Social Butterflies: Using Edmodo for Online Peer Revision Among Middle School Students

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Abstract

Writing skills are in demand in the American work force and in American schools, and they are a requisite for a successful life in a communication-driven society. Often students, especially those in the middle grades neglect the steps of the writing process that they see as unnecessary or find difficult. The step that is most often neglected is that of revision. While many middle school students dislike revising their writing, most enjoy interacting with their peers. For that reason, revising writing with a peer can be a way for teachers to encourage their students to undertake the step. Adding a technological component to the revision by moving it online via a social network can add another dimension of motivation to a group of students that are often driven by their use of technology or their social interaction.

**Historical Perspective**

Research by Troia and Olinghouse (2013) makes the point very clear that the ability to write, while often overlooked or taken for granted, is becoming increasingly important in schools and in society. An increased focus on technology, information, and communications in the American workplace requires proficient writing skills for business professionals. Colleges and post-secondary institutions require students to be proficient writers as a prerequisite for graduation. Even before they reach those weighty venues, students in the United States, and across the world, are expected to be proficient as writers. According to the Common Core State Standards for Writing, “Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas,” (Common Core State Standards Initiative). Additionally, students in Georgia are expected to display their proficiency in writing through assessments in the third, fifth, eighth and eleventh grades in order to move on (Writing Assessments). With such importance placed on writing, quality writing instruction is necessary.

**Importance of the Study**

While the importance of writing is not at question, the skills that are required of students to master the Common Core State Standards and to excel in the working world, one of the foci of the Common Core Standards, include writing collaboratively. In many cases, the opportunity for collaboration during the writing process occurs during the revision step in the process. Unfortunately, students at all levels often skip the revision stage. However, students rarely skip the opportunity to interact with their peers either in person or via online social networking sites.

In addition to working with peers, students should be afforded the opportunity to organize, compose and revise their writing using technology through the use of classroom computers. Peterson and McCLay (2012) found a contradiction among many teacher that were interviewed concerning the efficacy of using computers for organization and composition. In their interviews with writing teachers, Peterson and McClay found that the teachers believed the use of computers for composition and organization to be effective for their students with disabilities or other troubles with writing. However, they found that teachers felt that the use of technology for average students was not worth the time. On the other hand, several other studies, including those performed by Pifarre and Fisher (2011), found that the use of technology, including Wikis, can help students better understand and use the writing process and can help teachers better understand the learning process of the students.

With those thoughts in mind, Tsai and Chuang (2013) found that students who participated in structured peer review via the “Calibrated Peer Review System” were more inclined to participate in the process of revision, completed more revisions, and created lengthier final drafts than students who did not participate in structured peer review. Rahimi (2013) found that foreign language students who were trained in peer revision and allowed to use the peer revision process produced more total revisions and more revisions that focused on the global aspect of the text rather than the conventional form. Peer revision can also encourage students with second needs who are traditionally hesitant to follow any directions from their teachers, especially the direction to revise a piece of writing. Kindzierski (2009) found that the use of peer revision in a classroom of students with emotional and behavioral disorders encouraged those students to conduct more revisions and to improve their drafts. In fact, the Kindzierski study found that, when revising with a peer, students decreased the number of words that were repeated and improved the organization of their texts. This latter skill of organization is particularly important since it is one of the four domains that are evaluated on the Georgia Writing Assessments.

**Review of Literature**

Many previous studies have examined the impact of peer collaboration on the prevalence of revision in the writing of students at the secondary and post-secondary levels. While writers seem to understand the writing process and the process of revision, many do not follow through on revision independently. Even with teacher prompting and input, many writers do not revise their work as effectively as they could. Yang (2011) found that the use of peer interactions increased the amount of revision that was completed, influenced an improvement in students’ text, and produced a positive impact on students’ attitudes towards working with peers. Additionally, Yang found that offering a variety of peer review steps in a structured process could produce a further positive impact on revision.

Students at all levels of readiness and at all ages can be positively influenced by peer revision and peer interaction. Kindzierski (2009) found that in a population of students with emotional and behavioral disorders, peer interaction and revision lead to an increase in the positive revision behaviors that were targeted. In Kindzierski’s study, student writing was examined over time, and their independent revision efforts were compared to their efforts to revise with peers. When revising with peers, the student writers in the study increased their amount of organization revisions, included a larger amount of supporting details, and included significantly more personal references and anecdotes when revising as compared to independent revision. Additionally, the peer revision program, lead to students repeating words less within drafts and making fewer conventional errors. In a somewhat unrelated finding, the students involved in peer editing in Kindzierski’s study who revised with peers tended to write in a more expository style rather than a narrative style. This expository style has proven more difficult than narrative for middle school students.

