



## Effectiveness of Face-to-Face and Online Peer Review on Undergraduates' Writing in English

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### Abstract

*In this study, an attempt is made to investigate Face-to-face Peer Review (FFPR) and Online Peer Review (OLPR) and their effectiveness on Malaysian undergraduates' writing in English at Universiti Putra Malaysia (UPM). A total of 124 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 two peer review formats (FFPR and OLPR) affected proficiency of Malaysian undergraduates' writing in English significantly. Qualitatively, it was revealed that 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.*

### 1. Introduction

Based on what can be inferred from the peer review literature from early 1990s to this date and the author's observations as an ESL tutor teaching academic writing at tertiary level, ESL students perceive Face-to-face Peer Review (FFPR) embarrassing as they did not feel comfortable to converse in English with their peers mainly due to lack of confidence in speaking English as their second language; therefore, code-switching took place frequently between peers as it was observed. However, when transferred to a computer lab, participating students turned to be more motivated and productive in Online Peer Review (OLPR) format. As the literature suggests, the difference in the performance can be attributed to context cues such as skin color, gender, and age which tend to privilege some students over others during FFPR

[1]. Some researchers believe that students' characteristics and cultural differences and difficulties in oral production in L2 classes are the main causes of unequal participation and less productivity in FFPR [2].

In tertiary level writing classes, it is a noted fact that due to time constraints of FFPR [3], classic peer review cannot be fully implemented and practiced. To overcome this problem, in some classes, teachers elect one student randomly to review his/her writing in front of his/her classmates using LCD projector. In this teacher review scenario, the student whose writing is being reviewed usually feels uncomfortable, embarrassed, and probably discouraged as it seems that the teacher review can be intimidating. Implementing FFPR in writing classes is also time-consuming; therefore, it is essential to find whether OLPR can be a viable technique in providing ESL undergraduate writers with the feedback required to improve their writing quality as, unlike classic FFPR, it does not involve physical attendance of peers.

Given this fact, composition teachers felt a pressing need to investigate the effectiveness of different peer review formats. In fact, a real dialogue about writing to get assistance from real readers is viewed as constructive [4].

Various reasons account for the popularity of using peer review in writing classes according to the literature; however, despite the potential benefits of peer review, in its conventional format, concerns remain with the quality of peer review [5]. FFPR is plagued by some weaknesses such as (a) time constraints [6], (b) student characteristics and cultural differences [7], (c) teachers' inability to monitor each group simultaneously [8], (d) unequal participation [9], and finally (e) difficulties in oral production in L2 classes [10].

Despite the usefulness of traditional FFPR, it is time-consuming and it seems difficult to reconcile FFPR with course content [11]. Therefore, OLPR can be a viable alternative; one reason might be that they can save more time in the classes for other activities which can be done outside the classroom by leaving students on their own. Moreover, OLPR is not confined to physical and time constraints.

There are several studies indicating that the modern digital format of peer review is advantageous to its classic conventional format. However, OLPR did not remain safe from criticisms. Some research findings dispute the merits of OLPR and warn practitioners to be more cautious in using OLPR.

Therefore, this study aimed to investigate the effectiveness of FFPR and OLPR on Malaysian undergraduates' writing in English, on one hand, and their affective perceptions of two formats of peer review, on the other hand. The research questions, accordingly, are formulated as in the following:

1. Do the peer review formats (FFPR and OLPR) affect the proficiency of Malaysian undergraduates' writing in English?
2. How effective do the Malaysian undergraduates find the peer review formats (FFPR and OLPR) in improving their writing in English?

## 2. Method

### 2.1 Participants

Participants included 124 Malaysian undergraduates in the Faculty of Economics and Management who had enrolled for the course "Writing for Academic Purposes" as they were the only available Malaysian undergraduates at Universiti Putra Malaysia (UPM) in the First Semester of 2008/2009 qualifying the requirement in this study (nonprobability convenient sampling). They were grouped into two classes:



FFPR and OLPR each with nearly 60 students. The two groups did not differ significantly on any demographic variables.

## **2.2 Pretests, Treatment, and Posttests**

Two TOEFL TWE prompts were used to measure the quality of the participants' English writing proficiency before and after the treatment. In addition, two standard and piloted attitude scales (Computer Attitude Scale and Writing Attitude Scale) were used as additional pretests to ensure that the participants in different groups were not significantly different from each other in terms of their computer and writing skills and attitudes.

For the purpose of the treatment of this study, peer review guidelines developed by Schultz [12] and DiGiovanni and Nagaswami [13] were used with major modifications to facilitate the peer review process.

