

The Effect of Peer-feedback on EFL Medical Students' Writing Performance

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Introduction

Learning a second/foreign language is considered to be a complex activity which involves listening, speaking, reading, and writing (Rubin, 1987). Of all, writing is a skill essential for a person's intellectual and communicative development which shows one's thinking maturity. So when considering higher education, it is writing skill which is of great importance and one of the aspirations of the students in almost all fields of study in higher education is to be known as a good professional writer (Cortes, 2004; Hyland, 2008a, 2008b). However, in an EFL context; for example, Marušić and Marušić (2003) reported that many of their co-workers had enough data to contribute to literature, but did not have enough writing ability to present these data to reputable journals. This is the problem that unofficially we have experienced with our medical students because many of these students are already engaged in so many lab experiments but do not have the required skills to report their data professionally to scientific journals. In this regard, we tried our best to utilize different methods in our academic writing classes to enhance our students' writing proficiency. One of these applied approaches in class is peer-feedback which although it is reported that students take more responsibility automatically, we realized that doing that in our classes needs a great deal of time and energy which we, instructors need to devote to prevent students from giving negative criticism and incorrect or false comments to their peers. Since by reviewing the literature, we also found comments disfavoring peer-feedback (for example from Horowitz, 1986; Amores, 1997; Rollinson, 2005 to name a few), we decided to do an action research ourselves and see if our hard work pays off by the end of the semester.

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Peer-feedback

Peer-feedback is a kind of process in which students give feedback to, or receive feedback by their peers. In the educational context, this can happen in various forms such as giving feedback to a peer's research report, providing qualitative feedback on a classmate's presentation, or evaluating a fellow trainee's professional task performance. All kinds of peer-feedback are being reputed in the education. Peer-feedback works as a tool which provides the students to make decision about the elements that make a work high quality (Topping, 1998).

Peer-feedback has come to existence to first overcome the limitations of teacher-assessment and second to make students active learners in their own learning processes. It is grounded in theories of active learning (Piaget, 1971), adult learning (Cross, 1981) and social constructionism (Vygotsky, 1962). Peer-feedback has been helpful for the teachers to figure out each person's endeavor in group projects (Conway & Kember, 1993; Goldfinch, 1994; Goldfinch & Raeside, 1990) and to help students to learn and work more cooperatively in a group (Kwan & Leung, 1996).

Students too have positive feelings towards peer-feedback. For instance, Birdsong and Sharplin (1986) stated that there is a positive attitude among the students toward measuring peer's written work. Smith, Cooper, and Lancaster (2002) also reported that not only the overall attitude of the students is positive, but also their attitude toward the entire course is positive when the peer-feedback is applied.

Advantages and disadvantages of peer-feedback on writing performance

Although recent studies have supported making use of peer-feedback in ESL writing classes because of its marvelous social, cognitive, affective, and methodological benefits (Ferris, 1997; Villamil & DeGuerrero, 1996), some teachers and learners are still uncertain about it.

Rollinson (2005) stated that some teachers may consider peer-feedback time consuming or be uncertain about its application in a specific content. As Rollinson (2005) stated, doing peer review needs a great deal of time and energy to be beneficial while some others think of it as a significant experience in learning process. Those who are not in favor of peer review state that giving negative criticism has the risk of making the writer irritated or offended. Moreover, it may be difficult for some students to recognize errors in other students' writing and so they may give their classmates incorrect or false comments (Horowitz, 1986). On

the other hand, there are those who may react negatively and defensively to their peers' comments (Amores, 1997). Also some researchers think of error correction as "harmful, time consuming and ineffective" (Truscott, 2007, 1996, 1999; Semke, 1984; Sheppard, 1992; Kepner, 1991). Moreover, Mooney (2004) is not convinced by the effect of peer-feedback because he believes students spend a lot of time doing peer-feedback to become qualified writers, and this takes a lot of energy and effort while the satisfactory result is not obtained. Also this kind of feedback may not be as beneficial as other kinds because some students may not have enough trust to their peers accuracy, sincerity, and specificity of their feedback (Ferris, 1997). This has been supported by Rollinson (2005).

