Dyadic Interaction in Writing: On-line or Off-line Feedback?

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Abstract: Recent theoretical as well as pedagogical developments such as Interaction Hypothesis and Social Constructivism have led to the introduction of pair work into language classes. Nevertheless, few studies, with conflicting findings, have examined how fruitful the introduction of peer feedback to the writing practice can be. This study was an attempt to make a comparison between the qualities of student texts under two different types of feedback: on-line feedback, in which peers swap feedback orally while jointly developing a paragraph and off-line feedback, in which the peers provide feedback on each others’ writing once they have developed a paragraph individually. Forty-four sophomores in two intact classes participated in this study, each class practicing one feedback type. A split-plot ANOVA was conducted to assess impact of two different interventions (on-line vs. off-line feedback) on participants’ writing quality, across two time periods (pretest and posttest). There was no significant interaction between feedback type and time. However, there was a substantial main effect for time with both groups showing an improvement in writing test scores across the two time periods. The main effect comparing the two types of intervention was not significant suggesting no difference in the effectiveness of the feedback type.

Key words: Peer Response • Feedback • Collaborative Writing • Sociocultural Theory

INTRODUCTION

The importance of giving feedback to student writing is now an issue which is accepted extensively throughout the writing literature. There are, however, a variety of factors that can guarantee the success of this feedback or make it a failure. One factor is who is going to provide the feedback. Traditionally the teacher has been regarded as the only figure justified to provide feedback on student texts.

It is now commonly accepted that teacher response is an essential step in the writing process. Numerous studies have demonstrated the efficacy of various kinds of teacher feedback in improving the accuracy and fluency of L2 students’ writings [1-3]. On the other hand, for many years, the unique benefits that language learners could provide each other were ignored in L2 writing classrooms. This idea has given rise to peer response as part of the process approach to teaching L2 writing. It involves students reading, critiquing and providing feedback on each others’ writing [4]. Peer feedback, according to Bartels [5], is “a key component in the process approach to composition. It is also known as peer review, peer response, peer editing and peer evaluation, in which students read each other’s papers and provide feedback to the writer, usually answering specific questions the teacher has provided” (p. 34).

The idea of incorporating peer response in writing instruction is mainly motivated by two theoretical movements, namely, Long’s interaction Hypothesis and Vygotsky’s Social Constructivist perspective on learning.

The Interaction Hypothesis: It follows from the Interaction Hypothesis, whether in its early or late form, that what is important for acquisition is the opportunity for learners to engage in meaning negotiation. Researchers such as Doughty and Williams [6], Lighbown and Spada [7], Lantolf [8], Lyster and Ranta [9] and others have explored how interaction provides opportunities for learners not only to negotiate the message of the input, but to focus on its form as well. Other researchers, for example, Aljaafreh and Lantolf [10] and Nassaji and Swain [11] have explored the nature and type of feedback that will be most helpful to learners during interaction at different stages of their acquisition of a language form.
Collaboration and the Building of Knowledge: Insights from Sociocultural Theory:

According to sociocultural theory, human cognitive development is a social activity mediated by language, that is, knowledge is socially constructed by interaction and is then internalized. Individuals learn how to carry out a new function with the help of an expert and then they can perform it individually. Through interaction, learners regulate or restructure their knowledge; therefore, learning, cognition and interaction are closely connected.

The beneficial effects of peer comments have been outlined by a number of researchers in L1 writing [e.g., 12-14] and L2 writing [e.g., 14-16].

Despite a number of benefits, however, it has received some criticism, which casts doubt on the benefits of this instructional procedure in teaching writing. One drawback is that in peer review the focus is mainly on the product of writing (hence termed off-line feedback in this study) and the process of writing remains to be a private activity [17]. In L2 contexts in particular, a number of studies [e.g., 18, 19] have shown that when students are asked to peer review, they tend to focus on errors at the sentence and word level. Collaborative writing was suggested to alleviate the problem. In collaborative writing all group members co-author the written work together. In fact, they collaborate throughout the writing process and have joint responsibility over different aspects of the text produced. Research findings concerning the benefits of collaborative writing have been positive [e.g., 20-22].

Despite all the benefits elaborated on in the literature for peer feedback as well as the feedback learners receive in collaborative writing (on-line feedback; henceforth), when it comes to practice, teachers often notice that some students resent pair work in any form and refrain from joint work on tasks which require written output. In cases like this the question that arises is to what extent, if any, teachers should incorporate off-line or on-line feedback into their instructional practice. Put more specifically, can providing a fair mixture of both teacher- and on-line feedback on the one hand and teacher and off-line feedback on the other improve writing ability? One major concern of the present study was to make a comparison among these two types of feedback, namely off-line plus teacher feedback (FTF) and on-line plus teacher feedback (NTF) and explore how these feedback types can affect the quality of student texts. More specifically, the following research questions were posed:

- Does peer feedback (irrespective of its type) improve writing quality significantly?
- Does type of feedback (FTF or NTF) have a differential impact on the quality of writing?
- Does the interaction between time and feedback type affect the quality of writing significantly?

MATERIALS AND METHODS

Participants: Forty four sophomores (two classes) majoring in English language and literature served as the participants of the study. They were predominantly girls and ranged between 19 to 25 years of age. The study was performed with intact groups because students are assigned to classes on a self-selection basis. There were about 30 students in each class. However, matching limited the number of subjects to 22. Put another way, only 22 students in each class had a chance to be included in the study.

Moreover, a colleague experienced in teaching and assessing writing scored 50 percent of the pretest papers. This was done to ensure that scores assigned enjoyed a reasonable amount of reliability.

