



UNIVERSITI PUTRA MALAYSIA

**EFFECTIVENESS OF FACE-TO-FACE, ONLINE AND MIXED PEER
REVIEW FORMATS ON UNDERGRADUATES' WRITING IN ENGLISH
IN A MALAYSIAN UNIVERSITY**

**MEHRDAD MOLOUDI
FPP 2010 9**



**EFFECTIVENESS OF FACE-TO-FACE, ONLINE AND MIXED PEER
REVIEW FORMATS ON UNDERGRADUATES' WRITING IN ENGLISH IN
A MALAYSIAN UNIVERSITY**

By

MEHRDAD MOLOUDI

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of
Doctor of Philosophy**

April 2010



DEDICATION

Dedicated to my best companion in life, Maryam,
and to my beloved parents to whom I owe my everything



Abstract of thesis presented to the Senate of Universiti Putra Malaysia
in fulfilment of the requirement for the degree of Doctor of Philosophy

**EFFECTIVENESS OF FACE-TO-FACE, ONLINE AND MIXED PEER
REVIEW FORMATS ON UNDERGRADUATES' WRITING IN ENGLISH
IN A MALAYSIAN UNIVERSITY**

By

MEHRDAD MOLOUDI

April 2010

Chairman: Nooreen Noordin, PhD

Faculty: Educational Studies

In this study, an attempt is made to investigate Face-to-face Peer Review (FFPR), Online Peer Review (OLPR) and the combination of these formats - usually known as Mixed Peer Review (MPR) - and their effectiveness on Malaysian undergraduates' writing in English at Universiti Putra Malaysia (UPM).

A total of 174 Malaysian undergraduates were selected through non-probability convenient sampling as the participants in this study. On week one of the study, the participants were required to answer two questionnaires (Computer Attitude Scale & Writing Attitude Scale) and sat for their writing proficiency pretest - TOEFL Test of Written English (TWE). Within the first two weeks, participants were trained how to review their peers' writings face-to-face or/and online. On week 13, they sat for their



posttest which was another TOEFL TWE. The research was conducted within the fourteen-week semester during which the participants reviewed their peers' writing face-to-face or/and online.

The quantitative results accompanied with the obtained qualitative data revealed that the three peer review formats (FFPR, OLPR and MPR) affected proficiency, content, organization, cohesion, vocabulary, grammar, punctuation, and spelling of Malaysian undergraduates' writing in English significantly. However, none of the peer review formats was found to be more effective than the other. Qualitatively, it was revealed that ESL tutors found the peer review formats useful and effective in improving Malaysian undergraduates' writing in English. Moreover, the Malaysian undergraduates found the peer review formats extremely effective and helpful in improving their writing in English.

The effectiveness of both classic and digital formats of peer review in the Malaysian undergraduates' writing in English supported the need to include peer review in ESL writing instruction and underscore its value in providing feedback on students' performance. As one of the implications in this study, while planning the peer review sessions, ESL students' behavior should be taken into account and teachers should monitor the process and intervene where necessary. Moreover, the use of peer review guidelines and the appropriate training to ensure the success of the peer review is suggested. Another implication is that the combination of teacher and peer review is seen as supportive to the ESL students' self-directed feedbacks. It is also suggested that deeper analysis of the peers' comments as well as of the actual



changes incorporated into the students' essays will definitely provide deeper insight of the peer review as a complicated and multi-dimensional process.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**KEBERKESANAN FORMAT ULASAN RAKAN SEBAYA BERSEMUKA,
ATAS TALIAN DAN GABUNGAN DALAM PENULISAN BAHASA
INGGERIS PENUNTUT MALAYSIA PERINGKAT IJAZAH PERTAMA**

Oleh

MEHRDAD MOLOUDI

April 2010

Pengerusi: Nooreen Noordin, PhD

Fakulti: Pengajian Pendidikan

Kajian ini merupakan satu usaha yang dilakukan untuk menyiasat Ulasan Rakan Sebaya Secara Bersemuka (FFPR), Ulasan Rakan Sebaya Secara Atas Talian (OLPR) dan kombinasi antara dua format ini – biasanya dikenali sebagai Gandingan Ulasan Rakan Sebaya (MPR) – dan keberkesannya terhadap penguasaan penulisan Bahasa Inggeris dalam kalangan penuntut ijazah pertama Universiti Putra Malaysia (UPM).

