reported.

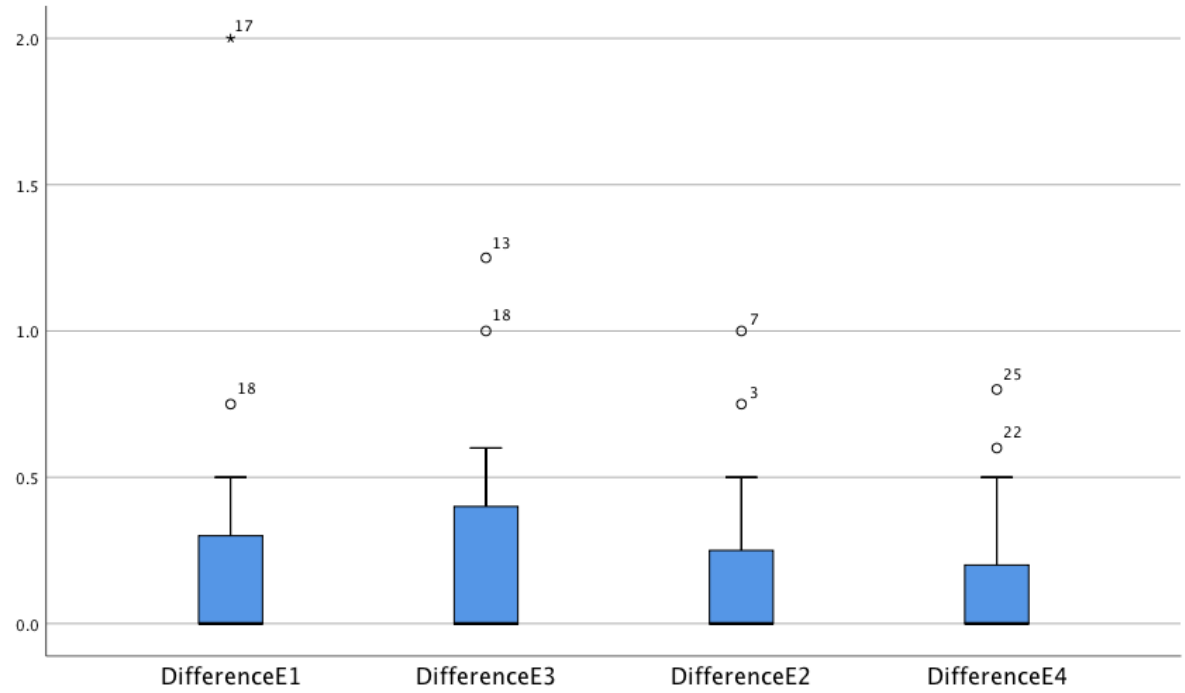


Figure 6.2 Graphic summaries of variances

Numerically, results of descriptive statistics in Table 6.6 indicates that Essay 1 had the largest variance (*SD* = 0.42), due probably to the extreme outlier reported above. Essay 3 had the second largest variance (*SD* = 0.34). The two remaining essays, Essays 2 and 4, had similar variances.

Table 6.6 Variance between Essay 1 versus Essay 3 and Essay 2 versus Essay 4

	Minimum	Maximum	Mean	Std. Error	Std. Deviation	Variance
DifferenceEssay1	0	2	0.24	0.08	0.42	0.18
DifferenceEssay3	0	1.25	0.20	0.07	0.34	0.12
DifferenceEssay2	0	1	0.16	0.05	0.27	0.07
DifferenceEssay4	0	0.8	0.12	0.04	0.21	0.05

6.6.2 The students' writing from the two feedback sequences

With the outliers included, a paired-samples *t*-test was conducted to compare the effects of the two feedback sequences on the students' writing quality. Results indicated that the students' writing scores were higher in the WACMC–OF2F sequence ($M = 0.22$, $SD = 0.30$) than in the OF2F–WACMC sequence ($M = 0.14$, $SD = 0.19$). However, the two sequences did not significantly differ, $t(25) = 1.19$, $p = 0.245$. These results suggest that the two feedback sequences did not have noticeable influence on student writing quality in the last drafts compared with the first.

With the outliers removed, another paired-samples *t*-test was used to compare the effects of the two feedback sequences on the students' writing quality. Results of the analysis revealed that the students' writing scores were still slightly higher in the WACMC–OF2F sequence ($M = 0.13$, $SD = 0.16$) than in the OF2F–WACMC sequence ($M = 0.08$, $SD = 0.11$). Yet the two sequences still did not significantly differ, $t(25) = 1.59$, $p = .124$.

Findings reported in the two paragraphs above have established that irrespective of whether the outliers were included or excluded from the data, no significant difference was found regarding the students' writing scores in the two feedback sequences. However, students' writing scores were slightly higher in the WACMC–OF2F sequence than in the OF2F–WACMC sequence. This finding found support reported in Section 5.4.3 (Table 5.13) which reported that students made more revisions at most of the levels examined in the WACMC–OF2F sequence.

6.7 Summary

This chapter examines students' writing quality by means of assigning scores to the students' first and last drafts. It reports how successfully the students performed in the first and last drafts. It also presents how students' writing quality differed in the two feedback sequences. Several key findings emerged. First, all of the four last drafts received significantly higher scores compared with the first drafts. Second, the students' writing scores from the two sequences did not significantly differ, although the mean scores of the students' writing were slightly higher in the WACMC–OF2F sequence. The next chapter goes on to examine the qualitative aspects of the study.

CHAPTER 7: STUDENT OPINIONS ABOUT WACMC AND OF2F FEEDBACK AND FEEDBACK SEQUENCES

7.1 Introduction

The previous chapters have shown that the two feedback forms WACMC and OF2F each had distinct affordances. Also shown in the previous chapters, when put together, the two feedback sequences, WACMC–OF2F and OF2F–WACMC, presented both similarities and differences in terms of feedback, revisions, and writing quality. Regarding similarities, irrespective of sequences, local revision-oriented and global non-revision-oriented comments were most commonly given. In addition, the two sequences did not significantly differ concerning revision types, areas, and writing quality. However, students made considerably more global revision-oriented comments, which took the form of suggestions, in the WACMC–OF2F sequence. Meanwhile, more global non-revision-oriented comments were made in the OF2F–WACMC sequence. In addition, the WACMC–OF2F sequence was found to accommodate more *suggestions* but fewer *confirmations of understanding* and *identifications of writer's purpose* than the OF2F–WACMC sequence.

This chapter aims to provide further insight into the affordances of the two feedback forms and effects of the two feedback sequences. Findings of this chapter contribute to the existing scholarship by extending knowledge on how CMC and F2F peer feedback, WACMC and OF2F in particular, are perceived by students. The findings might also shed further light on how each form facilitates peer feedback and how CMC and F2F modes should be sequenced to benefit student feedback and revisions.

Specifically, the chapter investigates students' attitudinal aspects, or their opinions about peer feedback activity, how they processed peer feedback for the revised drafts, and what they perceived about the two feedback forms and sequences. Data reported in this chapter was collected from one-to-one semi-structured interviews conducted after the last essay's feedback cycle. Results of the qualitative analyses reported in this chapter, integrated with that of the quantitative analyses presented in the last three chapters (4, 5, and 6), provide a fuller understanding of the feedback process in general and the two feedback sequences in particular.

The chapter has the following organization. Section 7.2 lists the chapter's research questions. Section 7.3 presents the students' opinions about CMC and F2F peer feedback. Sections 7.4 and 7.5 report the students' feedback and revision strategies. Section 7.6 presents students' opinions on the two feedback sequences. Section 7.7 provides a summary of the chapter.

7.2 Research question

This chapter provides answers to the following research question: What are the students' opinions about the affordances of WACMC and OF2F commenting and of the two feedback sequences?

7.3 The usefulness of WACMC and OF2F peer feedback

This section investigates students' attitudes towards the effects of peer feedback. Conveyed strongly in the interviews was the students' positive opinions about the usefulness of peer feedback in terms of text, cognition, and motivation – in the order of most to least important. The following sections present each effect in turn.

7.3.1 On textual usefulness

Results of the analyses of students' opinions showed that most of them concurred that peer feedback greatly helped because not only could their peer reviewers identify errors of local areas, but they also often offered accompanying explanations, without which peer feedback would have been less useful. On a higher level, students said that comments on content, coherence, or idea development helped raise their awareness on the global aspects of their writing.

In Table 7.1, the words and phrases in bold typeface present the students' opinions on peer feedback's usefulness at text level of their writing.

As can be seen from the table, words and phrases such as *good*, *improve*, *very/most useful,* and *most beneficial* present students' positive feelings about peer feedback using WACMC and OF2F commenting, whilst *grammar*, *vocabulary*, i*deas*, *minor errors*, *clarify meaning*, and *supporting details* cover other aspects which students thought peer feedback could help.

In what follows, some of the students' full quotations will be presented to illustrate their opinions in more detail, starting with remarks on local areas, and then moving on to global

ones. As in the previous chapters, none of the grammar or vocabulary errors found in the quotations were edited because I wanted to capture students' genuine language use. On the local aspects of textual effects, student IQ1029 said: 'I can see the benefits from that [peer feedback] because after peer feedback I can see that my essays still have a lot of mistakes like grammar, vocabulary…. There is a lot of things I need to improve, so peer feedback helps me so much in improving my writing skills.' Concurring with IQ1029, student EK1548 stated that: 'I feel it is very useful because when I write the essay I review it and I don't see any mistakes. But when my friend review it and she finds several mistakes I don't see.'

Table 7.1 Students' comments on the usefulness of peer feedback

Dimension	Highlights from student interviews
Textual	…is **good** for my writing skills as I can know my mistakes.
	…I can see that my essays still have a lot of errors like **grammar**, **vocabulary**, and most importantly the **ideas**.
	I can **improve** my vocabulary.
	she asked me to add more evidence to make the **idea** stronger …
	…is **very useful** because she helps point out **local errors**…
	…helps me see **minor errors** as well as **unity** or **coherence**…
	…the **most useful aspect** was she pointed out where my **ideas** are not clear enough.
	…helped me clarify meaning and **fix vocabulary** to make text easier to understand.
	...was helpful in terms of **grammar and word choice**.
	…**most beneficial** aspect of peer feedback is that you know what aspect you are not good at and you will revise it for the better.
	…helped me with **lexical aspects** and **supporting details**.

On the global areas, student FV1182 said that: '…peer feedback helps me about the organization, the logic among sentences….' In fact, in the third essay, this student was one of the rare cases who drastically revised her essay at text level, both organization and meaning, giving the revised draft new content. Another student, DO2009, added that peer feedback made him pay more attention to supporting evidence, saying that: 'When I write I just write what I think. I don't write any evidence to support my idea. But when I receive peer feedback from my friend, she asked me to add more evidence to make the idea stronger so I realised

my weakness and I improved it.' While student JM1019 said: 'I think it's very useful for me because in the peer feedback I realised some big points of my essay.'

In addition, the researcher's observations revealed that the students who had better writing skills appreciated the benefits of peer feedback in a more balanced way, saying it was helpful for both local and global areas of their writing. An example is student IM1618's opinions. She said: '[peer feedback] is good for my writing skills as I can know [sic] my mistakes are and what I can improve for my future writing…the more useful aspect of peer feedback was lying in the content because her peer often pointed out that her idea was not clear enough.'

The findings of textual effects of peer feedback presented above suggest that many of the student participants in this study still seemed to regard peer feedback as less about commenting on rhetorical or content aspects, but more about finding local errors than as a focus on local issues. Several factors could have been attributed to students' perceptions, such as their educational background, language level, purpose of peer response, prior experiences, teacher's influence, and students' beliefs (Liu & Hansen, 2002; Yu & Hu, 2017). Because of the limitations in the interview design, not all of the factors listed could be explored. However, training, student experiences, and language level were the most discernible factors that might have shaped students' perceptions of peer feedback.

With regard to forms of feedback, as presented in Chapter 4, local revision-oriented feedback was the most common feedback type that students made, and it had higher frequency of occurrences in WACMC commenting than in OF2F feedback. This was probably due to the spelling checker feature embedded in Google Docs, that, on the one hand, helped students identify local errors which they might otherwise overlook, but on the other, could be a diversion distracting students' attention from global areas. Since nearly all students were doing peer feedback with Google Docs for the first time, the tool appeared to take a dominant role and caught students' attention to a great extent, as compared with the OF2F form. The differences in feedback modes may therefore help explain why students perceived the benefits of peer feedback as more related to the local areas.

Students' experiences with peer feedback could be another reason contributing to students' overt attention to local issues. As the results of a pre-study questionnaire and class observations revealed, almost all students had only had a few opportunities to do peer feedback in class before. When peer feedback was used at all, according to the students, their

writing teachers would do a quick presentation on what students were supposed to do. Then students were requested to review their peers' writing. However, with inadequate training and often lack of experience, students were not sure what to focus on and kept falling back on reviewing local issues of their peers' texts, following their teachers' practice.

Lastly, students' language level could also be factored in. Given that students' level of English was at B2 on the Common European Framework of References for Languages (CEFR) scale, which is the equivalent of upper-intermediate, the finding of a focus on local issues in their peers' writing was not surprising. As indicated in the literature, below-advanced level students tend to attend to local areas in both reviewing and revising (Ferris & Hedgcock, 2013). These findings of students' perceptions reported above support previous studies as well as my results reported in Chapter 4. Since students were of the opinion that peer feedback was most helpful for local issues, their feedback practice reported in Chapter 4 reflects their perceptions.

Overall, at the text level, the student participants regarded peer feedback as a helpful tool to review and revise both local and global issues; greater emphasis, however, was placed on the former.

7.3.2 On cognitive usefulness

Regarding the cognitive side of peer feedback, salient in student opinions was the perception that peer feedback made them shift their focus from an emphasis on local to an emphasis on global issues of writing and helped them think more critically about their peers' as well as their own writing, as can be seen in what follows.

On the local-global thinking transition, some students commented on how their feedback foci developed over the course of four months during which this study took place. For example, student IL1782 said: 'Peer feedback made me shift focus from more on grammar and vocabulary to more on organisation and idea.' This student also said that: '… I think I can improve a lot about the global areas, about grammar or vocabulary. I always focus on grammar and vocabulary but now I consider a lot about global areas, about the organisation or the idea.'

The transition in student thinking was also facilitated through reading the ideas their peers developed in their writing. Having the opportunity to read those ideas helped students absorb

the way their peers develop and support their ideas and gradually internalise it. To illustrate this point, student CN1242 said: '…getting to know her ideas was the most useful aspect of peer feedback because it made me think more about my own ideas.' Likewise, student EK1548 said: 'I read her essays I also see lots of ideas and I think it's useful for me.' Also sharing this idea, student LH2485 said that: 'I think it's very useful because first I can see my essay another way because my friend comments my essay so I can see my strengths and weaknesses in another way so I can improve myself. And when I comment my friend I can see the way she writes the way she arranges ideas I can learn a lot about her way to develop her ideas.' To illustrate this point, student XX2414 said:

> I think the most impact is before I attended this study I always wrote without thinking much, I would write, write, and write and I think it's [not] good. But when I attend this [study], before I write I have to think. So it's mostly affects my thinking and therefore it leads to writing, too.

The student opinions reported above suggested that some students were aware of the development of their thinking. They appreciated that peer feedback helped extend their thinking from focusing predominantly on local issues to including attention to global issues.

Besides helping with shifting the scope of their thinking, students said that peer feedback also made them become more critical thinkers. As evidenced in the data, students' critical thinking was applied not only to their peers' writing, but also to their own writing. Student HR1631 said: 'If you writing something and you don't have anyone to review your essay it means that you always think that your writing is good, it has no mistakes. However, peer feedback helps me to realise that my writing always needs to be improved.' Similarly, WH1904 said her peer's feedback gave her opportunity to look back at her writing and see how she could make her own work better. Additionally, an interesting point student WH1904 mentioned was she could also learn from the way her peer commented on her work.

The students' critical thinking was also evident in students' opinions on when peer feedback was *not* helpful. For example, DK1480 said: 'But the thing was not many comments on global areas are made and the most common type of comments that this student received was notes on local areas (grammar and vocabulary).' She reasoned that: 'I think maybe because her level is not enough to give me the global feedback.' In contrast, CP1195 had another idea: 'Peer feedback would not be useful when my peer did not understand my points and made unhelpful comments.' And yet another different view was expressed by student

CP1195: 'Her feedback was not always helpful because it was not critical enough.' She said the reason was because her peer reviewer was also her friend; therefore, it might be tricky if she gave harsh feedback. In her words: '…because she's my friend so she thinks she might feel uneasy and [sic] comfortable if has to give me some very straight feedback so I wonder if those problems that she raises in my essays are enough… She don't want to be very criticising so that our relationship can be affected, I think so.'

The findings of the cognitive effect reported above suggests that peer feedback has the potential to develop student thinking to cover more global aspects such as content and idea development. This effect is supported by one of the theoretical frameworks that this study draws on – Vygotsky's (1978) socio-cognitive theory – which originates in the belief that cognitive development is a result of social interactions in which learners extend their current competence through the guidance of a more experienced individuals. In other words, social interaction is a mechanism in which the less capable individual's development is enhanced due to the exposure to the influence of the more capable (Donato, 1994). Findings of this study indicated that the cognitive effect of peer feedback interactions does not only apply to the novice-expert relationship, however, the effectiveness seemed to be reciprocally beneficial to students of different types of pairing, be it novice-novice, or expert-expert pairing.

7.3.3 On motivational usefulness

The third and last theme identified in the students' interview data concerns the motivational aspects of peer feedback.

The first motivational aspect of peer feedback mentioned by students was their favourable opinion of peer feedback compared with teacher feedback. Student BE1587 said: 'I find that it's more comfortable than the teacher give me feedback.' This could be because with peer feedback she had the opportunity to negotiate and clarify meaning with her peer before revising her writing. Given that this student was a better writer than the average and an independent learner, the one-way communication of teacher feedback might not suit her when she had to incorporate comments without totally agreeing with all of them, but kept doing so anyway just because the feedback came from her teacher. In contrast, another student, coded as KE2349, felt peer feedback was more motivational because it was usually delivered sooner compared with teacher feedback. She said: 'I think I can receive comments

immediately after I give it to my friend and when my friend gave me advice, it's very useful for me.' It should be noted that, it was not uncommon for the students at this institution to receive teacher feedback towards the end of the semester. Usually, students were requested to write one draft for a number of essays during the semester. These essays were submitted to their teachers when they were due. However, not until the end of the semester did teachers return these essays to their students, together with some comments and a grade on each essay. It is therefore reasonable to say that this practice is less motivational than peer feedback regarding immediacy. Another motivational aspect mentioned was peer feedback was perceived as a friendly way of delivering feedback in comparison with the more formal teacher feedback.

In addition, the motivation that peer feedback brought about was also evident in the positive feelings towards writing that the students developed afterwards. For example, student FV1182 said: 'I feel I like writing better than before,' while to student DO2009, positive feelings towards peer feedback were developed after actually practising it. He said: 'I don't really realise the value of peer feedback but after I joined your research I appreciate it.' To student CN1242, the motivation came from the discussions he had with his peer. He said: 'I feel good about it [peer feedback] because she and I have good conversations with each other. We got on well with each other and felt comfortable when we gave feedback to each other. I felt that there was no barrier between us; that makes it easier to give feedback and revise.'

Section 7.3 has presented student opinions of the usefulness of peer feedback, including peer feedback using WACMC and OF2F commenting. Students' opinions suggested that, of the three benefits student mentioned, textual effects, which were more associated with WACMC than OF2F commenting, were regarded as the most beneficial. The next section presents the students' reports on their development in providing peer comments.

7.4 Students' descriptions of their feedback strategies

This section presents students' accounts of how their reviewing strategies changed over the course of four months, during which they reviewed four essays. Students' opinions were divided into two groups. One group, which represented the opinions of most of students (18 out of 26) and which I labelled as the Change group, stated that their reviewing strategies took on a local-to-global direction. That means, students' reviewing focus evolved from more

attention to local issues to more on global ones. In the other group, which I called No Change, on the other hand, said that they did not see much difference in their reviewing strategies during their entire participation in this research. The examples below illustrate both sets of students' opinions.

Student CN1242 from the Change group, said:

> For the first one I find it quite clumsy and confusing. We hadn't done peer feedback before. Oh, yes, we did, but just very little. For the first essay I mainly focused on the local areas as I used to and after that, second, third, and fourth essay I mainly focused on global areas because her local areas are so well and I could hardly find any mistakes from her local areas so it's not much to focus on that point.

Sharing a similar opinion with the student above, student IQ1029 found that commenting on his peer's first essay was not easy. But he started picking up the skills from the second essay. He said: 'At first, I don't know what global areas as well as the local areas. And then the second, third and fourth essays I get used to it. I know what the global areas is, local areas is so I can do it quickly and more efficiently.' Student FV1182's reflections were less on the local-global foci of feedback, but more on the quantity of comments. She said:

> For his first essay I made fewer comments than the fourth because I haven't done any review so I don't know how to comment on essays. But for the fourth essay … I can give more comments than the second and the third essays, so for the last essay I see it's easy for me to understand his opinions and ideas and I gave more detailed comments.

Like some other students, student TG1156 said that with the first essay, she did not follow instructions in the peer feedback sheet, which was intended to guide reviewers towards working on global issues first before attending to local ones. Instead, she reviewed as she read her peers' writing, by which she meant pointing out grammar and vocabulary errors. From the second essay, however, she grasped the tips. Likewise, student UZ2833 said:

> When I first checked the essay for my friend I just focus on the grammar and vocabulary. And later I think about the idea and the organisation of the essay plus after commenting on four essays my friend in your project I changed the way I comment. The first thing I focus on the organisation, the idea development because I think it's more important and later I think about grammar and vocabulary or academic words, something like that.

