CHAPTER 7

Student Ability to Identify Errors in Texts

Does Peer Review Training Have an Impact?

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https://doi.org/10.17883/phschr-04-07

ABSTRACT
This study seeks to investigate whether training students in peer review improves their ability to identify both local and global level writing issues in texts. Undergraduate university students of English attending a one semester writing course were asked to identify writing issues in sample texts at the beginning and end of the course. Results show that students improved in their ability to identify local or surface level issues and had much lower rates of wrongly reporting text segments as incorrect. However, there was no improvement regarding identifying global or discourse level issues. This points to the value of peer review for improving students' language mechanics competence. However, it also shows that peer review is not a panacea: many students may still fail to develop their ability to assess content, organisation and cohesion in texts.

Keywords L2 writing, error correction, peer feedback

1. Introduction

In writing courses, teacher feedback on student compositions is generally considered a must by both teachers and students alike (Hedgcock & Lefkowitz, 1994). At the same time, there is some doubt as to whether such feedback actually contributes to learning (Knoblauch & Brannon, 1981; Sheppard, 1992). Furthermore, teacher time is severely limited, and may be better spent elsewhere (Truscott, 1996). Peer review has therefore been proposed as an alternative, but it has been suggested that, at least for the EFL (English as a foreign language) context, peer reviewers struggle to focus on discourse level text issues, i.e., those that affect meaning and impact on the audience (Leki, 1990). This study attempts to assess one stage of the peer review process. It asks whether, when presented with a short text containing errors, student reviewers are able to identify *discourse* level text issues, termed here *global* issues, as well as more *surface* level *local* issues. Furthermore, it asks whether peer review training involving explicit teaching and practice in class and using a peer-review checklist for support, helps student reviewers

identify more text issues, and if so, whether their ability to identify local or global issues improves more.

By *surface* or *local* level issue, this study refers to problems in texts that do not seriously affect the transmission of meaning, or that do not contribute to improved text organisation or cohesion. Typical surface-level issues include: spelling mistakes, wrong word choice, and wrong preposition or verb tense choice. This study considers issues to be at the *discourse* or *global* level if they substantially hinder the effective transmission of meaning. These problems have their roots in content choice, organisational choice, and cohesion. Examples of global issues include: missing or irrelevant information, poorly developed ideas, confusing or illogical structure, or a lack of cohesion through lexis, anaphor or conjunction. As a rule, global issues cause problems for the reader because they break writing conventions that usually help readers to interpret texts.

2. Literature Review

2.1 Error Correction by Teachers

Written feedback on student texts plays a central role in foreign language writing courses, and occupies much of teachers' time (Hyland & Hyland, 2006). Furthermore, students themselves expect feedback on their writing (Hedgcock & Lefkowitz, 1994), and value written comments more highly than oral feedback or feedback from peers (Leki, 1991). There is uncertainty, however, as to whether this practice actually contributes to improvements in student writing, and if it does, in what circumstances.

In the 1980s and early 1990s, concern was expressed that error feedback was unhelpful because it tended to be inconsistent, arbitrary and contradictory (Leki, 1991), and that feedback on organisational and content issues was overly general (Zamel, 1985). Zamel also notes that many teachers, despite being trained specialists, focus mainly on language mechanics and therefore

> attend primarily to surface-level features of writing and seem to read and react to a text as a series of separate sentences [...] rather than as a whole unit of discourse. They are in fact so distracted by language-related problems that [they often do not realize] a much larger meaning-related problem has totally escaped their notice. (Zamel, 1985, p. 86)

2.2 The Case For and Against Grammar Correction

In his highly influential review of studies on corrective feedback, Truscott (1996, 2007) strongly argues that in the EFL context corrective feedback on grammar

is ineffective. Furthermore, he contends that grammar correction can in fact be harmful in that it (1) negatively impacts learners' enjoyment and motivation; (2) leads students to simplify the structures in their writing as part of a risk-averse strategy; and (3) consumes an inordinate amount of teacher and class time. In conclusion, he argues that writing teachers should use their time on "anything but grammar" (1996, p. 360).

Truscott's articles led to fierce debate and prompted several investigations into the value of grammar correction in student writing. For example, Ferris (1997) analysed student responses to written teacher feedback, finding that although not all comments prompted revisions, those that addressed repeated grammar error patterns resulted in improvement in 78 % of instances. However, this study only measures short-term benefits of error correction, i.e., those that occur during student revision work. A later study (Truscott & Hsu, 2008) also found that any beneficial effects of corrective feedback did not transfer to new writing tasks.