Sejumlah 174 penuntut Malaysia peringkat Ijazah pertama telah dipilih menerusi *sampel non probabiliti convenient* dalam kajian ini. Pada minggu pertama responden telah diminta untuk menjawab dua soal selidik (Skala Sikap Penggunaan Komputer dan Skala Sikap Penulisan) dan seterusnya menduduki pra ujian TOEFL



dalam Penulisan Bahasa Inggeris (TWE). Dalam dua minggu pertama, responden dilatih tentang bagaimana cara untuk membuat ulasan ke atas penulisan rakan sebaya mereka sama ada secara bersemuka atau dan secara atas talian. Pada minggu ke 13, responden sekali lagi menduduki ujian pos yang juga merupakan TOEFL TWE. Kajian ini mengambil masa 14 minggu di mana responden didedahkan kepada ulasan penulisan rakan sebaya mereka sama ada secara bersemuka atau dan secara atas talian.

Keputusan kuantitatif disertakan bersama bukti data kualitatif yang mendedahkan tiga format ulasan rakan sebaya (FFRR, OLPR dan MPR) yang memberi kesan secara signifikan terhadap kemahiran, isi kandungan, organisasi, kejelekitan, perbendaharaan kata, tatabahasa, tanda bacaan, dan ejaan bagi penulisan Bahasa Inggeris dalam kalangan penuntut Malaysia peringkat ijazah pertama. Bagaimanapun, secara perbandingan tidak ada satu format ulasan rakan sebaya didapati lebih berkesan. Secara kualitatif, penunjuk ajar ESL mendapati format ulasan rakan sebaya adalah berguna dan berkesan dalam memperbaiki mutu penulisan Bahasa Inggeris dalam kalangan penuntut Malaysia peringkat ijazah pertama. Sehubungan itu, penuntut-penuntut Malaysia juga mendapati format ulasan rakan sebaya sangat berkesan dan dapat membantu mereka memperbaiki penulisan Bahasa Inggeris.

Kesan daripada latihan dan galakan ke atas penuntut-penuntut Malaysia melalui pendekatan ulasan rakan sebaya bagi format klasik dan format digital menyokong keperluan dengan mengambilkira ulasan Rakan Sebaya dalam penulisan ESL dan menggariskan nilai-nilai terhadap maklumbalas pencapaian mereka. Salah satu

implikasi kajian ini adalah, ketika merancang sesi ulasan rakan sebaya, sikap penuntut ESL patut diambil kira dan guru-guru perlu memantau proses dan mengambil tindakan intervensi yang diperlukan. Sehubungan itu kegunaan garis panduan ulasan rakan sebaya dan latihan yang bersesuaian bagi menentukan kejayaan ulasan rakan sebaya sebagaimana yang disarankan. Implikasi lain adalah menggabungkan ulasan guru dan ulasan rakan sebaya sebagai sokongan terhadap maklumbalas terarah sendiri penuntut ESL. Adalah juga di cadangkan bahawa analisis yang lebih mendalam terhadap komen rakan sebaya sebagai mana perubahan sebenar yang disepadukan ke dalam penulisan esei pelajar yang mana dapat menghasilkan pengertian sebenar secara mendalam daripada ulasan rakan sebaya sebagai proses penulisan esei yang menyeluruh dan mencakupi pelbagai dimensi.

ACKNOWLEDGEMENTS

Mostly to God, the Compassionate the Merciful, through Him, all is possible.