Unlike the students of the Change group, those in the No Change group said that their review

strategies did not markedly changed over the period of four months. To these students, their focus almost always centred on local areas; they tried to comment on global areas, too, but not as much as on local areas. For example, student WY2517 said: 'I mainly comment on her grammar and vocabulary… ideas not much. For all essays, I read from the beginning to the end of the essay and comment along.' Student CT2046 had her own reason for not changing her feedback strategies. She said: 'I always review her ideas first, then her grammar and vocabulary, from the first essays to the fourth. So the reviewing seems to be the same.' Similar to student CT2046, student HR1631 also took the global-to-local approach to reviewing earlier on, i.e., at the start of the study, and this approach was upheld throughout. That was why she said: 'I think it doesn't have any changes in my mind. First, I consider the way she puts the ideas in the essay. Second, I consider the examples she uses to make the evidence more strong. Third, it's about vocabulary or grammar mistakes.'

Some other reasons behind these students' unchanged reviewing foci were mentioned in their responses. Student WY2517 simply said: 'I don't know how to comment on ideas, so I always comment on grammar and vocabulary.' Whereas student BE1587 said that commenting on ideas seem to be an offence to the writer, hence she hesitated doing so. This student BE1587 said: 'I find it difficult to [comment on global areas] and also hurt the writer when I challenge his or her ideas so that I wouldn't focus on the idea and content. I feel they have the rights to write what they want to and I shouldn't intervene.' This student commented further, saying that her writing teachers tended to focus on syntax and vocabulary, so she thought it was the right way to give feedback. She said: '… I do what my teachers do. They give reviews on grammar and structure rather than organisation or ideas, so I do the same.' Finally, some students, for example, DO2009, said he did not always comment on content because he found that his peer's ideas were always so interesting, and better than his own, that no further changes were necessary.

The last section has presented students' feedback strategies. Some key findings are as follows: First, most of the student interviewees said that their review strategies changed, to adopt the global-to-local approach to giving feedback, just as they had been trained at the beginning of the study. On the global level, student reviewers commented on aspects such as content, idea development, and organisation in their peer's writing. On the local level, they mostly paid attention to grammar and vocabulary; spelling and mechanics did not seem to trouble them since nearly no student mentioned those issues. The findings also revealed,

however, that those changes did not happen until at least after the first essay in which students still focused mostly on local areas. Because the students used the WACMC–OF2F sequence for the first essay, this could be an attributing factor resulting in a higher number of comments on local areas in the WACMC–OF2F sequence than in the OF2F–WACMC sequence.

Secondly, after a four-month period of doing peer feedback, some students still found it difficult to comment on the global issues of their peers' writing. The reasons mentioned included: (a) students were not able to find any problems with their peers' ideas or content, (b) they did not want to critique their peers' ideas for fear of hurting their feelings or self-esteem, and (c) they simply emulated their writing teachers' review approach which focused more on local issues.

The next section reports on students' accounts of how they used their peers' comments in their revised essays.

7.5 Students' descriptions of their revision strategies

Findings of students' review strategies indicated that their feedback foci changed gradually from a greater emphasis on local areas to a greater emphasis on global areas. How students used their peers' comments for revision is explored in this section.

Results of students' revision strategies yielded two major findings: (1) most of the students worked on feedback of local and global comments at the same time, and (2) they only used part of their peers' comments, principally comments on local areas. The sections below details what the students had to say in connection with these findings.

7.5.1 Students' revision strategies

A typical revision strategy described by the students was they revised as they read their peers' comments, starting with those at the top of their essays and moving down to the ones at the bottom, addressing comments one by one. For example, student FV1182 said: 'After receiving my peer's comments, I read everything first and respond one by one.' Likewise, student KE2349 said: 'I read all the comments and after that I will revise each,' while student CQ2820 simply said: 'I just revise as I read [peers' comments].' Echoing the students quoted above, student IM1971 said: 'I revise both [global and local comments] at the same time and

at all times.'

However, not all students revised in that concurrent fashion. Instead of working on both feedback areas, global and local, some students started addressing comments on local areas first, then proceeded to work on global ones. For example, student IM1618 said: 'I always consider feedback on vocabulary first, then global [feedback].' Similarly, student XX2414 said: 'I check comments on vocabulary first, then move to those on ideas since they are the hard ones.'

In contrast, some students chose to revise global issues before local ones in their drafts. Student MQ2620 said: 'Firstly I just focus on global feedback and when I finish revise global [feedback] then I follow my mistakes in local. I think global and local areas are important so I got to focus both but I think I have more concentrated on global areas.' Also taking this strategy, student HR1631 said: 'The global areas got first attention, the next one is vocabulary or grammar mistakes.'

Most students, however, revised their work by incorporating local and global comments concurrently. In the next section, the chapter reports what reasons triggered student revisions.

7.5.2 When students decided to use their peers' comments

Results of analyses showed that the students seemed to make idiosyncratic decisions as to when they incorporated peers' feedback. This finding echoes Mendonça and Johnson's (1994) and Ebadi and Rahimi's (2017) results in which the authors reported that their student participants were very selective about using peer comments in revision. In my study, students' opinions revealed a similar trend. For example, student IM1618 said: 'I will see if the global content he comments useful or not. If it's useful I will re-write, if I think my idea is better I will keep it.' When the researcher presented both first and last drafts of an essay to this student and showed her some global comments she had not addressed and asked her why. She said: 'Because I think that my ideas were good enough.' Similarly, student CN1242 said: 'I agreed with my peer on the comments on local areas most of the time, but not those on global [areas]. I think it is OK to keep it [his original ideas].' The above quotes suggest that students' decisions on whether or not to take up peers' comments depended on their own evaluations of peer feedback in relation to their perception of the quality of their own ideas' written in their essays. There were several criteria the students relied on when they weighed

peer feedback, including, for example, the logic of feedback, the accuracy of feedback on form, its reasonableness, its persuasiveness, and its usefulness. Here are some examples:

'If peer feedback is correct and logical, I will take up.' (Student FV1182)

'I always check exactness of my peer's comments before revising.' (Student CP1195)

'If comments are right and reasonable, I will take up them, but if not right or unsuitable I will explain and keep my ideas.' (Student JM1019)

'If I believe that my peer's feedback is right, so I take it. Sometimes, her feedback is not persuasive enough for me to change my mind.' (Student CN1242)

Some students, however, develop learner autonomy and revised in a way they thought would improve their work. For example, student UZ2833 said: 'If I think that her suggestion is useful I will change, of course, but if I read my essay and I think that I would change until it's better I will change according to my own thoughts.' Similarly, student EK1548 said: 'When I read my essay again I see my essay is not ok and I also have some more ideas so I added these ideas in my essay.' It seemed these students better developed their revision skills thanks to their independent thinking skills, which they used to evaluate where their writing needed more work.

Section 7.5 has presented the strategies students took in dealing with peer feedback. Two key findings were revealed. First, the students tended to exercise their own critical evaluation in deciding whether to incorporate or discard peer feedback. Students were selective in deciding which global comments to incorporate or not to incorporate, as indicated by their critical evaluation of the worthiness of peers' comments compared against their own ideas. Second, students did not only rely on their peers' comments; they used their own during the revision process.

7.6 Student opinions about the two feedback sequences

In this section, student opinions on the effectiveness of the two feedback sequences will be presented. Findings indicated that students' opinions differed regarding which feedback sequence was more helpful, but overall, most of them said that they preferred the WACMC–OF2F sequence to the OF2F–WACMC sequence. Their opinions of the two sequences are reported below.

7.6.1 The WACMC–OF2F sequence

Students' opinion that the WACMC–OF2F sequence better set them up for the peer feedback process was a prominent theme. Almost all interviewees said that the reason they thought the WACMC–OF2F sequence was more helpful was that they felt better prepared doing peer feedback in this sequence. Results of interview analyses showed that having more time to comment on peers' writing (for the reviewer), to read peers' comments (for the writer), and to anticipate questions (for both) were what made the students feel more prepared. For instance, student IQ1029 said: 'When I do the edit in Google Docs I can read the essay more thoroughly, I can identify more about her mistakes and her strengths as well as her weaknesses so that I can discuss with her later in more detail. I already have evidence for the discussion.' Likewise, FV1182 added that, 'I do not only have time to read his essays more thoroughly, but also I can look up the dictionary or the Internet. It's easier for me to make better comments.' Echoing the two students above, student IL1782 said: 'Because I had a long time to prepare for it, when I comment face to face with him I think it is easier.'

Furthermore, some students also found that the WACMC–OF2F sequence did not only allow more time for giving feedback, but also more time to prepare some points for discussion. For example, student BE1587 said: 'There is something I want to discuss with her. This sequence [WACMC–OF2F] let me do this. I have more time to think about some big points that I want to discuss later. It's easier than the other sequence.' Student LH2485 said that with this sequence she could prepare some questions to ask her peer; she commented that: 'I had time to read my friend's comments again and again and think about questions I will ask.' Similarly, another student said that she found the WACMC–OF2F sequence more helpful, especially the discussion, because it gave her the opportunity to ask or clarify comments with her peer, which made her better understand comments. Student LH2485 said: 'This sequence allowed me to read her comments as long as I want, then if I don't understand anything I will ask her in the discussion. When she explains me I find her comments more helpful. I can't do that with the other (OF2F–WACMC) sequence.'

Looking at the sequence from another angle, some students highlighted the usefulness of the sequence by pointing out that it was more helpful to the student writer. For example, student KE2349 said: 'After Google Docs comments, the F2F discussion is the opportunity for me to explain my comment to her, and I think it makes my comments clearer for my partner to understand.'

In sum, this section has reported that students who found the WACMC–OF2F sequence more helpful thought that the sequence gave them more time to either refine comments or read peers' comments so that both reviewers and writers could better prepare for the F2F discussion.

7.6.2 The OF2F–WACMC sequence

Only one third of the students asked said the OF2F–WACMC sequence was more helpful. According to these students, this sequence helped peer feedback in several regards. Most noticeably, these students agreed that after discussing with their peer writers, they better understood the texts and hence thought their comments were more useful than if they did not talk with the writers in advance. For example, student JM1019 said: 'When I discussed directly with the peer I think I can understand clearly about her ideas more than on just comment in Google Docs first and discussion after and. Later when I comment in Google Docs these are the most noticeable points in the essay and I think they are more useful.' This student meant that when she started the feedback sequence via discussion with her peer, she would include in the discussion the global points that concerned her. After her peer writer explained to her, she would go ahead and comment on the writing in Google Docs. As she said, her written comments would cover the main points discussed with her peer previously. But now that she understood her writer's meaning, she expected that her comments would make more sense to the writer.

Another student said that he thought this sequence helped because he could avoid giving generic comments, which was caused by either misunderstanding his peer's meanings, or by offering comments that he thought might be useful, but which in fact might be not useful. By talking with his peer first, he thought his feedback would be more useful. This student (JG2539) said: 'After talking with her I know what she wants me to comment. So I can give her specific comments.'

Besides that, another student (UZ2833) said that this sequence saved her time because if she and her peer disagreed on some points during the discussion, they would solve it, so that she would not comment on them anymore in the Google Docs step. As such, redundant comments were avoided. She said: 'When I disagree with her in the discussion, I try to say why. So later I will not comment on those points again. This saves time.'

The students' opinions presented above suggest that although the OF2F–WACMC sequence was credited by fewer students as compared with the WACMC–OF2F sequence, it was still perceived as a helpful in some regards. The key advantage of this sequence, as presented above, was it helped students avoid misunderstandings, which might allow them to offer more useful feedback.

Regarding OF2F, most of the students said that they regarded OF2F commenting as an important part of the reviewing process. Not only did OF2F feedback offer them the opportunity to negotiate and clarify meaning, but it also enabled the student writers to request the student reviewers to look at certain areas of their writings which they found problematic. For example, student HR1631 said as follows when she commented on OF2F in the WACMC–OF2F sequence: 'I found it helpful that I could talk to her after I received her comments. There are stuff I do not understand, or do not totally agree with her so I need to ask her at our discussions.' Meanwhile, student DK1480 commented for OF2F commenting in the OF2F–WACMC sequence that: 'Though I did not have much to talk with my reviewer in during those F2F sessions, I found talking with her in advance may help her understand my essays better so that she could offer helpful feedback.' Echoing this student writer's opinions, her reviewer (student KE2349) said: 'Talking with her before doing actual commenting reassured me that I understood her essays correctly so that I would not give unhelpful comments due to misunderstanding. She also told me where she wanted me to look more closely at, which I think made reviews more focused.'

7.7 Summary

This chapter has examined attitudinal aspects of the student peer feedback. In particular, it examined students opinions about WACMC and OF2F commenting and about the WACMC–OF2F and OF2F–WACMC sequence. Several major findings of the chapter can be summarized as follows.

First, the student participants unanimously agreed that both WACMC and OF2F commenting was helpful to their writing. However, the degree of helpfulness was varied among the students. Some students said that they mostly considered such feedback an opportunity to have their peers check lower-order issues of their writing such as grammar, spelling, word use, or mechanics. Some others believed that the benefits of peer feedback went beyond that, mentioning that the feedback activity gave them the chance to have their peer audience

comment on the higher-order aspects of their writing, which took their thinking up a notch to more global concerns. Overall, the interviewees said that their review focus shifted from more on local issues to more on global issues as a consequence of peer feedback.

Secondly, a close examination into how students reviewed their peers' work showed that they tended to use a similar approach to reviewing their peers' work, irrespective of sequences. For the first essay, the student participants said that they worked most often on local issues in their peers' writing at first, but this strategy changed from the second essays onwards to adopt a global-to-local-issue strategy. A minority of students stated, however, that their reviewing methods remained almost unchanged throughout the project.

Thirdly, concerning revision, students typically revised both local and global comments at the same time and they tended to be selective in deciding which comment to incorporate, and which not to. More often, local comments were acted upon rather than global comments.

Lastly, regarding the students' perception of the two feedback sequences, most participants said they preferred the WACMC–OF2F sequence because it better set them up for the OF2F discussion. This was because the sequence allowed them to offer written feedback right on their peers' work, which served as the main and important source of input for the F2F discussion that came afterwards. Conversely, the students said they felt less ready to offer feedback in the OF2F–WACMC sequence, because they only had some notes on the peer feedback sheet and memory to resort to for the F2F discussion.

Taken as a whole, this chapter has shed further light on student opinions and actual behaviours with respect to feedback and revision. The next chapter will tie findings of the previous chapter (4, 5, and 6) and this chapter all together in discussion.

CHAPTER 8: DISCUSSION

8.1 Introduction

Chapters 4, 5, 6, and 7 have provided answers to the research questions of the study. This chapter discusses the key findings reported in those chapters. Before doing that, a summary of the key findings of the study will be presented.

Chapter 4 explored student feedback from the two feedback forms and sequences. Results indicated that the WACMC commenting played a major role in comparison with the OF2F commenting, and that the WACMC form mainly hosted comments on local areas. Results of this chapter also showed that, irrespective of forms, *suggesting* and *praising* were the most common discourse functions the students performed. With regard to sequence of feedback, the two sequences were similar in that global non-revision-oriented comments and local revision-oriented comments were the most frequent. However, the two sequences differed in that significantly more global revision-oriented comments in the form of suggestions were made in the WACMC–OF2F sequence, whereas more global non-revision-oriented comments were made in the OF2F–WACMC sequence.

In Chapter 5, student revision in general and revision from the two sequences were examined. Findings showed that students typically made local rather than global revisions. The students principally revised at local level (surface or word level), with three revision strategies being most often performed: correction, addition, and substitution. Findings of the chapter also indicated that the students used both peer and self-feedback, but only peer feedback prompted global revisions. In terms of mode, CMC (Google Docs) played the key role compared with the spoken F2F mode because students mostly incorporated written comments from this mode in revision. In the two sequences, more global comments were incorporated in the WACMC–OF2F sequence.

Chapter 6 evaluated the students' first and last drafts of the four essays. It also examined student writing quality from the two sequences. Results indicated that the students' scores on the last drafts were significantly higher than that in the first drafts. Regarding the two sequences, though the difference was not significant, the mean scores of the students' last drafts were slightly higher in the WACMC–OF2F sequence.

Chapter 7 studied student opinions of forms and sequences. The chapter also investigated how the students reviewed their peers' texts and revised their own writing. Results showed that the students had positive attitudes towards the effectiveness of peer feedback, believing that it made them gradually attend more to the global areas. In terms of the students' approaches to commenting and revising, results indicated that similar strategies were employed, regardless of sequences. Specifically, they started commenting on the global issues then moved on to the local ones. To revise, the students typically revised both local and global comments at the same time and they tended to be selective in deciding which comment(s) to incorporate, or not to incorporate. Regarding feedback sequences, results showed that most students preferred the WACMC–OF2F sequence because the CMC step better set them up for the F2F discussion step that followed. Conversely, with the OF2F–WACMC sequence, most students felt had little to talk about in the F2F step due to the lack of input.

The current chapter presents a discussion of the major findings of the four results, focusing on the two main theme: feedback forms and feedback sequences, the former of which has been at the centre of research in CMC and F2F feedback for over the past two decades, while the latter has remained underexplored.

8.2 Computer-mediated versus traditional peer feedback

Researchers who have carried out recent studies have been interested in knowing how CMC and F2F feedback modes compare. Multiple aspects of peer feedback from the two modes have been examined, such as textual analyses of peer feedback in terms of areas, nature, and discourse functions (Li & Li, 2017). Together with feedback from the two modes, the extent to which students incorporate peer feedback has also been studied. In what follows, I will discuss students' feedback and revision from the two modes, taking into account the major findings of the present study.

8.2.1 Student feedback from WACMC and OF2F forms

Research on student feedback from CMC and F2F modes has produced mixed results. However, a common consensus is that feedback in the asynchronous CMC form tends to focus more on local issues, while that in the OF2F setting seems to focus more on global issues (Chang, 2012; Li & Li, 2017; Liu & Sadler, 2003). The present study echoed previous

research, such as Liu and Sadler (2003) which reported that students in their study offered more comments in CMC than in F2F mode, and a large percentage of these comments were on local issues. Similarly, this study found that that the WACMC form of the CMC mode resulted in more local comments than the OF2F form of the F2F mode. As presented in Section 4.3.1, WACMC commenting was used as the main tool for this kind of feedback to be given.

In addition, though they were not the main type of comments offered, there were also more global revision-oriented comments in WACMC feedback than in OF2F feedback (Table 4.4). This finding suggests that, compared with OF2F feedback, WACMC feedback shows potential for fostering students' attention to not only local but also global aspects in peers' writing.

In terms of non-revision-oriented feedback, my study found that students gave more global comments in OF2F commenting (see also Table 4.4). This finding is consistent with that of Chang (2012) who found a higher percentage of non-revision-oriented comments in OF2F mode than in the WACMC feedback (31% vs. 13%). The findings of the present study just reported above suggest that feedback the CMC and F2F modes and forms have their own roles in shaping the areas and nature of feedback. This provides evidence to disconfirm Lin's (2014) findings of contextual factors that may impact the effectiveness of CMC in second language acquisition (SLA) which reported that CMC mode, be in synchronous or asynchronous form, does not have significant moderating effects.

Findings of the present thesis have established that the WACMC form of the CMC mode presented the potential for fostering students' attention to local areas (revision-oriented), while the F2F mode, or OF2F commenting in particular, encouraged the students to attend to global areas (non-revision-oriented). These findings could firstly be because of the embedded spellcheck feature in WACMC commenting which may have drawn students' attention to the lower-order issues. Similar to previous research (e.g., Chang, 2012; Liu & Sadler, 2003), qualitative findings of the present study showed that the students were highly influenced by the copy-editing suggestions prompted by the embedded grammar and spelling checker in Google Docs. For example, student IQ1029 said: 'I like Google Docs because it highlights the errors my peer made and it makes it easier to comment.' As such, it is unsurprising that the students made a large number of suggestions on local issues in this form.

Secondly, the nature of the two modes might also have influenced student feedback. Due to its time-delayed affordances, WACMC commenting allows the student reviewers to review at their own pace. As such, the student reviewers might want to take time to review their peers' writing, increasing the chance of commenting on local issues. That WACMC feedback encourages the students to comment on local issues was reported in Chang (2012) in which the author found that 87% of local comments were given in this mode.

In contrast, in the F2F mode, students have to face each other, making it uncomfortable to offer comments that are too critical, resulting in more praise, as reported in Section 4.3.2. Similar findings were reported in Ho and Savignon (2007), who found that their students felt uncomfortable criticising their peers' writing face-to-face and would rather encourage him/her to add more information, even though they knew doing so might be harmful to their peers' writing. Therefore, although the F2F mode is supposed to make students attend more to global issues, the comments they gave their peers were not helpful to revision because they were non-revision-oriented in that the students placed greater emphasis on praising positive aspects of their peers' writing than on pointing out where the writers needed more work. Considering also Liu and Edwards (2018), who argued that no mode is the best, findings of my thesis imply that the affordances of modes and student characteristics should be considered carefully by writing teachers before any particular mode is to be used.

In the next sub-section, the chapter addresses the two modes and their effects on discourse functions of feedback.

