A Critical Review of Empirical Research on the Effect(s) of Written Feedback on Writing

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Abstract—This paper aims to review empirical studies on the relation and effect of teachers’ feedback on second language (L2) writing development. The purposes of this review are two folds: (a) to present and compare the findings of these studies, and (b) to make certain recommendations for future research based on the limitations and gaps in literature. Thus, this review does not merely provide a summary of previous studies, but it also includes a critical analysis of these studies. The approach employed is based on comparing the findings of these studies. We also question both the internal and external validity of these studies through examining their research methodology.

Keywords—Feedback, L2 writing skill, critical review.

I. INTRODUCTION

There has been a long debate regarding the implementation of written corrective feedback in L2 writing classes. This debate reveals the different perspectives about written feedback in both second language acquisition and composition studies. Researchers rely on experiments to support their views. Therefore, a lot of articles and research papers have been published to contribute to this debate. This article, hence, is about a review of most recent empirical research. The rational of this review is as follows: (a) to provide a summary of the main studies that have investigated the issue of feedback and writing, (b) to draw attention to the limitations of those studies, and (c) to suggest alternative ways for future research. Another major goal of this paper is to shed some light on the debate regarding the usefulness of written corrective feedback in L2 writing skill development. This paper gives a balanced overview about this debate through presenting both views for or against feedback practice in writing classes.

II. SUMMARY OF PREVIOUS STUDIES

Many researchers have studied the development of L2 learners writing skill. The table below presents only the main previous empirical studies that have researched the issue of feedback and students writing development. We do not claim that this table includes an exhaustive list of all the studies related to writing and feedback. It does not only provide the name of author(s), the year of publication, and the context of the study, but it also gives an overview about the methodology employed to investigate the topic, the main conclusions and the mentioned limitations. When surveying literature for previous studies, papers about the EFL context were favored regarding the similarities of the context (without ignoring or excluding other studies).

Summary of empirical research on written corrective feedback on L2 writing

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Methodology: population and research instruments</th>
<th>Main conclusions</th>
<th>Acknowledged limitations</th>
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<tbody>
<tr>
<td>Mubarak, 2013, Bahrain</td>
<td>Observation (4 teachers were observed in 2 lessons) Quasi experiment (46 subjects) Interviews (7 faculty members) Questionnaires (both to teachers and students)</td>
<td>The effect of feedback on students’ writing accuracy and complexity is not significant No significant effect of the type of feedback on students’ writing</td>
<td>Duration of the treatment might not be enough; 10 weeks Not enough sample size</td>
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<td>Koen, Bitzer and Beets, 2012</td>
<td>perspectives and practices of feedback in a Life Skills classroom are explored in order to reframe the purpose of lecturer feedback in promoting the quality of students’ learning</td>
<td>How do students in a Life Skills classroom experience feedback?</td>
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In attempting to answer this question, we explore how feedback, a key issue in assessment, can be used to inspire students to learn. A basic interpretative qualitative approach employing focus groups and semi-structured interviews created the opportunity to explore how final-year students in a Life Skills classroom experience four feedback issues.