The fulfilment of this program is indeed a challenging task which cannot be accomplished without the personal and practical support of numerous people. Thus, I would like to deeply thank the various people who provided me with useful and helpful assistance during my doctoral work. Without their invaluable and wise advice, this dissertation would not have reached to this stage.

I would especially like to thank my supervisor, Dr. Nooreen Noordin, for her warm encouragements and support. Throughout my doctoral research, her constant insight has helped my dissertation to mature. She has also helped me to develop independent thinking and to become a self-driven researcher. I am grateful to her for giving me her time and special attention.

I am also extremely grateful for receiving an exceptional assistance and coaching from my supervisory committee member Assoc. Prof. Dr. Mohd. Sahandri Gani bin Hamzah. In fact, I feel a lot indebted to him not only for his teachings but also for the personal support that he has constantly offered me throughout my studies and my life in Malaysia. He has invested much time to help me understand statistics more. I am also very thankful to Dr. Roselan Baki for his inspiring research classes. His classes and his friendly style of teaching research methodology are incredibly vital



to motivate every student in conducting analytic research. The meetings with my supervisory committee members have continually stimulated my analytical thinking and greatly assisted me with data analysis and scientific writing.

Moreover, I would like to thank Assoc. Prof. Dr. Edwin Malachi Vethamani for his academic and technical advice as my former advisor during my first two semesters before I formed my supervisory committee. I would like to thank Assoc. Prof. Dr. Jayakaran A/L A. P. Mukundan and Dr. Ghazali Mustapha as my early research proposal examiners. Last year, I benefited a lot from their feedback when this study was still at an immature proposal stage. Special note of gratitude is given to Assoc. Prof. Dr. Shameem Rafik Khan Galea, the Head of English Department in the Faculty of Modern Languages and Communication, UPM for granting the consent to conduct my study there. During my teaching post as a part time tutor and researcher, she has been very cooperative and supportive.

I also would like to extend my regards and appreciation to all my teachers up to this date. I am still greatly indebted to my former supervisors Assoc. Prof. Dr. Kourosh Lachini and Assoc. Prof. Dr. Masoud Yazdani because their vision for their students has shaped my career.

I extend many thanks to my colleagues and friends, especially Dr. Mohammad Reza Ghorbani and Dr. Natasha Ghale for their invaluable time given to validate my



research instruments, Ms. Yazariah Yacoob and Mr. Robert Vijayakumar for their assistance throughout data collection procedure, and last but not least Ms. Chiam Kee Swan, Mr. Sivananda A/L Sundralingam, and Ms. Yazariah Yacoob again for the Herculean task of rating participants' essays.

I am very thankful to all my Malaysian students especially the participants of this study at the Faculty of Economics and Management; without their feedback the idea of this study could not emerge.

Finally, I would like to thank my family. I indeed owe a lot to my wife Maryam for her incredible support and sacrifices that she has made throughout my candidature. Without her generous sacrifice this accomplishment would have been impossible. I am especially indebted to my parents. Their encouragement, prayers, and teachings have always been with me.

Thank the Almighty for giving me my dear ones and granting me the opportunity to study in beautiful Malaysia.



APPROVAL

I certify that a Thesis Examination Committee has met on **20 April 2010** to conduct the final examination of **Mehrdad Moloudi** on his thesis entitled “**Effectiveness of Face-to-face, Online and Mixed Peer Review Formats on Undergraduates’ Writing in English in a Malaysian University**” in accordance with the Universities and University Colleges Act 1971 and the Constitution of the University Putra Malaysia [P.U. (A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

The members of the Thesis Examination Committee were as follows:

Rosnaini Mahmud, PhD

Faculty of Educational Studies
Universiti Putra Malaysia
(Chairperson)

Arshad A. Samad, PhD

Associate Professor
Faculty of Educational Studies
Universiti Putra Malaysia
(Internal Examiner)

Jayakaran a/l A. P. Mukundan, PhD

Associate Professor
Faculty of Educational Studies
Universiti Putra Malaysia
(Internal Examiner)