Fortunately, since then, studies have identified longer term results for EFL writers. Repeated error correction activities carried out in the context of writing courses taught over 14 weeks (Chandler, 2003) or one semester, where students wrote and reviewed four essay tasks (Ferris, 2006), were found to significantly reduce error frequency in writing.

Bitchener et al. (2005) found that a combination of written feedback and student-teacher conferencing produced improvements in the use of the past simple tense and articles, but not for errors generally. Further studies add to the evidence in favour of error correction in both oral and written form, so long as it is explicit (Sheen, 2010), for intermediate learners (Bitchener & Knoch, 2009), for advanced learners (Bitchener & Knoch, 2010), and in the case of feedback that focussed on a few, selected errors, as well as unfocussed or *comprehensive* feedback (Ellis et al., 2008). Corrective feedback also appears to not prompt writers to simplify their structures to avoid making mistakes (Van Beuningen et al., 2012). Furthermore, these more recent studies are more methodologically sound, employing control groups and measuring reductions in student errors over time (Bitchener & Storch, 2016).

The development of writing skills is a complex phenomenon, and it is extremely difficult to design studies that can draw definitive conclusions on the effects of writing feedback on learning. Much of the work done also focusses heavily on a limited number of grammar errors (Bitchener & Storch, 2016), rather than larger scale issues like organisation and content, presumably because the latter are more difficult to categorise and measure. This study will thus seek to add to the data available, attempting to measure whether error correction combined with explicit

instruction on text organisation, cohesion and grammar over the course of one semester enables students to better identify a wider variety of error types in texts.

2.3 A Rationale for Peer Feedback

It would seem that overall, teacher feedback in the form of direct corrections (where the 'solution' to the problem is provided) or indirect correction (where the presence of an error is indicated and hints are provided to help the learner resolve it) does have a positive impact. Teachers are severely restricted in the time they can dedicate to this task, however, and we must look to other complementary tools to support learners. Peer reviewing followed by revision, with writing being treated as a process rather than a product-oriented activity, has been suggested as a way to complement or replace teacher feedback (e.g., Liu & Hansen Edwards, 2018; White & Arndt, 1991). Two common peer feedback methods involve providing written comments on colleagues' work or providing verbal feedback in conferencing sessions. In this process, learners take on the role of teachers or guides, communicating with colleagues to provide mutual support in their writing and learning. This fits well with the Vygotskian (1980) theory of cognitive development, where we learn through social interaction. Others can help us to achieve things things that, when we are on our own, are just beyond our capacity. This area of achievable learning is named the *zone of proximal development* (Vygotsky, 1978). As applied to second language learning, it describes how peers, by providing feedback at a level of language competence similar to their learner colleagues, can scaffold each other's learning (Liu & Hansen Edwards, 2018) and venture into new linguistic territory.

2.4 Learner Acceptance Issues

Despite its promise, peer feedback as a learning strategy risks being rejected by students. This could arguably be expected to occur more often in cultures where the teacher is traditionally a strong authority figure. Learners may consider teacher feedback to be the gold standard and doubt the competence of their peers. Tsui and Ng (2000) find that Hong Kong students are more likely to make revisions to their work in response to teacher than to peer feedback. Yang et al. (2006), in a Chinese study, observed similar behaviour, with learners reporting that a major reason for non-response to suggestions from peers was doubt in its accuracy.

One way to address such doubts may be to train learners. If they are provided with clear priorities and goals, in the form of a checklist or guide, and are trained and given practice opportunities, this may build their confidence in their own and their peers' competence as reviewers.

2.5 The Benefits of Peer Review

Peer reviewing has been revealed to offer a wide range of benefits. For Yang et al. (2006), texts improved in 98 % of cases when learners adopted their peer's suggestions, as opposed to 87 % of cases for teacher feedback. They attribute this success to the review sessions having taken place as conversations between peers. As conversation offers the opportunity for both parties to negotiate meaning, feedback is unlikely to be misinterpreted. Most teachers cannot afford the time to engage in such conversations with individual students, however. This time benefit may also apply to written peer feedback. In Topping's (2000) analysis of the written comments provided by peer reviewers, these were found to be more detailed than teacher comments, presumably because students only had one paper to analyse. A second benefit Topping finds is that peer review seems to encourage students to take more responsibility for their work: those who give and receive peer feedback also initiate significantly more self-correction. This speaks to the development of more autonomy, which can also lead to increased ownership of texts, as well as an increased sense of audience, and more self-awareness on the part of learners regarding their writing strengths and weaknesses (Tsui & Ng, 2000).

