The Effects of Oral and Written Meta-Linguistic Feedback on ESL Students Writing

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ABSTRACT

Research on corrective feedback has shown the beneficial effects of improving accuracy in writing though more research is being done on the effectiveness of different types of corrective feedback and the intervening variables. In line with this trend of research, this study was designed to investigate the effects of written and oral meta-linguistic feedback on the accuracy of subject-verb agreement in the writings of 47 undergraduate students. There were three groups in the study: Written Group, Oral Group and Interactional Group. The Written Group received direct error correction in combination with written meta-linguistic feedback. The Oral Group received direct error correction in combination with oral meta-linguistic feedback and the Interactional Group received direct error correction in combination with oral meta-linguistic feedback and also was involved in an interactional activity (discussion on their errors). The results demonstrated that all three groups improved their writing accuracy in the post-test as the result of receiving meta-linguistic feedback, but the Oral Group outperformed the other two groups. The findings of this study provided further evidence in support of the significant effects of corrective feedback especially oral meta-linguistic feedback which is both practical and time-saving.

Keywords: corrective feedback; oral meta-linguistic feedback; written meta-linguistic feedback; second language writing; university students

INTRODUCTION

One of the fundamental skills that students need to master during their tertiary education is writing. University students in particular need to master this skill in order to be able to share their research findings with other researchers around the world. Research writing is one of the earliest skills that university students need to be aware of and gradually develop during their educational process (Min, San, Petras & Mohamad 2013). Accurate writing is essential in understanding the text and will help writers to build more confidence in disseminating knowledge. However, many students have challenges in producing accurate writing. This problem has led the teachers/researchers to focus on research on the effectiveness of corrective feedback. In fact, majority of researchers have argued that provision of feedback can promote language learning (Schmidt 1990, 1993, Ellis 1994, Long 1996, Dlaska & Krekeler 2013) and writing skills in particular (Chaudron 1984, Keh 1989, Leki 1992, Ferris 1999). Hyland and Hyland (2006) refer to the fact that teachers are inclined to give feedback to their students and students, on the other hand, expect to receive feedback. There are a number of studies which provide evidence in support of error correction (Ferris 1997, Polio, Fleck & Leder 1998, Ferris & Roberts 2001, Hyland 2003, Chandler 2003, Sachs & Polio 2007). Undeniably, teachers play a key role in producing more linguistically proficient students (Hashim, Alam & Yusoff 2014). Generally teachers feel that providing feedback on
their students’ writing will help them to become aware of their writing errors, hence they avoid the same errors in consequent writing. Students also feel that being able to produce accurate writing can enhance their educational success.

A factor which is likely to affect improvement in language accuracy is the type of corrective feedback that is given to students. While there is evidence in favour of both indirect (Lalande 1982) and direct corrective feedback (Bitchener & Knoch 2010, Yilmaz 2013), this area of research investigating different intervening variables is rapidly growing. A recent emerging area of research on corrective feedback is the provision of meta-linguistic feedback as additional types of direct corrective feedback (Bitchener 2012). Meta-linguistic feedback refers to comments and information given to students in relation to their errors in their writing or speaking production. Meta-linguistic feedback can be implicit or explicit. Explicit type of meta-linguistic feedback in writing refers to the provision of the grammatical rule concerning the error which can either be oral or written (Bitchener & Knoch 2009). In line with this trend of research, this study was designed to investigate the effectiveness of oral and written meta-linguistic feedback on second language students’ writing. Some related studies on meta-linguistic feedback are discussed below.

There are a number of studies (Carroll 2001, Lyster, 2004) which demonstrate the significance of meta-linguistic feedback. For instance, Kubota (1994) investigated the effects of implicit and explicit types of meta-linguistic feedback on English native alternation. The findings of the study support the effective role of explicit meta-linguistic feedback in teaching grammatical rules. The study by Ellis, Loewen, & Erlam (2006) on implicit and explicit forms of feedback also showed beneficial effects of meta-linguistic feedback on language acquisition.