Datin Norizan Abdul Razak

Associate Professor
Faculty of Languages and Linguistics
University of Malaya
(External Examiner)

BUJANG KIM HUAT, PhD

Professor and Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:



This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Nooreen Noordin, PhD

Senior Lecturer

Department of Language and Humanities Education

Faculty of Educational Studies

Universiti Putra Malaysia

(Chairperson)

Mohd Sahandri Gani Bin Hamzah, PhD

Associate Professor

Department of Foundations of Education

Faculty of Educational Studies

Universiti Putra Malaysia

(Member)

Roselan Baki, PhD

Senior Lecturer

Department of Language and Humanities Education

Faculty of Educational Studies

Universiti Putra Malaysia

(Member)

HASANAH MOHD. GHAZALI, PHD

Professor and Dean

School of Graduate Studies

Universiti Putra Malaysia

Date: 10/June/ 2010



DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

Mehrdad Moloudi

MEHRDAD MOLOUDI

Date: December 04, 2009



TABLE OF CONTENTS

	Page
ABSTRACT	iii
ABSTRAK	vi
ACKNOWLEDGEMENTS	ix
APPROVAL	xii
DECLARATION	xiv
LIST OF TABLES	xviii
LIST OF FIGURES	xxi
LIST OF ABBREVIATIONS	xxiii
CHAPTER	
1 INTRODUCTION	1
1.1 Background of the Study	1
1.2 Context of the Study	6
1.3 Statement of the Problem	8
1.4 Objectives of the Study	14
1.5 Research Questions	16
1.6 Null Hypotheses	18
1.7 Significance of the Study	19
1.8 Scope and Limitations of the Study	24
1.9 Operational Definition of the Key Terms	26
1.9.1 Peer Review	27
1.9.2 Face-to-face Peer Review	28
1.9.3 Online Peer Review	28
1.9.4 Mixed Peer Review	39
1.9.5 Process Genre Approach	30
1.9.6 English Writing Proficiency	30
2 LITERATURE REVIEW	32
2.1 From CALL to NBLT and CMC	32
2.1.1 CMC Formats	37
2.1.2 CMC Applications to Enhance Writing	38
2.2 Peer Review: Background, Variations and Formats	42
2.2.1 Prominence of Peer Review	44
2.2.2 Classic Peer Review	45
2.2.3 Modern Digital Peer Review	47
2.2.4 Debates on Effectiveness of FFPR and OLPR	50
2.3 Critical Review of Peer Review Literature	55
2.4 Theoretical Foundation of Peer Review	70
2.5 Conceptual Framework of the Study	73



3	METHODOLOGY	76
	3.1 Research Design	76
	3.2 Population and Sampling Procedures	82
	3.3 Location of the Study	88
	3.4 Instrumentation	89
	3.4.1 Pretests	89
	3.4.2 Treatment	93
	3.4.3 Posttests	98
	3.5 Piloting Procedures, Validity and Reliability	101
	3.5.1 Pilot Study	102
	3.5.2 Validity of the Study	104
	3.5.3 Reliability and Validity of the Instruments	107
	3.5.4 Reliability and Validity of TWE Scores	110
	3.6 Data Collection Procedures	113
	3.7 Data Analysis	122
4	RESULTS AND DISCUSSION	124
	4.1 Data Screening	124
	4.1.1 Inter-rater Reliability	125
	4.1.2 Skewness and Kurtosis	127
	4.1.3 Assessing Normality	129
	4.1.4 Checking for Outliers	132
	4.1.5 Test of Homogeneity of the Groups	139
	4.2 Demographic Statistics	144
	4.3 Hypothesis Testing	150
	4.4 ESL Tutors' Perception of FFPR and OLPR	183
	4.4.1 Tutors' Perception of Peer Review	184
	4.4.2 Tutors' Perception of FFPR vs. OLPR	185
	4.4.3 Problems Perceived by Tutors	187
	4.4.4 Positive Effects of FFPR vs. OLPR from Tutors' Perspective	188
	4.4.5 Tutors' Suggestions to Improve Peer Review	190
	4.4.6 Tutors' Perception of the Tutor's Role	191
	4.5 Participants' Perception of FFPR and OLPR	192
	4.5.1 Interviews' Findings	193
	4.5.2 Questionnaires' Findings	197
	4.6 Summary	212