<table>
<thead>
<tr>
<th>Main conclusions</th>
<th>The findings suggest that students need to learn how to convert feedback into enhanced knowledge in order to understand precisely what aspects they need to improve. It is not feedback in itself that will improve learning, but rather the way students understand what to do with such feedback.</th>
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<tbody>
<tr>
<td>Acknowledged limitations</td>
<td></td>
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<tr>
<td>Methodology</td>
<td>53 post-intermediate ESOL (migrant) learners</td>
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<tr>
<td>Main conclusions</td>
<td>the combination of full, explicit written feedback and one-to-one conference feedback enabled them to use the past simple tense and the definite article with significantly greater accuracy in new pieces of writing than was the case with their use of prepositions direct oral feedback in combination with direct written feedback had a greater effect than direct written feedback alone the combined feedback option facilitated improvement in the more “treatable”, rule-governed features (the past simple tense and the definite article) than in the less “treatable” feature (prepositions)</td>
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<td>Acknowledged limitations</td>
<td>Limited number of participants in each group. Only three types of errors were considered Participants of very different linguistic and cultural backgrounds</td>
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<tr>
<td>Methodology: population and research instruments</td>
<td>Review of previous studies</td>
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<td>Main conclusions</td>
<td>Grammar correction has no place in writing courses and should be abandoned</td>
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<td>Acknowledged limitations</td>
<td></td>
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<tr>
<td>Methodology: population and research instruments</td>
<td>67 female students (EFL learners) Two experimental and a control group (direct explicit written feedback and a 5 minutes student teacher conference, indirect coded feedback, no feedback group) Quasi-experimental study Pretest, immediate posttest and delayed posttest</td>
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<td>Main conclusions</td>
<td>The findings of the study support the use of feedback The difference between direct and indirect forms of feedback is not significant</td>
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<td>Acknowledged limitations</td>
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<tr>
<td>Methodology: population and research instruments</td>
<td>90 EFL learners Random selection Three groups Two experimental and a control group (direct, indirect feedback, no feedback group) Two tests were used: a test to ascertain the homogeneity of the group and a package written test’aprtest; an immediate posttest, and a delayed posttest).</td>
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<td>Author(s)</td>
<td>Methodology: population and research instruments</td>
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<td>Binglan and Jia, 2010, EFL</td>
<td>44 participants EFL Chinese students in a university random selection random assignment The classes met 90 minutes twice a week over 17 weeks. free choice of topics no time limit</td>
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<td>Famokhi and Sattarpour, 2012, EFL</td>
<td>60 high-proficient Iranian EFL learners including 26 males and 34 females a control group and two experimental groups One experimental group received focused written CF and the other experimental group received unfocused written CF, while the control group received no feedback A pretest and a posttest</td>
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<td>Alkhatib, 2015</td>
<td>Ten writing tutors and their thirty students participated in the study Purposive sampling Semi-structured interviews for both teachers and students unstructured classroom observations teachers’ think-aloud protocol Stimulated-recall interviews The present study is a qualitative research descriptive statistics: the frequency of use of teachers‘ actual practices regarding the focus, the amount, and the explicitness of WC the use of a pilot study as it aims at exploring and describing the beliefs of writing teachers about the use of WCF and their actual practices.</td>
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conclusions regarding the amount and focus of WCF. Teachers’ beliefs were incongruent concerning the explicitness of WCF, the use of positive feedback, and the source of WCF. Several contextual factors related to the university overall context (e.g. time allocated to cover the syllabus), teachers (e.g. teaching experience), and students (e.g. proficiency levels) were found to affect teachers’ practices. As for the relationship between students’ preferences and teachers’ practices, complete congruence was found in terms of teachers being the key providers of feedback. students’ preferences were incongruent with teachers’ practices regarding the explicitness of WCF, the focus of WCF, and the provision of positive feedback.

Acknowledged limitations Teacher participants knew what this research study was investigating. one might argue that their responses might have been influenced. The topics of the students’ essays varied from one teacher to another, which may have influenced teachers’ feedback practices and it has thus biased the overall findings. Students who participated in the present study were not at the same level (i.e. level three and level five students). This may have affected teachers’ practices concerning the amount, focus, and explicitness of WCF.

Kaewkasi, 2013, EFL Methodology: population and research instruments To investigate and compare the effects of direct corrective feedback with written meta linguistic explanation and direct corrective feedback with oral meta linguistic explanation. 83 third year students. Research instruments: proficiency test, pre and post tests: an identical pre and post test was administered before and after receiving the treatment to investigate the students’ accurate improvement Focus on ed past and fragment.

Main conclusions The results of the present study indicate that WCF either WME or OME are effective measures in helping students effectively learn both ed past and fragment.

Acknowledged limitations Limited sample size. Focus on only two linguistic items. Other research instrument should also be encouraged.

Bakshiri and Mohammadi, 2014, EFL Methodology: population and research instruments Are reactive and proactive types of focus on form significantly different regarding their impacts on writing skill of Iranian EFL learners? Are reactive and proactive types of focus on form significantly different regarding their impacts on writing skill of Iranian EFL learners in long run? quasi-experimental participants: 25 Iranian EFL learners. two experimental groups a pretest, a posttest and a delayed posttest were used.