8.2.2 WACMC and OF2F feedback and their effects on discourse functions of feedback

In order to understand how discourse functions were used in the two feedback forms, the study employed text analysis methods. Unlike previous research, the current thesis kept the revision-oriented and non-revision-oriented functions separate, so that more precise analyses could be made and a more thorough understanding of the two forms could be reached.

In terms of revision-oriented functions, this study found that suggesting was the most common review strategy that the students performed in both WACMC and OF2F commenting. It was also regarded as the most helpful function to student revisions because the student writers relied on peers' suggestions to make changes (except in cases they decided not to) to their last drafts. Findings indicated that the students made twice as many

suggestions in WACMC as they did in OF2F feedback. This suggests that modes and forms influenced students' feedback functions. It should also be noted, however, that these suggestions mainly targeted local issues, which, as I explained above, could be due to the prompts offered by Google Docs' copy-editing feature.

Besides, some students said in the interviews that one of the advantages of giving peer feedback online was they could access dictionaries and the Internet, which allowed them to check what they were not quite sure of, with grammar and vocabulary being most often mentioned (Section 7.6.1). Therefore, it seemed that WACMC commenting reinforced the students' care for linguistic accuracy, which consequently resulted in multiple suggestions at below sentence level in this mode.

However, OF2F feedback also had its advantages, and results showed that suggestions accompanied by explanations were more often performed in this form than in WACMC form. According to findings of previous research (e.g., Leijen, 2017; Min, 2006), suggestions accompanied by explanations usually result in a higher chance of uptake compared with suggestions alone. As such, though the present study did not examine to what extent the suggestion-and-explanation comments were incorporated, it demonstrated that the OF2F form plays an essential role in peer feedback interaction because it provides opportunity for the reviewers not only to suggest changes but also to explain to the writers why certain suggestions were made. This is important in the language learning process because students might retain information longer when suggestions are accompanied by explanation rather than presented as suggestions alone.

Previous researchers (e.g., Chang, 2012; Liu & Edwards, 2018; Liu & Sadler, 2003) agreed that the role of F2F interactions is for the reviewer and writer to clarify meaning, hence encouraging the noticing of each other's errors, which might be helpful in scaffolding their learning. However, in my research, the role of clarification was less significant when compared with others, such as suggestion and identification. This unexpected finding of the clarification function echoes Chang (2012), who also reported that clarification was the least performed function. One of the explanations for this finding is that it could be because of the homogeneous context that the students shared and of the fairly short and simple writing that they produced. Due to the homogeneity of the context, misunderstandings of peer's meaning were not likely to happen, meaning clarification was not necessary. Instead, the students often offered justifications before or after making suggestions, as presented in the preceding

paragraph. In addition, study findings contrasted with those of previous studies proposing that the role of F2F mode, of OF2F form in particular, is for students to clarify meaning, this study found that clarification was more associated with the WACMC than with OF2F feedback. Given it is generally expected that OF2F peer feedback offers student reviewers and writers the opportunity to "negotiate meaning to seek clarification" (Liu & Edwards, 2018, p. 9), the present thesis provides empirical evidence to suggest that it is not always the case.

Regarding non-revision-oriented functions, results of the present thesis indicated that students made more evaluations in OF2F commenting. While evaluations on positive aspects of a peer's text may help boost the writer's writing confidence, it was not helpful to revisions. This finding confirms past research (e.g., Liu & Sadler, 2003; Chang, 2012) which reported that non-revision-oriented evaluations in global areas were most often performed in the F2F mode. The unexpected findings of the discourse functions in the F2F mode that numerous evaluations were made and that the students did not often use the F2F mode for clarifying meaning, or discussing feedback further as it was intended, raised the question on the merits of this feedback mode. One might argue, for example, that, given the less favourable findings of F2F mode, this mode should be removed from the peer feedback process, or be replaced with other synchronous CMC tools (e.g., Skype, Google chat). This argument is legitimate to some extent, for previous research has found that CMC mode has more advantages than F2F mode (Ebadi & Rahimi, 2017; Ho & Savignon, 2007; Pham & Usaha, 2016; Tuzi, 2004). However, it was also found that online synchronous tools do not seem as effective as OF2F feedback (Chang, 2012; Liu & Sadler, 2003). Liu and Sadler (2003) found that though their students liked the online chat feedback, peer feedback in this mode did not have the same effect as the traditional OF2F feedback in terms of the number of global comments incorporated in revision. Similar to previous research which reported that students thought F2F feedback was still necessary (Ho & Savignon, 2007), findings of the student opinions of the present thesis suggested that OF2F peer feedback seemed to be irreplaceable in the peer feedback process.

Another unexpected finding in this thesis concerned the category Other, which appeared often in WACMC feedback, but rarely in OF2F commenting. As a reminder, the Other category included some sub-categories such as disagreeing, questioning, and questioning and suggesting. Because all of these functions seem more likely to happen in direct interactions, I

had expected that the students would perform these functions more often in OF2F form. However, results obtained were far from my expectations. One of the possible explanations for this finding could be because the students were not yet familiar with or did not want to challenge their peers face-to-face, as with disagreeing or questioning. Performing these functions in WACMC commenting might be a better choice because this mode is considered less face-threatening (Ho, 2015). Given that offering critical comments in a way which still shows respect for the writer is a skill requiring careful training and considerable practice (Liu & Edwards, 2018), a longer and more rigorous training process might yield different results.

In short, the present study found that WACMC commenting had the potential of encouraging students to attend to local areas in their peers' writing, whereas OF2F feedback seemed to encourage students give global but superficial comments. While this finding echoes previous research, one of the contributions of the present study in comparison with others in CMC and F2F peer feedback research is it separates revision-oriented comments from non-revision-oriented comments to offer a clearer picture of feedback outcomes. In addition, it is important to distinguish functions in terms of their nature (i.e., revision-oriented or non-revision-oriented) in each mode; knowing whether the comments students give are potentially helpful to revision or not is meaningful to training. For example, knowing that the majority of students' feedback functions in the F2F mode consist of non-revision-oriented comments, teachers could put more emphasis on training students, so that more revision-oriented functions could be performed. Therefore, the distinction of the nature of feedback in each mode could be considered a contribution of the present study.

8.2.3 Student revisions from the WACMC and OF2F forms

Research on revision using CMC and F2F modes has, unsurprisingly, yielded conflicting results. Some studies found favourable results of student revisions in the CMC mode (Liu & Sadler, 2003; Tuzi, 2004), while others found revisions in the F2F more to be effective (Ho, 2012). In a study which examined how students incorporated feedback from three sources: WACMC, oral feedback from peers, and oral feedback from writing tutors at the writing centre, Tuzi (2004) showed that WACMC or e-feedback encouraged students to revise more, and this feedback mode also had a greater impact on student revision at clause, sentence, and paragraph levels. Even though Tuzi found that the student participants expressed positive attitudes towards oral feedback, which, he suggested, could be because the students were more accustomed to it, their actual incorporation of this feedback source did not reflect their

thinking. In other words, WACMC feedback was found to be more helpful in comparison with oral feedback in terms of revisions in Tuzi's study. Similarly, results reported in Liu and Sadler (2003) showed that students typically incorporated local comments from WACMC form, resulting in more revisions in this mode than in the OF2F form.

Findings of the present thesis share some similarities with Tuzi (2004) and Liu and Sadler (2003). Specifically, it also found that more comments from the WACMC mode were incorporated, most of which concerned local areas. This could be because of the larger percentage of local comments students received in WACMC commenting, which accordingly resulted in a larger number of local revisions incorporated. This finding also echoes research on ESL/EFL student revision in general, in that students principally make local revisions.

8.3 The effects of sequences on student feedback, revisions, and writing quality

In this section, the effects of the two feedback sequences regarding the three outcomes examined in the current thesis: feedback, revision, and writing quality will be discussed.

8.3.1 The effects of WACMC–OF2F and OF2F–WACMC sequences on student feedback

Research on CMC and F2F peer feedback modes has found that different modes have different affordances. Therefore, it is generally recommended that CMC and F2F modes be judiciously used together (Chang, 2012). However, little research has attended to the combined effects of modes, and of the forms under each mode, arranged in a sequence as a whole.

Built on previous work, findings of this thesis show that the sequences of modes matter regarding the types, areas, and nature of peer feedback. This study found that the student reviewers made more global revision-oriented comments in the WACMC–OF2F sequence, whereas they made more global non-revision-oriented comments in the OF2F–WACMC sequence (see Table 4.13). Even though global revision-oriented comments were not the major feedback type that the students made (local revision-oriented and global non-revision-oriented were both more frequent), given that global revision-oriented comments are generally highly prized because they are important to the higher-order issues in writing, this is a significant finding in favour of the WACMC–OF2F sequence.

However, as presented in the preceding paragraph, the students typically offer local revision-oriented and global non-revision-oriented feedback in both sequences, of which the former is more helpful. This suggests that sequence might not be the only contributing factor influencing feedback outcomes. That the students principally offered feedback on local issues can be explained by the fact that since they were still learning to master the target language, it is justifiable that they paid more attention to accuracy than to content and rhetoric. Also, given the heavy exam-oriented context in which the student participants functioned, it seems reasonable to assume that the students' attention to form might have been shaped by teacher instruction which tends to prepare students for both institutional exams and high-stakes tests (e.g., IELTS, TOEFL, TOEIC). This offers an explanation for why focus on local issues in both feedback sequences was more prominent than on global issues.

Another finding was that global non-revision-oriented feedback represented the highest percentage of all feedback types in both sequences. One of the reasons could be because the students lacked knowledge on rhetoric and hence could not see the macro aspects (e.g., structure, idea development, coherence) in their peers' writing. Another reason could be due to the lack of experience in doing peer feedback. Results of a survey on student background indicated that most of the students had very limited experience in doing peer feedback, which makes it understandable that they did not know which areas of their peers' writing needed improvement.

In short, the present research on feedback sequences expanded the extant literature on modes in showing that the WACMC–OF2F sequence better facilitated global revision-oriented feedback than the OF2F–WACMC sequence. The next section will look at the discourse functions of feedback in both sequences.

8.3.2 The effects of the WACMC–OF2F and OF2F–WACMC sequences to discourse functions

In terms of the functions of feedback from the two sequences, results of this thesis showed positive findings in favour of the WACMC–OF2F sequence. Of all the revision-oriented discourse functions recorded, results indicated that the two sequences significantly differed concerning the function *suggesting,* with more suggestions being given in the WACMC–OF2F sequence. Because suggestions are more important to revision, this is an advantage of the WACMC–OF2F sequence. One of the reasons could be because of the larger number of

suggestions on local areas in WACMC commenting, which consequently resulted in a higher number of suggestions in the WACMC–OF2F sequence. As shown in the student interviews (Section 7.6.1), WACMC feedback motivated the students to give comments when they read their peers' texts and they tried to give as many comments as they could, by which they meant to try to find as many errors of grammar and vocabulary as they could. Given that it was the first time for many students to give peer feedback in Google Docs, students' enthusiasm was clearly felt, especially with the first essay. This finding was supported by student opinions (also see Section 7.6.1) which showed that the students preferred the WACMC–OF2F sequence. A majority of the interviewees said that the WACMC step better set them up for the OF2F step, whereas they felt less prepared giving feedback in the OF2F–WACMC sequence because of inadequate input for the F2F step. This finding again demonstrates the benefits of the WACMC–OF2F sequence over the OF2F–WACMC sequence.

Concerning discourse functions, functions such as clarifying and Other, which included disagreeing, questioning, questioning and suggesting, were more frequently performed in the WACMC–OF2F sequence than in the OF2F–WACMC sequence. This finding was surprising because I expected that these functions would happen more in the OF2F commenting and in the OF2F–WACMC sequence. However, as presented in Section 4.3.2, these functions were more often performed in the WACMC feedback. Because this mode was used as the main medium for commenting, it helped explain why the clarification and Other functions also happened more often in the WACMC–OF2F than in the OF2F–WACMC sequence.

The OF2F–WACMC sequence, however, accommodated more comments that had two functions performed simultaneously: explaining and suggesting, as well as identifying and suggesting. This could be explained as follows: As the first feedback step, OF2F peer feedback facilitates two-way interactions, whenever the student reviewers offered a suggestion or identify a potentially problematic issue, they are likely to be asked to offer an explanation or a suggestion. The one-way communication of the WACMC step in the WACMC–OF2F sequence, however, does not possess this affordance. Because of the larger number of these functions carried out in the first step, the whole sequence of OF2F–WACMC accumulated more of them accordingly.

The above findings of the two feedback sequences regarding revision-oriented feedback functions suggest that the mode used for the first step of feedback is essential in shaping peer

feedback when it is combined with another mode that comes after it. In the present thesis, results indicated that between the two forms, WACMC commenting took the dominant role, with student feedback foci most often targeting local areas in their peers' writing. As such, when coupled with OF2F form, results usually presented positive outcomes of peer feedback in favour of the WACMC–OF2F sequence. This thesis also showed that the students performed less actively in the OF2F form, and most of the comments given in this form were on superficial global issues which were non-revision-oriented. As such, when accompanied by the WACMC form in a subsequent step, though it was the major feedback venue, the total feedback outcomes were still less desirable compared with the WACMC–OF2F sequence.

With that being said, this current thesis extends prior research in that it recorded two groups of functions which were barely found in previous research: explaining and suggesting, together with identifying and suggesting, and these functions had higher frequencies in the OF2F–WACMC sequence than in the WACMC–OF2F sequence. As presented above, prior research citation showed that suggestions accompanied by explanations increases the chance of suggestions being incorporated (Leijen, 2017), this finding of the OF2F–WACMC sequence is significant. That is, beside suggestions, OF2F interactions also encouraged students to give explanations or discuss further any concerns raised by their peer writers. Further research should be done, however, to investigate to what extent suggestions accompanied by other functions are actually incorporated.

As for non-revision-oriented comments, in both sequences, results indicated that the students typically gave their peer feedback in the form of praise regardless of sequence. This finding ties in well with previous research (e.g., Chang, 2012; Liu & Sadler, 2003) which reported that students often offer their peers positive evaluations. Considering this type of comment may not help revision, one of the implications for ESL/EFL class is that during training, writing teachers should tell students to give compliments on only one or two striking features of their peers' writing and to give more attention to other areas that they think more work is needed.

Identifying writer's purpose and confirming understanding were included in the present study following previous research (Min, 2005; Stanley, 1992) which pointed out that one of the leading reasons resulting in unhelpful feedback is misunderstanding the writer's intentions. In the present thesis, the two functions were incorporated in the OF2F–WACMC sequence. On the one hand, these two functions happened with a higher frequency in the OF2F–WACMC

sequence, as they were intended (Section 4.5.2, Table 4.15). On the other, a closer examination of the content of the student interactions showed that it seemed the students performed these two functions mostly out of politeness. It could be because of the fairly simple and short tasks that the students wrote, meaning the student reviewers did not encounter any situations where they could not understand the writer's intentions. As such, the discussion of the writer's intentions/purposes were usually quickly covered, with no in-depth discussions of the writer's meaning and intentions. Another reason for the above finding could be because it is easier for students who come from a homogeneous context to understand their peers' writing than for those from a heterogeneous one. In this study, since the students came from the same context, it seems reasonable to assume that they could understand their peers' writing without much trouble.

Having said that, the value of identifying writer's purpose and confirming understanding functions should not be underestimated. I still believe it is always helpful for the student reviewers to check with their peer writers their intended meaning as well as confirm with them that their intended meaning was understood before any comments are given. This step helps the student reviewers avoid or reduce unhelpful comments that might be caused due to misunderstandings. Also, the two functions mentioned above might be helpful when peer feedback is used for longer texts when the writer's intentions are sometimes implicit, or when it involves students from heterogeneous contexts.

In short, considering previous research, the current thesis not only examines the affordances of forms separately, but it also as a whole when they were used together in different sequences. The section above has discussed outcomes of student feedback, the next section will discuss the major findings of the thesis regarding the affordances of feedback forms to student revisions.

8.3.3 The effects of sequences on students' revisions

Findings of the present thesis confirm previous research that inexperienced EFL writers revise local areas rather than global areas (Allen & Mills, 2016; Can, 2017; Faigley & Witte, 1981; Liu & Sadler, 2003; Nelson & Schunn, 2009; Paulus, 1999; Saeed & Ghazali, 2016; Ting & Qian, 2010; Villamil & Guerrero, 1998). As found in this thesis, regardless of sequence, the three most common revision strategies include correcting, adding, and substituting, with a large majority of the revision being carried out at the surface and word

level. This finding suggests that, while sequences had significant influence on student feedback in some regards, they did not show marked effects on the types of revisions that the students made.

However, it is worth mentioning the two major differences between the two sequences in terms of origins of revision. First, in the WACMC–OF2F sequence, students incorporated more spoken and written comments than they did in the OF2F–WACMC sequence. This could perhaps be due to the larger number of both written and spoken comments given in this sequence than in the OF2F–WACMC sequence. Meanwhile, the OF2F–WACMC sequence saw a higher rate of students' self-revisions at word level. Similar to the reason stated above, this could be because of the smaller number of local comments students received from peers in this sequence. Therefore, self-revisions can be regarded as one way the student writers made up for the inadequacy of feedback, which was by giving self-feedback in order to prompt self-revisions. One way to interpret the students' high percentage of self-revision in the OF2F–WACMC sequence is that this sequence enabled the students to develop independent thinking or ability to decide for themselves where revisions were needed, even when it was at word level.

The finding reported above provided empirical evidence to support previous researchers' claims that CMC followed by F2F feedback would result in "effective peer review" (Liu & Sadler, 2003, p. 193). Even though Liu and Sadler did not say what they meant by "effective peer review" when they suggested using WACMC before OF2F peer feedback, the present thesis confirms their claim with regard to student revisions. Compared with the OF2F–WACMC sequence, students' revisions in the WACMC–OF2F sequence were more effective because in this sequence: (1) almost all revision types had more revisions (Section 5.4.1, Table 5.11), (2) fewer local and more global revisions were performed than in the OF2F–WACMC sequence, and (3) more revisions at sentence level were made, even though revising at this level was not as common as at surface, word, and phrase level.

The three key findings in the preceding paragraph raise an issue which might be worth further research: that is training students to revise their work, considering that training is regarded as essential to effective revisions (Barkaoui, 2007; Liu & Edwards, 2018; Min, 2006). Among the methods mentioned, teacher-student and student-student conferences were considered helpful to student revision (Barkaoui, 2007; Liu & Edwards, 2018). According to these researchers, not only does conferencing hold the student writers accountable for taking their

peers' comments seriously, but it also creates the opportunity for them to share with their peer reviewers/teachers their intended meaning and learn from them how the meaning is received. By doing so, it may be easier for the student writers to know where "incongruities" (Faigley & Witte, 1981) happen and how they can fix them. More discussion on training can be found in Section 9.4 on pedagogical implications.

In sum, this section has demonstrated that while the WACMC–OF2F sequence showed certain advantages over the OF2F–WACMC sequence, feedback sequence might not necessarily play the sole role in shaping student revisions. Other factors such as proficiency level and writing experience also contribute to the final results. The next chapter will discuss the effects of the two feedback sequences on student writing quality.

8.3.4 The effects of sequences on students' writing quality

Previous research which studied peer feedback modes and writing quality yielded mixed results on student writing quality in CMC and F2F modes (Braine, 1997; Ebadi & Rahimi, 2017; Sullivan & Pratt, 1996). Usually, these studies compared student writing quality from two modes, WACMC as against OF2F, but little has been done on how different forms of the two modes when combined influence writing. This is another contribution of the current thesis.

In the present research, results indicated that the second drafts received higher scores in comparison with the first, suggesting that peer feedback had positive effects on student writing quality. Together with other results on student feedback, revision, and student opinions, the finding of student writing quality again demonstrates the effectiveness of the WACMC–OF2F sequence and its advantages over the OF2F–WACMC sequence. A possible explanations for this finding could be because of more revisions done in the WACMC–OF2F sequence than in the OF2F–WACMC sequence. Some might suggest that since most of the revisions made were on local issues, the students' second drafts should not be awarded higher scores. However, as presented earlier, this research acknowledges the fact that the student participants were still learning to master the language. Therefore, it is understandable that they paid due attention to accuracy, making crediting their efforts on this issue seem just. Driven by this, the rubrics were designed so that both global and local revisions are credited.

However, improvements could be made in future research in order to direct students' revision

to global issues first and to local later. That is, students should be encouraged to work on either global or local at a time, usually on global issues first. This order follows the usual stages of writing: drafting, revising, and editing. In order for that to happen, at least another writing draft should be added to the writing cycle so that the students have the opportunity to work on the global issues in the first draft and on the local issues in the second separately. For the peer feedback after the first drafts, the students should be told to focus only on global areas only. And then in the subsequent draft(s), they could be guided to focus on local areas.

8.4 The interactions of WACMC and OF2F feedback and their effects

At this point, an overall evaluation of the effects of peer feedback, WACMC and OF2F commenting, as well as of the sequences of feedback is necessary. Such evaluation will be presented in the following section.

In the past two decades or more, a voluminous body of research on peer feedback in L2 writing has been carried out. Peer feedback which involves CMC in particular has been in the ascendant (Lee, 2017), due to the rise of technology and its widespread applications in writing classrooms. The effectiveness of peer feedback, has, however, remained uncertain. One of the main concerns when it comes to peer feedback is whether students are able to identify potentially problematic issues in their peers' texts and at the same time to offer helpful suggestions to improve writing (Liu & Edwards, 2018). On the other hand, some researchers (e.g., Leki, 1990; Nelson & Murphy, 1992, 1993; Tsui & Ng, 2000) have reported unfavourable findings of peer feedback, particularly with regard to aspects of drafts where student reviewers might be able to provide assistance. Specifically, some argued that students tend to focus heavily on surface areas and may find difficulty in giving feedback on global ones, leaving those largely neglected. Students may also give vague and unhelpful feedback (Leki, 1990).