There are also some studies (Bitchener, Young & Cameron 2005, Sheen 2007, Bitchener 2008) which compared different types of direct corrective feedback and particularly meta-linguistic feedback on second language student writing. For instance Sheen (2007) compared direct error correction with meta-linguistic feedback. There were three groups in this study: a control group and two treatment groups. The first treatment group received only direct error correction, while the other treatment group received meta-linguistic feedback. The results of the study showed more improvement for both treatment groups compared to the control group in the immediate post-tests, however, the direct meta-linguistic group out-performed all the groups in the delayed post-test.

In a similar study, Bitchener, et al. (2005) examined the effectiveness of different types of direct corrective feedback. They compared three groups: the control group which received no feedback and two experimental groups; one received only direct error correction and the other one received direct error correction in combination with both oral and written meta-linguistic feedback. The findings of the study showed significant improvement for the group which received the three types of direct feedback. This finding confirms that using meta-linguistic explanation can help the reduction of errors.

Following the above study, Bitchener (2008) investigated the effects of meta-linguistic feedback on improving accuracy in the use of the English article (the/a). The participants were divided into four groups. The control group received no feedback, the first experimental group received direct corrective feedback together with oral and written meta-linguistic feedback, the second experimental group received direct corrective feedback and written meta-linguistic feedback and the third group received direct corrective feedback only. The results showed that the group which received both oral and written meta-linguistic feedback in combination with direct error correction and the students, who only received direct feedback, outperformed the students in the control group.

The main SLA theory which serves as the basis for the present study is the interaction theory (Long 1985, 1996, Swain 1995) which shows that corrective feedback has a beneficial
role in language learning (Bitchener 2012). Based on this theory, interaction between more fluent and less fluent speakers and, in case of classrooms, between teacher and students can promote language learning. Through interaction, input is modified and modified input is more comprehensible and more available for learning (Long 1985). Modified input could be in the form of corrective feedback which comes in various types. Meta-linguistic feedback in particular provides explanations and clarifications about structure and rules of language based on the mistakes that students made in their writing production. Therefore, it raises awareness of language and noticing, which can promote language learning (Schmidt 1990, 1993, Long 1996).

Meta-linguistic feedback comes in different forms, oral and written, which are different in the way they are produced. Written meta-linguistic feedback requires the teacher to provide explanation in each student’s paper separately while oral meta-linguistic feedback can be provided in form of a mini-lecture to the whole group of students (Bitchener et al. 2005, Bitchener 2008). Research on meta-linguistic feedback has shown some valuable findings. However, firm conclusion on the type of meta-linguistic feedback can only be attainable if research compares the effects of oral and written meta-linguistic feedback separately. Literature shows that none of the studies explained above have compared a group in which the students received only written meta-linguistic feedback with a group which received only oral meta-linguistic feedback. Therefore, it was the main objective of this study to measure the efficacy of oral meta-linguistic feedback as compared to written meta-linguistic feedback.

Moreover, literature on different types of feedback in writing improvement shows that collaborative interactional activities have rarely been used in combination with oral meta-linguistic feedback to enhance writing skills. There is argument in support of this type of activities because interaction can raise awareness and noticing which in turn can promote learning (Schmidt 1990, 1993). Thus, the present study investigated the effectiveness of such activities on writing improvement through a collaborative activity which required the students to discuss and work with each other on their writing errors.

THE STUDY

This study was designed to compare the effects of oral and written meta-linguistic feedback in improving students’ accuracy in writing. It also investigated whether the provision of an interactional activity in addition to the feedback benefits students in improving their accuracy or not. In order to achieve the purposes of this study the following research questions were addressed:

1. Is written meta-linguistic feedback in combination with direct error correction effective in improving second language students’ writing accuracy?
2. Is oral meta-linguistic feedback in combination with direct error correction effective in improving second language students' writing accuracy?
3. Is oral meta-linguistic feedback and a collaborative interactional activity in combination with direct error correction effective in improving second language students’ writing accuracy?
4. Which type of feedback is the most effective in enhancing second language students' writing accuracy?