Main conclusions both classes with reactive and proactive FoF can help improve the writing skill of the students. Students who received the proactive FoF significantly outperformed
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<th>Study</th>
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<td>Falhasiri, 2011, EFL</td>
<td>Participants 23 4 weeks to shed light on the most occurring grammatical and lexical (pragmatic) errors which students make in their compositions To compare the effectiveness of the treatment using frequencies Comparing the frequency of errors before and after the treatment Treatment: explicit and implicit feedback</td>
<td>the most errors were of interlingual category (71%). It was also concluded that in 22 out of 26 categories, the frequency of errors decreased. Deductive (explicit) teaching of interlingual and also inductive (implicit) teaching of intralinguerroneous points decreased the error frequency of students. Interlingual errors were more affected than intralingual in case of error reduction.</td>
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<td>Ghabanchi, 2011, EFL</td>
<td>This study considers the effect of grammatical error correction on the development of English writing among Persian learners of English as a foreign language. The participants of the study are forty students at the age of 17 – 22 Fourteen male and twenty six female. The subjects were divided into control and experimental groups. A pretest was carried out to have homogenous groups. duration of instruction/ 12 weeks A questionnaire to investigate teachers’ beliefs towards writing in relation to grammar correction</td>
<td>The results show that there is not enough evidences in favor of error correction based on the subjects’ action in the class within a limited time The results also portray that there is no direct relation between the number of the errors and receiving feedback in the form of error correction in experimental group</td>
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<td>Abdollahi, 2014, EFL</td>
<td>This study hence seeks to discover the possible effects of teachers’ interactional feedback on the learners' performance and motivation A group of 20 intermediate learners was randomly divided into experimental and control group. The control group received only corrective feedback on form and</td>
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organizational structure, whereas the experimental group also received additional comments from the teacher about the ideas involved in the writing.

| Main conclusions | The study was successful to indicate the positive effect of interactional feedback both on the performance and motivation of the learners with a better teacher-learner rapport witnessed. |
| Acknowledge limitations | The low number of participants in the study which decreases the generalizability of the study. The validity of the study could have been increased if type of the CF was decided in terms of directness. |

This table provides a summary of the main recent studies that have investigated the issue of feedback (especially teachers’ written feedback) in relation to writing. Based on an in-depth review of these studies, the following points should be considered:

- Although the issue of writing and feedback has attracted researchers from different disciplines, most empirical studies have not yet succeeded to come up with consistent results that clearly highlight or completely reject the effect of feedback on the development of learners’ writing abilities. It has also to be noted that based on the number of empirical studies that have examined the effect of feedback on writing, most research in the L2 context is recent. This implies that this research area has not been yet adequately investigated.

- Serious attempts have been made to better understand the possible link between feedback and writing based on the number of published articles and papers starting from the beginning of this century. However, many researchers have investigated the effect of different forms of feedback on the development of learners’ writing skills although there is not yet a complete agreement on the relation between feedback and writing.

- Despite the fact that researchers have investigated writing in relation to feedback from different perspectives, no study is free from some limitations as shown in the table. Based on these shortcomings, a lot of recommendations have been proposed for future research.

- Different methodologies have been employed to study the relation between writing and feedback (quantitative or qualitative and sometimes mixed). Researchers have also studied different aspects of writing (especially students writing accuracy such as the use of articles and simple past). Yet, different and sometimes conflicting conclusions are reached. While some studies have shown the positive effect of feedback on the development of students writing abilities, others have proven the limited influence of feedback.

- The conclusions about the effectiveness of feedback in developing students’ writings are not consistent. In relation to the objectives of the current study, we believe it would be useful to distinguish between these studies based on their main findings. In other words, we would like to present the studies that are for and the studies that are against the provision of feedback. Thus, the studies which have found a positive feedback on writing are presented first followed by the studies which have found no connection between feedback and the development of students’ writings. The choice of such order is driven by organization matters only.

### III. DEBATE ABOUT THE EFFECTIVENESS OF FEEDBACK ON WRITING

There has been a long debate about the implementation of corrective feedback in L2 classes. Researchers have advanced both theoretical and practical arguments to support their views either for or against using corrective feedback. In this study, we aspire to contribute to the development of second language learning through investigating the possible relation between corrective feedback and the development of students’ writing. This article reviews the literature on the issue in order to shed some light on this debate through presenting the different arguments in favor of or against the usefulness of corrective feedback.

Researchers have focused on the effect of feedback on the development of students’ accuracy. This can show that the focus is still on the final product of students rather than on the writing process. This implies that the focus on writing process may be more helpful. Teachers and researchers should provide feedback on the content, steps, first drafts, and early stages in the writing process.
1. EVIDENCE FOR THE EFFECTIVENESS OF FEEDBACK ON WRITING