However, other studies (e.g., Berg, 1999b; Kamimura, 2006; Lockhart & Ng, 1995; Min, 2005; Pham & Usaha, 2016; Stanley, 1992, and Vorobel & Kim 2013) have provided evidence in support of the efficacy of peer feedback. These studies found that students are in fact capable of providing useful feedback, i.e., feedback that is specific and on global areas, especially when they receive proper training (Berg, 1999b; Lee, 2017; Min, 2005, 2006, 2008). For example, coached students in Stanley (1992) were found to offer their peer writers more specific comments than those who had not been coached. Likewise, in Min (2005),

results of before and after training showed that not only did students make more comments, but they also offered comments which were more relevant and specific at global level. Furthermore, Yang, Badger, and Yu (2006) found that peer feedback better enhanced learner autonomy than teacher feedback, even in cultures where the teacher holds the utmost authority in the classroom.

In my study, findings have indicated that students' feedback foci covered both global and local areas in their peers' writing. With global areas, results showed that comments on these took the central place of feedback because they outnumbered those on the local areas. However, the investigations into the nature of feedback indicated that only one-third of the global comments were revision-oriented. The remaining two-thirds were regarded as non-revision-oriented because they were either not specific enough, or simply positive evaluations about the global aspects of their peers' writing instead of offering specific directions for changes. In contrast, student feedback on local areas presented a different picture. Despite being smaller in number, two thirds of the comments on local areas were revision-oriented because they offered specific suggestions for changes. Meanwhile, only one-third of the total comments were regarded as not helpful because they mainly expressed complimentary remarks.

In a sense, these findings provide empirical evidence to confirm results reported by some researchers (Leki, 1990; Nelson & Murphy, 1992, 1993; Tsui & Ng, 2000) in that ESL/EFL students tend to care more about local issues, most often about grammatical errors and vocabulary, and largely ignore global areas. Students' light focus on global areas could be due, first, to the genre of the writing as well as the test-oriented EFL context of Vietnam where the students functioned within. Regarding genre, research has indicated that more structured tasks may elicit more grammatical feedback (Dippold, 2009). In my research, the genre that the students wrote can be considered structured because it included essay types, such as problem and solution, compare and contrast, and argumentative essays, all of which followed conventional organisation which the students were already familiar with. For example, the students were well aware that for the problem and solutions essay, they were supposed to write four paragraphs, one for the introduction, one for problems, another for solutions, and one for the conclusion. As such, it seems understandable that essay organisation did not really concern them. Regarding other issues of global areas, such as content and idea development, one of possible reasons could be because students lack

rhetorical knowledge, which requires that students understand writing purpose, context, and audience, among others. For example, if the student reviewers had developed audience awareness and positioned themselves as authentic readers rather than merely as a peer writer, they might have given feedback on content and idea development that met their audience's expectations.

The preponderance of student feedback on local areas could be because students were still in the process of acquiring a language, and hence they need more attention of their errors than do L1 writers producing texts in their native language (Leki, 1990; Zamel, 1982). Also, their focus on local areas could be shaped by their teachers' practice. As Casanave (2017) expresses it, "Many L2 writing teachers cannot imagine not correcting at least some of students' errors, and many L2 students apparently feel the same way" (p. 64). In fact, Casanave's claim was substantiated by a comment from a student interview reported in Chapter 7 where a student emulated her teachers' feedback to comment on her peer's essays. Another reason explaining large number of comments on local areas could be because of the short and one-off training, which may have been inadequate, especially the one on the foci of feedback. As I mentioned above, training plays a crucial role in the success of peer feedback; therefore, future study could examine the effect of more rigorous and/or a continual training on the foci of feedback.

Adopting perspectives from both second language acquisition (SLA) and L2 writing, I regard the students' pre-occupations with the local areas in their peers' writing more as necessities of language development than as deficiencies. This is because research in SLA has indicated that it takes a significant amount of time to acquire an L2, that SLA occurs in stages, and that students make errors as reflections of their acquisition (Doughty & Williams, 1998). As such, making errors seem inevitable through different stages of language acquisition. In L2 writing, feedback on formal or mechanical errors was once a heated conversation, initiated by Truscott (1996) and Ferris (1999), surrounding whether feedback on errors is worthwhile. Truscott argued that feedback on errors is unhelpful and even harmful to L2 learner, with one of the reasons beings that focusing on errors takes students away from more important tasks. Ferris's (1999) rebuttal made the case against Truscott (1996), arguing that feedback on errors still has its own values to the development of L2 writers. Arguments and cases for and against the value of feedback on local errors have Arguments and cases for and against the value of feedback on local errors have been ongoing in applied linguistics for more than

twenty years. But generally, research has substantiated that L2 writers need feedback on errors to develop their writing skills (Bitchener & Ferris, 2012; Bitchener, Young, & Cameron, 2005; Chen, 2016; Ruegg, 2015).

Regarding the effectiveness of modes and forms to feedback outcomes, the qualitative and quantitative analyses of the current research have demonstrated that the two modes worked in a complementary fashion, but the effectiveness was tilted more towards the CMC mode, to the WACMC commenting specifically. While contributing less to the overall feedback outcomes in general, as presented in Section 4.3.2, more suggesting and explaining comments were made in this mode than in WACMC feedback. This kind of comment is valuable because research has indicated that feedback is more likely to be taken up when it is coupled with explanation (Leijen, 2017). Also, as found in student interviews (Section 7.6.2), the student participants acknowledged that they needed OF2F interaction for further clarifications and explanations. These findings support previous research in calling for an integral use of multiple modes (Chang, 2009, 2012; Chen, 2016; Guardado & Shi, 2007; Liou & Peng, 2009; Liu & Sadler, 2003).

Concerning the two feedback sequences, this study demonstrated that, overall, the WACMC–OF2F sequence worked better than the OF2F–WACMC sequence, for more global revision-oriented comments and more revisions of local issues were made in it. Therefore, writing teachers can consider using OF2F as a follow-up step after WACMC so that students are prepared for it.

Overall, the contribution of the findings of the effects of feedback sequences on peer feedback, revision, and writing quality can be seen in different ways. To research, the findings of the current thesis expand understanding of modes and how they work when they are arranged in different sequences. Unlike previous research which employed CMC and F2F mode each either for different tasks, or for different stages of the writing process, this research combined written and spoken forms of CMC and F2F modes in a two-step sequence within each task, so that both modes can always be used for every task. The use of WACMC and traditional OF2F peer feedback in the present study follows instructions in both L2 writing and SLA research which recommend that both written and oral feedback be used. Therefore, compared with previous research, the findings of the present thesis sheds further light on the affordances of the two feedback modes in a sequential feedback procedure. To teaching practice, it provides empirical evidence for the claim that both CMC and F2F

feedback modes be used together, and when that is the case, WACMC should be followed by the OF2F feedback. Thus far, research has suggested CMC and F2F feedback mode being used together. However, no research to date has verified this claim. This is meaningful in the writing classroom because teachers are provided with informed knowledge on the affordances of the two modes as well as the effects modes may have when they are used together in different sequences.

8.5 Summary

This chapter has discussed the key findings of the thesis. Topics covered included: feedback modes and sequences and their effects on feedback, revision, and writing quality. The next chapter concludes the thesis by considering the theoretical, pedagogical, and methodological implications of the thesis. It then points out some possible directions for future research.

CHAPTER 9: CONTRIBUTIONS, LIMITATIONS, AND FUTURE RESEARCH

9.1 Introduction

This thesis explores the affordances of WACMC and OF2F forms, as well as the effects of the WACMC–OF2F and OF2F–WACMC sequences to student feedback, revision, and writing quality. The present chapter discusses contributions and limitations of the thesis, as well as directions for future research.

This chapter is organised as follows: First, it discusses contributions of the thesis to theory and to methodology (Sections 9.2 and 9.3). Then, it discusses several pedagogical implications (Section 9.4). Next, it presents some limitations of the study (Section 9.5), and finally it ends with several directions for future research (Section 9.6) and a summary (Sections 9.7).

9.2 Theoretical contributions

This thesis has several theoretical contributions. First, it contributes to the growing body of knowledge of peer feedback by providing empirical evidence on the affordances of CMC and F2F modes to feedback and revision in CMC and F2F environments, both individually and together in two sequences. Findings of the study showed that the WACMC form of the CMC mode was more effectively used because more helpful comments and more revisions were made in this mode than in the F2F mode. Even though the CMC mode was mainly used by the students to work on local issues, it was demonstrated in this study as well as previous research, such as Leijen (2017), to benefit student writing. As for the two feedback sequences, the WACMC–OF2F sequence was found to be more helpful than the OF2F–WACMC sequence because more global revisions were made in it.

As presented in Chapter 7, the students' accounts of their review and revision methods furthered our understanding of how they reviewed their peers' writing and revised their own. According to the student participants, when working on reviewing peers' texts, they tried to find as many formal errors as possible. Some said they did not want to comment on global ideas of their peers' writing, while others said they could not find anything problematic. These findings are helpful to peer feedback training in which the issues just mentioned above can be addressed by writing teachers so that peer feedback becomes more beneficial to

student writing.

Similarly, investigations of students' revision strategies showed that they principally addressed local issues rather than global ones. This finding contributes to the extant literature on peer feedback research in that it confirms previous research, (e.g., Leijen, 2017; Pham & Usaha, 2016), which reported similar results. However, unlike the studies which only investigate student revision using quantitative methods, the present research used both quantitative and qualitative approach to shed further light on student revision. As presented in Chapter 7, students' delineations of their revision strategies showed that, regardless of forms and sequences, they did not often employ the recommended revising strategy, which asked them to work on global comments before working on local ones. Instead, most of the students said they worked on both global and local comments at the same time, which resulted in more local comments being addressed and less attention expended on global comments. As with reviewing strategies presented in the preceding paragraph, this finding of students' revision strategies contributes to the understanding of student peer feedback processes. It is also helpful to teachers who consider addressing these common revision strategies among students with limited proficiency in English to make peer feedback more beneficial.

Finally, not only does the thesis contribute to research on L2 process writing research, but it also contributes to Computer-Assisted Language Learning (CALL) research. In L2 research, the present study responds to the call for research on under-represented contexts where English is used only as a foreign language (Manchón, 2009). In contrast, in CALL research, this thesis responds to the call of the field for studying the affordances of different computer-mediated tools for language learning. As demonstrated in the present thesis, between the two modes, CMC and F2F, the written form of the CMC mode (in this context Google Docs) was used as the main tool for giving feedback, probably because it more resembled the traditional written feedback which the students were more familiar with. Compared with the more researched tools such as BlackBoard, wikis, and other recent web-based tools, Google Docs has remained under-explored. Also, the above listed tools are usually used for group peer review and collaborative writing. As such, another contribution to CALL research in this study is the examination of Google Docs for dyadic peer feedback.

Together, from L2 writing and CALL perspectives, the key findings of the present thesis presented above shed light on how the two modes should be used for a multiple drafting approach in writing. At the same time, these findings provide a valuable starting point for

further research investigating peer feedback using different forms of CMC and F2F modes in process-based writing.

9.3 Methodological contributions

Since data analysis for this study dealt mainly with text analysis, its biggest contribution relates to the coding of students feedback and revisions, specifically to the unit of analysis. Despite concerns about this issue having been raised by Polio (2012), it has remained largely ignored in most L2 writing research involving coding peer feedback and revisions. The unit of analysis needs to be paid more attention to because it helps future researchers avoid confusion in coding text data related to written and spoken feedback, as well as to revision. In addition, unless the unit of analysis is clearly stated, coding reliability will suffer due to ambiguities. Given these complexities in coding text data, one of the contributions of the present thesis to the methodology of text analysis was that it stated explicitly what unit of analysis was used for different kinds of text data. This is important, especially when replications or follow-on investigations are to be carried out.

In addition, experiences gained from collaborating with other raters of student writing may shed light on the evaluation of student writing. Unlike previous PhD studies in these areas that have tended to involve single authors and solitary research endeavours, this study solicited other raters to assess student writing with the purpose of enhancing robustness. However, initially this endeavour did not succeed because of our different expectations of student writing, an aspect which has been little addressed in writing assessment. Being aware of how complex writing evaluation is, I purposefully attempted to work with a rater with a similar background in order to eliminate unnecessary variances. We came from the same country and had similar education until tertiary level, so I thoughts we shared similar expectations of student writing quality. However, differences existed between us and one of the two raters admitted that perhaps because she spent quite a long time overseas in Masters and PhD studies, her higher expectations of the quality of student writing might have influenced her rating. Despite training and discussions, we could not reach a desirable reliability score due to our varied expectations. This experience of establishing reliability contributes to the existing literature on writing assessment research in which rater's expectation has remained underexplored.

9.4 Pedagogical implications

The two sections above have presented the contributions of the thesis to theory and methodology. This section moves on to discuss the implications of the thesis for L2 writing teaching and learning.

First, regarding the process writing approach, research has indicated that writing in ESL/EFL settings is mainly product-oriented (Tran, 2007); this includes in Vietnam where this approach has dominated for decades (Nguyen, 2017). Generally, students are asked to complete and submit their single draft without revision or further editing (Tran & Le, 2018). Two of the common challenges writing teachers face are heavy content load and oversized classes (Pham, Keong, & Wah, 2018). And though transitions to more popular approaches – such as process or hybridisation of process and genre – have been encouraged recently (Tran, 2007), this change has been slow, with form-focused instruction and teacher-fronted pedagogy still being the most popular (Truong & Pham, 2017). With the application of CMC and the traditional F2F peer feedback, the findings of this study suggest that the teacher-led approach to writing in Vietnam can be altered to engage students in process writing. In addition, student recognition of writing as a social act can be boosted thanks to feedback exchanges via CMC and F2F modes. Through CMC peer feedback, students could help each other by giving feedback beyond the brick-and-mortar classroom, making them more autonomous learners. Meanwhile, F2F interactions used for peer feedback increase the chance of using the target language in spoken form, which is helpful to their language development in general.

Second, the present situation of technology use in language classrooms in Vietnam in general and in writing classes in particular is also worth reflecting on. Since the launch of the National Foreign Languages Project in 2008, which aims to modernise the teaching and learning foreign languages in Vietnam, the use of Information and Communication Technology (ICT) and CMC has been widely promoted. Following from this Project, teaching EFL writing in Vietnam has received more attention. This is contrary to previous practice in which this skill was largely neglected due to the lack of awareness of its importance in the learners' academic success and future career (Kim, Osman, Thai, & Ahmad, 2016). However, the application of ICT and CMC in the teaching of English language is now at the stage where technologies are used to diversify classroom activities and to provide authentic materials (Pham et al., 2018). In terms of research, reports on the use of

ICT in language classrooms are available, but to what extent ICT and CMC are used for writing classes and for the students' writing process is barely known. The findings of this study can provide a catalyst for wider applications of ICT and CMC in supporting student writing. Further, this thesis supports the use of peer feedback outside of the classroom, as well as suggesting that more research be done on CMC and L2 writing in the context of Vietnam and beyond.

Third, with respect to the use of CMC and F2F modes, one of the most important implications drawn from this thesis is peer feedback training, since both previous research and the findings here indicate that training plays a crucial role (Altstaedter, 2018; Berg, 1999a; Lam, 2010; Liou & Peng, 2009; Min, 2005, 2006; Rahimi, 2013). In order for the training to be successful, teachers should consider the following suggestions. It is generally understood that students may have difficulties in prioritizing feedback foci (Lam, 2010). They tend to over-attend to local issues, leaving the global ones largely ignored, at best. At worst, they do not even know what areas of writing should be the target of review. Therefore, reviewing tasks should be divided up into two parts so that students do not have to deal with both global and local issues at the same time. When that is the case, it is generally advised that students should work on global areas first – for example, after the first draft – and then on local issues later, often in the last drafts (Liu & Edwards, 2018). However, because only a limited number of drafts are possible, as in the present thesis, using scoring rubrics could help (Lam, 2010). That means, with detailed descriptions of criteria and grades provided, the student reviewers can understand what areas of writing are evaluated and the areas to which more attention should be paid.

Teachers may then consider discussing what they expect their students to focus on as well as how far their attention should go. Step-by-step guides on the peer feedback sheet should also be provided to further assist the student reviewers. For example, the scoring rubric can be first used in the CMC step, when teachers can ask their students to first review content, idea development, and organization only. Next, the students can meet and discuss those global comments before revising their work. In a subsequent step, the student reviewers can work on local issues, and then discuss their comments with the writers before they make final edits. In the OF2F–WACMC sequence, teachers may also want to supply their students with a scoring rubric and ask them to review and discuss global issues in the first step. Then teachers can ask their students to revise their work using the global comments only. In addition, in the

WACMC step, teachers can ask the student reviewers to work on local issues before asking their peer writers to revise their work using those comments. In short, careful and thorough training needs to be carried out whenever CMC peer feedback processes are conducted.

Another implication concerning feedback training is to equip students with suitable language for peer feedback, especially for F2F feedback. Considering findings of F2F discussions in the present research which found that students' F2F discussions tend to be superficial, it is imperative that ongoing training be done. Training on what to review is certainly important, but of equal importance is the language used for F2F interactions. As found in the present thesis, most of the comments in the F2F mode were global non-revision-oriented comments. This may be because the students had ideas to offer, but their language and sociocultural competences (e.g., adaptability and sensitivity) had yet to be developed to the level which allows them to perform F2F interactions successfully. In this situation, equipping students with useful formulaic sequences could help because it has been demonstrated that formulaic sequences benefit students, especially low-level students (Liu & Edwards, 2018).

Training for effective feedback also needs to address revision issues and processes. Compared with feedback training, revision training has been far less attended to, evidenced by the fact that little has been documented on how peer feedback should be dealt with, and whether to take up the peer's comments, in whole or in part, or to leave them unattended. According to Berg (1999b), students' clarity of ideas and expression can only be realized in revision; it is therefore essential that training on revision be carried out. It is generally advised that students should revise global issues first and local issues last (Liu & Edwards, 2018). However, it is also common that students tend not to incorporate comments on global issues, usually because they are more difficult to work on than "quick fixes" of local issues. In order to solve this problem, a revision sheet could be used (Liu & Edwards, 2018). I adapted Liu and Edwards' form to make it more suitable for feedback between dyads. The adapted form can be seen in Figure 9.1.

On this sheet, teachers may ask their students to make a list of all comments on global issues. This can be done easily because students only have to copy comments given on their essays and paste them into this form. The second and third columns in the form ask the student to make a decision about the uptake of specific comments. Most importantly, the last column asks students to explain why they decided to do so. Once the form has been filled in, it should be submitted together with the revised drafts so that peers and teachers can see how seriously

the student writers treated their comments. This can be applied in both WACMC–OF2F and OF2F–WACMC sequences.

Comments received	I will incorporate this comment	I will not incorporate this comment	My explanation is
1. _____ 2. _____ 3. _____			

Figure 9.1 Student revision sheet

9.5 Limitations

This study acknowledges a number of limitations. First, the sample size of the study is a limitation. On the one hand, the data collected from the 26 students was manageable and allowed the researcher to examine it both quantitatively and qualitatively. On the other hand, a small sample size could be one of the reasons resulting in the lack of statistical significance (Hunter & Schmidt, 2004), e.g., in terms of writing quality between the two feedback sequences. Also, a small sample size limits the ecological validity, or generalisability, of the study, therefore, cautions need to be exercised when interpretations are applied to other contexts. To overcome this limitation, future studies may want to aim for a larger sample size.

Second, and as noted in the Methodology chapter (Chapter 3), due to the difficulty in recruiting participants this study was conducted with two groups of students; 16 of them were in the second year and 10 were in the third year of a four-year Bachelor's programme. Although statistical investigation showed that the two groups could legitimately be merged and treated as one, this limitation in combining two groups of participants should still be acknowledged so that future research can endeavour to avoid it.

Third, the study is limited in the number of drafts that the students produced. In this study, the students only wrote two drafts for all essays, making it difficult for the students to work on global and local areas separately, both in reviewing peers' work and in revising their own writing. This research therefore suggests that future research should employ a three-draft cycle.

Finally, the analysis techniques used in the present thesis make it difficult for future research to handle large datasets. In this study, students' essays were downloaded from Google Docs and saved as Word documents. From here, student comments and revisions were manually coded. The researcher copied and pasted each comment and revision into a self-developed tabular file in Excel, which housed all of the coding categories specified in the analysis frameworks. However, this process would not be possible for larger data sets. This is where the more advanced web-based peer review systems could be useful as research resources. For example, SWoRD™ (Cho & Schunn, 2004), now rebranded as Peerceptiv® (https://www.peerceptiv.com), provides the researcher with the means to collect large well-structured sets of student-generated data (feedback and revisions) in a corpus ready to be analysed. Therefore, newer and more advanced research tools need to be employed in future research if large datasets are to be dealt with.

9.6 Directions for future research

Findings of the present thesis prompt several directions for future research. First, this study uses Google Docs as an asynchronous CMC tool for peer written feedback. However, other CMC tools and forms could be trialled together with F2F tools and forms of peer feedback in two sequences to either confirm or disconfirm findings of the present thesis.

Second, future research can get teachers involved to yield even further insight into the writing process. In this study, peer feedback was administered outside of class hours and with the students only. However, similar modes and sequences of peer feedback could be trialled with writing teachers as the key facilitators of the process. Student writing could benefit from their teachers being familiar with using technology in facilitating the teaching of writing.

