Turnitin and peer review in ESL academic writing classrooms

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Abstract

Despite the benefits of peer review, there are still challenges that need to be addressed to make it more effective for L2 students. With the development of technology, computer-mediated peer review has captured increasing attention from L2 writing researchers and instructors. While Turnitin is known for its use in detecting plagiarism, its newly developed module, PeerMark, aims to facilitate peer review. In this article, we share our experience of using Turnitin for peer review in an ESL academic writing course and discuss its advantages, its limitations, and how different features of PeerMark may be used to address some of the challenges identified in previous research on peer review in the L2 writing classroom. Throughout a semester, the students were required to complete three peer review tasks through Turnitin. Based on the instructor’s experience and the students’ reports, we found that Turnitin could help shift students’ attention from local to global issues in writing, scaffold students in their effort to provide more helpful comments and to make connections between specific suggestions and holistic advice for writing, and facilitate classroom management during peer review.

Keywords: Writing, Feedback, Computer-Mediated Communication, Instructional Context

Language(s) Learned in this Study: English

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Introduction

Decades of research on peer review have provided theoretical rationale and empirical evidence in favor of its benefits for both first language (L1) and second language (L2) student writers (Chen, 2016; Flower & Hayes, 1981; Ho & Savignon, 2007; Hyland & Hyland, 2006; Zamel, 1982). Specifically, peer review can help engage students in the process of writing and revision (Miao, Badger, & Zhen, 2006) and enhance students’ understanding of audience and purpose (Ho & Savignon, 2007; Lee, 2015; Rollinson, 2005). It also heightens students’ sense of learning communities (Ferris, 2003; Ferris & Hedgcock, 2005) and contributes to the development of L2 students’ linguistic and writing competence (Hedgcock & Lefkowitz, 1992; Lam, 2013; Lockhart & Ng, 1995; Min, 2006).

However, several challenges have been identified in peer review conducted in face-to-face settings (Ferris & Hedgcock, 2005; Kim, 2015; Leki, 1990; Liu & Hansen, 2002), and researchers have started to explore how technology can facilitate peer review (e.g., Chen, 2016; DiGiovanni & Nagaswami, 2001; Liang, 2010). Microsoft Word (AbuSeileek & Abualsha’r, 2014; Liu & Sandler, 2003), synchronous chatting (Chang, 2012), and bulletin-board posting (Guardado & Shi, 2007) have all been found to be helpful. A recent example of growing interests in using technology to facilitate peer review is the development of Turnitin. Although Turnitin has been used primarily to ensure originality in students’ written work (Buckley & Cowap, 2013; Penketh & Beaumont, 2014), its new module, PeerMark, designed to help facilitate peer review, is largely unexplored. Therefore, in this article, we share our experience of using Turnitin for peer review in an ESL academic writing course and discuss how different features of PeerMark may be used to address some of the challenges identified in previous research on peer review.
Challenges for Peer Review

Research suggests a number of barriers to effective peer review among L2 students. A major issue is that L2 students may focus heavily on local issues and neglect global issues in writing and revision (Nelson & Carson, 1998; Tsui & Ng, 2000). In their study of peer review among 169 students, McGroarty and Zhu (1997) identified three types of peer feedback: global feedback that emphasizes idea development, audience, purpose, and organization; local feedback that stresses vocabulary, grammar, and punctuation; and evaluative feedback that expresses overall evaluation. Studies have shown that many L2 student writers tend to focus on local issues due to their primary concern for the use of a L2 or their lack of experience in providing effective feedback (e.g., Tsui & Ng, 2000). Moreover, student comments may be vague, unhelpful, or inaccurate (Nilson, 2003), because they might not have enough experience as a reviewer or because they might have difficulties articulating problems and suggestions (Kim, 2015; Leki, 1990; Mendonca & Johnson, 1994). These language problems may contribute to the students’ lack of confidence in the validity, reliability, and usefulness of their feedback to their peers and the feedback they receive from peers (Sengupta, 1998; Tang & Tithecott, 1999; Tsui & Ng, 2000; Wang, 2014). Furthermore, due to cultural differences and possibly a lack of L2 rhetorical schemata, many L2 students may have inconsistent or inaccurate expectations about the content and structure of peers’ texts and provide “counterproductive feedback” (Ferris & Hedgcock, 2005, p. 227).