Lu and Zhang (2012) noted that the impact of peer interaction is as strong for the reviewer of the work as it is for the person whose work is being reviewed. This relationship was described as reciprocal and was also noted in Yu-Fen’s (2010) study. Both Lu and Zhang and Yu-Fen noted that the reciprocal nature of the peer review and revision process was aided, and in part made possible, by the use of online services to perform those revisions and reviews. Similarly, students today have more and more access to web-based technologies that allow them to work collaboratively from anywhere in the world. Because of the use of online technologies, students are also able to interact more often than in face-to-face environments which Lu and Zhang noted can lead to a wealth of revisions and in turn can include many more meaningful revisions. Additionally, Lu and Zhang concluded that playing the role of assessor of a classmate’s work as well as having one’s own work assessed lead to even greater learning outcomes.

Yang and Wu (2011) noted an overall increase in the number of revisions of students when using a peer revision process as compared to when revising independently. While the overall number of revisions increased, the number of global revisions to ideas and structures increased at a greater rate than that of the overall revisions. In addition, Yang (2011) examined students’ opinions of the use of peer feedback and noted that many times peer feedback provided local conventional revisions that students did not notice independently as well as global revisions that lead to a reorganization of the text as a whole. Furthermore, students in Yang’s study reported that they possessed more confidence and satisfaction with their finished drafts after the peer revision process.

This final thought from Yang’s (2011) study also lead to the conclusion that students were more motivated to support their classmates through the use of peer review and revision and through the use of online peer review. This motivation to support their peers could also bleed over to influence students to review and revise their own writing in later drafts. This increased motivation could also be said to have a positive impact on the amount that students write and revise. Kindzierski (2009) found that among her students with emotional and behavioral disorders, the use of peer revision lead to an improvement in social interaction as well as an increase in the internalization of writing strategies and a decrease in apprehension about initiation and completion of writing tasks.

While motivation to revise and write can be a first step, and peer revision can lead to many more revisions than simple independent revision, many additional studies have found that the quality of peer revision can also have a profound impact on the quality of the finished product. To that end, student training in proper methods of peer revision can lead to even greater gains than through untrained peer revision. While studying a group of English as a Foreign Language Students, Rahimi (2013) found that students who had been trained in the use of a structured peer feedback model offered higher quality revisions than their untrained peers. Specifically, Rahimi found that untrained student reviewers tended to make a similar amount of formal, or conventional, revision as their global revisions, with global revisions being more desirable. Meanwhile, their trained peers tended to suggest a similar number of formal revisions to those who were untrained while including even more global revisions. Rahimi also found that as a training program proceeds, the desired results are magnified. Further, along with a larger amount of revision suggestions, Rahimi noted a larger percentage of those formal and global revisions that were applied to the future drafts.

Failing the presence of instructional time or resources to be devoted to extensive training programs for revisions, Tsai and Chuang (2013) noted that a single training in a structured system of peer revision could serve to improve the quality and quantity of peer revision suggestions as well. Tsai and Chuang described a structured system of revision on which their subjects were trained in a single session. From this session, they found similar results to Rahimi in that more participants in the trained group performed revisions, more revisions were suggested for the trained group, and a greater percentage of the revisions of the trained group were global rather than local.

While many of the existing studies on peer revision, both online and in the face-to-face format, rely on structured systems of peer review or established computer software that drives the entire process, many teachers and schools may not have resources to implement those programs. A possible solution to that drawback is to use one of the Web 2.0 tools that exists to foster social learning. Such tools are considered by many to be micro-blogging tools, and Mills and Chandra (2011) argue that such micro-blogging tools can provide valuable literacy practice through the use of collaborative educational communities. One conclusion that Mills and Chandra drew that is particularly poignant is that micro-blogging can change the way that students complete the writing process through its unique combination of immediacy and time for reflection. While the use of a micro-blogging platform may allow students to provide written feedback with more reflection and thought than feedback provided verbally while also allowing writer to receive feedback more quickly than feedback from a teacher.