METHODOLOGY
The participants who were involved in this study were 47 undergraduate students pursuing their bachelor degree in a university in Malaysia. The participants were of mixed language ability and were learning report writing in English during the time of the study. They were a group of both male and female students aged 19–20, with the same background in English writing, having passed their first course (English for Academic Communication) and attending their second writing class (Advanced English for Academic Communication) at the time of the study. They attended their class twice a week for two hours. The participants were all from Malaysia with one common native language which is Malay. They were randomly assigned to three treatment groups: the Written Group (15 participants), the Oral Group (16 participants) and the Interactional Group (16 participants).

This study was an experimental study of pre-test – treatment – post-test design. The pre-test required the participants to write an essay of about 200 words in 30 minutes on environmental pollution in Malaysia and suggest recommendations to solve the problem. The post-test was similar to the pre-test with the exception of the topic, the participants were asked to write an essay on the new topic which required them to describe the advantages and disadvantages of using the internet. The participants were asked to write an essay on a new topic instead of revising the first essay, because as it is argued by some researchers, in revisions, students might closely follow their teacher’s comments, and therefore they may lose the opportunity of thinking creatively which is essential in developing writing skills (Hyland & Hyland 2006). The subject-verb agreement was targeted in this study because of its potentiality to be ‘treatable’ (Ferris 1999).

The pre-test was carried out one week before the treatment; it was exactly the same for all three groups. After the pre-test was conducted and the papers were collected, all the mistakes in each essay of each participant in each group were underlined and the correct forms were provided above them. In other words, the participants in all three treatment groups received the written direct error correction. The procedures to conduct the study on each group were different based on the specific characteristic of the treatment given.

The Written group received the written meta-linguistic feedback which was in the form of one written page of sufficient description on subject-verb agreement with several examples (Appendix A). In order to eliminate the intervening variable of one group benefiting from more information compared to the other group, the Written Group was provided with sufficient amount of written meta-linguistic feedback almost the same as the Oral Group. Similar to Bitchener’s (2008) study the written meta-linguistic feedback was attached to the pre-test papers of the participants in this Group.

During the treatment session the participants in the Written Group received their pre-test papers and were given ten minutes to look at the direct error correction provided in the case of an error on the target grammar, and to read the written meta-linguistic feedback which was provided on the target grammar and attached to their papers. Immediately after the treatment, all the pre-test papers were collected and the post-test was administered. The pre-test papers were collected in order to prevent any help that the participants might have taken from the direct error correction provided in their first essay.

The Oral Group received the pre-test papers and was given 5 minutes to look at the direct error correction which was provided in their essays on the occasions when the target structure was used incorrectly, similar to the Written Group. However, during this time any questions raised by the participants regarding the error correction were answered. This group received oral meta-linguistic feedback instead of written meta-linguistic feedback. The oral meta-linguistic feedback took the form of a 15 minute mini-lesson which was provided by the first author on the target grammatical feature, subject-verb agreement. She also provided several examples to further clarify the rules; in addition, several examples of the mistakes the students made in their pre-test were also explained. Additionally, she answered any questions
raised by the participants during the discussion. After the treatment, the pre-test papers were collected and the post-test was immediately administered.

The treatment for the Interactional Group was the same as the Oral Group except for the addition of the collaborative interactional activity that they were involved in. Similar to the Oral Group, firstly they were given five minutes to look at their pre-test papers. Then, they were divided into small groups of four and were given five extra minutes to have a discussion on the errors they made in their essays. In other words, they interacted with their peers about the grammar of the language. This activity was followed by a 15-minute mini-lesson which was exactly similar to the Oral Group. Finally, the pre-test papers were collected and the post-test was administered immediately. The research treatment is summarised in Table 1.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Treatment</th>
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<tbody>
<tr>
<td>Written Group</td>
<td>Direct error correction + Written meta-linguistic feedback</td>
</tr>
<tr>
<td>Oral Group</td>
<td>Direct error correction + Oral meta-linguistic feedback (mini-lesson)</td>
</tr>
<tr>
<td>Interactional Group</td>
<td>Direct error correction + Collaborative interactional activity + Oral meta-linguistic feedback (mini-lesson)</td>
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To analyse the data, the percentage of the correct use of the target structure over the obligatory occasions was calculated. For example, in any one essay, five correct uses of the target grammar from ten obligatory occurrences meant a 50% rate of accuracy. Similarly, the percentage of accuracy for each text written by each student in all experimental groups on pre-test and post-test was calculated. Group means and standard deviations were then calculated for each feedback group in both pre-test and post-test in order to compare the margin of improvement in each group. Dependant t-tests were carried out to identify the statistical significance. Cohen’s $d$ and $r^2$ were also calculated to determine the effect size of each treatment.