Peer reviewing also appears to bring affective benefits. Because it requires students to actively give and respond to feedback, they become more engaged in the writing and rewriting process (Chen & Cui, 2022). It also grants students more agency (Mendonça et al., 1994), as at the end of the day, they decide whether or not to respond to the feedback they receive. Furthermore, peer reviewing reduces learner anxiety (Bolourchi & Soleimani, 2021; Choi, 2013), as students see others also making mistakes and feel less isolated. Another reason for reduced anxiety is that feedback is often given between members of a same learning group, thus broadly targeting writing issues at the group's level (Tsui & Ng, 2000), bringing understanding and responding to the feedback into the realm of the achievable for a learner writer.

2.6 Doubts Regarding the Effectiveness of Peer Review

Just as with teacher feedback, there is some debate as to whether peer feedback actually leads to text improvements, or improved writing skills. It may contribute to better coherence and cohesion scores than automated grammar and style checker feedback (Chen & Cui, 2022), meaning that peers can currently provide more meaningful assistance than computer software. But do peers identify the 'correct' issues when they check texts? When compared to teachers, they have been found to focus on different issues when giving feedback, but they do not contradict teacher comments (Topping et al., 2000), meaning that inaccurate feedback may generally be considered to be rare. A meta-analysis of 48 quantitative studies confirms that student assessment of their colleagues' work largely

agrees with teacher assessment in terms of the kinds of grades they would award (Falchikov & Goldfinch, 2000). However, studies seeking to measure the long term impact of peer review on learners' writing skills have revealed that students' composition skills do not necessarily improve, but that they are more engaged in writing nevertheless (Yang et al., 2006), or that aspects of their writing classified as L2 skills, such as word choice and grammar usage, do improve (Choi, 2013).

2.7 Do Learners Restrict Themselves to 'Editing'?

Choi's (2013) findings point towards a larger issue: inexperienced writers may suffer from an overly narrow focus on local issues (Faigley & Witte, 1981). Despite EFL learners being aware that their teachers prioritise content and the transmission of meaning (Hedgcock & Lefkowitz, 1994), EFL peer reviewer comments have been found to target the surface level, resulting in them editing their peers' work rather than engaging with it and "responding as real readers" (Leki, 1990, p. 9). However, as we saw earlier, Zamel (1985) noted that teacher feedback can also share this weakness.

2.8 The Argument for Training Peer Reviewers

Given the above pitfalls, much of the success of peer reviewing depends on how students approach it. Some assume prescriptive or authoritative attitudes when assessing their peers' work (Mangelsdorf & Schlumberger, 1992), tending to provide feedback that focusses more on form than on communicated meaning. However, Mangelsdorf and Schlumberger's study found that 32 % of students assumed a collaborative attitude. In a manner similar to experienced L1 (first language) writers (Flower & Hayes, 1981), these students focussed their attention on the writers' goals, the text audience and context, and were able to provide more coherent feedback for improving the transmission of meaning.

Peer reviewing may translate into better writing skills. In Mangelsdorf and Schlumberger's (1992) study, students who assumed a collaborative approach achieved significantly higher grades in their composition courses. Furthermore, the act of giving feedback to others appears to lead to a greater improvement in writing skills than the act of receiving feedback, and to help improve global writing issues rather than just local ones (Lundstrom & Baker, 2009). A potential reason for this is that giving feedback helps learners to develop a better sense of the global impact of a text on its audience.

In light of this, much emphasis has been placed on training learners to focus more on aspects relating to organisation, content and audience (Berg, 1999; McGroarty & Zhu, 1997). Training can involve providing evaluation criteria or checklists for students to use (Hansen & Liu, 2005; Oshima & Hogue, 2017; White & Arndt, 1991), and/

or by dedicating class time to practising and evaluating the quality of peer feedback (Berg, 1999; McGroarty & Zhu, 1997). Such practices can build learner confidence in the peer review process, and also learner self-confidence in their capacity as reviewers. Furthermore, Altstädter's (2018) study on Spanish as a foreign language learners indicates that explicit and extensive training alongside the provision of feedback guidelines can help learners to pay more attention to global issues such as organisation and content, whereas reviewers provided with guidelines alone tend to restrict feedback to local aspects such as grammar and punctuation.

2.9 The Concepts of Surface and Global Errors and Revisions

Previous work has noted that not all writing errors are the same. Some appear to be more superficial than others, in that they do not necessarily heavily impact the meaning conveyed by a text. Such issues include verb tense, individual word choice, word morphology, spelling, punctuation and subject-verb agreement (Ferris, 2006; Zamel, 1985; Zhang & Hyland, 2022). Crossley and McNamara (2016) also identified a number of aspects as characteristic of good quality writing, including at the surface level: "good syntax, grammar, lexicon, punctuation, and spelling skills" (p. 353). Faigley and Witte (1981), in their analysis of revisions made to texts, suggest a dichotomy of *surface changes* and *text-base changes*, with surface changes broadly corresponding to revisions that may be made in response to the above-mentioned error types. For Faigley and Witte (1981), surface changes do not add new information or lead to information being irrecoverably lost.