It is said that if the positive influence of peer-feedback is willing to be achieved, the students should be made ready and well-taught by their teachers (Williams, 1957). When the students believe and have the feeling that their writing is going to be read by an authentic audience (peer), they write better than the times which the teacher is going to read it (Clark, 2003). Rollinson (2005) declared that a benefit of peer-feedback is to make critical readers out of the students so they can be on their own. Peer-feedback is the way to discuss drawbacks and strengths (Williams, 1957) which in this kind of situation the learners are able to discuss their ideas, give statements, do modifications, and give their opinion (Jiao, 2007; Kamimura, 2006; Zeng, 2006) and this can be a chance to improve both writing and reading.

In a nutshell, it is believed that peer-feedback gives the learners the opportunity to take responsibility for analyzing, monitoring and modifying both the process of learning and production of their classmates. The studies that search assessment from this point of view have shown that peer-feedback can work towards developing students' higher order reasoning and higher level cognitive thought (Birdsong & Sharplin, 1986), assisting to foster student-centered learning among undergraduate learners (Oldfield & MacAlpine, 1995), encouraging active and commutable learning (Entwhistle, 1993) and facilitating a deep approach to learning rather than a surface approach (Entwhistle, 1987; 1993; Gibbs, 1992). Peer-assessment can function as a socializing force and improve related skills and interpersonal relationships between groups of learners (Earl, 1986).

Based on what was discussed here, the presentment study aims to answer two research questions:

- 1) Does peer-feedback affect medical students' writing performance?
- 2) Is there a gender difference in medical students' writing performance?

Methodology

This study utilized an experimental approach to compare two groups of experimental and control to see if applying peer-feedback in writing classes can enhance Iranian medical students' writing performance.

Population and sampling

The target population in this study was all medical students, collectively referred to as EFL students, enrolled for the writing course at Shiraz medical university in the fall semester of 2013. The reason behind choosing this population was that these students are among the EFL university students who are required to take writing courses as a compulsory 3-unit course before their graduation from medical university.

The researcher utilized convenient sampling to choose 59 medical students from two classes out of eight other classes offered in writing because these classes were the only two classes that their instructor was the same. The age of the participants was between 20-30 and consists of both male and female. Since this study was experimental in nature, it was very important not to interfere the result with the environmental factors that can affect the nature of the research and change the results. We tried our best to be very cautious and careful about these factors.

Since in this study homogeneity of the groups chosen was very important, the first composition that all 59 students wrote at the very first session of their writing course was marked to determine whether there was statistically significant difference existed between the means of two groups. With equal variances assumed, the sig. level for the difference between pre-test means core of control group and pre-test means core of experimental group was 0.507 which is higher than P value (0.05). It shows that the difference is not significant. Thus, it can be concluded that both groups are homogenous.

Instrument

In-Class Essays

During the term the students were assigned to write some paragraphs on different subjects. But two of these writing samples were used as the source of data in this thesis. At the beginning of the term and at first, the students wrote 100-word paragraph on the topic "what can be done to change the growing trend of obesity in children?", and then they filled out the writing-self efficacy questionnaire. In this

way they could reflect on their writing immediately after their written assignment. Then at the end of the term again the instructor asked the students to write their second writing on "the effects that smoking can have on the body" and after that they filled out the self efficacy questionnaire again. The reason why these topics were chosen was that first of all both of these topics are from a genre which is expository in nature. This type of discourse is a type in which students can describe, evaluate and explain the topic in the form of collection/description, comparison, cause/effect, enumeration, problem/solution and procedural. The second reason was that the participants were medical students and they all had a back ground information and knowledge of these two topics. However, it is worth mentioning that their area of knowledge about the topic was not of importance in this research but their grammatical, the content, organization, vocabulary, sentence structure, grammar and mechanics were important.