Third, a more experimental approach could be used to test the results of the present thesis. That is, future research could have two separate groups of students involved, with each trying either WACMC–OF2F or OF2F–WACMC sequence. Even though the L2 writing field prefers collecting data from naturalistic rather than controlled conditions (Hyland, 2016), taking the latter approach could help attain a more definite answer to the question of which sequence is better, WACMC–OF2F or OF2F–WACMC.

Finally, as with a majority of research in L2 writing, 26 students of the thesis is a small sample. Future research should be conducted with a larger sample size if researcher aims to

generalise their findings.

9.7 Summary

The present research examines the affordances of each of the two peer feedback modes, CMC and F2F, particularly of WACMC and OF2F forms, and of the two sequences formed by them in terms of student feedback, revision, and writing quality. The study found that, when used together, the CMC mode, or WACMC form, was used as the key medium for providing feedback and making revision. This finding provided empirical evidence showing the potential of asynchronous written electronic feedback over the traditional oral face-to-face feedback. Answering the call of previous research, the study also explored the effects of sequences of modes. It found that WACMC followed by OF2F was a better choice, resulting in better effects on student feedback and revision. Together, the study contributes to SLW and CALL research. It provides a fundamental foundation for further research into peer feedback using CMC and F2F modes.

REFERENCES

Alharbi, S. H. (2018). Using CALL in teaching writing: An explicatory study on its efficacy for ESL/EFL learners. *Arab World English Journal*, (4), 4–12. https://doi.org/10.24093/awej/call4.1

Allen, D., & Mills, A. (2016). The impact of second language proficiency in dyadic peer feedback. *Language Teaching Research*, *20*(4), 498–513. https://doi.org/10.1177/1362168814561902

Altstaedter, L. L. (2018). Investigating the impact of peer feedback in foreign language writing. *Innovation in Language Learning and Teaching*, *12*(2), 137–151. https://doi.org/10.1080/17501229.2015.1115052

Apple, K. J., Reis-Bergan, M., Adams, A. H., & Saunders, G. (2011). Online tools to promote student collaboration. In D. S. Dunn, J. H. Wilson, J. Freeman, & J. R. Stowell (Eds.), *Best practices for technology-enhanced teaching and learning: Connecting to psychology and the social sciences* (pp. 239–252). Oxford University Press.

Barkaoui, K. (2007). Revision in second language writing: What teachers need to know. *TESL Canada Journal*, *25*(1), 81–92.

Barkaoui, K. (2010). Variability in ESL essay rating processes: The role of the rating scale and rater experience. *Language Assessment Quarterly*, *7*(1), 54–74. https://doi.org/10.1080/15434300903464418

Berg, E. C. (1999a). Preparing ESL students for peer response. *TESOL Journal*, *8*(2), 20–25.

Berg, E. C. (1999b). The effects of trained peer response on ESL students' revision types and writing quality. *Journal of Second Language Writing*, *8*(3), 215–241. https://doi.org/10.1016/S1060-3743(99)80115-5

Berger, V. (1990). The effects of peer and self-feedback. *CATESOL Journal*, *3*, 21–35.

Bitchener, J., & Ferris, D. (2012). *Written corrective feedback in second language acquisition and writing*. New York: Routledge.

Bitchener, J., Young, S., & Cameron, D. (2005). The effect of different types of corrective feedback on ESL student writing. *Journal of Second Language Writing*, *14*(3), 191–205. https://doi.org/10.1016/j.jslw.2005.08.001

Braine, G. (1997). Beyond word processing: Networked computers in ESL writing classes. *Computers and Composition*, *14*(1), 45–58.

Braine, G. (2001). A study of English as a foreign language (EFL) writers on a local-area network (LAN) and in traditional classes. *Computers and Composition*, *18*(3), 275–292. https://doi.org/10.1016/S8755-4615(01)00056-1

Brannon, L., Courtney, J. P., Urbanski, C. P., Woodward, S. V., Reynolds, J. M., Iannone, A. E., … Kendrick, M. (2008). The five-paragraph essay and the deficit model of education. *English Journal*, *98*(2), 16–21.

Bridwell, L. S. (1980). Revising strategies in twelfth grade students' transactional writing. *Research in the Teaching of English*, *14*(3), 197–222.

Broad, B. (2003). *What we really value: Beyond rubrics in teaching and assessing writing*. University Press of Colorado.

Bruner, J. S. (1978). The role of dialogue in language acquisition. In A. Sinclair, R. J. Jarvella, & W. J. M. Levelt (Eds.), *The child's conception of language* (pp. 241–256). Springer Science & Business Media.

Can, R. (2017). Analysis of written expression revision skills of the students in faculty of education. *Educational Research and Reviews*, *12*(5), 267–271. https://doi.org/10.5897/ERR2016.3120

Caplan, N. A., & de Oliveira, L. C. (2016, December 2). Why we still won't teach the five-paragraph essay [Blog post]. Retrieved October 27, 2017, from TESOL Blog website: http://blog.tesol.org/why-we-still-wont-teach-the-5-paragraph-essay/

Casanave, C. P. (2017). *Controversies in second language writing: Dilemmas and decisions in research and instruction*. University of Michigan Press.

Chang, C.-F. (2009). Peer through synchronous and asynchronous CMC modes: A case study in a Taiwanese college English writing course. *JALTCALL Journal*, *5*(1), 45–64.

Chang, C.-F. (2012). Peer review via three modes in an EFL writing course. *Computers and Composition*, *29*(1), 63–78. https://doi.org/10.1016/j.compcom.2012.01.001

Chang, Y. (2016). Two decades of research in L2 peer review. *Journal of Writing Research*, *8*(1), 81–117.

Chao, Y.-C. J., & Lo, H.-C. (2009). Students' perceptions of Wiki-based collaborative writing for learners of English as a foreign language. *Interactive Learning Environments*, *19*(4), 395–411. https://doi.org/10.1080/10494820903298662

Chen, T. (2016). Technology-supported peer feedback in ESL/EFL writing classes: A research synthesis. *Computer Assisted Language Learning*, *29*(2), 365–397. https://doi.org/10.1080/09588221.2014.960942

Chien, S.-C. (2012). Students' use of writing strategies and their English writing achievements in Taiwan. *Asia Pacific Journal of Education*, *32*(1), 93–112. https://doi.org/10.1080/02188791.2012.655240

Cho, K., & MacArthur, C. (2010). Student revision with peer and expert reviewing. *Learning and Instruction*, *20*(4), 328–338. https://doi.org/10.1016/j.learninstruc.2009.08.006

Cho, K., & Schunn, C. D. (2004). The SWoRD is mightier than the pen: scaffolded writing and rewriting in the discipline. *Advanced Learning Technologies. Proceedings.*, 545–549. https://doi.org/10.1109/ICALT.2004.1357474

Cho, K., Schunn, C. D., & Charney, D. (2006). *Commenting on Writing: Typology and Perceived Helpfulness of Comments from Novice Peer Reviewers and Subject Matter Experts*. https://doi.org/10.1177/0741088306289261

Choi, J. W. (2008). The role of online collaboration in promoting ESL writing. *English Language Teaching*, *1*(1), 34–49. https://doi.org/10.5539/elt.v1n1p34

Çiftçi, H., & Aslan, E. (2019). Computer-mediated communication in the L2 writing process: A review of studies between 2000 and 2017. *International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT)*, *9*(2), 19–36. https://doi.org/10.4018/IJCALLT.2019040102

Ciftci, H., & Kocoglu, Z. (2012). Effects of peer e-feedback on Turkish EFL students' writing performance. *Journal of Educational Computing Research*, *46*(1), 61–84.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen, L., Manion, L., & Morrison, K. (2017). *Research methods in education*. London, United Kingdom: Routledge.

Connor, U., & Asenavage, K. (1994a). Peer response groups in ESL writing classes: How much impact on revision? *Journal of Second Language Writing*, *3*(3), 257–276. https://doi.org/10.1016/1060-3743(94)90019-1

Connor, U., & Asenavage, K. (1994b). Peer response groups in ESL writing classes: How much impact on revision? *Journal of Second Language Writing*, *3*(3), 257–276.

Connor, U., & Asenavage, K. (1994c). Peer response groups in ESL writing classes: How much impact on revision? *Journal of Second Language Writing*, *3*(3), 257–276.

Coté, R. A. (2014). Peer feedback in anonymous peer review in an EFL writing class in Spain. *Gist Education and Learning Research Journal*, *9*, 67–87.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE.

Dang, X. T., Nicholas, H., & Lewis, R. (2012). ICT training and ICT use among Vietnamese foreign language teachers. *Ubiquitous Learning: An International Journal*, *5*(3), 13–24.

Davis, L. (2018). Analytic, holistic, and primary trait marking scales. In *The TESOL Encyclopedia of English Language Teaching* (pp. 1–6). https://doi.org/10.1002/9781118784235.eelt0365

Diab, N. M. (2011). Assessing the relationship between different types of student feedback and the quality of revised writing. *Assessing Writing*, *16*(4), 274–292. https://doi.org/10.1016/j.asw.2011.08.001

DiGiovanni, E., & Nagaswami, G. (2001). Online peer review: An alternative to face-to-face? *ELT Journal*, *55*(3), 263–272. https://doi.org/10.1093/elt/55.3.263

Dippold, D. (2009). Peer feedback through blogs: Student and teacher perceptions in an advanced German class. *ReCALL*, *21*(1), 18–36. https://doi.org/10.1017/S095834400900010X

Donato, R. (1994). Collective scaffolding in second language learning. In J. P. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research*. Greenwood Publishing Group.

Doughty, C., & Williams, J. (1998). Pedagogical choices in focus on form. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 197–261). Cambridge University Press.

East, M. (2009). Evaluating the reliability of a detailed analytic scoring rubric for foreign language writing. *Assessing Writing*, *14*(2), 88–115. https://doi.org/10.1016/j.asw.2009.04.001

Ebadi, S., & Rahimi, M. (2017a). Exploring the impact of online peer-editing using Google Docs on EFL learners' academic writing skills: a mixed methods study. *Computer Assisted Language Learning*, 1–29. https://doi.org/10.1080/09588221.2017.1363056

Ebadi, S., & Rahimi, M. (2017b). Exploring the impact of online peer-editing using Google Docs on EFL learners' academic writing skills: a mixed methods study. *Computer Assisted Language Learning*, *30*(8), 787–815. https://doi.org/10.1080/09588221.2017.1363056

Eddington, D. (2016). *Statistics for linguists: A step-by-step guide for novices*. Cambridge Scholars Publishing.

Ellis, R. (2012). *Language teaching research and language pedagogy*. John Wiley & Sons.

Elola, I., & Oskoz, A. (2016). Supporting second language writing using multimodal feedback. *Foreign Language Annals*, *49*(1), 58–74. https://doi.org/10.1111/flan.12183

Evans, C. (2018). Analysing semi-structured interviews using thematic analysis: Exploring voluntary civic participation among adults. In J. Lewis (Ed.), *Dataset for teaching*. https://doi.org/10.4135/9781526439284

Faigley, L., & Witte, S. (1981). Analyzing revision. *College Composition and Communication*, *32*(4), 400–414. https://doi.org/10.2307/356602

Falvey, P. (1993). *Towards a description of corporate revision* (Unpublished doctoral dissertation). University of Birmingham, UK.

Ferris, D. (1999). The case for grammar correction in L2 writing classes: A response to Truscott (1996). *Journal of Second Language Writing*, *8*(1), 1–11. https://doi.org/10.1016/S1060-3743(99)80110-6

Ferris, D. R. (1997). The influence of teacher commentary on student revision. *TESOL Quarterly*, *31*(2), 315–339.

Ferris, D. R. (2003). *Response to student writing: Implications for second language students*. Routledge.

Ferris, D. R., & Hedgcock, J. (2013). *Teaching L2 composition: Purpose, process, and practice*. Routledge.

Flower, L., & Hayes, J. R. (1981). A Cognitive Process Theory of Writing. *College Composition and Communication*, *32*(4), 365. https://doi.org/10.2307/356600

Foley, H. (2004). Carryover effects. In *The SAGE Encyclopedia of Social Science Research Methods* (Vol. 1, pp. 89–90). https://doi.org/10.4135/9781412950589.n87

Ghalib, T. K., & Al-Hattami, A. A. (2015). Holistic versus analytic evaluation of EFL writing: A case study. *English Language Teaching*, *8*(7), 225–236. https://doi.org/10.5539/elt.v8n7p225

Goldstein, L. M., & Conrad, S. M. (1990). Student input and negotiation of meaning in ESL writing conferences. *TESOL Quarterly*, *24*(3), 443–460. https://doi.org/10.2307/3587229

Government of Vietnam, No. 2080/QĐ-TTg. (2017). *Amendments to decision 1400 QĐ-TTg 2018*. Retrieved from http://ngoainguquocgia.moet.gov.vn/van-ban/id/127/moduleId/485/control/Open

Guardado, M., & Shi, L. (2007). ESL students' experiences of online peer feedback. *Computers and Composition*, *24*(4), 443–461. https://doi.org/10.1016/j.compcom.2007.03.002

Guest, G., Namey, E., Taylor, J., Eley, N., & McKenna, K. (2017). Comparing focus groups and individual interviews: findings from a randomized study. *International Journal of Social Research Methodology*, *20*(6), 693–708. https://doi.org/10.1080/13645579.2017.1281601

Hall, C. (1990). Managing the complexity of revising across languages. *TESOL Quarterly*, *24*(1), 43–60. https://doi.org/10.2307/3586851

Hamp-Lyons, L. (1991). Scoring procedures for ESL contexts. In L. Hamp-Lyons (Ed.), *Assessing second language writing in academic contexts* (pp. 241–276). Ablex Publishing Corporation.

Hamp-Lyons, L. (2003). Writing teachers as assessors of writing. In B. Kroll (Ed.), *Exploring the dynamics of second language writing*. Cambridge University Press.

Hamp-Lyons, L. (2016a). Farewell to holistic scoring? *Assessing Writing*, *27*, A1–A2. https://doi.org/10.1016/j.asw.2015.12.002

Hamp-Lyons, L. (2016b). Farewell to holistic scoring. Part Two: Why build a house with only one brick? *Assessing Writing*, *29*, A1–A5. https://doi.org/10.1016/j.asw.2016.06.006

Heary, C., & Hennessy, E. (2006). Focus groups versus individual interviews with children: A comparison of data. *The Irish Journal of Psychology*, *27*(1–2), 58–68. https://doi.org/10.1080/03033910.2006.10446228

Hillocks, G. (1995). *Teaching writing as reflective practice*. Teachers College Press.

Ho, M. (2012). The efficacy of electronic peer feedback: From Taiwanese EFL students' perspectives. *International Journal of Arts & Sciences*, *5*(5), 423–428.

Ho, M. (2015). The effects of face-to-face and computer-mediated peer review on EFL writers' comments and revisions. *Australasian Journal of Educational Technology*, *31*(1), 1–15. https://doi.org/10.14742/ajet.v0i0.495

Ho, M., & Savignon, S. J. (2007). Face-to-face and computer-mediated peer review in EFL writing. *CALICO Journal*, *24*(2), 269–290.

Hu, G. (2005). Using peer review with Chinese ESL student writers. *Language Teaching Research*, *9*(3), 321–342. https://doi.org/10.1191/1362168805lr169oa

Hunt, K. W. (1965). *Grammatical structures written at three grade levels. NCTE research report No. 3*. Retrieved from https://eric.ed.gov/?id=ED113735

Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting error and bias in research findings*. SAGE.

Huot, B. (1990). Reliability, validity, and holistic scoring: What we know and what we need to know. *College Composition and Communication*, *41*(2), 201–213. https://doi.org/10.2307/358160

Hyland, F., & Hyland, K. (2001). Sugaring the pill: Praise and criticism in written feedback. *Journal of Second Language Writing*, *10*(3), 185–212. https://doi.org/10.1016/S1060-3743(01)00038-8

Hyland, K. (2014). Digging up texts and transcripts: Confessions of a discourse analyst. In P. K. Matsuda & T. Silva (Eds.), *Second language writing research: Perspectives on the process knowledge construction* (pp. 177–189). Mahwah, NJ: Lawrence Erlbaum.

Hyland, K. (2015). *Teaching and researching writing* (3rd edition). New York: Routledge.

Hyland, K. (2016). Methods and methodologies in second language writing research. *System*, *59*, 116–125. https://doi.org/10.1016/j.system.2016.05.002

Hyland, K., & Hyland, F. (2006). Feedback on second language students' writing. *Language Teaching*, *39*(02), 83–101. https://doi.org/10.1017/S0261444806003399

Javadi-Safa, A. (2018). A brief overview of key issues in Second Language Writing teaching and research. *International Journal of Education and Literacy Studies*, *6*(2), 12. https://doi.org/10.7575/aiac.ijels.v.6n.2p.15

Ji, X. (2011). Topic effects on writing performance: What do students and their writings tell us? *The Journal of AsiaTEFL*, *8*(1), 23–38.

Jones, R. H., Garralda, A., Li, D. C. S., & Lock, G. (2006). Interactional dynamics in on-line and face-to-face peer-tutoring sessions for second language writers. *Journal of Second Language Writing*, *15*(1), 1–23. https://doi.org/10.1016/j.jslw.2005.12.001

Kamimura, T. (2006). Effects of peer feedback on EFL student writers at different levels of English proficiency: A Japanese context. *TESL Canada Journal*, *23*(2), 12–39. https://doi.org/10.18806/tesl.v23i2.53

Kern, R., & Warschauer, M. (2000). Introduction: Theory and practice of network-based language teaching. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 1–19). Cambridge: Cambridge University Press.

Kim, T. T., Osman, S. B., Thai, C. D., & Ahmad, N. S. B. (2016). Developing research paper writing programs for EFL/ESL undergraduate students using process genre approach. *Higher Education Studies*, *6*(2), 19–29. https://doi.org/10.5539/hes.v6n2p19

Krashen, S. D. (1985). *The input hypothesis: issues and implications*. Longman.

Lam, R. (2010). A peer review training workshop: Coaching students to give and evaluate peer feedback. *TESL Canada Journal*, *27*(2), 114–127. https://doi.org/10.18806/tesl.v27i2.1052

Larson-Hall, J. (2010). *A guide to doing statistics in second language research using SPSS*. New York: Routledge.

Le V. C., & Nguyen T. N. (2017). Đ`êand ngoại ngữ quốc gia 2020 có thể học được gì từ kinh nghiệm Châu Á? *VNU Journal of Foreign Studies*, *33*(4), 10–23. https://doi.org/10.25073/2525-2445/vnufs.4166

Lee, I. (2014). Feedback in writing: Issues and challenges. *Assessing Writing*, *19*, 1–5. https://doi.org/10.1016/j.asw.2013.11.009

Lee, I. (2017). *Classroom writing assessment and feedback in L2 school contexts*. https://doi.org/10.1007/978-981-10-3924-9

Leijen, D. A. J. (2017). A novel approach to examine the impact of Web-based peer review on the revisions of L2 writers. *Computers and Composition*, *43*, 35–54. https://doi.org/10.1016/j.compcom.2016.11.005

Leki, I. (1990). Coaching from the margins: Issues in written response. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 57–68). Cambridge: Cambridge University Press.

Leki, I. (2010). Second Language Writing in English. *The Oxford Handbook of Applied Linguistics*. https://doi.org/10.1093/oxfordhb/9780195384253.013.0007

Levy, M., & Stockwell, G. (2006). *CALL dimensions : Options and issues in computer-assisted language learning*. Mahwah, NJ: Lawrence Erlbaum Associates.

Li, M., & Li, J. (2017). Online peer review using Turnitin in first-year writing classes. *Computers and Composition*, *46*, 21–38. https://doi.org/10.1016/j.compcom.2017.09.001

Liang, M.-Y. (2010). Using synchronous online peer response groups in EFL writing: Revision-related discourse. *Language Learning*, *14*(1), 45–64.

Lin, H. (2014). Establishing an empirical link between computer-mediated communication (CMC) and SLA: A meta-analysis of the research. *Language Learning & Technology*, *18*(3), 120–147.

Liou, H.-C., & Peng, Z.-Y. (2009). Training effects on computer-mediated peer review. *System*, *37*(3), 514–525. https://doi.org/10.1016/j.system.2009.01.005

Liu, J., & Edwards, J. H. (2018). *Peer response in second language writing classrooms*. (2nd ed.). University of Michigan Press.

Liu, J., & Hansen, J. G. (2002). *Peer response in second language writing classrooms*. University of Michigan Press.

Liu, J., & Sadler, R. W. (2003). The effect and affect of peer review in electronic versus traditional modes on L2 writing. *Journal of English for Academic Purposes*, *2*(3), 193–227. https://doi.org/10.1016/S1475-1585(03)00025-0

Lockhart, C., & Ng, P. (1995). Analyzing talk in ESL peer response groups: Stances, functions, and content. *Language Learning*, *45*(4), 605–651. https://doi.org/10.1111/j.1467-1770.1995.tb00456.x

Lombard, M., Snyder-Duch, J., & Bracken, C. (2017). Intercoder reliability. In M. Allen (Ed.), *The SAGE Encyclopedia of Communication Research Methods* (pp. 721–724). https://doi.org/10.4135/9781483381411

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413–468). San Diego: Academic Press.

Lu, R., & Bol, L. (2007). A comparison of anonymous versus identifiable e-peer review on college student writing performance and the extent of critical feedback. *Journal of Interactive Online Learning*, *6*(2), 100–115.