These surface level errors and revisions contrast with more global issues and corrections. Global issues are a little trickier to pin down, but the literature which has grappled with these has referred to them as connected to meaning, content, organisation, and cohesion (Berg, 1999; Faigley & Witte, 1981; McGroarty & Zhu, 1997). Many issues falling into the *global* category require significantly more revision to resolve, as entire sentences or groups of sentences may need to be cut, moved or rewritten. Crossley and McNamara (2010; 2016) find that texts assessed as being of good quality feature fully-elaborated topics, a clear structure – including topic sentences – relevant content, and cohesion through lexis, reference and conjunctions. These cohesion features were originally identified by Halliday and Hasan (1976), and for lexis, Hoey (1991). Regarding cohesion, Crossley and McNamara note that many teaching materials limit cohesion to just conjunctions (2010), but they highly recommend attention be paid to other cohesive devices, particularly anaphoric reference devices (2016). Witte & Faigley (1981) also identify good texts as those which elaborate and extend ideas. These characteristics are naturally accompanied by lexical cohesion that stretches over large spans of text through the reiteration of terms, the use of synonym, hyper- and hyponym, and collocation.

3. Method

This study asked whether peer review training would help a group of students develop their ability to identify either local or global type issues in texts. The students received instruction on writing, including composition skills, language mechanics, and peer reviewing. The ability to identify issues was measured using texts containing errors and issues designed for this purpose.

3.1 Procedure and Coding

Participants were first-year students at an Austrian higher-education institution. Two tests were administered to a total of 46 students who were attending a writing course in four parallel groups taught by two separate teachers. Participants were relatively advanced learners of English, with all situated at least at B2 level on the Common European Framework of Reference for Languages (Council of Europe, 2020) and many at higher levels. This assessment took place as part of a standard first-year writing course, with the peer review training and assessment tasks being integrated into the pre-existing syllabus. Students were subject to a pre- and post-treatment test to see whether their training led to an increased ability to identify text issues. In all, 44 students attempted the first test, and 38 the second. These tasks were integrated into normal class time, and due to absences on testing days, it could not be ensured that all students completed both tests. However, as the goal here was not to track individual development over time, but to measure the average impact of peer review training on learner ability to identify errors in written texts, all attempts were included in the analysis regardless of whether the student had completed both or just one of the tasks.

In weeks 2 (pre-treatment) and 14 (post-treatment), students were presented with a 300-word text, which will be described below, and asked to identify errors by underlining them, or writing a comment if they felt that was more appropriate – for example if they felt something was missing. They were not told how many errors were in each text, and if they had highlighted a text section or word, they were not required to correctly name or rectify the issue. The aim was to restrict the measurement to what the learners noticed was wrong, and thereby identify what they would notice and attempt to work upon when reviewing their own work. As not all writing issues are built alike, with some far more difficult to label and to rectify than others, restricting the task to identifying errors made it more manageable for first-year students, who do not necessarily have the analytical language to comment on writing issues. It also kept the data coding as simple as possible. Indeed, many participants did label issues they found, but did so inconsistently. Others provided workable solutions without labelling the issue, or after having labelled it incorrectly. This was disregarded in coding, however. So long as an issue was

identified, whether that was through highlighting it, commenting on it (even with an incorrect explanation) or resolving it, it was counted as successfully identified.

3.2 Task Design

The test texts (see Appendix 2) were designed to contain a mixture of what the literature has termed *local*, *superficial*, or *editing* type issues, and issues considered as *global* or *meaning*-based. In this study, the two categories are termed *local errors* and *global issues.* A distinction between 'errors' and 'issues' is made because we considered errors to be easier to delimit and usually a 'correct' version is easy to agree on, whereas issues are often hard to delimit and more complex to resolve.

The local errors and global issues included in the assessment texts were selected according to 1) types of issues already addressed in the pre-existing course syllabus, 2) issues identified in the literature, 3) mistakes identified by teachers as being made by our mostly German native speaker learners.

Local writing errors featured in the tasks consisted of: spelling mistakes, contractions (the target register was academic), verb tense errors, mix-ups between gerund and infinitive verb forms, and incorrect or missing prepositions. In total, six errors of this type were included in each task, with each error type featuring once, and verb tense featuring twice. This was to target the misuse of the present continuous tense, and confusion between the past simple and present perfect simple tense, which is common among native German speaker learners.