Procedure

Treatment Group

The treatment group consisted of 30 students. For the first two weeks, the instructor taught students how to evaluate and give feedback to their peers. This was necessary because it is strongly believed that the peers should be prepared by the teachers and peer-feedback should be clarified well before being done (Newkirk, 1984; Jacobs, 1987). After giving any writing topic to students, the instructor usually gave few days to students to read, edit and evaluate their peer's papers based on both grammar and content. During these two weeks, the students were asked to first hand in the reviewed papers to the instructor and not giving the papers to their peers. Then the instructor checked the papers again and gave feedback to the feed-backers in order to teach them more how the effective feedback should be given (A sample of this can be seen in Appendix D). Then in the class, feed-backers were given 5-10 minute time to read the instructor's comments on their feedback in the class, and it was then that they were allowed to give the papers back to their peers. In this way, all the students had an equal chance to not only give feedback to their peers and being commented on their work, but also read the comments the instructor gave to their feed-backers. After two weeks, for the whole 15 weeks remaining of the term, the instructor asked students to do the same once a week. All the topics given to the students to write their paragraphs on during the term were the topics that they had a general knowledge about such as air-pollution, global warming, health issues, exercise, stress, malnutrition, alternative medicine and alike.

Control Group

The control group consisted of 29 students who were supposed to have a routine writing class. It means that no peer assessment was done during the semester and all the writings were evaluated and corrected by the instructor herself. The other procedures were the same as the treatment group class. It means that, they also came to class for 17 weeks and they wrote on the same topics as the other group. All the routine was the same for both groups except the peer assessment criteria.

Data analysis

Several methods of statistical analysis were used in this study. First, a paragraph scoring rubric was used to evaluate students' paragraphs in pre- and post-test.

Then, to investigate whether peer-feedback has effect on students' writing performance, t-test was administered between the mean scores of pre- and post-tests. To reveal the sex differences in students' pre-post test writings, the two-tailed t-test was used.

Results

The means of both groups indicate that the mean of score difference of treatment group is a lot more than the control group. According to the significance which is 0.013 we can conclude that there is a significant difference between the mean of treatment group and the control group. It can be concluded that using peer feedback helped the writing performance or in other words peer feedback had a positive effect on the writing performance. So the second hypothesis is accepted and it can be said that there peer-feedback affect students' writing performance.

Sig	T	Std. Deviation	Mean	N	variable
0.013	2.555	2.7	4.77	29	treatment
		3.1	2.80	30	control

Also, the table below shows the gender difference in students writing performance. The means of both groups indicate that the mean of the female's grades is a little more than the mean of the male's grades according to the significance which is 0.551 so we can conclude that there isn't any significant

difference between the scores obtained by males of females. Therefore, gender doesn't affect the writing performance of the students.

Sig	T	Std. Deviation	Mean	N	variable
0.509	-0.665	2.9	41.89	28	male
		5.1	42.61	31	female

Discussion

The first research question was to find out the connection between peer-feedback and writing performance of the students. T-test showed that the writing performance of the students improved with making use of peer-feedback. So using peer-feedback can play an important role in flourishing students' ability in writing. Many investigations have been done on the relationship between peer-feedback and writing performance. Therefore, the result of this research question can be compared to many studies. MawlawiDiab (2010) conducted a quasi-experimental study on impact of peer-feedback on the usefulness of self- and peer-feedback for students' draft revision and writing quality improvement. He reported that self-feedback and peer-feedback both resulted in EFL students' correction of more rule-based language errors. MawlawiDiab again replicated his own research. MawlawiDiab (2011) found that self-feedback resulted in more draft revisions than peer-feedback. On the other hand, peer-feedback caused more revisions of idea and led to a better organization and improvement in the structure of the writing. This research showed the significance of peer-feedback to the EFL students' writing development and clarified the usage of peer-feedback practice in EFL writing class.