There are also concerns of potential communication problems during interactions in face-to-face peer review due to pronunciation or listening comprehension issues. Communication problems may also occur when comments are too direct and are perceived as overly critical of, or even hostile to others’ writing (Ferris & Hedgcock, 2005), and when students from different cultures have different expectations and conceptualizations about the role of feedback during revision (Silva, 1997; Zhang, 1995).

Moreover, classroom management is critical for running successful peer review sessions (Ferris & Hedgcock, 2005), particularly when considering grouping strategies. There is no consensus regarding whether or not group members should be of the same or different proficiency levels or if the groups should be static or dynamic (Chang, 2016), but when making these decisions, a frequently occurring classroom management issue is how the students will exchange their papers. Traditionally, students bring printed copies of their papers to class, and the instructor has to cope with the possibility of students not coming to class or failing to bring their papers to class. Another issue is a lack of sustained discussion: when provided with peer review guidelines or worksheets, many students focus on answering the instructor’s prompts and are not motivated to exchange ideas with one another regarding the quality of the papers (Ferris & Hedgcock, 2005). Additionally, different students and groups work at different paces, and thus, the instructor usually needs to prepare some follow-up activities for students who complete the review task faster than others.

A set of guiding principles for effective peer review has been proposed that emphasizes the importance of instructor preparation and student training before the peer review, the structure of the peer review activity, the instructor’s monitoring of students’ progress, and guided reflection after the peer review (Hansen & Liu, 2005). These ideas are echoed by Kim (2015) who highlighted the need to provide L2 students with linguistic resources to help them articulate their comments and to reduce their anxiety. Design features of Turnitin and its embedded tools seem to be able to offer such scaffolding to help students learn to provide effective written feedback, in addition to improve their capacities to assist instructors plan and manage the peer review activity. In the following sections, we report our exploration of the potential use of Turnitin for peer review, and discuss the extent to which incorporating this new platform may address the challenges facing instructors and students during peer review.
Methods

Context and Participants

This study was carried out in spring 2016 in an English as a second language (ESL) academic writing course at a medium-sized public university in the United States. The primary objective of this course was to help strengthen undergraduate L2 students’ academic writing skills and linguistic competence. One of the authors taught this course and used *They Say, I Say: The Moves That Matter in Academic Writing* as the textbook (Graff & Birkenstein, 2010). Throughout the semester, the students were required to complete an analytical summary, a comparative analysis, and an argument synthesis. For each assignment, the students were asked to submit a rough draft, participate in peer review, and revise and submit a final draft. The instructor provided feedback on the rough draft, and graded the final draft.

Of the 15 students enrolled in the class, 13 agreed to participate in the study. The participants’ L1s included Chinese, French, Japanese, Korean, and Spanish. Although the students varied in the length of and experience with learning English, their English proficiency and writing skills were considered comparable, because they were placed into the class based on the results of an institutional English placement test they took upon arrival at the university. All participants were familiar with basic word processing tools and the Internet, but none of them had been introduced to Turnitin or had used it in any other courses prior to the beginning of the study. The students were neither introduced to academic writing in English nor required to complete peer review in English before the start of this class.

Setting up Peer Review Tasks

Turnitin is an integrated tool embedded in the institutionally supported course management system, Desire2Learn, and peer review tasks1 were added as activities in a designated module. Throughout the semester, the instructor used Turnitin to facilitate three peer review sessions and offered training at the beginning of the semester (see Figure 1).

![Figure 1. Peer review tasks embedded in a module in Desire2Learn.](image)

To specify the requirements of the peer review, the instructor edited the settings (see Figure 2). In the Settings tab, the instructor first set up and edited the properties of the writing assignments and then specified other relevant information, such as the use of originality report and grammar checking in the optional settings. Originality report provided a summary of matches between the submitted paper and work stored in its database. Grammar checking was enabled by ETS e-rater technology, and it provided automated corrective feedback. The instructor then created the associated peer review tasks by selecting the “Yes” radio button under “Add PeerMark assignments” toward the end of the list of optional settings.
(see Figure 3). Thus, the PeerMark Setup and the PeerMark Review tabs were generated (see Figure 4), allowing detailed instructions for the peer review tasks to be provided.