Procedure

Common Steps Taken in Both Classes: Michigan Test was administered to all participants in two classes to determine their proficiency level. The learners in two classes were then matched based on their proficiency scores. This was to make sure that the groups were comparable enough to begin with. As mentioned above this confined the number of participants in each class to 22.

Second, the students received some instructions concerning the structure and organization of a well developed descriptive paragraph and points to consider in writing such paragraphs. After this stage, the learners wrote a paragraph of 150 words in 40 minutes on a descriptive topic to serve as the pretest of the study.

Third, prior to participating in peer feedback activities, the students were trained on the guidelines for preparing EFL students for such activities, which was suggested by Berg [23]. This was conducted to make sure that learners would adopt the best possible patterns of collaboration.

A researcher-made peer response sheet with nine questions was also provided for each participant. Since the posttest paragraphs were going to be corrected analytically using Jacob’s rating scale [24], care was taken to establish a reasonable relationship between the band
scores in the scale and the researcher-developed peer response sheet. The learners were informed that these questions would serve as the basis of their feedback to their peers’ text.

**RESULTS**

Depending on the data type collected, a number of statistical analyses and measures were employed. First, as it was mentioned earlier learners in two groups were matched based on their proficiency level. A t-test was run, as a double-check, to make sure there was no significant difference between the groups to begin with. There was no statistically significant difference between the groups ($t=-.301, p=.77$).

As mentioned earlier to make sure the scores assigned to the texts in pretest and posttest were reliable enough 50 percent of the pretest papers were corrected by a second writing expert. The inter-rater reliability was investigated using Pearson product-moment correlation. There was a strong positive relationship between two set of scores ($r=.78, p<.05$).

Finally, in order to answer the research questions and assess the impact of two types of feedback—on-line versus off-line—on the participants’ writing quality across two time periods (pretest and posttest), a split-plot ANOVA was run. Table 1 below shows the influence of within-group (time) as well as between-group (feedback type) variables of the study.

It is evident from Table 1 that there was no significant interaction effect between feedback type and time (Wilks Lambda = 1, $F (1, 42) = .23$, partial eta squared = .005). Figure 1 is the line graph depicting mean pretest and posttest scores. The lines do not cross suggesting lack of interaction effect. So the answer to the third question of the study is negative. Examining the between-subject variable, feedback type, indicates that the answer to the second research question is also negative meaning that type of feedback, NTF or FTF, do not improve the writing quality significantly differently ($F (1, 42) = .557$, partial eta squared = .001).

Once the treatment sessions were over, all the participants sat the posttest in which they developed a descriptive paragraph of 150 words under time constraint (40 minutes) on the same topic as the pretest. The results were analyzed for possible differences in the writing quality among the groups.

**NTF groups:** Once the training was offered, learners in this class were paired similar to FTF group (self-selection basis), but here members in each pair co-authored a single paragraph, i.e. they wrote collaboratively and any feedback was presented orally during the writing process. It should be noted that the learners in this group also received the peer response sheet but they were strongly advised not to answer the questions, rather they were expected to use these questions as a basis to provide on-line feedback. To make time-on-task equal across the groups, pairs in this group were assigned more time – 70 minutes – compared to FTF group to write the paragraph, at the end of which period the papers were collected to receive teacher feedback at home. The next session the teacher returned the corrected papers and asked the learners to revise their paragraphs incorporating the teacher’s feedbacks. This cyclical process went on for 5 sessions.

Once the treatment sessions were over, all the participants sat the posttest in which they developed a descriptive paragraph of 150 words under time constraint (40 minutes) on the same topic as the pretest. The results were analyzed for possible differences in the writing quality among the groups.
Table 1: Split-plot ANOVA for the Main Effects and Their Interaction

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Mean Square</th>
<th>Wilks' Lambda</th>
<th>F</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time * Feedback type</td>
<td>1</td>
<td>.284</td>
<td>.995</td>
<td>.227</td>
<td>.005</td>
</tr>
<tr>
<td>Feedback type</td>
<td>1</td>
<td>.557</td>
<td>-</td>
<td>.056</td>
<td>.001</td>
</tr>
<tr>
<td>Time</td>
<td>1</td>
<td>9.557</td>
<td>.846</td>
<td>7.62**</td>
<td>.154</td>
</tr>
</tbody>
</table>

**p< 0.01

Also, Table 1 indicates that there was a substantial main effect for time, (Wilks Lambda = .85, F (1, 42) = 7.62, p = .009). This means that receiving feedback, irrespective of its form, influences the quality of student-written texts over time.

**DISCUSSION**

This study was an attempt to investigate the efficacy of two types of feedback, on-line versus off-line, on the improvement of students' writing quality. The findings indicated that both types of feedback can contribute to the writing improvement in a significant way. Put another way, they can improve the quality of writing over time. However, the amount of variation that these feedbacks created was not statistically significant though on-line feedback was rather more beneficial in this regard.

Very similar findings have been reported regarding the benefits of dyadic interaction and peer-peer collaboration for L2 learning [e.g., 20-29].

One explanation for why there were increases in the writing ability of the participants who performed dyadic interaction is that they had “opportunities for learning” [8] or “affordances” [30]. This is in line with what researchers have already found regarding the benefits of pair work [e.g., 22, 31, 32].

It must be noted that the present study involved a small sample size and was conducted in a controlled classroom setting. Before extrapolating from the results of the study to other settings and situations, more research is required with other types of learners and in other learning contexts. It is hoped that this study sheds some light on the complex nature of peer-peer interaction and its importance to L2 learning.

**REFERENCES**