Liu (2008) notes that although both direct and indirect feedback help students self-edit their drafts, direct feedback does not help students to improve in different papers. Besides, the findings of Ma (2006) suggests the effectiveness of feedback as it has been found that students in both feedback conditions experienced change in their writing accuracy as a consequence of receiving feedback and taking writing courses. Both form and content related feedback positively affect L2 students writing accuracy. Bitchener, Young and Cameron (2005) support the findings for the effectiveness of feedback in L2 writing. It has been found that the combination of full direct feedback and teachers’ written conferencing has been proven to be effective in helping students improve their writing accuracy especially their use of simple past and articles (treatable errors as opposed to untreatable errors such as the use of prepositions). The findings of Tootkaboni and Ashouri (2014) also support the use of feedback although they have found no significant difference between direct and indirect feedback. Maleki and Eslami (2013) have also noticed a strong link between providing feedback to language learners and their writing accuracy. In the study of Maleki and Eslami (2013), the long term effects of direct and indirect feedback have been examined. It has been concluded that indirect written corrective feedback has more positive effects on L2 students’ writing abilities. In relation to the long term effects of feedback, Van Binglan and Jia (2011) conclude that correction and explicit explanation can be more helpful for long term progress in writing accuracy. Moreover, based on the study of Farokhi and Sattarpour (2012), it has been noticed that both experimental groups outperformed the control group in terms of accurate use of definite and indefinite articles. Kaewkasi (2013) also notes that written corrective feedback helps students to use ed past. Implicit and explicit feedback can also help students to decrease the number of errors after the treatment (Falhasiri and Tavakoli, 2011). The results of Abdollahia (2014) have succeeded to show that there is positive impact of interactional feedback on the motivation as well as performance with a better teachers’ students’ rapport. Finally, Chandler (2003) indicates the positive effects of some forms of feedback including direct correction and underlining of error. All these studies demonstrate that feedback has a positive effect on the development of students writing accuracy. However, some researchers, as will be discussed in the next sub section, are not fully convinced of the role of feedback in enhancing students writing skill.

2. EVIDENCE AGAINST THE EFFECTIVENESS OF FEEDBACK ON WRITING

Many researchers are not yet convinced of the role that feedback can play in helping students improve their writing abilities. They argue that there is not enough research evidence for the effect of feedback on writing. They justify their point of view by the lack of consistent results regarding the effect of feedback on writing. Mahvah (2012) has found that the effect of feedback on students’ writing accuracy and complexity is not significant. Another conclusion of this study is that no significant effect of the type of feedback on students writing development is noticed. Truscott (1996, 1999, 2004, 2007, 2009) also argues against the use of grammar correction in L2 writing and that grammar correction has no place in L2 writing classes and therefore should be abandoned. Ghabanchi (2011) also supports the view against grammar correction in writing classes. The results of this study demonstrate that there is not enough evidence in favor of grammar correction. Researchers against feedback provision maintain that there is no direct relation between the decrease in the number of errors in students writing and receiving feedback. Other studies, such as Koen et, al (2012) and Evans, et, al, (2010) advocate the view that it is not feedback in itself that will improve students writing, but the way students understand what to do with such feedback. It is, thus, recommended that students be trained how to convert the feedback they receive into enhanced knowledge in order to know precisely what aspects of feedback can be more useful.

IV. LIMITATIONS AND GAPS IN LITERATURE

This section provides a critical review especially of the empirical studies that have investigated the effect of feedback on writing. Before discussing the limitations of these studies, it has to be noted that some researchers have acknowledged the limitations of their studies while others haven’t.

Based on a deep analysis of these studies, it can be noticed that most of the researchers have investigated the effect of feedback or some specific form(s) of feedback on students’ writing accuracy. Such studies include Ma (2006), Bitchener, et, al (2005) while some other studies focus on some specific errors. Another remark is that although the reviewed studies have tried to come up with more reliable data to support their conclusions, they still have different limitations which can be a threat to their internal validity. These limitations are mainly related to focus of these studies, sample size, data collection methods, the tests, treatment time, and other issues related to methodology.
Most empirical studies rely on comparing the performance of the participants in the pre and post tests. They make conclusions about the effectiveness of feedback with reference to the number of errors students make in the pretest and posttest. Researchers conclude that there is a positive effect of feedback if they simply find that the number of students’ errors decreases in the posttest. However, Truscott (1996, 1999, 2004, 2007, 2009) points out that a reduction in the number of errors cannot be considered as a proof of learning (learning how to write in this case).

Another limitation of some of these studies is related to the approach adopted to test the effectiveness of feedback on students’ writing abilities. In other words, the participants were required to rewrite (in the posttest) the same drafts or to write on the same topics. In other cases the pretest and the posttest were the same. This can be a real threat to the internal validity of these studies as familiarization is one of the threats to research validity (Campbell and Stanley, 1963). This implies that there might be an improvement in students ‘writings not because of the feedback provided but simply because the students have become familiar with the topic. Such studies include Kaewkasi (2013), in which the pre and post tests were identical.