**Figure 2.** Settings for the associated writing assignment.

**Figure 3.** Creating peer review task for the associated writing assignment.
Figure 4. The PeerMark Setup and PeerMark Reviews tabs.

The layout of the PeerMark Setup tab is similar to that of the Settings tab (see Figure 5). This tab is where the instructor can adjust anonymity, decide whether or not students without a paper can participate, and determine if students are allowed to read all papers and reviews (see Figure 6). Additionally, the instructor can specify the number of papers students must review, whether or not students are allowed to choose the papers they review, and whether or not self-assessments of their own papers are required. In our study, the peer review was anonymous, students without papers could participate, and all students were allowed to read all papers and reviews. For all three peer review tasks, the students reviewed two papers randomly distributed by Turnitin.

Figure 5. PeerMark Setup tab for the peer review activity.
Figure 6. Additional settings for the peer review activity.

Next to the PeerMark Assignment tab is the PeerMark Questions tab (see Figure 7), where the instructor added guiding questions to scaffold students’ peer review in relation to the specific writing tasks. The guiding questions were all free response questions. Lastly, the instructor can specify group membership in the distribution tab if random assignment is not the preferred strategy (see Figure 8).

Figure 7. Adding questions to guide peer review.
Figure 8. Specifying group membership for the peer review activity.

The Peer Review Tasks: Students’ Angle

To start reviewing a paper, students need to go to the PeerMark Reviews tab, click on “Write Reviews” dropdown menu, and then click on “Start a review” (see Figure 9). A new window opens up in which the student can see the reviewer’s work space (see Figure 10). The interface consists of a larger column on the left where the paper to be reviewed is displayed and a smaller column on the right where the reviewer can switch between questions and comments. The Questions tab contains all the guiding questions for the review and text boxes where the reviewer can type in their responses. The Comments tab displays copies of reviewer comments and helps students keep track of the comments. To add comments or to mark the paper directly, the students can access the software’s commenting tools and composition marks (a total of nine options) by clicking on the “Tools” button in the upper-left corner of the screen.

Figure 9. The peer review task and how to start a review.
The commenting tools allow the student to add comment bubbles or to highlight segments of the paper and add associated comment bubbles. Using these tools, the reviewer can mark the paper and add inline or margin comments directly onto the paper. The student can also easily drag and drop the composition marks onto the paper to help highlight and explain different issues of the paper: incorrect spelling, inappropriate word choice, improper citation, and a few other frequently occurring language-related and mechanical issues. Each composition mark comes with some pre-stored explanation of the issue it represents, and the user can view the explanation by simply moving the pointer over the composition mark.

To read the feedback after peer review sessions, students need to go to the PeerMark Reviews tab and click on the highlighted green button with a check mark sign. A new window opens up for the students to read the reviews (see Figure 11). This interface also consists of a larger column that displays the paper and comments and a smaller column where the student can select reviewers, guiding questions and answers, and copies of comments. By clicking the first icon at the bottom of the smaller section, the student can choose to view comments from a specific reviewer or from all reviewers. The second icon with a question mark allows the student to read the reviewer’s responses to the guiding questions. By clicking on the third icon, the student is able to see copies of all comments and composition marks left by the reviewer. As shown in Figure 11, the reviewer has highlighted segments of the paper, inserted bubble comments, and used composition marks.
Results and Discussion

Turnitin and the Quality of Peer Feedback

For this study, we collected data from archived Turnitin peer review records, questionnaires, and student reflections. Overall, the results suggested that Turnitin helped facilitate peer review and contributed to the improvement of the quality of student comments. Based on an analysis of student comments collected from the first and third peer review tasks, the percentage of student comments focusing on global issues increased from 35.6% to 71.2% (for more details, see Li & Li, 2017). The results challenge previous findings concerning students’ overwhelming focus on local issues in the asynchronous mode (Chang, 2012), and show that Turnitin may have helped shift students’ attention from local to global issues.