RESULTS

The descriptive and inferential statistics for each treatment group on the pre-test and post-test are presented in Table 2. The first research question investigated the effect of written meta-linguistic feedback in combination with direct error correction in improving students’ writing. This question was answered by comparing the accuracy level of students in this group (named as Written Group) on subject-verb agreement on pre-test with their level of accuracy on the same grammatical category on post-test. When the participants’ percentage of accuracy on the pre-test and post-test were compared, the participants showed clear evidence of learning as they enhanced their accuracy level with the mean of 56.85% in the pre-test to 85.70% of accuracy in the post-test. The margin of improvement for this group was 28.85%. To investigate whether the improvement was statistically significant, t-test for dependant samples was used. Calculation proved that the improvement was statistically significant, $t$ (14) = 7.75, $p< 0.05$. According to the results, it is concluded that written meta-linguistic feedback was effective in improving students writing skill. This finding is in accordance with previous findings on the beneficial role of meta-linguistic feedback in teaching grammatical rules (Kubota 1994, Sheen 2007).

<table>
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<tbody>
<tr>
<td>Written Group</td>
<td>Direct error correction + Written meta-linguistic feedback</td>
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<tr>
<td>Interactional Group</td>
<td>Direct error correction + Collaborative interactional activity + Oral meta-linguistic feedback (mini-lesson)</td>
</tr>
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</table>
The second and third research questions investigated the effects of the other two techniques of providing feedback on students’ writing: oral meta-linguistic feedback in combination with direct error correction and oral meta-linguistic feedback in combination with an interactional activity and direct error correction. Similarly, the second and third research questions were answered by comparing the accuracy level of students in these groups (named as Oral Group and Interactional Group) on subject-verb agreement on pre-test with their level of accuracy on the same grammatical category on post-test. The results showed that the participants in the Oral Group enhanced their accuracy percentage with the mean of 52.72% in the pre-test to 89.4% of accuracy in the post-test. The margin of improvement for this group was 36.7%. The result of the t-test proved that the improvement was statistically significant, \( t(15) = 12.94, p < 0.05 \). For the third group (Interactional Group), the margin of improvement was 30.93% which shows an increase in accuracy level from 56.53% in the pre-test to 87.46% in the post-test. The statistical significance was \( t(15) = 11.71, p < 0.05 \).

Similar to previous research on oral meta-linguistic feedback (Bitchener et al. 2005, Bitchener 2008), the results of this study confirmed that provision of oral meta-linguistic feedback was effective in improving students’ writing.

When the individual scores for all the three groups were analysed separately, it was found that all the participants in all the three groups have shown improvements in their accuracy rate in the post-test; there was not an instance of a participant who showed no improvement. Table 3 shows the minimum and maximum of the percentage of individual improvement in each group.

### Table 3: Minimum and maximum percentage of individual improvement in each group

<table>
<thead>
<tr>
<th>Group</th>
<th>Minimum percentage of Individual improvement</th>
<th>Maximum percentage of Individual improvement</th>
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</thead>
<tbody>
<tr>
<td>Written Group</td>
<td>7%</td>
<td>53%</td>
</tr>
<tr>
<td>Oral Group</td>
<td>25.2%</td>
<td>57.7%</td>
</tr>
<tr>
<td>Interactional Group</td>
<td>17%</td>
<td>57.2%</td>
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</tbody>
</table>

These results demonstrate that learning occurred in all three conditions; therefore, it can be concluded that meta-linguistic feedback can enhance second language students writing skills. This finding is in accordance with the previous studies on the effects of meta-linguistic feedback in improving writing skills (Bitchener, Young & Cameron 2005, Sheen 2007, Bitchener 2008).