Mackey, A., & Gass, S. M. (2015). *Second language research: Methodology and design*. Routledge.

Manchón, R. (2009). Broadening the perspective of L2 writing scholarship: The contribution of research on foreign language writing. In R. Manchón (Ed.), *Writing in foreign language contexts: learning, teaching, and research* (pp. 1–19). Buffalo: Multilingual Matters.

Mangelsdorf, K. (1992). Peer reviews in the ESL composition classroom: What do the students think? *ELT Journal*, *46*(3), 274–284. https://doi.org/10.1093/elt/46.3.274

Matsuda, P. K. (2003). Process and post-process: A discursive history. *Journal of Second Language Writing*, *12*(1), 65–83. https://doi.org/10.1016/S1060-3743(02)00127-3

McAteer, E., Tolmie, A., Duffy, C., & Corbett, J. (1997). Computer-mediated communication as a learning resource. *Journal of Computer Assisted Learning*, *13*(4), 228–235. https://doi.org/10.1046/j.1365-2729.1997.00024.x

Mendonça, C. O., & Johnson, K. E. (1994). Peer review negotiations: Revision activities in ESL writing instruction. *TESOL Quarterly*, *28*(4), 745–769. https://doi.org/10.2307/3587558

Min, H.-T. (2005). Training students to become successful peer reviewers. *System*, *33*(2), 293–308. https://doi.org/10.1016/j.system.2004.11.003

Min, H.-T. (2006). The effects of trained peer review on EFL students' revision types and writing quality. *Journal of Second Language Writing*, *15*(2), 118–141. https://doi.org/10.1016/j.jslw.2006.01.003

Min, H.-T. (2008). Reviewer stances and writer perceptions in EFL peer review training. *English for Specific Purposes*, *27*(3), 285–305. https://doi.org/10.1016/j.esp.2008.02.002

Moore, T., & Morton, J. (1999). Authenticity in the IELTS Academic Module Writing Test: A comparative study of Task 2 items and university assignments. *International English Language Testing System (IELTS) Research Reports 1999, Volume 2*, 74.

Nation, P., & Meara, P. (2002). Vocabulary. In N. Schmitt (Ed.), *An introduction to Applied Linguistics* (pp. 35–54). Routledge.

Nelson, G. L., & Carson, J. G. (1998). ESL students' perceptions of effectiveness in peer response groups. *Journal of Second Language Writing*, *7*(2), 113–131. https://doi.org/10.1016/S1060-3743(98)90010-8

Nelson, G. L., & Murphy, J. M. (1992). An L2 writing group: Task and social dimensions. *Journal of Second Language Writing*, *1*(3), 171–193.

Nelson, G. L., & Murphy, J. M. (1993). Peer response groups: Do L2 writers use peer comments in revising their drafts? *TESOL Quarterly*, *27*(1), 135–141. https://doi.org/10.2307/3586965

Nelson, M. M., & Schunn, C. D. (2009a). The nature of feedback: how different types of peer feedback affect writing performance. *Instructional Science*, *37*(4), 375–401. https://doi.org/10.1007/s11251-008-9053-x

Nelson, M. M., & Schunn, C. D. (2009b). The nature of feedback: how different types of peer feedback affect writing performance. *Instructional Science*, *37*(4), 375–401. https://doi.org/10.1007/s11251-008-9053-x

Nemati, M. (1999). *The effect of mode of discourse on EFL writing performance* (Unpublished doctoral dissertation). University of Leicester, UK.

Nguyen, H. T. M. (2017). *Models of mentoring in language teacher education*. Cham: Springer International Publishing.

Nguyen, V. L. (2013). Wiki-mediated peer review process: Participation and interaction. In M. Elspeth (Ed.), *ePedagogy in online learning: New developments in Web mediated human computer interaction* (pp. 134–151). Hershey PA, USA: IGI Global.

Paulus, T. M. (1999a). The effect of peer and teacher feedback on student writing. *Journal of Second Language Writing*, *8*(3), 265–289. https://doi.org/10.1016/S1060-3743(99)80117-9

Paulus, T. M. (1999b). The effect of peer and teacher feedback on student writing. *Journal of Second Language Writing*, *8*(3), 265–289. https://doi.org/10.1016/S1060-3743(99)80117-9

Phakiti, A. (2015). Quantitative research and analysis. In B. Paltridge & A. Phakiti (Eds.), *Research methods in applied linguistics: A practical resource* (pp. 27–47). Bloomsbury Publishing.

Pham, N. T. T., Keong, T. C., & Wah, L. K. (2018). Exploring teaching English using ICT in Vietnam: The lens of activity theory. *International Journal of Modern Trends in Social Sciences*, *1*(3), 15–29.

Pham, V. P. H., & Usaha, S. (2009). Blog-based peer response for EFL writing: A case study in Viet Nam. *AsiaCall Online Journal*, *4*(1), 1–29.

Pham, V. P. H., & Usaha, S. (2016). Blog-based peer response for L2 writing revision. *Computer Assisted Language Learning*, *29*(4), 724–748. https://doi.org/10.1080/09588221.2015.1026355

Polio, C. (2012). Research methodology in second language writing research: The case of text-based studies. In T. Silva & P. K. Matsuda (Eds.), *On second language writing* (pp. 91–115). Routledge.

Porte, G. K. (2002). *Appraising research in second language learning: A practical approach to critical analysis of quantitative research*. Amsterdam: John Benjamins Publishing.

Rahimi, M. (2013). Is training student reviewers worth its while? A study of how training influences the quality of students' feedback and writing. *Language Teaching Research*, *17*(1), 67–89.

Raimes, A. (1983). Anguish as a second language? Remedies for composition teachers. In A. Freeman, I. Pringle, & J. Yalden (Eds.), *Learning to write: First language/second language* (pp. 258–272). Harlow, England: Longman.

Rashid, S. M., & Chan, S. H. (2017). Exploring the interplay of mode of discourse and proficiency level in ESL writing performance: Implications for testing. *The English Teacher*, *37*, 105–122.

Reid, J., & Kroll, B. (1990). Responding to different topic types: A quantitative analysis from a contrastive rhetoric perspective. In *Second language writing: Research insights for the classroom* (pp. 191–210). Cambridge: Cambridge University Press.

Robinson, J. M. (2002). In search of fairness: An application of multi-reviewer anonymous peer review in a large class. *Journal of Further and Higher Education*, *26*(2), 183–192. https://doi.org/10.1080/03098770220129451

Roca de Larios, J., Manchón, R., Murphy, L., & Marín, J. (2008). The foreign language writer's strategic behaviour in the allocation of time to writing processes. *Journal of Second Language Writing*, *17*(1), 30–47. https://doi.org/10.1016/j.jslw.2007.08.005

Roux-Rodriguez, R. (2003). *Computer mediated peer response and its impact on revision in the college Spanish classroom: A case study* (Unpublished doctoral dissertation). University of South Florida.

Ruegg, R. (2015). The relative effects of peer and teacher feedback on improvement in EFL students' writing ability. *Linguistics and Education*, *29*, 73–82. https://doi.org/10.1016/j.linged.2014.12.001

Ruegg, R., & Sugiyama, Y. (2013). Organization of ideas in writing: what are raters sensitive to? *Language Testing in Asia*, *3*(1), 8.

Ruth, L., & Murphy, S. (1988). *Designing writing tasks for the assessment of writing*. Norwood, NJ: Ablex Publishing Corporation.

Saeed, M. A., & Ghazali, K. (2016). Modeling peer revision among EFL learners in an online learning community. *Journal of Foreign Language Teaching*, *13*(2), 275–292.

Schultz, J. M. (2000). Computers and collaborative writing in the foreign language curriculum. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 121–150). Cambridge: Cambridge University Press.

Sengupta, S. (1998). From text revision to text improvement: A story of secondary school composition. *RELC Journal*, *29*(1), 110–137.

Seyyedrezaie, Z. S., Ghonsooly, B., Shahriari, H., & Fatemi, A. H. (2016). Examining the effects of Google Docs-based instruction and peer feedback types (implicit vs. explicit) on EFL learners' writing performance. *CALL-EJ*, *17*(1), 35–51.

Shami, L., & Mahmoudi, A. (2017). The relationship between Iranian EFL learners' proficiency levels and their revising practices. *Journal of Applied Linguistics and Language Research*, *4*(4), 230–242.

So, L., & Lee, C. H. (2012). Peer feedback using blended learning in L2 writing at the university level. *English Teaching*, *67*(3), 307–337.

Sommers, N. (1980a). Revision strategies of student writers and experienced adult writers. *College Composition and Communication*, *31*(4), 378–388. https://doi.org/10.2307/356588

Sommers, N. (1980b). Revision strategies of student writers and experienced adult writers. *College Composition and Communication*, *31*(4), 378. https://doi.org/10.2307/356588

Stanley, J. (1992). Coaching student writers to be effective peer evaluators. *Journal of Second Language Writing*, *1*(3), 217–233.

Strobl, C., & Satar, H. M. (2018). Spoilt for choice: A plethora of modes for electronic feedback on second language writing. *Writing & Pedagogy*, *9*(3), 393–403. https://doi.org/10.1558/wap.35663

Sullivan, N., & Pratt, E. (1996). A comparative study of two ESL writing environments: A computer-assisted classroom and a traditional oral classroom. *System*, *24*(4), 491–501. https://doi.org/10.1016/S0346-251X(96)00044-9

Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics*, *16*(3), 371–391. https://doi.org/10.1093/applin/16.3.371

Tahriri, A., Hassaskhah, J., & Mozafarian Pour, A. (2015). The impact of synchronous computer-mediated communication on EFL learners' motivation. *International Journal of Research Studies in Educational Technology*, *4*(2), 3–17. https://doi.org/10.5861/ijrset.2015.1053

Ting, M., & Qian, Y. (2010). A case study of peer feedback in a Chinese EFL writing classroom. *Chinese Journal of Applied Linguistics*, *33*(4), 87–98.

Tran, T. L. (2007). Learners' motivation and identity in the Vietnamese EFL writing classroom. *English Teaching: Practice & Critique*, *6*(1), 151–163.

Tran, T. Q. N., & Le, X. M. (2018). High school students' perceptions of the use of Facebook-based e-portfolios in EFL writing: A case in the Mekong Delta, Vietnam. *European Journal of Education Studies*, *4*(8), 27–48. https://doi.org/10.5281/zenodo.1256166

Truong, M. H., & Pham, V. P. H. (2017). High school teachers' pedagogical beliefs in English as a foreign language writing instruction. *Journal of Science Ho Chi Minh City Open University*, *7*(4), 21–33.

Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning*, *46*(2), 327–369. https://doi.org/10.1111/j.1467-1770.1996.tb01238.x

Tsui, A. B. M., & Ng, M. (2000). Do secondary L2 writers benefit from peer comments? *Journal of Second Language Writing*, *9*(2), 147–170. https://doi.org/10.1016/S1060-3743(00)00022-9

Tuzi, F. (2004). The impact of e-feedback on the revisions of L2 writers in an academic writing course. *Computers and Composition*, *21*(2), 217–235. https://doi.org/10.1016/j.compcom.2004.02.003

Uysal, H. H. (2010). A critical review of the IELTS writing test. *ELT Journal*, *64*(3), 314–320. https://doi.org/10.1093/elt/ccp026

Vaezi, S., & Abbaspour, E. (2015). Asynchronous online peer written corrective feedback: Effects and affects. In M. Rahimi (Ed.), *Handbook of research on individual differences in computer-assisted language learning* (pp. 271–297). Hershey, PA: IGI Global.

Villamil, O. S., & Guerrero, M. C. M. D. (1998). Assessing the impact of peer revision on L2 writing. *Applied Linguistics*, *19*(4), 491–514. https://doi.org/10.1093/applin/19.4.491

Vorobel, O., & Kim, D. (2013). Focusing on content: Discourse in L2 peer review groups. *TESOL Journal*, *5*(4), 698–720. https://doi.org/10.1002/tesj.126

Vygotsky, L. S. (1978). *Mind in society: the development of higher psychological processes*. Cambridge: Harvard University Press.

Wang, J.-H., Hsu, S.-H., Chen, S. Y., Ko, H.-W., Ku, Y.-M., & Chan, T.-W. (2014). Effects of a mixed-mode peer response on student response behavior and writing performance. *Journal of Educational Computing Research*, *51*(2), 233–256. https://doi.org/10.2190/EC.51.2.e

Warschauer, M. (1996). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal*, *13*(2), 7–26.

Weinberg, S. L., & Abramowitz, S. K. (2002). *Data analysis for the behavioral sciences using SPSS*. London: Cambridge University Press.

Wesley, K. (2000). The ill effects of the Five Paragraph theme. *The English Journal*, *90*(1), 57–60. https://doi.org/10.2307/821732

White, E. M. (1994). *Teaching and assessing writing: Recent advances in understanding, evaluating, and improving student performance*. (2nd ed.). San Francisco: Jossey-Bass.

Woo, M. M., Chu, S. K. W., & Li, X. (2013). Peer-feedback and revision process in a wiki mediated collaborative writing. *Educational Technology Research and Development*, *61*(2), 279–309. https://doi.org/10.1007/s11423-012-9285-y

Wu, W.-C. V., Petit, E., & Chen, C.-H. (2015). EFL writing revision with blind expert and peer review using a CMC open forum. *Computer Assisted Language Learning*, *28*(1), 58–80. https://doi.org/10.1080/09588221.2014.937442

Yang, M., Badger, R., & Yu, Z. (2006). A comparative study of peer and teacher feedback in a Chinese EFL writing class. *Journal of Second Language Writing*, *15*(3), 179–200. https://doi.org/10.1016/j.jslw.2006.09.004

Yin, R. K. (2017). *Case Study Research and Applications: Design and Methods*. SAGE Publications.

Yu, S., & Hu, G. (2017). Understanding university students' peer feedback practices in EFL writing: Insights from a case study. *Assessing Writing*, *33*, 25–35. https://doi.org/10.1016/j.asw.2017.03.004

Zacharias, N. T. (2007). Teacher and student attitudes toward teacher feedback. *RELC Journal*, *38*(1), 38–52. https://doi.org/10.1177/0033688206076157

Zamel, V. (1982). Writing: The process of discovering meaning. *TESOL Quarterly*, *16*(2), 195–209. https://doi.org/10.2307/3586792

Zamel, V. (1983). The composing processes of advanced ESL students: Six case studies. *TESOL Quarterly*, *17*(2), 165–188. https://doi.org/10.2307/3586647

Zamel, V. (1985). Responding to student writing. *TESOL Quarterly*, *19*(1), 79–101. https://doi.org/10.2307/3586773

Zarins, K. (2016, September 10). My anti-five-paragraph essay [Blog post]. Retrieved October 23, 2017, from Literacy & NCTE website:

http://blogs.ncte.org/index.php/2016/09/anti-five-paragraph-essay-five-paragraph-essay/

Zhang, P., & Li, N. (2004). An assessment of human–computer interaction research in management information systems: topics and methods. *Computers in Human Behavior*, *20*(2), 125–147. https://doi.org/10.1016/j.chb.2003.10.011

Zhang, S. (1995). Reexamining the affective advantage of peer feedback in the ESL writing class. *Journal of Second Language Writing*, *4*(3), 209–222.

Zhao, H. (2010). Investigating learners' use and understanding of peer and teacher feedback on writing: A comparative study in a Chinese English writing classroom. *Assessing Writing*, *15*(1), 3–17. https://doi.org/10.1016/j.asw.2010.01.002

Zheng, B., Lawrence, J., Warschauer, M., & Lin, C.-H. (2015). Middle school students' writing and feedback in a cloud-based classroom environment. *Technology, Knowledge and Learning*, *20*(2), 201–229. https://doi.org/10.1007/s10758-014-9239-z

Zheng, B., & Warschauer, M. (2017). Epilogue: Second language writing in the age of computer-mediated communication. *Journal of Second Language Writing*, *36*, 1–7. https://doi.org/10.1016/j.jslw.2017.05.014

Zhou, W., Simpson, E., & Domizi, D. P. (2012). Google Docs in an out-of-class collaborative writing activity. *International Journal of Teaching and Learning in Higher Education*, *24*(3), 359–375.

APPENDICES

Appendix 1: Student interview questions

1. Overall, do you think peer feedback is useful for your writing skills? (Follow-up questions, depending upon responses: What would you describe as its best benefit(s)? What do you find of little or no use?

2. Now think about the two sequences you took, drafting – commenting in Google Docs – discussing face to face – revising versus drafting - discussing face to face – commenting in Google Docs – revising, which sequence do you find more useful for:

(a) commenting on your peer's work
(b) revising your own work?

3. Now you have reviewed 4 essays of your peer, think about the day you reviewed the first text and after you finished the fourth, compared to the first essay, are there any differences in the way you gave feedback on your peer's second, third and fourth essays?
(a) If the answer is Yes, please describe in detail the changes you have made.
(b) If the answer is No, please say what do you need more of to help you better review your peer's essays.

4. Now think about the way you revise your written work. Could you please describe how you usually revise your essays?

5. Now think about the way you write the most recent essays, do you notice any changes in the writing process? If yes, detail those changes.

6. Describe your experience in working with you peer(s) during the essay. What do you find useful, what do you need more from your peer?

7. Do you have any difficulties with technical issues during the study? If yes, what are they?
8. Any other information you would like to add?

Appendix 2: Writing and peer feedback survey

PART I: PEER FEEDBACK IN WRITING RESEARCH

Q1. Overall, do you agree that your writing skills are improved thanks to peer feedback in this writing research? Put a tick in the appropriate box.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Usefulness of peer feedback to writing skills.	☐	☐	☐	☐	☐

Q2. What area of your writing skills is most improved thanks to peer feedback? Choose **one** answer only.

☐ Content

☐ Organisation

☐ Idea development

☐ Vocabulary

☐ Grammar

☐ Spelling and punctuation

Q3. Which of the following feedback types that your peer make on your essays? Please choose **all** that apply.

☐ Evaluation (*E.g.: Very good topic sentence*.)

☐ Suggestion (*E.g.: You should re-write the thesis statement to make it clear*.)

☐ Clarification (*E.g.: What do you mean here? I'm not clear what you mean here*.)

☐ Alteration (*E.g.: Chang 'take' into 'took'*.)

☐ Others. If your peer offers other types of feedback, please write in the box below.

_____

Q4. Please rank the following feedback types in the order of **usefulness** from **1** (**least useful**) to **4 (most useful).** Write a number in the space provided.

_____ Evaluation

_____ Suggestion

_____ Clarification

_____ Alteration

Q5. Please rank the following items in the order of **difficulty** when you **comment** your peer's essays from **1** (**least difficult**) to **6 (most difficult). Write a number in each box.**

_____ Content

_____ Organisation

_____ Idea development

_____ Vocabulary

_____ Grammar

_____ Spelling and punctuation

Q6. How useful is **written peer feedback**, i.e**.** the feedback your peer gave you in Google Docs, to the **revision** of your essays? Put a tick in the appropriate box.

	Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful
Usefulness of **written peer feedback**	☐	☐	☐	☐	☐

Q7. How useful is **oral face-to-face peer feedback**, i.e., the feedback you received from your peer through discussions, to the **revision** of your essays? Put a tick in the appropriate box.

	Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful
Usefulness of **spoken peer feedback**	☐	☐	☐	☐	☐

Q8. How do you treat peer feedback while you are **revising** your essay? Put a tick in the appropriate box.

☐ I take up **all** of my peer's comments

☐ I take up **part** of my peer's comments

☐ I usually **don't** use my peer's comments

☐ It depends. If so, please specify in the box below.

Q9. Which sequence is more helpful in **commenting** your peer's essays? Put a tick in the appropriate box.

☐ Discussing face to face before commenting in Google Docs

☐ Discussing face to face after commenting in Google Docs

Q10. Which sequence is more helpful in **revising** your essays? Put a tick in the appropriate box.

☐ Discussing face to face **before** commenting in Google Docs

☐ Discussing face to face **after** commenting in Google Docs

Q11. When you offer feedback, which sequence of the following makes you attend more to **global areas** (content, organisation, and idea development) of your peer's work? Put a tick in the appropriate box.

☐ Written comments in Google Docs **before** face-to-face discussion

☐ Written comments in Google Docs **after** face-to-face discussion

☐ Neither of the above. I hardly ever comment on global areas

Q12. How useful is Google Docs as a tool to do peer feedback? Put a tick in the appropriate box.

	Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful
Usefulness of Google Docs	☐	☐	☐	☐	☐

Q13. Which of the following is true to your experience employing peer feedback in this writing research? Choose **all** that apply.

☐ Peer feedback is useful in that **I can learn new words and sentence structures from my peer.**

☐ Peer feedback is useful in that **I can learn from the mistakes my peer makes.**

☐ Peer feedback is useful in that **my peer helps identify where needs more work, which I can't find myself.**

☐ Peer feedback is useful in that **it makes me think about my reader when I write a new essay.**

☐ Others. Please verify in the box below.

_____

Q14. Compared to teacher's feedback, which of the following is true to you? Put a tick in the appropriate box.

☐ Peer feedback is **less useful** than teacher feedback

☐ Peer feedback is **as useful as** teacher feedback

☐ Peer feedback is **more useful** than teacher feedback

Q15. What factor(s) is important to the effectiveness of peer feedback? Please choose **all** that apply.

☐ Experience

☐ Friendship

☐ Language level

☐ Settings (e.g., at home, at university)

☐ Teacher's instructions

☐ Others. Please specify in the box below.