5	SUMMARY, CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH	213
	5.1 Summary of the Research and Findings	213
	5.1.1 Effectiveness of the Peer Review Formats on the Proficiency	218
	5.1.2 Effectiveness of the Peer Review Formats on the Content	222
	5.1.3 Effectiveness of the Peer Review Formats on the Organization	224
	5.1.4 Effectiveness of the Peer Review Formats on the Cohesion	226
	5.1.5 Effectiveness of the Peer Review Formats on the Vocabulary	228
	5.1.6 Effectiveness of the Peer Review Formats on the Grammar	230
	5.1.7 Effectiveness of the Peer Review Formats on the Punctuation	232
	5.1.8 Effectiveness of the Peer Review Formats on the Spelling	234
	5.1.9 Comparing the Effectiveness of the Peer Review Formats	236
	5.1.10 Effectiveness of MPR on the Spelling	237
	5.1.11 ESL Tutors' Perception of the Peer Review Formats	238
	5.1.12 Participants' Perception of the Peer Review Formats	241
	5.2 Pedagogical Implications	244
	5.3 Recommendations for Future Research	248
	REFERENCES	252
	APPENDICES	261
	BIODATA OF STUDENT	320
	LIST OF PUBLICATIONS	321



LIST OF TABLES

Table		Page
2.1	Communication differences between face-to-face and digital interactions	53
3.1	Research procedure	77
3.2	Research groups and treatments	79
3.3	Demographic Information of the Participants	85
3.4	Face-to-face Peer Review Guideline	95
3.5	Internal consistency reliability for the questionnaires	103
3.6	Research procedure of the pilot study	104
3.7a	Internal validity threats and controlling measures	105
3.7b	External validity threats and controlling measures	106
3.8	Sessions with the participants	121
4.1	Inter-rater reliability of TWE pretest and posttest	127
4.2	Skewness and kurtosis of the pretests and posttest	128
4.3	Mean and 5% Trimmed Mean of pretests and posttest	130
4.4	Test of homogeneity of variances	140
4.5	Robust tests of equality of means	141
4.6	One-way ANOVA to compare pretest scores between groups	142
4.7	Descriptive Statistics of Pretests (TWE1, CAS and WAS)	143
4.8	Frequency distribution of gender	145
4.9	Frequency distribution of ethnicity	146
4.10	Mean and mode of age	146
4.11	Frequency distribution of English language background	147
4.12	Mean and Mode of the number of registered semesters	148



4.13	Frequency distribution of fields of study	149
4.14a	Descriptive statistics for WP1 and WP2	154
4.14b	Multivariate tests for WP1 and WP2	156
4.15a	Descriptive statistics for CT1 and CT2	159
4.15b	Multivariate tests for CT1 and CT2	160
4.16a	Descriptive statistics for O1 and O2	162
4.16b	Multivariate tests for O1 and O2	163
4.17a	Descriptive statistics for CN1 and CN2	164
4.17b	Multivariate tests for CN1 and CN2	165
4.18a	Descriptive statistics for V1 and V2	167
4.18b	Multivariate tests for V1 and V2	168
4.19a	Descriptive statistics for G1 and G2	169
4.19b	Multivariate tests for G1 and G2	171
4.20a	Descriptive statistics for MP1 and MP2	172
4.20b	Multivariate tests for MP1 and MP2	173
4.21a	Descriptive statistics for MS1 and MS2	175
4.21b	Multivariate tests for MS1 and MS2	176
4.22a	Descriptive statistics for TWE pretest and posttest	178
4.22b	Multivariate tests for interaction effect	180
4.22c	Tukey Test of Multiple Comparisons for MS1 and MS2	181
4.22d	Descriptives for MS compared between groups	182
4.23	Responses from the interviewees about peer review	194
4.24	Responses from the interviewees about FFPR	195
4.25	Responses from the interviewees about OLPR	196
4.26	Responses in favor of FFPR	202
4.27	Responses in favor of OLPR	204