Also Yang, Badger and Yu (2006) study is in line with the current study. The investigated the impact of peer-feedback and teacher feedback on the writing performance and found that peer-feedback make the learners more autonomous, while teacher feedback resulted in more textual changes than peer-feedback. Another L2 writing research investigated the impact of training how to do peer-feedback on three aspects of peer-feedback (Peer-feedback quality, usage of peer-feedback in draft revisions and the quality of peer-revised ESL/EFL writing). The design of the research was quasi-experimental design. Berg (1999) showed that training ESL students to perform peer response led to more meaningful changes and improvements in the students' writing quality. Similarly, Rahimi (2013) reported that training EFL students to do peer review made the students focus of attention in the EFL writing to the content and organization and as a result improved the quality of their paragraph writing. All the above mentioned studies

highlighted the importance of training in peer-feedback practice and the usage of peer-feedback in the ESL/EFL writing context.

The results are also compatible with Duijnhouwer, Prins, and Stokking (2012) investigated the effects of providing feedback strategies and a reflection assignment on students' writing motivation, process, and performance and its effect on the writing self-efficacy. The number of students that received feedback strategies, and those students that didn't receive any feedback strategies were the same. Results showed that those facing feedback strategies had a better writing performance than the other group. Improvement strategies negatively predicted self-efficacy beliefs, especially when initial self-efficacy beliefs were low, and positively predicted planning/revising. Reflections on feedback use and the revision positively predicted mastery goal when mastery goal initially was low or moderate.

The second research question was to find out whether there was connection between gender differences and writing performance of the students. T-test showed that there wasn't any significant relationship between the gender and writing performance of the students. However, this result contrasted many of the prior research because they reported that females are better in academic achievement than males (Camarata & Woodcock, 2006; Gibb, Fergusson, & Horwood, 2008; Marks, 2008; Pajares & Valiante, 2001). Contra wise, Kamari et al., (2012) investigated 150 BA students of Islamic Azad University of Ahvaz majoring in Teaching English as a foreign Language (TEFL), and reported that male students are better in writing skills. On the contrary, female students are better on descriptive part of the writing and in narrating ideas. According to findings of Kamari et al., (2012), males have better writing on opinion related- subject writings and the reason is that they have the ability to express their opinions and ideas. Also Morris (1998) investigated ESL writing gender differences a junior college in Quebec, Canada. And the results showed that women outperformed the men; the women writing had more cohesion but in regard to accuracy and readability both gender's texts had comparable quality.

Conclusion

The results indicated that peer-feedback can help the improvement of the writing performance of Iranian EFL students and the time and energy that writing instructors devoted to monitor the ways in which students give feedback to their peers has finally paid off. Although it was very time consuming for the writing instructor to once give a feedback to feedbackers and simultaneously comment on

students' papers each and every time students wrote their written assignments, we can say that this approach reduced students' writing anxiety and promoted their motivation and self-esteem (Elbow, 1981 cited in Johnson & Roen, 1989). Moreover, this research couldn't find any significant relationship between the gender and writing performance of the students.

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Summary

The Effect of Peer-feedback on EFL Medical Students' Writing Performance

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The current article investigates the effect of peer-feedback on writing performance of the Medical Students of Shiraz University. This research is experimental and fifty nine students both male and female participated in this study. The population included the medical students of Shiraz University. The researcher utilized convenient sampling to choose the participants. They were also divided to two groups. The treatment group which consist of 30 students and the control group which were 29 students. The researcher used writing composition in order to gather the data required for the writing performance and questionnaire based on the Likerd scale for the writing self-efficacy. The data gathered in a Pretest-Treatment-Posttest Design. The results indicate that there is a positive relationship between peer-feedback and the improvement of the writing performance.

Keywords: Peer-feedback, pedagogical effect, writing performance