The aim of this study was to present learners with two texts containing a number of clearly definable, self-contained and therefore countable issues. But here, global writing issues proved more difficult to integrate into texts than local ones as they often lack clear boundaries. As a consequence, global issues that could feasibly be included were limited to: missing topic sentences (organisation), ambiguous anaphoric reference (cohesion), irrelevant content, and illogically ordered ideas or ideas presented in an order that could not be anticipated from context clues (structure, cohesion). In total, four global errors occurred in each test text.

A final factor to consider was potential over-correction. If students made a highlight or a comment on a section of text which actually did not require change, it was recorded as an over-correction. A tally of these was made for each text and round.

3.3 The Peer-Review Training

The assessment tasks and peer review training and practice were integrated into a pre-existing writing course, which itself included explicit focus on a number of writing issues discussed in the literature. The course focused on academic writing at the sentence and paragraph level, and was partly based on Oshima, Hogue, and

Ravitch's Longman Academic Writing Series 4: Essays (2017). During the course the following topics were explicitly discussed and treated:

- Factors enabling clear text organisation and the logical and sufficient elaboration of topics, such as topic sentences and supporting sentences
- Text unity and coherence, with attention drawn to the repetition of key nouns (lexical cohesion), pronouns (reference), transition signals (cohesion through conjunctions), and the logical ordering of ideas (organisation)
- Punctuation in compound sentences, and when accompanying specific conjunctive adverbs and adjectives, or temporal conjunctions
- Peer review

No specific classes were dedicated to the verb tenses, gerunds and infinitives, prepositions, contractions or spelling. However, all students were either attending or had recently attended an advanced grammar course, and they regularly received feedback on such errors in their writing, with attention explicitly drawn to common issues.

3.4 The Peer Review Procedure

Students completed the first error identification task in week 2 before receiving any training. They were then presented with a peer review checklist (see Appendix 1) in week 3, which features both global and local issues. Because previous literature has suggested that learners attend more to local level errors (Choi, 2013; Leki, 1991; Witte & Faigley, 1981), this list is designed to steer students towards global issues by thinking about organisation, text conventions, and the impact texts make on the reader. It has been recommended to separate the treatment of content-related issues from grammar-related issues to reduce the cognitive load for learner-reviewers (Zhang & Hyland, 2022). The layout of the checklist seeks to do this and expands the concept of content to embrace global issues. These are found in the first section of the checklist, which contained nine questions. Regarding local errors, just three questions each for accuracy and range of grammar and vocabulary were included in the second part of the list. Students were encouraged to discuss the first part of the checklist first, with the rationale that revision of global issues might involve rewriting or reorganising larger sections of text, which may in turn render the discussion of some local errors obsolete.

The list was presented to students and then used in class to assess a paragraph written by their peers. Feedback took the form of conversations between reviewers and authors, as recommended by Tsui and Ng (2000). Students generally had written their paragraphs in pairs, and so the peer review groups mostly counted four students. This had the advantage of generating more discussion and ideas in groups. The teacher observed discussions, answered questions, and pro-

vided guidance so that students used the checklist as intended. This procedure was carried out three times during the course, and students were encouraged to seek feedback from peers for any written work they submitted for assessment. Here, students were asked to record the peer feedback they had received with the MSWord function for tracking changes and leaving comments. This gave the teacher a further opportunity to respond to the feedback that had been provided, usually in brief comments, such as "I agree" or "I think you were right not to change this". After this semester-long training, the second test was administered.

3.5 *Statistical Analysis*

Statistically, this paper captures whether the average performance in finding the above-mentioned local errors and global issues improved from the first to the second test. The pre-treatment test (i.e., the test taken before being taught to peer review) serves as the baseline, to which the result post-treatment (second test) is then compared. In addition to the two types of errors, I also measure how many instances of overcorrection occur, i.e., when students flag a text segment as incorrect, when it is in fact acceptable. While the general expectation for both local and global errors is that students improve post-treatment, meaning they find more errors, for the over-correction the expectation is that they 'find' fewer of these non-existing mistakes. Methodologically, I use a simple regression analysis to calculate the difference and the significance of the three types of error corrections.

4. Results

This study compared learners' ability to identify errors in texts in a pre-treatment and post-treatment test. The tests are presented below in Table 1, as well as in graphical form in Figure 1.