To answer the research questions, the second TOEFL TWE writing prompt was given to students on week thirteen to measure the effectiveness of FFPR and OLPR on the quality of the participants' writing in English. TOEFL scoring scheme was employed to measure overall writing proficiency of the participants' writings in English on a band score basis of one to six.

To answer the qualitative research question, two perception questionnaires were developed and used. For the purpose of the interviews, two new semi-structured in-depth interview guides were developed by the researcher.

There were certain measures taken by the researcher to control the possible threats to internal validity arising from the instruments: a) the TWEs were standard, b) the validity and reliability of the instruments was ensured during the pilot, c) those instruments were administered only once at the same time for all groups, and d) the administration procedures were also standardized throughout the experiment. Furthermore, the pretest (TWE1) and the posttest (TWE2) were two different TOEFL TWE prompts of the same level of difficulty and the same genre to avoid the internal validity threats associated with testing.

## **2.3 Data Collection**

Data collection was carried out within a period of 14 weeks at UPM. Quantitative data and qualitative data were collected concurrently. The procedures are presented sequentially here.

On week one, pre-tests were administered first to measure the participants' English writing proficiency before the treatment and second, to investigate any possible effects of control variables (computer and writing attitudes) on students' performance on pretest and posttests. On week two, the participants were briefed and trained how to use peer review guidelines. Between week three and week twelve, the lectures and peer review sessions were conducted concurrently. During this period of ten weeks, the participants received their normal lectures as prescribed in the course synopsis during the two-hour sessions. Concurrently, they reviewed their peers' writings during one-hour sessions which were all facilitated by the researcher/tutor. During these sessions, the researcher/tutor chose one of the participants' writing randomly from the assignments given to him and displayed it anonymously on the screen using a video projector. Then the researcher/tutor and the participants spent 15 minutes to review the essay and give their comments to improve the essay. Next the participants were paired to review their essays in 15 minutes each, together 30 minutes. Towards the end of the semester, in-depth open-ended interviews were also conducted. A total number of six randomly selected participants were called for the interview on a designated time and venue. On week thirteen, the participants sat for their posttest, TWE2. The same

administration conditions to TWE1 were followed as prescribed in the TOEFL official website. They were first given 30 minutes for TWE2 and afterwards the perception questionnaires were distributed among the participants. The participants were given two types of perception questionnaires based on their affiliation with FFPR and OLPR.

## 2.4 Data Analysis

Mixed within-between groups analysis of variance was employed in this study to test the hypotheses and answer the quantitative research questions. While quantitative data gave the researcher an overall understanding about the effects of FFPR and OLPR on the participants' Writing in English, in-depth interviews and perception questionnaires shed more light on the interpretation of the data collected via the quantitative method and to retest the hypotheses and confirm the quantitative findings with qualitative findings.

## 3. Results

### 3.1 Both FFPR and OLPR affected the proficiency of Malaysian undergraduates' writing in English significantly.

Both the quantitative and qualitative findings of the study showed that all the peer review formats, face-to-face and online enhanced the proficiency of the participants' writing in English remarkably. The descriptive statistics showed that the average mean performance of the participants (N=124) improved from 3.10 in TWE1 to 4.54 in TWE2. The inferential statistics applied also showed that the improvement was significant as the value for Wilks' Lambda was calculated .215 with a probability value of .000 (which really means  $p < .05$ ). As the p value is less than .05, it can be concluded that there is a statistically significant effect for time. This suggests that there was a significant difference (improvement) in the proficiency of Malaysian undergraduates' writing scores across the two different time periods for all the two groups. Figure 1 shows this improvement over time in both groups.