PART II: IN-CLASS PEER FEEDBACK

Q16. How often do you do **in-class peer feedback**? Put a tick in the appropriate box.

	Always	Most of the time	About half the time	Sometimes	Never
In-class peer feedback	☐	☐	☐	☐	☐

Q17. Please rate the usefulness of **in-class peer feedback**. Put a tick in the appropriate box.

	Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful
Usefulness of **in-class peer feedback**	☐	☐	☐	☐	☐

PART III: TEACHER FEEDBACK

Q18. Did you receive enough of **teacher feedback** during the writing courses you have taken? Put a tick in the appropriate box.

☐ Definitely yes

☐ Probably yes

☐ Probably not

☐ Definitely not

Q19. Please rate the usefulness of **teacher feedback** to your written work? Put a tick in the appropriate box.

	Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful
Usefulness of **teacher feedback**	☐	☐	☐	☐	☐

Q20. Is there a tendency that your writing teachers focus more on certain areas of an essay than the others? Put a tick in the appropriate box.

☐ Yes

☐ No

Q21. What do your writing teachers tend to pay more attention to than the others with regard to their feedback? Choose **all** that apply.

☐ content

☐ grammar

☐ vocabulary

☐ organisation

☐ idea development

☐ spelling and punctuation

PART IV: DEMOGRAPHIC INFORMATION

Q22. Are you male or female?

☐ Male

☐ Female

Q23. At what age did you start learning English? Write in the space below. (*E.g.: 6*)

Q24. How long have you been learning English (in years)? Write a number (e.g. 5, 10, etc.).

Q25. Please rate the following items to show how you spend time learning the skills with **1 (least time) to 4 (most time). Write a number in each box.**

_____ Listening skills

_____ Speaking skills

_____ Reading skills

_____ Writing skills

Appendix 3: Ethics approval

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI
VICTORIA
UNIVERSITY OF WELLINGTON

Phone 0-4-463 5480
Email susan.corbett@vuw.ac.nz

MEMORANDUM

TO	Pham Thi Phuong Ha
COPY TO	Keith Comer
FROM	AProf Susan Corbett, Convener, Human Ethics Committee
DATE	17 November 2015
PAGES	1
SUBJECT	**Ethics Approval: 22332** The sequences of technology-enhanced and face-to-face peer review: review, revision and quality in L2 writing

Thank you for your application for ethical approval, which has now been considered by the Standing Committee of the Human Ethics Committee.

Your application has been approved from the above date and this approval continues until 31 January 2018. If your data collection is not completed by this date you should apply to the Human Ethics Committee for an extension to this approval.

Best wishes with the research.

Kind regards

Susan Corbett

Convener, Victoria University Human Ethics Committee

Appendix 4: Request to do research

To the Board of Faculty of Foreign Languages,

I am Ha Pham and I am carrying out this research project to complete a doctoral degree in applied linguistics at Victoria University of Wellington (VUW), School of Linguistics and Applied Linguistics. I have received approval from the VUW Human Ethics Committee to conduct this study.

My PhD project investigates writing instructions of English as a foreign language among university students and how it might affect student writing in Vietnam-based class settings.

I am writing to request your permission to conduct my research in your faculty. Should you agree to allow me to carry out this research here, I will contact teachers of your Writing 4 course. I would be asking them to introduce me to their students, and then training those students who agree to participate in a peer review process. This process is designed to help students review each other's essay writing and analyse their performance. All teacher and student participation is voluntary and separate from your official assessment system. Students' final drafts will still be graded by their teachers. Choosing to participate in my study or not will not affect students' final scores of the subject by the end of the semester.

All data collected will be presented on a confidential basis and only I and my supervisors, Dr. Keith Comer and Dr. Jean Parkinson, will have access to the data. Two years after the completion of this project, all data collected will be completely deleted.

If you have any questions or would like to receive further information about the project, I am very happy to respond. Below are my and my supervisors' contact details:

Researcher
Pham Thi Phuong Ha
hathiphuong.pham@vuw.ac.nz
School of Linguistics and Applied Language Studies
Victoria University of Wellington
PO Box 600, Wellington 6140, New Zealand
Phone: +64 4 463 5600 (Ext. 7212)
Fax: 4635604

Supervisors
Dr. Keith Comer
Keith.Comer@vuw.ac.nz
Dr. Jean Parkinson
Jean.Parkinson@vuw.ac.nz
Human Ethics Committee Convener
Associate Prof Susan Corbett
susan.corbett@vuw.ac.nz
Phone: +64-4-463 5480

Your consideration is appreciated, and I look forward to working with you and your teachers and students.

Yours sincerely,
Ha Pham

Appendix 5: Letter to the Dean of the Faculty of Foreign Languages

School of Linguistics and Applied Language Studies
Victoria University of Wellington
PO Box 600, Wellington 6140, New Zealand
Phone: +64 4 463 5600 (Ext. 7212)

Dear Dr. Dang,

My name is Ha Thi Phuong Pham, and I am a PhD student at Victoria University of Wellington. The research I wish to conduct for my Doctoral thesis involves investigating integrated peer feedback among Vietnamese students who are studying academic English writing skills. This project is conducted under the supervision of Dr. Keith Comer (keith.comer@vuw.ac.nz) and Dr. Jean Parkinson (iean.parkinson@vuw.ac.nz) at Victoria University of Wellington.

I am hereby seeking your consent to approach teachers who will be teaching the Writing 4 course and students taking this course at the Faculty of Foreign Languages, Ho Chi Minh University of Technology and Education so as to collect data for my research. I have provided you with a copy of participant information sheet with details of my research as well as my approval letter which I received from the Victoria Research Ethics Committee.

If you require any further information, please do not hesitate to contact me at ha.thiphuongpham@vuw.ac.nz. Thank you for your time and consideration in this matter.

Yours sincerely,
Ha Thi Phuong Pham

Your opinion:

Signature & name:_____

Appendix 6: Student participants' information sheet

PARTICIPANT INFORMATION SHEET
(STUDENT VERSION)

Research title: **Computer-mediated and face-to-face peer feedback in second language writing**

I am Ha Pham and I am doing this research project to complete a doctoral degree in applied linguistics at Victoria University of Wellington (VUW), School of Linguistics and Applied Linguistics. I have received approval from the VUW Human Ethics Committee to conduct this study.

My PhD project investigates writing processes for English as a foreign language among university students and how it might affect student writing in Vietnam-based class settings. I would like to invite you to participate in this study.

By joining, you would be agreeing to:

- complete a short survey at the beginning of the course.
- take part in some training I would offer in peer reviewing. This training will take place out of class hours and be scheduled at a convenient time for you; it would involve two modules that last for about an hour and ten minutes each.
- pair up with another student and provide peer feedback of his or her essays. The feedback would be written electronically via Google Docs.
- meet with your peer in person to discuss your essays and feedback. Each discussion would take about 20 minutes and be scheduled at your convenience outside of class hours; these meetings would be audio-recorded.
- be interviewed at the end of the project (we would discuss your opinions and experiences of peer feedback activities in an audio-recorded meeting of about 15 minutes).

Please note that your teachers will mark your final essay drafts. I will receive copies of your work and review and assess those in connection with my research, but my reviews are independent from those of your teachers. Your essays will also be rated by another independent rater who is not teaching at your faculty. None of our reviews or comments will have any influence on your course marks.

However, participating in my project may help you raise your scores for your final drafts because your work will have been reviewed by a peer and you will have had an opportunity to revise your essays before they are marked by your teacher.

All data collected will be treated on a confidential basis, and only I, my supervisors, Dr. Keith Comer and Dr. Jean Parkinson, and one independent rater will have access to the data. However, the independent rater will only see anonymized data, which means he/she will not see any student name or identifying feature of the students. Two years after the completion of this project, all data collected will be completely deleted.

The results of the research will be presented in my thesis, but all participants will be anonymous. You will not be individually identified in any way in the thesis, which will be publicly available. The research may also be presented at academic conferences, and published in academic journals, or books, also without identifying any participants.

Your participation is voluntary, and you can withdraw from the research project if you wish. In such a case you should withdraw before **May 28, 2016**, which is one week after the data collection finishes. Any data you have provided will therefore be deleted and any papers already collected will be destroyed. Simply inform me about your withdrawal directly or via email (details provided below) before this date.

If you have any questions, or would like to receive further information about the project, do not hesitate to contact me via the information provided below. Thank you for your cooperation.

Researcher

Pham Thi Phuong Ha

hathiphuong.pham@vuw.ac.nz

School of Linguistics and Applied Language Studies Victoria University of Wellington

PO Box 600, Wellington 6140, New Zealand

Phone: +64 4 463 5600 (Ext. 7212)

Supervisors

Dr. Keith Comer

keith.comer@vuw.ac.nz

Phone: 04 463 5629

Location: Room 307, Von Zedlitz Building, Kelburn

School of Linguistics and Applied Language Studies Victoria University of Wellington

PO Box 600, Wellington 6140, New Zealand

Dr. Jean Parkinson

jean.parkinson@vuw.ac.nz

Phone: 04 463 5233 ext. 8009

Location: Room 417, Von Zedlitz Building

School of Linguistics and Applied Language Studies Victoria University of Wellington

PO Box 600, Wellington 6140, New Zealand

Human Ethics Committee Convener

Associate Prof Susan Corbett susan.corbett@vuw.ac.nz

Phone: +64-4-463 5480

Location: Room 722, Rutherford House 23 Lambton Quay, Wellington, New Zealand

Appendix 7: Teacher information sheet

PARTICIPANT INFORMATION SHEET

(TEACHER VERSION)

Research title: **Computer-mediated and face-to-face peer feedback in second language writing**

I am Ha Pham and I am doing this research project to complete a doctoral degree in applied linguistics at Victoria University of Wellington (VUW), School of Linguistics and Applied Linguistics. I have received approval from the VUW Human Ethics Committee to conduct this study. My PhD project investigates writing instructions for English as a foreign language among university students and how it might affect student writing in Vietnam-based class settings.

I would like to invite you to participate in this study. If you agree to participate, I would request that you provide me with an introduction to your students. Because I am not a teacher at your Faculty, without your introduction I cannot approach your students. Subsequently, I will need to train those students who agree to participate in this project in the peer review process. The training will take place outside of normal class time and not interfere with your lessons. I would also need access to your students' essays as part of this research. I will be making digital copies of those essays and, independently of your assessment process, analyzing the peer feedback the students create and marking their first and final essay drafts. Another independent rater will also be involved in the rating/grading process to ensure the quality of the project; however, our rating is independent of your own grading practice. By agreeing to join my project, you will allow me to observe your class(es) too. Nevertheless, you will not be identified by any way in my reports (pseudonyms will be used throughout).

All data collected will be treated on a confidential basis, and only I, my supervisors, Dr. Keith Comer and Dr. Jean Parkinson, and one independent rater will have access to the data.

However, the independent rater will only see anonymized data, which means he/she will not see any student name or identifying feature of the students. Two years after the completion of this project, all data collected will be completely deleted.

Please note that your decision to be involved in my research is voluntary. You have the right to cease participating in this project one week after the data collection is finished, which is on **May 28, 2016**. In that case I will delete the entire data collected from your students.

If you have any questions or would like to receive further information about this project, do not hesitate to contact me via the information provided below. Thank you for your time and assistance.

Researcher
Pham Thi Phuong Ha
hathiphuong.pham@vuw.ac.nz
School of Linguistics and Applied Language Studies Victoria University of Wellington
PO Box 600, Wellington 6140, New Zealand
Phone: +64 4 463 5600 (Ext. 7212)
Fax: 4635604

Supervisors
Dr. Keith Comer
keith.comer@vuw.ac.nz
Phone: 04 463 5629
Location: Room 307, Von Zedlitz Building
School of Linguistics and Applied Language Studies Victoria University of Wellington
PO Box 600, Wellington 6140, New Zealand

Dr. Jean Parkinson
jean.parkinson@vuw.ac.nz
Phone: 04 463 5233 ext. 8009
Location: Room 417, Von Zedlitz Building
School of Linguistics and Applied Language Studies Victoria University of Wellington
PO Box 600, Wellington 6140, New Zealand

Human Ethics Committee Convener

Associate Prof Susan Corbett susan.corbett@vuw.ac.nz

Phone: +64-4-463 5480

Location: Room 722, Rutherford House 23 Lambton Quay, Wellington, New Zealand

Appendix 8: Student participants' consent form

School of Linguistics and Applied Language Studies
Victoria University of Wellington
PO Box 600, Wellington 6140, New Zealand
Phone: +64 4 463 5600 (Ext. 7212)

Researcher: Ha Thi Phuong Pham (hathiphuong.pham@vuw.ac.nz)
Supervisors: Dr. Keith Comer (Keith.Comer@vuw.ac.nz)
Dr. Jean Parkinson (Jean.Parkinson@vuw.ac.nz)

Research title: **Computer-mediated and face-to-face peer feedback in second language writing**

LETTER OF CONSENT

(Student Version)

1. I have read the participant information sheet for this study and understand the steps and process of this research.
2. I have been given an opportunity to ask questions about the study and I have had my questions answered to my satisfaction.
3. I understand that I have the right to ask further questions at any time.
4. I also understand that I am free to withdraw from the study at any time within one week after the data collection is finished and the deadline for the withdrawal is **May 28, 2016**. I should inform the researcher via email before this date if I want to withdraw. I am also aware that I do not need to give the researcher any reason for my withdrawal.
5. My agreement to participate in the research project means I allow the researcher to train me, to access to my essays drafts, and to analyse my written work. She can also record my discussions with my peer as well as record the interview between us.

6. I understand that any information I provide will not affect my course results in any way. I also understand that my information will be maintained under the conditions of confidentiality set out on the participant information sheet and that pseudonyms will be used in any research developed from this project.

Participant's Name : _____

Participant's Signature : _____

Date: / /

If you would like to receive a copy of a written summary of the study at the end of the research, please provide me with your e-mail address in the box below.

My e-mail address:

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI VICTORIA UNIVERSITY OF WELLINGTON

School of Linguistics and Applied Language Studies
Victoria University of Wellington
PO Box 600, Wellington 6140, New Zealand
Phone: +64 4 463 5600 (Ext. 7212)

Nghiên cứu sinh: Phạm Thị Phương Hà (hathiphuong.pham@vuw.ac.nz)
Người hướng dẫn: Dr. Keith Comer (Keith.Comer@vuw.ac.nz)
Dr. Jean Parkinson (Jean.Parkinson@vuw.ac.nz)

Đề tài: *Trật tự của bình duyệt có sự hỗ trợ của công nghệ và bình duyệt trực tiếp: bình duyệt, sửa lại, và chất lượng*.

Bản cam kết

1. Tôi đã đọc thông tin dành cho người tham gia (participant information sheet) và hiểu rõ quy trình của nghiên cứu này.
2. Tôi được tạo cơ hội để hỏi thêm về nghiên cứu này và các câu hỏi của tôi được trả lời thoả đáng.
3. Tôi hiểu rằng tôi có quyền được hỏi thêm bất cứ câu hỏi nào vào bất kỳ thời điểm nào của nghiên cứu.
4. Tôi hiểu rằng tôi hoàn toàn được quyền rút khỏi nghiên cứu này bất cứ khi nào trong vòng một tuần sau khi việc thu thập số liệu kết thúc và thời hạn để tôi dừng sự tham gia của mình

là trước **ngày 28 tháng 5 năm 2016**. Trong trường hợp đó, tôi cần phải thông báo cho người nghiên cứu qua email trước thời hạn này. Tôi cũng hiểu rằng tôi không cần phải cung cấp bất cứ lý do nào cho người nghiên cứu.

5. Bằng việc chấp thuận tham gia nghiên cứu, tôi đồng ý để người nghiên cứu tập huấn cho tôi, sử dụng và phân tích bài viết của tôi. Cô ấy cũng có thể ghi âm các đoạn hội thoại cũng như phỏng vấn tôi.

6. Tôi hiểu rằng bất cứ thông tin nào tôi cung cấp cũng **không** ảnh hưởng tới kết quả học tập của tôi dưới bất cứ hình thức nào. Tôi cũng biết rằng thông tin cá nhân của tôi được đảm bảo bí mật và nhà nghiên cứu sẽ sử dụng tên giả trong các báo cáo phát sinh.

Họ và tên: _____

Chữ ký: _____

Ngày: _____

Nếu bạn có mong muốn nhận bản đánh giá về quá trình tham gia nghiên cứu, xin vui lòng ghi địa chỉ thư điện tử của bạn vào ô bên dưới để nhận bản đánh giá.

E-mail:

Appendix 9: Teachers' consent form

School of Linguistics and Applied Language Studies
Victoria University of Wellington
PO Box 600, Wellington 6140, New Zealand
Phone: +64 4 463 5600 (Ext. 7212)

Researcher: Ha Thi Phuong Pham (hathiphuong.pham@vuw.ac.nz)
Supervisors: Dr. Keith Comer (Keith.Comer@vuw.ac.nz)
Dr. Jean Parkinson (Jean.Parkinson@vuw.ac.nz)

Research title: **Computer-mediated and face-to-face peer feedback in second language writing**

LETTER OF CONSENT

(Teacher version)

7. I have read **the Participant Information Sheet** for this study and have understood the procedure of this research.

8. I have been given an opportunity to ask questions, and I have had my questions about the study answered to my satisfaction.

9. I understand that I have the right to ask further questions at any time.

10. I also understand that I am free to withdraw within a period of two weeks after I have joined this study.

11. I agree to participate in this study and provide information needed by the researcher.

12. I understand that any information I give will be under the conditions of confidentiality set out on the information sheet and that pseudonyms will be used.

Participant's Name : _____

Participant's Signature : _____

Date : _____

Appendix 10: Student feedback sheet in the WACMC–OF2F sequence

Reviewer: _____ Author: _____

Instructions for giving feedback in WACMC–OF2F sequence

(Electronic written feedback <u>BEFORE</u> discussion)

When you offer feedback, please try and be:

Specific:

Specific and helpful	Too general and less helpful
You need to provide evidence for this claim.	*I don't understand this.*
*This paragraph is well written **because**….*	*This is great.*

Focused: Focus **more on global areas** (content, organization, evidence, idea development) and **less on local areas** (grammar, spelling)

Balanced: Comment on both the strengths and weaknesses of the text.

Sensitive: Try to avoid feedback such as *This is lame*, or *This idea is stupid*.

Now, start reviewing your classmate's work.

1. Read the essay through once, **without** marking it. You can take a few notes below using these prompts while you read.

a) Can you find the thesis statement? Tick (✓) against the appropriate box.

☐ Yes.

☐ No. I can't find it.

If the answer is Yes, does the thesis statement state what the essay will be about? Comment about the thesis statement below.

……

……

……

……

……

……

b) Is there any paragraph that does not contribute to answering the essay question?

……

……

……

……

……

……

c) Did the author supply evidence to support their points? Tick (✓) against the appropriate box.

☐ Yes.

☐ Yes but not enough.

☐ No.

Is there any evidence that is NOT relevant (e.g., *example 1 in paragraph 3*)?

……

……

……

……

d) Does the overall content answer the essay question?

☐ Yes.

☐ Yes. Generally.

☐ No.

If the answer is No, why? Briefly explain below.

……

……

……

……

……

……

e) What are the strengths of the essay? Be specific.

……

……

……
……
……
……

2. Identify two or three most important global issues (content, evidence, organization, idea development) which you think your peer could improve. Write them below.

……
……
……
……
……
……

3. Now follow the following steps to offer feedback to your peer:

Step 1: Start with **a comment on the top of the essay** of 2 points:

(1) Strengths of the essay

(2) What needs more work?

E.g.: (1) I like your essay because the content absolutely responds the question and I clearly see your point. The topic sentences for each paragraph are clear. (2) However, I suggest you revise a few long sentences to make them easier to follow. In addition, the concluding paragraph should include the main points discussed throughout the essay.

Step 2: Go through the essay again and make specific comments on both global and local areas. Note that local areas should be commented when they affect your understanding of the text

E.g.: This is a good example because it is relevant to the main argument.

This sentence is too long. You should break it into two or three sentences.

'Higher education also, however, tend to impose a heavy burden on their families since the relenting rise in the tuition fees which is increasingly beyond those families' ability to afford.'

Step 3: Comment on the most prominent issues of local areas (grammar, word choice) in the **comment at the bottom of the essay**.

E.g.: You made a few minor mistakes of grammar but they do not affect understanding. You may want to be a bit careful with the use of relative pronouns though.

Appendix 11: Student feedback sheet in the OF2F–WACMC sequence

Reviewer: _____ Author: _____

Instructions for giving feedback in the OF2F–WACMC sequence

(Electronic written feedback <u>AFTER</u> discussion)

When you offer feedback, please try and be:

Specific:

- A helpful and specific comment might be:

You need to provide evidence for this claim. This paragraph is well written because….

- Too general and less helpful:

I don't understand this. Or, *This is great*.

Focused: Focus on more global areas (content, organization) and less on local areas (grammar, spelling)

Balanced: Comment on both the strengths and weaknesses of the text.

Sensitive: Try to avoid feedback such as *This is lame*, or *This idea is stupid*.

Step 1: Start with **a comment on the top of the essay** of 2 points:

(1) Strengths of the essay

(2) What needs more work?

E.g.: (1) I like your essay because the content absolutely responds the question and I clearly see your point. The topic sentences for each paragraph are clear. (2) However, I suggest you revise a few long sentences to make them easier to follow. In addition, the concluding paragraph should include the main points discussed throughout the essay.