The fourth research question was ‘Which type of feedback is the most effective in enhancing second language students’ writing accuracy?’ To answer this question, the effect size of each treatment was compared to the other two treatments, in other words, the extent to which each type of feedback was effective was investigated. To statistically calculate the effect size of each treatment, the commonly used measure of effect size \( r^2 \) was applied. Based on the outcome of t-test the following equation was used: 

\[
 r^2 = \frac{t^2}{t^2 + df}
\]
The statistical results are illustrated in Table 4. The calculation showed that the value of \((r^2)\) for Oral Group was 0.92, which means that 92% of the total variability was accounted for by the treatment. The value for Interactional Group \((r^2)\) was 0.90 and for Written Group it was 0.81 which means 90% and 81% of variance in the scores of Interactional Group and Written Group respectively was accounted for by the treatment. The analyses indicate that the Oral Group made the highest improvement as the effect size of the treatment was the highest. The Interactional Group improved more than the Written Group but slightly less than the Oral Group. The margin of improvement by means of the raw scores also shows that the Oral Group outperformed the other two groups by scoring an improvement of 36.7% compared to 30.93% for the Interactional Group and 28.85% for the Written Group. The Interactional Group outperformed the Written Group but not the Oral Group.

Another measure which shows the effect size of treatment (Cohen’s \(d\)) was also carried out. The calculation for \(d\) also showed that the treatment for the Oral Group had the highest effect which was \(d=3.23\), the value of \(d\) for the Interactional Group was the second in size \(d=2.93\) and the third was for the Written Group \(d=2\).

<table>
<thead>
<tr>
<th>Group</th>
<th>(r^2)</th>
<th>Cohen’s (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Group</td>
<td>0.81</td>
<td>2</td>
</tr>
<tr>
<td>Oral Group</td>
<td>0.92</td>
<td>3.23</td>
</tr>
<tr>
<td>Interactional Group</td>
<td>0.90</td>
<td>2.93</td>
</tr>
</tbody>
</table>

DISCUSSION

The findings of this study corroborate previous findings on the effective role of meta-linguistic feedback in language learning (Kubota 1994, Carroll 2001, Lyster 2004, Bitchener, et al. 2005, Ellis et al. 2006, Sheen 2007, Bitchener 2008). The provision of meta-linguistic feedback increases awareness of language rules and noticing which is essential in language learning (Schmidt 1990, 1993). Moreover, based on the results of the effect size of each treatment and also the margin of improvement by means it can be concluded that oral meta-linguistic feedback is more effective than written meta-linguistic feedback in enhancing second language writing. During the oral meta-linguistic session the teacher had the opportunity to interact with the students. Thus, the input (teacher’s comments) was interactionally modified and modified input is understood more easily by the learners. This notion is in line with Long’s (1985) interaction theory. Therefore, the issue of misunderstanding and misinterpretation which may cause a problem in written meta-linguistic feedback was not a problem in relation to oral meta-linguistic feedback.

The last group in this study was the Interactional Group. The participants in this group received oral meta-linguistic feedback and were involved in an interactional collaborative activity which required them to discuss the types of errors made and the structure of the language. They were asked to explain to each other why some of their answers were not acceptable and why the words which were provided as the correct forms were appropriate answers. The findings of this study demonstrated that this group did not outperform the group which received only oral meta-linguistic feedback and was not involved in the interactional activity. The effect size of their treatment (90%) was just a little less than the effect size of the Oral Group (92%). This indicates that the participants in the Interactional group gained from the oral meta-linguistic feedback they received but they did not gain from the five-minute discussion they had, hence, they did not outperform the Oral Group. However, there were some intervening factors that seemed to have caused this result. During the treatment
session it was noticed that the time which was allocated to this activity (5 minutes) was not sufficient. As students were not in the habit of working on their errors in groups and talking about the rules of language, it took them a few minutes to prepare for the activity. It is speculated that if they had been given more time for this group activity, they would have benefited more from the advantage of collaborative discussion with their friends.