4.28	Advantages of FFPR	208
4.29	Advantages of OLPR	210
5.1	Summary of the Findings	218



LIST OF FIGURES

Figure		Page
1.1	Problems in Peer Review Research and Practice in Malaysian Context	13
2.1	Conceptual Framework of the Study	74
3.1	Variables Tree	78
3.2	Proportion of the Target Population Compared to the Accessible Participants and the Stratified Randomly Selected Interviewees	88
3.3	Peer review procedure	118
4.1a	Histogram for FFPR group	132
4.1b	Histogram for OLPR group	133
4.1c	Histogram for MPR group	133
4.2a	Normal Q-Q Plot of TWE1 (WP1) for FFPR	134
4.2b	Normal Q-Q Plot of TWE1 (WP1) for OLPR	135
4.2c	Normal Q-Q Plot of TWE1 (WP1) for MPR	135
4.3a	Detrended Normal Q-Q Plot of TWE1 (WP1) for FFPR	136
4.3b	Detrended Normal Q-Q Plot of TWE1 (WP1) for OLPR	137
4.3c	Detrended Normal Q-Q Plot of TWE1 (WP1) for MPR	137
4.4	Boxplot of TWE1 (WP1)	138
4.5	Participants' Perception of Peer Review	157
4.6	Descriptive Findings from MPR Group regarding Peer Review Formats	199
4.7	Descriptive Findings from MPR regarding Their Preferred Venue for Peer Review	200
4.8	Frequency of Using Peers' Comments in Each Format of Peer Review	206
5.1	Profile Plot Showing Proficiency Improvement from TWE1 to	220



	TWE2	
5.2	Profile Plot Showing Content Improvement from TWE1 to TWE2	223
5.3	Profile Plot Showing Organization Improvement from TWE1 to TWE2	225
5.4	Profile Plot Showing Cohesion Improvement from TWE1 to TWE2	227
5.5	Profile Plot Showing Vocabulary Improvement from TWE1 to TWE2	229
5.6	Profile Plot Showing Grammar Improvement from TWE1 to TWE2	231
5.7	Profile Plot Showing Punctuation Improvement from TWE1 to TWE2	233
5.8	Profile Plot Showing Spelling Improvement from TWE1 to TWE2	235



LIST OF ABBREVIATIONS

1.	BBI2412	Writing for Academic Purposes Course
2.	CALL	Computer Assisted Language Learning
3.	CMC	Computer Mediated Communicated
4.	EFL	English as a Foreign Language
5.	ESL	English as a Second Language
6.	FFPR	Face-to-face Peer Review
7.	MPR	Mixed Peer Review
8.	NBLT	Network-Based Language Teaching
9.	OLPR	Online Peer Review
10.	TEEP	Test in English for Educational Purposes
11.	TOEFL	Test of English as a Foreign Language
12.	TWE	Test of Written English
13.	UPM	Universiti Putra Malaysia



CHAPTER 1

INTRODUCTION

This study is structurally divided into five chapters. The first chapter, introduction, addresses the background of the study, the context of the study, the statement of the problem, the significance of the study, the objectives of the study, the research questions, the null hypotheses, the scope and limitations of the study, and ends with the operational definition of the key terms.

1.1 Background of the Study

To begin this study, it is necessary to state the theoretical origin and meaning of peer review. In consistency with Vygotskian perspectives on learning, a real dialogue about writing to get assistance from real readers is viewed as constructive. In such activity or dialogue, mostly known as peer review, students exchange their oral and written comments about their peers' writings and try to offer suggestions for improvement (Schultz, 2000; Zhu, 1994; Nystrand & Brandt, 1989; Spear, 1988; Nystrand, 1986).