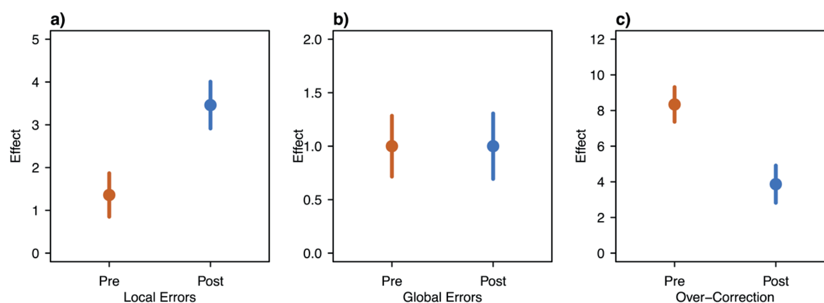
TAB. 1 *Results for Local and Global Errors, and Over-Corrections*

	Local Errors	Global Errors	Over-correction
Difference	2.06 * (0.39)	-0.00 (0.21)	-4.47 * (0.72)
(Intercept)	1.36 * (0.27)	1.00 *** (0.14)	8.34 * (0.49)
R^2	0.25	0.00	0.33
Adj. R^2	0.24	-0.01	0.32
N (total)	82	82	82
N (pre-test)	44	44	44
N (post-test)	38	38	38

Note: * $p < 0.01$

Note. Coefficients show the size of the effect for each specific test, compared to the pre-treatment condition.

FIG. 1 *Graphical Representation of Results*



Note. Figure 1 depicts the three statistical tests graphically. Panel a) presents the results for local errors, panel b) for global issues, and panel c) depicts the over-correction results. The figures show predicted values for pre-treatment (red) and post-treatment (blue) tests, as well as 95 % confidence intervals.

For the local errors, students on average found 1.36 errors (out of 6) during the pre-treatment test. This value increased significantly to 3.42 by the end of the course (see panel a) of Figure 1). This increase in the test score of, on average, 2.06 is highly significant with a *t*-value of 5.22 and a *p*-value very close to zero. Thus, training learners in peer-reviewing significantly improves the ability of students to find local errors. For global errors, the tests reveal a very different picture. Among the 82 administered tests (44 in the first round, 38 in the second), students found on average exactly one of the four global mistakes during the pre-treatment test. This value did not change at all, staying at exactly one for the second test. Hence, it can be concluded that, for this type of error, training learners to peer review does not improve their performance. Finally, students improved greatly regarding over-correction. While in the pre-test they made, on average, 8.34 such erroneous corrections, this value decreased drastically to 3.87 during the second test. This difference of -4.47 is again highly significant with a *t*-value of -6.23 and a *p*-value very close to zero (see Table 1).

5. Discussion

5.1 General Findings and Weaknesses

This study has analysed the impact of training students in peer reviewing over the course of a semester on their ability to identify a discrete number of errors in a short academic text, with the goal of assessing whether peer reviewing training and practice may improve learners' ability to correct their own work. Overall, the students were found to have increased their ability to identify errors in the test texts, although a much greater improvement was found for local error types over global ones.

However, as this study was integrated into a general writing course, and participants attended a variety of other English language courses, it is impossible to determine which factors led to their improved revision skills, and to what extent they did so. It may also be the case that a combination of the above is required for improvement.

Secondly, as the writing courses were designed to train future teachers who would one day be teaching writing themselves, it was felt that instruction and practice in peer reviewing were essential elements of the syllabus. As a result, the study has no control group, and therefore we are unable to precisely determine the impact of the peer reviewing training and practice on the students' ability to identify local-type text errors.

5.2 Local Errors

Learners were much better able to identify errors of the local type by the time of the second assessment. Being able to identify errors in writing represents an essential stage in any text editing process. It is expected that, thanks to this increased awareness, by the end of the treatment, students were better equipped to identify local type errors in their own writing and possibly to correct them themselves. Reduced error production has been found for specific error types such as article usage (e.g., Sheen, 2007) or verb tenses (e.g., Bitchener et al., 2005) and for comprehensive corrective feedback in a Dutch language study (e.g., Van Beuningen et al., 2012), which includes various local error types. Whereas previous studies have focussed on teacher-provided feedback, this study suggests that these positive effects may also apply for corrective feedback provided by peers.

5.3 Global Issues

When it comes to global type issues, the story is very different. Although participants received guidance from the peer review checklist, and explicit teaching of global writing issues, no improvement could be found here. Indeed, students' ability to identify these error types was no better than if they had highlighted sections of text by chance. This finding is in agreement with Choi (2013), who identified an improvement in L2 skills as a result of peer review practice, but no improvement in composition skills. Here, I would argue that Choi's *L2 skills* category and this study's *local errors* category are broadly comparable, as are *composition skills* and *global errors*.