Such micro-blogging platforms have long been an aspect of social media. Meena, Mittal, and Solanki (2012) describe social networks on virtual communities. These communities allow students to create personal profiles, explore interests, meet other people from around the world, and interact online. While these aspects of social media reflect the possible positive uses, and connections to the common core standards, of social networks, the Meena, Mittal, and Solanki study among others noted that there are pitfalls to the use of social media among students. Perhaps the most pressing concern with social media, given the time and budget constraints, is the amount of time that students might spend on social networking sites without proper teacher supervision. Meena, Mittal, and Solanki noted that students have become so “addicted” (2011) to social media that the time students spend can contribute to the detriment of their studies. That amount of time wasted on social media at school can erode the amount of class time that is available to students and tie up the scarce resource of technological equipment for the use of other teachers and students.

A second negative aspect of the use of social media among teens, found by Clipson, Wilson and Duferene (2012) is the deleterious effects that the irresponsible use of social networks can have on the relationships. The Clipson study found that of the 300 college students that they interviewed more than a quarter had experienced dilemmas with relationships based on their use of social media. Additionally, one in five college students reported a lost or damaged relationship because of social media.

Edmodo serves as one social learning tool that provides a micro-blogging component along with more robust capabilities to connect students. Dobler (2012) notes that many educators have used Edmodo to create an instructional hub where learning is collected in the form of ideas and resources and students are able to access it at any time. Through the use of the storage and collaboration components of Edmodo, students would be given the opportunity to use the platform to share their work and comment on the work of others. Furthermore, Edmodo allows for students to use all of the tools and resources of the internet at large while a teacher has the ability to monitor all of their actions. This ability would add yet another aspect of training to the idea of online peer review. Finally, the social aspect of Edmodo would serve to further encourage students to use peer review and revision.

Edmodo is a social learning platform that teachers can use to help combat some of those negative aspects of social media while taking advantage of the positive capabilities of the tools. Hammonds, Matherson, Wilkins and Wright describe Edmodo as a gateway tool for teachers to use to improve communication with parents and students, customize instruction, plan and implement professional learning, and motivate and encourage students (2013). As noted by Hammonds, Matherson, Wilkins and Wirght, Edmodo provides students with a social network that is easily monitored by teachers to help allay some of the issues with time. Additionally, Edmodo is easy for students to learn, further reducing the time commitment for it to be effective. The platform is also open only to students in a class, which limits the number of relationships that might be damaged and, perhaps most importantly for younger students, protects students from outsiders.

**Research Problem**

Yang (2011), Tsai and Chuang (2013), Lu and Zhang (2012), among others, researched the efficacy of using online systems to encourage students to work with peers to revise written texts. All found that the use of online peer revision encouraged students to make more revisions than they would have made in revising independently.

**Specific Platforms**

While these studies all returned valuable results about the use of peer revision and the use of electronic methods for completing those revisions, all had drawbacks in their design or scope that created problems for the use in my own classroom. Among those problems was that the studies focused on peer revision using computer-based programs that were either proprietary, in the beta testing phase or were the larger focus of the study. None examined the effectiveness of using a free and readily available computer program. Edmodo is just such a program that is being used in many classrooms around the country (Hammonds, Matherson, Wilson, & Wright, 2013, p. 40).

**Subject Demographics**

A second drawback of many of the studies was in the population that was studied. In many of the studies, the subjects were college students. In others, the subjects were students who were learning English as a Foreign Language. And in many of the studies, the subjects were from countries other than the United States. While these results are a valid starting point for the studies on the use of electronic means for peer revision, none of the studies focused on students who fit the profile of many in the United States who are increasingly expected to collaborate with their peers in writing.

**Online Revisions vs Revision in Person**

An additional drawback of the studies was that they focused on the difference between the impact of online peer revision and independent revision with little attention paid to any differences in impact of online peer revision and offline peer revision. For that reason, part of the impact that was reported in those studies could be attributed to the use of peer revision as opposed to the use of online peer revision. With that difference being noted, the possibility exists that online peer revision may hold no more benefit for the average classroom teacher than face-to-face peer revision.

**Statement of the Problem**

Based on those drawbacks, this study will focus on the particular needs of English-speaking middle school students in the United States. The study will seek to answer the following research questions:

1. What impact does online peer review have in creating a difference in the amount and quality of revisions that students complete as compared to face-to-face peer revision?

2. Can Edmodo serve as a viable platform for online peer revision?

3. What are the attitudes of middle school students in the southeastern United States regarding online peer revision?

4. What are the attitudes of middle school students in the southeastern United States about the use of Edmodo as a platform for online peer revision?