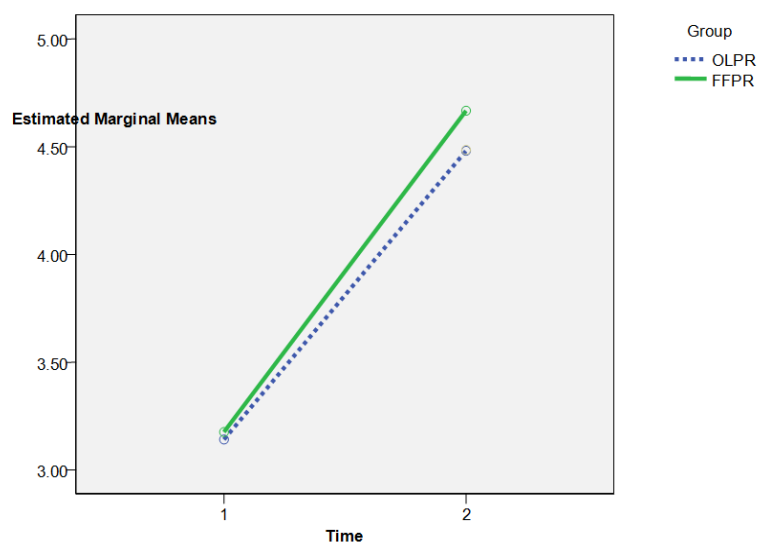


Figure 1 Profile Plot Showing Proficiency Improvement from TWE1 to TWE2



It can be implied from the above findings that peer review should be introduced, practiced and implemented in writing classes where typically teachers have no time to provide the required feedback to every student. The improvement in the performance of the participants in the TWE1 and TWE2 as a standard writing proficiency test showed that the peer review process contributed to the ultimate writing proficiency of the Malaysian undergraduates.

The peer review literature is also in line with these findings; as inferred from peer review studies [14], in consistency with Vygotsky's perspectives on learning, a real dialogue about writing to get assistance from real readers is viewed constructive. Rollinson [15] found that peer review provides useful feedback from peers, more effective revision, more specific comments and it also provides real audience for their writings which enhances collaboration and communication among peers. Similarly, Suprajitno [16] also asserted that getting a real audience for a composition and learning to become critical readers of both self and other's composition are positive outcomes of peer review. In another study based in Singapore, Hu [19] found that his students benefited the learning opportunities created by peer review to develop their understanding of both peer review and writing as a process. His students admitted that peer review enhanced their academic writing competency.

### **3.2 Malaysian undergraduates' found both FFPR and OLPR extremely effective in improving their writing in English.**

To answer the researcher's question how useful they found the peer review formats, the majority of the participants (N=106, 85.5%), commented positively. Almost the same number (N=105, 85%) found their partner's comments useful. In total, 93 participants (76.2%) agreed that peer review helped them revise better.

Generally, the interviewed participants viewed peer review helpful in nature. Mainly they asserted that peer review helped them to "generate ideas" and improved their "grammar." Moreover, it engaged them in a fruitful discussion after the writing itself; thus, they realized writing is not ended on paper but it cycles and matures throughout a discussion with the peers to review the initial drafts. Intriguingly, they revealed that teacher review can be embarrassing and they shy away from discussing their writing with their teacher. On the other hand, they felt comfortable sharing their writing with their peers enjoying the sense of openness with them. However, some believed that peer review is not "effective" if they were paired with a peer of much lower English competency. They suggested that the teacher should choose peers and he should pair them with more competent peers to ensure effectiveness of the peer review process. They did not mind the teacher pairing them with any competent classmate in the class and they said personal problems between peers would not affect the quality of their task. Some preferred to choose their own peer, though. Regarding the peer review instruction, they agreed that it was much needed to help them have a clear idea of peer review. They said that when the teacher reviewed an anonymous writing in the class, it improved the quality of their own writing. Finally, some were concerned about the workload; they said that one essay to write and review per week is "just enough." Based on the participants' positive evaluation, the researcher concluded that the Malaysian undergraduates found the peer review formats (FFPR and OLPR) extremely effective and helpful in improving their writing in English. Therefore, the mixed format of peer review is suggested in this study with reference to the verbatim notes and the perceptions of the participants.

These findings can be discussed and interpreted within Vygotsky's theory of constructivism which states that a real dialogue about writing to get assistance from real readers is constructive. In this experiment, the peers acted as real readers for their peers' writings in English and genuine dialogues and discussions



took place throughout the semester which led to their ultimate improvement in different aspects of their writing skills in English. Furthermore, peer review matches well with the principles of process-based writing which views writing as series of stages through which a writer composes ideas, shares them with real audiences, and revises them based on the feedbacks received from reviewers. Through these stages not only the written text matures, but also the proficiency and competency of the writer improves; this was observed in the findings of this study and a recent by Lundstrom and Baker [18]. Finally, peer reviewers develop a sense of community and responsibility [19] which is supported by advocates of cooperative learning theory.

#### **4. Conclusion**

Acknowledged importance and benefits of peer review cited in literature has encouraged many ESL teachers, and even teachers of other subjects, to use FFPR and OLPR in their classes. In this study, the advantage of the two peer review formats and their ultimate effects on the participants' were shown. It is revealed that students who reviewed their peers' writings, in either of its formats, performed significantly better on their own writing eventually. However, these results could not indicate any outperformance between online peer reviewers compared to face-to-face peer reviewers. Therefore, the researcher suggests a combined format of peer review usually know as Mixed Peer Review. Mixed peer reviewers can benefit from distinctive features of both face-to-face and online interaction. Therefore, it is wise to leave the choice to the students and let them decide based on their own preferences, capacities and constraints. For some student writers, OLPR can be a viable alternative to FFPR when time and physical constraints are an issue in writing classes. Eventually, other types of digital peer review can be introduced such as blogging, e-mail exchange, discussion boards, or online forums. Students should be encouraged to benefit from these web-based opportunities as they provide a real and genuine purpose and audience for them. Tutors' role in such virtual space is still vital and constructive to mentor and monitor the peer review process.