Although Choi (2013) does not find evidence for peer reviewing improving writer composition skills, and this study did not find an improvement in global writing characteristics, this does not mean that global text characteristics are unteachable. For example, Lee (2002) claims that the explicit teaching of coherence-related

factors led her students to improve the coherence of their writing. She has noted, however, that coherence is a "fuzzy concept which is difficult to teach and difficult to learn" (p. 135). It must be considered that her study dedicated a very large amount of time to teaching coherence, which was impossible here due to the requirements of the pre-existing syllabus. It is possible that more time dedicated during the course to coherence factors (which includes many global issues) may have improved learners' ability to identify global issues in the assessment texts.

The learner neglect of global characteristics of texts found in this study is also in line with Villamil and Guerrero (1998). They find that "despite explicit instructions to focus on content and organisation" (p. 504), their learners still paid an inordinate amount of attention to grammar and language mechanics when peer reviewing. One reason they suggest is that students are simply falling back into old habits learned in previous institutions, as much language instruction focusses predominantly on grammar.

This may well also be the case here, as a major weakness of the study is that it emerges from a compromise situation with a pre-existing writing course. As parallel courses were taught in partner institutions, this limited the extent to which the course content could be altered. For example, large sections of the textbook used alongside the course focused on sentence-level writing issues, which tend to be local. Many students will have spent large amounts of homework time focussing on these types of errors. This may have reinforced the tendency to pay greater attention to local level language issues, and to neglect global issues, even though participants were encouraged to consider these when peer reviewing and composing.

It also proved challenging to integrate a wide range or larger number of global issues into the test texts. This is because the texts were relatively short (300 words), and because global issues are rarely discrete in nature. They do not have clear boundaries, and so are not easily identifiable as discrete items, which makes them less suited to a highlighting type task. Lexical cohesion was particularly challenging: it forms networks across sections of text, and therefore does not have boundaries. It emerges from an accumulation of vocabulary links that chain together, but if just one link is excluded, generally speaking, the chain will still work to tie the text together lexically. Removing individual items of vocabulary therefore may not constitute an identifiable error. This study was therefore unable to assess learners' ability to recognise issues relating to lexical cohesion.

Future explorations of learner ability to identify global writing issues might benefit from testing using longer texts, which would allow for global issues such as off-topic content, or illogical or incomplete development of ideas, to be integrated without being too obvious. Alternatively, it may be more fruitful to try a

different approach. Learners could be presented with a selection of texts characterised by varying degrees of cohesion and coherence and asked to rank the texts according to quality and provide reasons for this. Such an approach would circumvent the issue of the non-discrete nature of many global errors, but it would result in a more qualitative rather than quantitative set of data.

5.4 False-Reporting of Errors

A third interesting finding was that in the second round, students had dramatically reduced the rate at which they falsely reported errors. This points to an increased capacity to hone in on what needs attention in a text – albeit only at the local level – which is an important revision skill. It also hints at more self-assurance, as students were more confident in their ability to assess sections of text as being correct and leave them be. This would seem to corroborate those studies that point to the utility of training peer reviewers carefully and allocating precious teaching time to supervised practice. More specifically, this reduced false-reporting is in line with Villamil and Guerrero (1998), who, in their analysis of student peer reviews, estimated that false repairs made up just 7 % of all changes learners incorporated into their texts. The current results regarding reduced false reporting should go some way to allaying fears on the part of both teachers and learners about the accuracy of peer feedback.

6. Conclusions

This study has sought to shed light on the effectiveness of peer review training in building advanced learners' ability to identify errors in written texts. This paper adds to the literature in that it explicitly seeks to compare the effect of peer-provided corrective feedback on a variety of error types, including comprehensive or unfocussed local grammar errors, as well as global errors. The premise is that identifying errors in texts represents an early essential stage in the editing process, and that developing this skill will enable learners to revise their work to produce more accurate and impactful texts. It was found that training learners in peer-reviewing over the course of a semester led to improvements in their ability to identify local grammar errors in test text, but not global errors. It also led to fewer instances of text features being falsely identified as incorrect. As many teachers have severely limited time for providing feedback on their student writing, it is reassuring to see that training students in peer review and allowing them time to practise it can improve their ability to identify errors in written texts, and can lower their chances of focussing on aspects of texts that do not need correction. Peer review therefore represents a powerful item in the writing teacher's toolbox.

When it comes to global errors, however, no such benefits were found. This may well be down to the specific task design used here, which is not as well-suited to addressing global error types. Further research is therefore recommended on the impact of peer reviewing on composition issues such as organisation, cohesion and the development of ideas.