5. Does online peer revision encourage students to provide more positive or negative commentary than face-to-face peer revision?

**Methods**

Sixty to seventhy students from a suburban school system in the southeastern United States will participate in the study. The students will be in the seventh grade and will be situated in two intact seventh grade language arts classes. Both classes will be classified as “Advanced Content” classes based on scores in the “Exceeds Standards” range on the Criterion Referenced Competency Test in the previous school year or scores in the ninetieth percentile or higher on the last IOWA Assessment that the student completed.

A mixed methods design will be used in order to gain quantitative and qualitative data about the use of Edmodo for peer revision. The study will be of the Explanatory Sequential Design with a quantitative experiment at the outset followed by qualitative data collection through a survey.

 **Quantitative Phase**

The quantitative phase of the study will utilize an expository writing assignment that students are required to complete in the fall of their seventh grade year. This assignment requires students to use all steps of the writing process in completing their assignment, so all will complete the revision aspect of the writing process. While students complete their writing, they will be placed into small groups of three within the overall class group on Edmodo. Following the completion of their writing, they will post their work to Edmodo within their small group, and each member of the group will read it and comment on it. During the comment process, students will use the track changes feature of Microsoft Word to comment and suggest changes. At that point, students will attach the commented document to the original post for the author to make changes. The author will then decide which changes to accept, and make those changes before submitting the final draft.

A second group of students will perform a similar process in a face-to-face setting in the classroom. This group will act as the control group for the experiment. The control group will complete the writing assignment on the same time frame and with the same requirements as the experimental group. However, when the control group has finished their writing, they will complete the peer revision by making notes on the papers of the other members of the group. Each member of the group will print a copy of his or her paper. The other group members will read it and make notes in the margins or on sticky notes to make suggestions and comments. The teacher will then make copies of the papers and the comments for the researcher.

Both groups will have been trained throughout the school year to use the Praise Question Polish (PQP) method of peer commenting in which each commenter is asked to provide a point of praise as well as question something that he or she did not understand and suggest a method for polishing. For the purpose of this study, the students will be instructed to include more than one comment in each of the three sections of the PQP method. This will allow for the researcher to count the multiple revisions to be compared. This method will also allow for the researcher to track both positive and negative comments about the writing.

 **Qualitative Phase**

During the qualitative phase of the study, students will answer survey questions about their experiences using Edmodo, or not, for peer revision. The students in the experimental group will answer survey questions about their experiences with Edmodo to determine the ease of use of the online platform as well as their motivation to complete the revision exercise using the platform. Students in the control group will answer survey questions about their experiences completing the revision process in the face-to-face setting instead of an online program. Each survey will include questions about the ease of use for each revision process, the preferred method of revision, the quality of the responses that were received, the reasons that revisions were accepted or declined, and the motivation to use that method again in the future.

 **Data Collection**

The researcher will compile each of the first drafts and final drafts for each subject in the study. The revisions that were suggested from the first drafts will be tallied as well as the revisions that were completed in the final draft. The researcher will find the mean number of suggested revisions for each student in each group as well as the mean number of revisions incorporated into the final draft for each subject. The researcher will also calculate the difference in the suggested revisions and the completed revisions for each student-author in the study and find the mean of those. The means of the suggested revisions, the completed revisions and the differences in suggested and completed revisions will be compared using a T-test to check for statistical significance.

 **Validity and Reliability Questions**

Validity in the study will be assured through the use of several safeguards. One will be that the researcher will not have served as the teacher of the students involved in the study. This will counteract any bias that may have occurred based on a teacher-student relationship with the participants. Secondly, all students will be trained briefly in the same methods of revision, PQP, so that the revision training will not be a factor in any differences in revisions suggested or accepted. A third safeguard will come in the amount of time that is devoted to each of the methods of revision. Online revision offers a more flexible time component than face-to-face revision, so each group will be limited to the same amount of time for revision: approximately one hour for all members to read and revise the work of all other members.

 **Protection of Human Subjects**

The chief ethical questions in the study are in the areas of researcher bias and unequal benefit for the experimental group as compared to the control group. The first concern for researcher bias will be guarded against by using a class that is unfamiliar with the researcher, and by having a teacher other than the researcher help conduct the research. That second teacher will also keep an independent count of revisions to be compared to the count taken by the researcher. The question of unequal benefit will be safeguarded by providing similar revision time using Edmodo for the control group as well as a second revision session for face-to-face revision for the experimental group.

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