In this study, the effectiveness of training and applying the Malaysian undergraduates to peer review in a variety of formats supported the need to include peer reviews in ESL writing instruction and underscore their value in providing feedback on students' performance. The post-interviews, moreover, backed up the participants' rationale for finding the peer interview formats extremely effective and helpful.

Despite the limited scope of the present study, some suggestions about the implementation of peer review are in order.

One of the implications is to take into account student behavior in planning the peer review sessions. For example, when the discussion is unfocused and the comments not specific enough, teachers need to intervene and prod students to explain what they mean.

Another implication is that there is a need for a combination of teacher and peer feedback as well as self-directed feedback especially with intermediate learners. When teachers find problems during peer negotiations, they should intervene and facilitate more productive discussion among students.

Perhaps the unique contribution of this study was the effective implementation of the two formats of peer review in an academic undergraduate writing course. The experiment partly owes its effectiveness to the use of the two comprehensive peer review guidelines which were developed, matured, piloted, and experimented throughout this study. The peer review guidelines are unique and novel for these reasons: a) they are written for an ESL context and experimented in an academic writing course in an ESL context, b) for each format of peer review, a separate guideline is produced, c) each guideline starts with a single



introduction which prepares peers, both feedback givers and receivers, to embark on the process, d) it targets primarily compositional concerns such as introduction, thesis statement, topic sentences, supporting sentences, and conclusion, e) it also provides questions concerning the quality of more global aspects of written scripts, and then it moves to the more local aspects of writing which are of the second degree of importance. Therefore, the researcher recommends implementation of peer review in ESL tertiary writing classes for teachers and tutors who want more proficient, self-directed and autonomous student writers. The use of instructional guidelines and ongoing supervision of the teacher along the process are deemed to be vital.

### References

- [1] Braine, G. (1998). Teaching Writing on Local Area Networks. In C. Ward & W. A. Renandya (Eds.), *Computers and Language Learning* (pp.63-76). Singapore: SEAMEO Regional Language Center.
- [2] Zhu, W. (2001). Interaction and feedback in mixed peer response. *Journal of Second Language Writing*. 10(4): 251-276.
- [3] Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT Journal*. 59(1): 23-30.
- [4] Nystrand, M., & Brandt, D., (1989). Response to writing as a context for learning to write. In C. Anson (Ed.) *Writing and Response* (pp. 209-30). Urbana, IL: National Council of Teachers of English.
- [5] 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.
- [6] Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT Journal*. 59(1): 23-30.
- [7] Carson, J. G., & Nelson, G. L. (1996). Chinese Students' Perceptions of ESL Peer Response Group Interaction. *Journal of Second Language Writing*. 5(1): 1-19.
- [8] Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT Journal*. 59(1): 23-30.
- [9] Zhu, W. (2001). Interaction and feedback in mixed peer response. *Journal of Second Language Writing*. 10(4): 251-276.
- [10] Warschauer, M. (1996). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal*. 14(2): 7-26.
- [11] Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT Journal*. 59(1): 23-30.
- [12] Schultz, J. M. (2000). Computers and collaborative writing in the foreign language classroom. In M. Warschauer & R. Kern. *Network-based Language Teaching: Concepts and Practice*. NY: Cambridge University Press.
- [13] DiGiovanni, E. & Nagaswami (2001). Online peer review: An alternative to face-to-face? *ELT Journal*. 55(3): 263-272.
- [14] Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT Journal*. 59(1): 23-30.
- [15] Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT Journal*. 59(1): 23-30.
- [16] Suprajitno, S. (1998). Electronic Peer Review. In Ward, C. S., & Renandya, W. A. *Computers and Language Learning* (pp.167-179). Singapore: SEAMEO Regional Language Centre.
- [17] Hu, G. (2005). Using peer review with Chinese ESL student writers. *Language Teaching Research*. 9(3): 321-342.



- [18] Lundstrom, K. & Baker, W. (2009). To give is better than to receive: The benefits of peer review to the reviewer's own writing. *Journal of Second Language Writing*. 18: 30-43.
- [19] Bauer, Ch. et al. (2009). *The Student View on Online Peer Reviews*. Paper presented at ITiCSE'9, Paris. July 2009.