It is widely recognized that research validity and reliability are mainly related to its methodology. In other words, the more one varies the sources and methods to collect data, the more they can test the research hypotheses with confidence. Adopting a mixed method approach provides the research with both qualitative and quantitative data. Mubarak (2013), Liu (2008), and Ghabanchi (2011) have relied on both qualitative and quantitative data. However, some studies either rely on qualitative or quantitative data: Van Binglan and Jia (2010) and Maleki and Eslami (2013) used quantitative data only while Koen et, al (2012), Evan et.al, and Alkhatib (2015) based their conclusions on qualitative data.

Sample size and sampling procedure are also key elements in research. The conclusions of a given study are more likely to be valid if the sample size is representative. It is representative when the number of participants is at least 30 or more and they are randomly selected (Hatch and Lazaratton, 1991). In most of the reviewed empirical studies the participants were not randomly selected. As for the sample size, many studies have relied on limited number of participants including the study of Mubarak (2013), Liu (2008), Farouki and Sattarpour (2012), Bitcheneret. al (2005), Bakchiri and Mohammaadi (2014) (25 students), Ma (2006) (18 students), Chandler (2003) (31 students: 16 experimental and 15 control group), and Falhasiri and Tavakoli (2012) (21 students). Choosing the most appropriate research design is another key issue in research. Most of the reviewed empirical studies are quasi-experimental. It is said that the pretest – post test design is more appropriate. However, in some studies like Ma (2006) no control group is used.

Another limitation is related to the time of the treatment and the number of papers compared. As for the treatment time, Mubarak (2013), Liu (2008), and Ma (2006) acknowledge that the duration of the treatment is not sufficient. Concerning the number of papers considered, Liu (2008) compares only two drafts and only four papers are evaluated in Ma (2006).

Another limitation is related to language proficiency of the participants as a confounding variable. Researchers are required to control for this variable regarding its great effects on differences in performance of students. The participants should constitute homogenous group. Yet, nearly all the reviewed studies in this paper have neglected this variable except Maleki and Eslami (2013) and Kaewkasi (2014).

V. SOME DIRECTIONS FOR FUTURE RESEARCH

A lot of empirical studies have examined the effect of feedback on the development of students’ writing performance. Although these studies have come up with interesting findings, there are different limitations at different levels as discussed before. Hence, this section is meant to make the following recommendations for future research.

Most of the reviewed studies have dealt with the effect of feedback on the development of learners’ accuracy with more focus on a specific aspect of writing such as the use of simple past or the use of articles. Truscott (1996, 1999, 2004, 2007, 2009) argues against some studies that advocate the use of corrective feedback. He concludes that the fact that students manage to eliminate some errors in subsequent drafts is not a proof of learning. However, writing need to be conceptualized as a set of various skills. Writing is considered as a means for learners to express and share their ideas. It is a means of communication. That is why; more emphasis has to be on the communicative aspects of writing. Besides, the perception of feedback has to be reconsidered.

At the level of methodology, the experiments in future studies should be based on comparing the performance of the control and the experimental groups in both the pre and post tests, whereas in many studies there are no control groups. Future studies have also tried to overcome the limitation related to the treatment duration. Many
researchers have to acknowledge and take into account the possible effect of the limited period of the experiment on the effectiveness of the treatment. We believe that this that the treatment would have greater effect if the period were longer.

Many researchers have recommended testing the effects of feedback in a new piece of writing or in delayed post tests. Based on this, researchers are invited to investigate the effectiveness of feedback through requiring students to write on a new topic (the pre-test topic should be different from the post-test one and different from all other topics covered during the treatment period). Population size is also another difference. Some of the empirical studies have relied on a limited number of participants (sometimes 8 or 10 students). However, more than 110 students participated in the experiment. The participants were randomly assigned to experimental and control groups.

Research on the relation or effect of feedback on writing has generally depended either on qualitative or quantitative data. It is rare when researchers use a mixed method approach. Combining these methods helps to be more confident in the findings and in the process of interpretation.

The participants’ language proficiency is a prominent variable in applied linguistics studies. However, mostly all the reviewed empirical studies have disregarded the influence of the learners language proficiency on the differences that might be noticed in the performance of students in the tests. Language proficiency is a determinant variable that need to be controlled for.

VI. CONCLUSION

This review has been about the value and efficacy of written feedback on the development of students writing skill. This review provided a ground for future research on feedback and writing. This article presents a summary of previous studies in order to draw attention to the debate regarding the effectiveness of feedback. The article also makes some recommendations for future research based on the limitations and gaps discussed in the critical review.

REFERENCES