Previous research informs us that student training plays an important role in helping engage students in meaningful conversations during the peer review process and in developing students’ understanding of the need to focus on both global and local aspects of writing (Berg, 1999; Min, 2005; Rahimi, 2013; Stanley, 1992). Based on our experience and observation, we believe that Turnitin played a positive role in strengthening the students’ awareness of the need to focus on both global and local issues. As introduced above, both the review workspace and the interface documenting peer review are clearly divided into two sections (see Figures 10 and Figure 11). This design feature may help raise students’ awareness of the need to focus on both local and global issues and to help divide the review task into...
different steps. Specifically, students are able to attend to local or more salient issues while reading a paper for the first time. At this stage, the students can use commenting tools and composition marks to highlight problematic segments while reading the paper. This would help build students’ confidence in providing feedback and allow them to have a better understanding of the paper. The students can then be invited to further consider and comment on global issues by responding to the assignment-tailored guiding questions provided by the instructor. Additionally, the guiding questions can be phrased to help students see the connection between a particular problem and how that problem might affect the structure and content development of the paper. Thus, students may better understand the significance of global issues and how they may be affected by local issues.

Regarding the helpfulness of student comments, the results from our questionnaire and student reflections revealed that most students found the peer feedback received through Turnitin to be constructive, thorough, and helpful. Our questionnaire included 12 items on a 5-point Likert scale, and the perceived usefulness of peer feedback through Turnitin (Item 6) was high ($M = 4.08$, $SD = 0.67$). More importantly, the students also found the guiding questions (Item 7) and commenting tools (Item 8) to be helpful for peer review ($M = 4.58$, $SD = 0.51$; $M = 4.08$, $SD = 0.90$; respectively), and most of them reported that they were able to incorporate peer feedback into their revision (Item 11) and use the comments to improve their writing (Item 12; $M = 3.92$, $SD = 0.67$; $M = 4.17$, $SD = 0.39$; respectively).

The students’ reflections further indicated that Turnitin offered scaffolding to help articulate problems and suggestions and thus made the feedback more helpful. Specifically, most students reported that being able to drag and drop different tools to highlight problems on the paper was very helpful, and that it was convenient and beneficial to be able to read brief explanations of an error by hovering their pointer over the error. One student commented on the potential of PeerMark features in this regard:

*The commenting tool made it easier to comment while you are reading the paper and it tells exactly where the mistake or the thing you want to comment is, so you don’t have to remember everything in your head until the end of the paper … I found composition marks really effective since you give comment and/or highlight the sentence or word that you want the writer to focus on so he knows exactly what you are talking about.* (Post-study reflection 08)

The quote above shows that the commenting tools and composition marks helped facilitate the review process for the students. It also demonstrates how the split review workspace can be used purposefully to encourage students to think about both specific issues and general suggestions for the improvement of the overall quality of the paper.

Additionally, some students reported that reading the explanations of errors embedded in composition marks helped them formulate their own observations and suggestions. Although the students did not provide further explanations for why this might be the case, it was possible that reading the explanations allowed them to learn to use more accurate terms and expressions to describe issues regarding grammar and mechanics, such as run-on sentences. Another embedded tool, GradeMark, allowed the students to access and use automated corrective feedback and thus helped students recognize and articulate language-related issues. As shown in Figure 12, some errors were highlighted with error codes, and when placing the pointer over the error code, the students could see an explanation of the error and access a link to a section of an embedded handbook that corresponded to the error. Although the students were not able to use this feature to check others’ papers during the peer review sessions, they commented on the benefits of the automated corrective feedback in helping them recognize errors in their own writing. We believe that highlighted errors and automated feedback can also be good examples to use in classroom activities or training sessions aiming to develop students’ competence and language skills as a reviewer and a writer.
Figure 12. GradeMark and automated feedback embedded in Turnitin.