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Appendix 1: Peer Review Checklist

Make sure you do section 1 first!	**Yes That's great!**	**No Suggest an edit**
Section 1: Organisation + Coherence		
Does the text address the topic specified in the prompt?	❐	❐
Is there a clear topic sentence / thesis statement?	❐	❐
Does the topic sentence achieve the right balance between too precise and too general?	❐	❐
Does the paragraph restrict itself to one or two main relevant ideas?	❐	❐
Are these ideas sufficiently developed through supporting sentences that illustrate, provide examples or clarify arguments?	❐	❐
Are the ideas organised in a logical fashion so that they are easy to follow?	❐	❐
Is signposting language / are linking devices used effectively? "Therefore, in contrast," etc. used so that the reader can always anticipate the direction the text is going in.	❐	❐
Are all reference words (it, that, this etc.) completely unambiguous?	❐	❐
Is the formatting appropriate? No standalone sentences.	❐	❐
Section 2: Vocabulary		
Range: Does the text make use of a wide variety of vocabulary?	❐	❐
Accuracy: Is the vocabulary used appropriately? Correct meanings, connotations, collocations, accompanying prepositions etc.	❐	❐
Register: Is the tone and style consistent and appropriate for the task? Example for a formal text: no "you", no contractions, fewer phrasal verbs, no informal vocabulary	❐	❐
Section 3: Grammar		
Range: Does the text demonstrate a variety of sentence structures? Simple and complex sentences, dependent and independent clauses, passive and active structures, inverted structures for emphasis, participle phrases etc.	❐	❐
Accuracy: Is the grammar used accurately? Check for comma splices, run-on sentences, fragments. Are parallel structures actually parallel? Check subject-verb agreement, check verb tense	❐	❐
Punctuation: Is this used appropriately? Commas or full-stops used correctly? Direct quotes punctuated correctly? Apostrophes used when needed?	❐	❐

Appendix 2: Test Texts

In recent years the amount of people using social media has increased drastically. On platforms like Instagram, Snapchat, Tik-Tok and Facebook, it is far too easy for edited and fake pictures to be uploaded to the platform. Young women are particularly prone, as they tend to compare themselves to these "Social Media Models", which takes a toll on their mental health. Additional software is used to edit influencers' pictures to make themselves look perfect, allowing them to earn a great deal of money from content that is neither creative nor original. As a result, social media users who are exposed to such content can end up having a distorted view and expectations of what their body should be like, which damages their self-estime, and may increase their chances of developing an eating disorder such as anorexia or bulimia. A second issue is that young people are often exposed to "ideal" and "perfect" lifestyles, which wealthy people often share on these platforms. This projects a fake image of how the world works, which inexperienced young adults don't question. They measure their own success in life by comparing their lifestyles with influencers who may had started out wealthy, or have made a full-time business out of their online brand. They involve exotic holidays, expensive designer brands, beautifully designed and decorated luxury homes and many more products of consumer society that young people might aspire to. Young social media users also do not realise just how much luck is involved to achieve online success: for every successful "Instagram model", there are hundreds who have not managed to become influential. Instead, they strive to achieve unrealistic goals of wealth, culminating in frustration and discontent with their own lives. Therefore, as a whole, young people who excessively use social media are experiencing negative impacts on their health and can even experience depression research has found.

Many consider golf courses as serene landscapes where golf enthusiasts can escape and enjoy their sport in nature. As people expect them to be lush, green places, the main priority for golf courses is centred to maintaining their appearance. Firstly, the development of golf courses is often involving the clearing of natural vegetation, destruction of habitats, and alteration of ecosystems. Large areas of land are disturbed, trees are cut down, and wetlands are drained to create space for the courses and other infrastructure, such as car parks and clubhouses. Such building work can't be carried out without having a negative environmental impact. As a consequence, the natural balance and biodiversity of the area is disputed, displacing native plants and animals and replacing them with large expanses of unnaturally short grass in which very little wildlife can live. Some people may find these courses beautiful, but others criticise that they look very artificial. Moreover, golf courses require large amounts of water to maintain their pristine appearance. In

many regions, where water scarcity is already a concern, the excessive irrigation demands of golf courses exacerbate the water problem. Water is diverted from local water bodies, impacting aquatic ecosystems and reducing the water suplies available for nearby communities, meaning that rivers and streams may run dry, and farmers may be left with less water for food production. Additionally, they pose a significant risk to water quality, as chemicals can enter into groundwater or into nearby streams, causing pollution and harm to aquatic life. Furthermore, the energy consumption associated with golf course maintenance is substantial. The maintenance of perfect greens involves to use heavy machinery for tasks like mowing, which is often petrol powered and occurs very frequently. Additionally, because many courses offer night play sessions, they require large amounts of artificial lighting. As a result of these activities, golf courses contributed to greenhouse gas emissions, as well as energy waste, thereby exacerbating climate change and environmental degradation, and they create noise and air pollution.