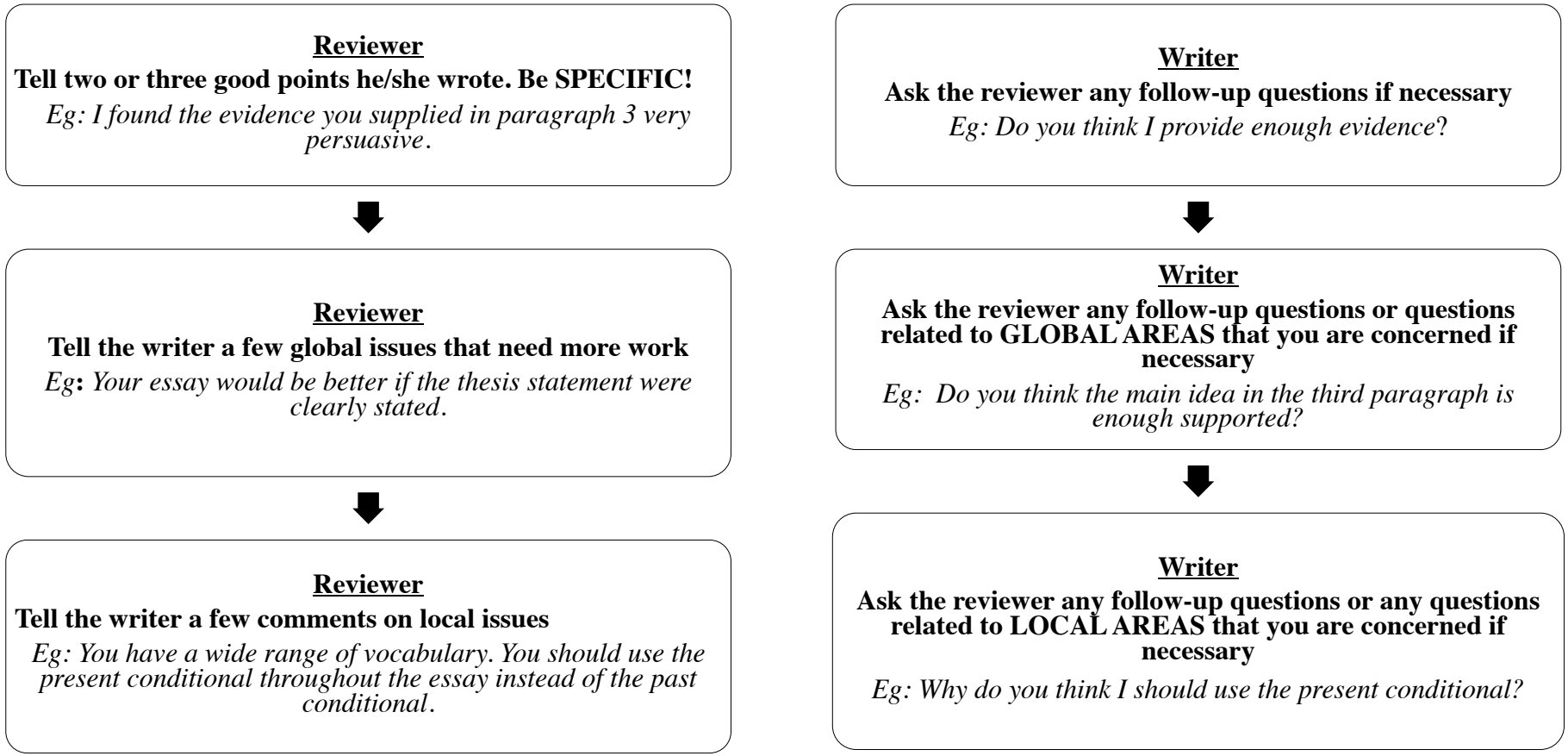
Step 2: Go through the essay again and make specific comments on strengths and need-more-work issues. Also do not forget to suggest changes of specific local areas (grammar, word choice) while you read if they affect your understanding.
E.g.: This is a good example because it is relevant to the main argument.
This sentence is too long. You should break it into two or three sentences.
'Higher education also, however, tend to impose a heavy burden on their families since the relenting rise in the tuition fees which is increasingly beyond those families' ability to afford.'

Step 3: Comment on the most prominent issues of local areas (grammar, word choice) in the **comment at the bottom of the essay**.
E.g.: You made a few minor mistakes of grammar but they do not affect understanding. You may want to be a bit careful with the use of relative pronouns though.

Appendix 12: Discussion in the WACMC–OF2F sequence

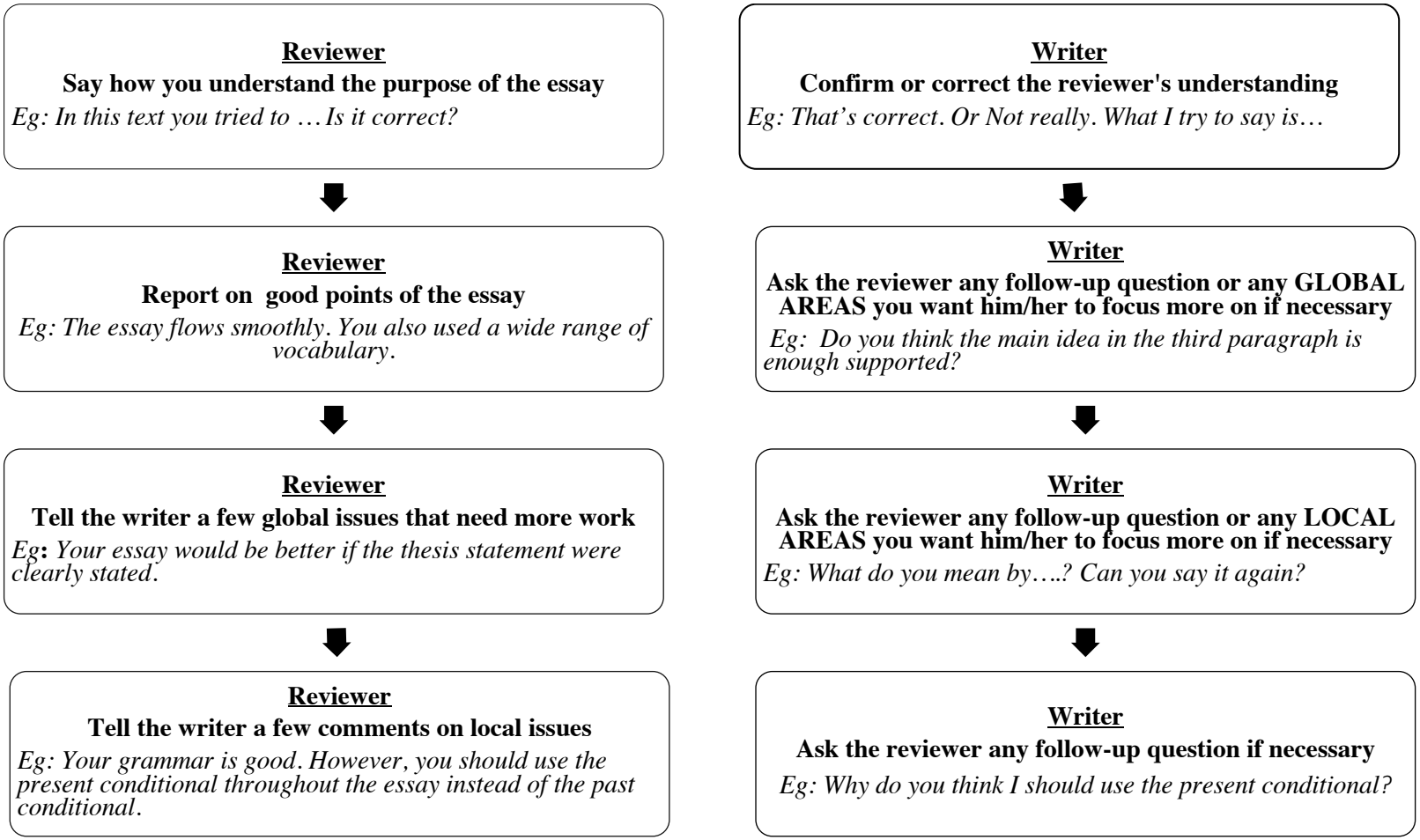
Instructions for face-to-face discussion

(Discussion AFTER electronic written feedback)



Appendix 13: Discussion in the OF2F–WACMC sequence

Instructions for face-to-face discussion
(Discussion BEFORE electronic written feedback)



Appendix 14: Student revision sheet

Using peer feedback for revision

Follow the following instructions to guide your revision of the essay.

Step 1: Before you revise

1. Read the head comments.
2. Read other marginal comments throughout the essay.
3. Decide on which global issue(s) you think you will revise in the next draft. Write these below.

The global area(s) I **will revise**:

……
……
……
……
……
……

The global area(s) I **do not plan to revise**:

……
……
……
……
……
……

Step 2: While revising

1. Start revising by working on the global areas. For comment: Click 'resolve' if you make any change. If you won't, leave it there.

2. While you work on local areas,

- click the tick (✓) button if you agree with your reviewer's suggestion.
- click the cross (×) button if you disagree with your reviewer's suggestion.

If you are not sure about spelling, grammar, or word choice, you can consult a trustworthy dictionary like the *Oxford English Dictionary*. You are also encouraged to ask your teacher if you cannot find the answer.

Step 3: After revising

Re-read the whole essay, make any change if you find necessary.

Appendix 15: Coding definitions of discourse functions of feedback

Discourse functions	**Definitions**	**Examples**
1. Evaluation	The reviewer comments on quality of different characteristics of the writing (vocabulary, grammar, content, etc.)	Good introduction.
2. Clarification	The reviewer probes for further explanation/clarification	What do you mean by *it*? Or Could you explain this a little further?
3. Identification/ Explanation	The reviewer identifies where a word, phrase, sentence, etc. is problematic (e.g. unclear, informal, off topic)	In the introduction you introduced the problem of sleep disorders of teenagers, while the essay question is about sleep deprivation, so this is off the topic.
3. Suggestion	The reviewer offers specific changes to words, content, etc. and may also correct specific items.	I suggest that you revise the introduction to make it clearer for reader to follow. Replace 'someone' with 'someone's'
5. Other	Comments that do not fit into the above groups.	Keep going with the revised draft.

Appendix 16: Definitions and example of types, areas, levels, and origins of revisions

Type of revision	**Example (changes are in boldface)**
Addition: the writer adds information	Besides, decreased alertness and excessive daytime sleepiness affect badly on your memory. Besides, decreased alertness and excessive daytime sleepiness affect badly on your memory **because during the night, various sleep cycles play a role in consolidating memories in the mind.**
Deletion: the writer deletes information	First, sleep loss **was a factor in some of the biggest disasters in the history. Second, it** is a big public safety threat on the road every day. First, sleep loss is a big public safety threat on the road every day.
Substitution: the writer replace original information with new one	Sleep deprivation in teenagers can lead to some severe problems such as physical health. Sleep deprivation in teenagers can lead to some severe problems such as physical **issue**.
Re-order: the writer re-arranges information	To some extent, being poor is a privilege. Being poor, **to some extent**, is a privilege.
Distribution: the writer expands original information	I have two siblings; both of them look very different from me. I have two siblings. **They do not look at all like me.**
Consolidation: the writer packs several pieces of information together	My dog, Bolt, is a Golden retriever. She is a really loyal and chilled pet. My dog, Bolt, is **a loyal and chilled Golden retriever.**
Re-write	Major revisions are carried out to give the essay a new read.
Area of revision	
Global revisions: revisions on content, idea development, and organisation	

Local revisions: revisions on form

Level of revision	Example (changes are in boldface)
Surface Revision concerning surface issues such as spelling, grammar, and punctuation.	Physical condition. Physical condition**s**.
Word Revision at word level	She's my best friend. She's my **greatest** friend.
Phrase Revision at phrase level	I play game for relaxation. I play game **to relax**.
Sentence Revision at sentence level	He is a trustworthy kind of man. He always keeps his promises. He is a trustworthy kind of man. He always keeps his promises. **Among our group, no one has found him lie.**
Inter-sentences Revision at multi-sentential level	Lack of sleep often give people shadows under their eyes (also called 'panda eyes'), a pale skin or even make them gain their weight. Some scientists expose that sleep deprivation is one popular cause of heart diseases and diabetes. Lack of sleep often give people shadows under their eyes (also called 'panda eyes'), a pale skin or even make them gain their weight. **The most prominent correlation between sleep deprivation and health problems is obesity. According to a recently survey of Women Magazine, 77% of those who are considered obese do not**

	get at least eight hours of sleep. Some scientists expose that sleep deprivation is one popular cause of heart issue, high blood pressure and diabetes.
Paragraph Revision at paragraph level	The problem of sleep deprivation is not new and yet more and more people are becoming victims of the consequences of sleep deprivation. Studies show that teenagers should spend 8 hours to sleep at night; however, the truth comes out that more than 75% teenagers do not get enough sleep. Lack of sleep can lead to severe problems such as physical health, psychology and social effects. **If a teenager drove down the road with six or less hours of sleep previous night, he or she could cause a traffic consequence at the same rate with driving under influence of alcohol. Sleep deprivation is becoming a big problem because teenagers have many activities after school in addition to homework, meals and transportation. Studies show that teenagers should spend eight hours to sleep at night; however, the truth comes out that more than 75% teenagers do not get enough sleep. Lack of sleep can lead to severe negative problems in mental as well as physical and some effects on society.**

Origin of revision	**Definition**
E-feedback	Revision comes from e-feedback
Oral feedback	Revision comes from face-to-face feedback
Combined feedback	Revision comes from e-feedback and face-to-face feedback as repeated information
Self-correction	Revision comes from the writer themselves

Appendix 17: Scoring rubrics

Comparison and contrast/similarities and differences essay

Trait	No attempt 0 pt	Very poor 1 pt	Poor 2 pts	Good 3 pts	Very good 4 pts
Content The comparison/contrast should be stated in clear language. Its content should only discuss the similarities/differences.	The writer shows now attempt to fulfil the task.	The statement of the comparison/contrast can't be found. The content may discuss something else other than the similarities/differences.	The statement of the comparison/contrast is there but hard to find. Little of the paragraph discusses the similarities/differences.	The statement of the comparison/contrast is quite clearly stated. Nearly all of its content discusses the similarities/difference s.	The statement of the comparison/contrast is stated in clear language and all of the content only discusses the similarities/differences.
Organization The essay should have proper paragraphing, use correct cohesive devices; all the sentences within one paragraph should be coherent.	The writer shows now attempt to fulfil the task.	The essay shows no sense of paragraphing, no use or misused of cohesive devices, most of the sentences within one paragraph are loosely connected.	The paper breaks the information into whole-to-whole, similarities-differences, or point-to-point structure but much information is in the wrong section. A few cohesive devices are used or most of the cohesive devices are used incorrectly. Some sentences in each paragraph are loosely connected.	The paper breaks the information into whole-to-whole, similarities-differences, or point-to-point structure. Nearly all cohesive devices are used correctly. Almost no sentences show loose connections with other in the same paragraph.	The paper clearly breaks the information into whole-to-whole, similarities-differences, or point-to-point structure. The whole essay follows a consistent order when discussing the comparison and contrast. All of the cohesive devices are used correctly. All of the sentences in each paragraph follow a coherent order.
Lexis The writer should use proper and suitable vocabulary for compare and contrast essay	The writer shows now attempt to fulfil the task.	The writer uses very limited range of words and expressions.	The writer uses only basic and repetitive vocabulary, some of which may not be appropriate for the compare and contrast essay	The writer uses good range of vocabulary. They may use less common words but may make occasional errors.	The write uses a wide range of vocabulary. They use many uncommon or low frequency words though rare minor lexical errors may be evident.
Grammar, punctuation, and mechanics The writer presents good knowledge of grammar, punctuation, and mechanics knowledge.	The writer shows now attempt to fulfil the task.	The writer uses very limited sentence forms with a lot of grammar, punctuation, and mechanics errors.	The writer uses limited range of structures, subordinate clauses are uncommon, many punctuation, and mechanics errors.	The writer uses a variety of complex structure but may make a few errors of grammar, punctuation, and mechanics.	The writer uses wide range of structures and makes very rare minor errors of grammar, punctuation, and mechanics.

Point-of-view essay evaluation rubric

Trait	No attempt 0 pt	Very poor 1 pt	Poor 2 pts	Good 3 pts	Very good 4 pts
Content The writer should clearly show their stand about the issue being asked. This stand should also be effectively supported.	The writer shows now attempt to fulfil the task.	The writer shows no clear stand. Most of the content of the essay does not contribute to backing the writer's stand. The writer doesn't show sufficient details to explain, develop, and support their point.	One can find the writer's stand though difficult. Part of the content contributes to backing the writer's stand. However, there is inadequate development of the topic with only a few details to explain, develop, and support their point.	The writer's stand is easy to recognize. Most of content of the essay contributes to backing the writer's stand though some irrelevant details can still be seen. The writer shows clear details to explain, develop, and support their point.	The writer's stand is clearly presented. All of the content contributes to backing the writer's stand. The writer provides very relevant details to explain, develop, and support their point.
Organization The essay should have proper paragraphing, use correct cohesive devices; all the sentences within one paragraph should be coherent.	The writer shows now attempt to fulfil the task.	The essay shows no sense of paragraphing, wrong use of cohesive devices, most of the sentences within one paragraph are not connected and hence do not follow a coherent order.	The writer shows some knowledge of paragraphing. A few cohesive devices are used but they may be used incorrectly. Some sentences in each paragraph are loosely connected and hence loosely follow a coherent order.	The writer shows good knowledge of paragraphing. Nearly all cohesive devices are used correctly. Nearly all sentences in one paragraph follow a coherent order.	The writer shows very good knowledge of paragraphing. Cohesive devices are used correctly and effectively. All of the sentences in each paragraph follow a coherent order.
Supporting details The essay should supply sufficient details to explain, develop, and support the writer's ideas	The writer shows now attempt to fulfil the task.	The writer doesn't show sufficient details to explain, develop, and support their ideas.	The writer shows only a few details to explain, develop, and support their ideas.	The writer shows some details to explain, develop, and support their ideas.	The writer provides sufficient details to explain, develop, and support their ideas.
Lexis The writer should use proper and suitable vocabulary for point-of-view essay	The writer shows now attempt to fulfil the task.	The writer uses very limited range of words and expressions.	The writer uses only basic and repetitive vocabulary, some of which may not be appropriate for the point-of-view essay.	The writer uses good range of vocabulary. They may use less common words but may make occasional errors.	The write uses a wide range of vocabulary. They use many uncommon or low frequency words though rare minor lexical errors may be evident.
Grammar, punctuation, and mechanics The writer presents good knowledge of grammar, punctuation, and mechanics knowledge.	The writer shows now attempt to fulfil the task.	The writer uses very limited sentence forms with a lot of grammar, punctuation, and mechanics errors.	The writer uses limited range of structures, subordinate clauses are uncommon, many punctuation, and mechanics errors.	The writer uses a variety of complex structure but may make a few errors of grammar, punctuation, and mechanics.	The writer uses wide range of structures and makes very rare minor errors of grammar, punctuation, and mechanics.

Problem-solution/cause-solution/cause-effect essay

Trait	No attempt 0 pt	None 1 pts	Poor 2 pts	Good 3 pts	Very good 4 pts
Content The problem/solution should be stated in clear language. Its content should only discuss the problem/solution.	The writer shows now attempt to fulfil the task.	The statement of the problem/solution can't be found. The content may discuss something else other than the problem/solution.	The statement of the problem/solution is there but hard to find. Little of the paragraph discusses the problem/solution.	The statement of the problem/solution is quite clearly stated. Nearly all of its content discusses the problem/solution.	The statement of the problem/solution is stated in clear language and all of the content only discusses the problem/solution.
Organization The essay should have proper paragraphing, use correct cohesive devices; all the sentences within one paragraph should be coherent.	The writer shows now attempt to fulfil the task.	The essay shows no sense of paragraphing, wrong use of cohesive devices, most of the sentences within one paragraph are loosely connected.	The paper breaks the information into *block* or *chain* structure, but some information is in the wrong section. A few cohesive devices are used but they may be used incorrectly. Some sentences in each paragraph are loosely connected.	The paper breaks the information into *block* or *chain* structure and nearly most of the information follows a consistent order. Nearly all cohesive devices are used correctly. Almost no sentences show loose connections with other in the same paragraph.	The paper breaks the information into *block* or *chain* structure. The whole essay follows a consistent order when discussing the cause and effect. All of the cohesive devices are used correctly. All of the sentences in each paragraph follow a coherent order.
Lexis The writer should use proper and suitable vocabulary for the problem and solution essay	The writer shows now attempt to fulfil the task.	The writer uses very limited range of words and expressions.	The writer uses only basic and repetitive vocabulary, some of which may not be appropriate for the problem and solution essay	The writer uses good range of vocabulary. They may use less common words but may make occasional errors.	The write uses a wide range of vocabulary. They use many uncommon or low frequency words though rare minor lexical errors may be evident.
Grammar, punctuation, and mechanics The writer presents good knowledge of grammar, punctuation, and mechanics knowledge.	The writer shows now attempt to fulfil the task.	The writer uses very limited sentence forms with a lot of grammar, punctuation, and mechanics errors.	The writer uses limited range of structures, subordinate clauses are uncommon, many punctuation, and mechanics errors.	The writer uses a variety of complex structure but may make a few errors of grammar, punctuation, and mechanics.	The writer uses wide range of structures and makes very rare minor errors of grammar, punctuation, and mechanics.