Turnitin and Classroom Management Issues

Based on our experience, Turnitin facilitated classroom management and made it easier to implement pedagogical strategies aimed at improving the effectiveness of peer review. First, by using Turnitin, we were able to quickly set up a double-blind peer review. Research shows that anonymity makes the review process less stressful for the reviewer and may thus result in more honest and meaningful feedback (DiGiovanni & Nagaswami, 2001; Guardado & Shi, 2007), allowing writers to more objectively evaluate reviewer feedback without the influence of reviewer identity or competence (Strijbos, Narciss, & Dunnebier, 2010). Our students’ reflections also showed that anonymity was highly valued during the peer review, and the following quote is an example:

*An advantage of the Peer review feedback provided through Turnitin is the anonymity that comes with it. I like that I am able to critique a peer’s work without any fear of being threatened by that person for criticisms. It is a small class and I do not want to go about with people thinking I hurt their feelings about their ways of writing through my corrections.* (Post-study reflection 12)

Double-blind review presents logistical challenges in a face-to-face environment. In Turnitin, however, with anonymity set up by the instructor, the identity of the authors and reviewers is hidden from the students, but not from the instructor.4

Grouping is also easier to manage in Turnitin. Depending on the needs of the class and the characteristics of the peer review task, the instructor can decide to have students work in pairs, small groups, or large groups. Research suggests that having multiple reviewers and dynamic grouping enhances students’ audience awareness and helps them get multiple perspectives (Chang, 2015). However, dynamic grouping seems to be time-consuming in the face-to-face context. With Turnitin, grouping can be done easily by the instructor when the peer review task is set up. Instructors can choose static grouping or dynamic grouping across multiple writing tasks according to their own needs, and the grouping strategies do not affect the procedure of peer review in the classroom.

There are two other helpful features: (a) an option that allows students without papers to participate and (b) an option that allows students to read all papers or all reviews. The first option helps reduce group or classroom distractions when some students fail to bring their own papers. The only consequence is that the students who fail to submit their papers on time do not receive any peer feedback. The second option offers very rich resources for teaching and learning in the L2 writing classroom. In this study, the students were allowed to read all papers and feedback, and their reports showed that this helped them better understand the writing requirements, develop ideas, and plan for organization. Similar to what a student...
shared in the following quote, most of our students reported that they took the opportunity to read all papers and reviews and benefited from this experience:

*I think that first a peer review is something efficient and useful, in the way that it permit to each students to read what others have written, and can give to the students new ideas and correct themselves. So for me Turnittin is really effective and easy to use.* (Post-study reflection 01)

In the quote above, the student felt that being able to read others’ papers and comments was particularly helpful for developing new ideas for her own paper. It is also likely that reading the papers and comments of other students may help strengthen students’ competence in providing peer feedback.

**Conclusion**

The benefits of peer review have been supported by theories and empirical studies from both L1 and L2 research. However, there are still challenges that need to be addressed in order to make peer review more effective. To address some of the challenges of peer review for L2 students, we looked into the potential of using Turnitin as a platform for peer review in an ESL academic writing class. Throughout one semester, our students were required to complete three peer review tasks through Turnitin. Based on our experience and student reports, we found that Turnitin could offer assistance in the following three aspects: (a) shifting students’ attention from local to global issues, (b) scaffolding students in their effort to provide more specific and helpful comments and to make connections between specific suggestions and holistic advice for overall writing, and (c) facilitating classroom management during peer review sessions.

Admittedly, there are limitations when using Turnitin as a platform for peer review. For example, a synchronous computer-mediated communication feature is not incorporated in the platform. Peer review tasks implemented on this platform are entirely written and may need to be complemented by face-to-face communication afterward or synchronous online communication using other programs. In addition, although the students were able to use the originality check and the automated corrective feedback for their own papers, they could not access these tools for the target paper during the review process. Turnitin has recently updated the module for peer review, and with increasing awareness of this platform, we hope future studies and pedagogical practices will offer more empirical evidence regarding its role in peer review.

**Notes**

1. Peer review tasks in Turnitin needed to be attached to a writing assignment, and therefore, the writing assignment had to be created first.
2. It is important to note that once the peer review task was active (i.e., after the system recorded one student submission), no further changes could be made to the guiding questions.
3. The minimum word limit was displayed underneath each box if specified.
4. Other learning management systems such as Moodle allow the instructor to do the same.

**References**

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