In view of the literature, it would be premature to conclude that interactional activities are not useful in improving writing. There is a need for other research to investigate the sufficient time that learners need to spend on such activities in order to benefit more from these activities. There is also a need to familiarize learners with such activities prior to the treatment. Furthermore, these activities may foster long-term acquisition, hence before making any conclusions, a longitudinal measurement of accuracy improvement needs to be used to find out whether students’ writing skills will improve or not. When all these conditions are met only then it is possible to make conclusions whether activities of this type are effective in improving writing skills or not.

CONCLUSION

The findings of this research have provided some useful pedagogical implications. Different from previous research (Bitchener et al. 2005, Bitchener 2008), in this study, oral and written meta-linguistic feedback were provided to different groups separately. The results demonstrated that the provision of oral meta-linguistic feedback seemed to be the most effective form of direct corrective feedback and resulted in the highest percentage of accuracy improvement by mean (36.7%). This brings good news to second language teachers who wish to apply this type of feedback to improve their students’ writing accuracy. Teachers should find oral meta-linguistic feedback a useful procedure to be applied in classrooms, because providing oral meta-linguistic feedback is very practical and in any classroom it can be easily conducted by the teacher compared to the written meta-linguistic feedback. There are usually about thirty students in each classroom, hence it would be very difficult and time consuming to provide written meta-linguistic feedback in each student’s paper. Furthermore, in this study the oral meta-linguistic feedback was provided in the form of a mini lesson given to the whole class by the researcher; definitely it is much more less time consuming compared to individual teacher-student conference which is not very practical with regard to the time of class.

Although the findings of this study provided more evidence in support of teacher feedback, it was not without its own limitations. One of the limitations of this study is that, because of time constraints, it only applied immediate post-tests to measure students’ accuracy improvement. Future research is needed to include a delayed post-test over a longer period of time to examine the long-term improvement of students’ improvement in accuracy. In fact any research that helps to investigate the long-term retention of the benefits of teacher feedback will strengthen the existing findings. In addition, in this study the target grammatical category was subject-verb agreement; however, during the process of data analyses it was found out that students also had problems with other grammatical categories especially passive sentences and countable and uncountable nouns. Therefore, it is recommended that future studies investigate the extent to which the positive results of this study can be applied to other grammatical categories.

To sum up, this study was designed to provide evidence in support of the type of feedback that can be effective in improving second language students’ writing skills with the intention of helping the teachers to decide on the type of feedback that can be more useful for their students. The findings indicated that oral meta-linguistic feedback was the most effective type of direct feedback in improving second language students’ writing accuracy.
However, research on the efficacy of oral feedback in writing is rather limited (Hyland & Hyland 2006) and feedback is also a complex topic with multiple intervening factors. Therefore, continued research into various aspects of feedback is valuable in order to better understand how its beneficial effects can be optimised.

REFERENCES


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**APPENDIX A**

**Subject-Verb Agreement:**

Basic principle: singular subjects need singular verbs, plural subjects need plural verbs.

Examples:  
- My brother is a pilot.  
- My sisters are nurses.

She has an umbrella.  
They have a big house.

The indefinite pronouns anyone, everyone, someone, no one and nobody are always singular and therefore require singular verbs.

Examples:  
- Everyone has enjoyed the party.  
- Somebody has cleaned the room.

Everyone is happy.  
Nobody is here.

Verbs in the simple present tense for third person, singular subjects (he/ she/ it), have s-endings.

Examples:  
- He / She / It loves…  
- It contributes to the matter.

They/ You/ We/ I love…..  
They contribute to the matter.

Verbs in present continuous tense:

Examples:  
- I am walking.  
- They/ We/ You are walking.

He/ She/ It is walking.

Verbs in present perfect:

Examples:  
- I/ They/ You/ We have finished.  
- She/ He/ It has finished.

Past form of verb to BE:

Examples:  
- I/ she/ he/ it was at home.  
- There was a boy in the shop.

We /they / you were at home.  
There were many people in the shop.