

A Blog-Based Peer Assessment Model to Support Pupils' Composition Activity

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Abstract: In this study, we design a blog-based peer assessment composition model for the elementary school students and try to identify the specific benefits of the blog-based assessment. This study spent effort to explain the characteristics of blog-based peer assessment through designing a composition model. In addition, the preliminary evaluation to understand teachers' initial opinions about this composition model was also provided.

Keywords: The Blog-based Peer Assessment, Blog, Peer review, Composition

Introduction

Peer assessment has extensively explored for several years. In the past studies, researchers evaluated the model of peer assessment with four main categories, including validity, fairness, accuracy and effects (Dochy & Segers, 1999). These studies all investigated the natural effects of pen-and-paper peer assessment model. With the rapid change of technology, web-based peer assessment brings more advantages than before. Many studies paid attentions on which characteristics of web-technology can support the peer assessment. On the whole, it involves more convenient, flexible and plentiful experience of peer assessment with web technology. On the other hand, researches also engaged in developing different web-based peer assessment system.

With the evolution of web-technology, many researchers and developers believed that technology should tend to facilitate an individual to become a provider than only as a recipient. Thereby, the collection and discussion of these personal contributions may bring richer benefits than before. In the recent year, this idea is adopted gradually and fostered various types of web-based application products. Among these web-technology products, a blog is one of typical tools followed this idea. A blog can be seen as a publishing tool that facilitates composition and frequent updating, and also a type of social software that represents the real existence of an author and fosters a high level of interpersonal relationships (Herring et al, 2004). The emphasized characteristics of blog that highlight personalization and social discussion may bring more benefits than traditional web-based peer assessment. Less study focuses on whether these characteristics of blog, which facilitating personal editing and fostering social comment and discussions, enhance the effects of peer assessment. In this study, we design a blog-based peer assessment composition model for the elementary school students and try to identify the specific benefits of the blog-based assessment.

1. Literature review

Peer assessment refers to an evaluation process, comprised a group of people who have similar learning status, in which people individually ponder the quality of products of other people and then give the appropriate feedbacks according to their knowledge background (Topping, 1998). Peer assessment is extensively applied to different levels of education and disciplines. In the past studies of peer assessment, Dochy & Segers (1999) pointed out that peer assessment provides students more opportunity to observe other students' work than do from their teachers. In the recent studies, Rieber (2006) claimed the similar argue, indicating that students have to clearly understand the assessment guidelines for the purpose of checking whether other students followed the guidelines. Therefore, they have the second chance to scrutinize the guidelines. On the other hand, if students are aware that another student will assess their work during the peer assessment, they would become more careful to produce a more exquisite one for assessment (Rieber, 2006).

With the rapid change of technology, web-based peer assessment brings more advantages than traditional paper-and-pencil peer assessment. Many studies paid attentions on which characteristics of technology support the peer assessment. In Lin's study (2001), three advantages of web-based peer assessment was claimed including the anonymity characteristic, easy monitoring for teachers and reducing the cost of photocopies. Besides the study of Lin, Sung et al. (2005) also suggested that technology-supported peer assessment shapes a relatively convenient way to display multimedia, and also decreases the loading of calculating and recoding score and commentary. Furthermore, the flexible feature of the web-technology facilitates various assessment models according to the need of teachers.

With the evolution of web-technology, many researchers and developers believed that technology should facilitate an individual to become a provider than only as a recipient. Thereby, the collection and discussion of these personal contributions may bring richer benefits than before. In the recent year, this idea is adopted gradually and fostered various types of web-based application products. A blog is one of typical tools followed this idea. A blog is a publishing tool that facilitates composition and frequent updating. Blogs are also a type of social software, one that both represents the real existence of an author and fosters a high level of interpersonal relationships (Herring et al, 2004). The posts that are published on a blog reveal core relationships between the wider audiences and the authors (Langellier & Peterson, 2004). Furthermore, a blog may be regarded as a tool that encourages individual reflection (Park, 2003). Learners consider and learn from other more expert bloggers through observing their opinions (Efimova, 2004). A blog can thus provide a steady place that facilitates interaction and reflection through asynchronous interaction.

As description above, blogs have some affordances which facilitating personal publishing and conversational discussion. Less study focuses on whether these characteristics of blog, which facilitating personal editing and fostering social comment and discussions, enhance the effects of peer assessment. In this study, we develop a blog-based peer assessment composition model, in which student writes articles using personal blog and learn to assess peers' articles socially. We also implement the system to illustrate such a novel conversational discussion peer assessment with personal blog.

2. Methodology

The research methodology program can be divided into three parts. In the first part, we inquire and collect some information about the traditional composition course from the teachers, such as the frequency of composition course per week, any additional support designed by the teachers and so on. In the second part, we design a series of composition process in which student writes articles using personal blog and learn to assess peers' articles socially. The third part mainly involves the preliminary evaluation of teachers' opinions.

2.1 Participants

In order to get a broader vision of actual using in the classroom, we invited eleven elementary teachers as our co-designers to evolve the composition model. They provide experienced advices for us to design the composition model.

2.2 Information inquiry from teachers

Before the composition model design, the information inquiry is adopted for us to understand the actual situation of the traditional composition course in the elementary school. The questions involve the frequency of composition course per week, how teachers plan their composition courses, what teachers provide to support the composition course and so on. The teachers have a short interview with us. In addition, we inquire teachers' initial attitudes and opinions about the blog-based peer assessment composition for the composition process design in the next research process.

2.3 Composition process design

This composition model focuses on the elementary school composition course. The target users are fifth and sixth grade (10–12 years) elementary school students. According to the information inquiry from teachers, we design a composition process which embedded the blog-based peer assessment mechanism. The composition process has three phases.

2.3.1 Phases 1: Writing through Personal Blog

When we interview the teachers for information inquiry, one teacher told us that the composition course in elementary school in Taiwan is curtailed in recent years. Students averagely write articles only four or five times a semester in the school. The composition course is not a regular course and always executed in the course which teacher flexibly use. Students have insufficient practice to improve their composition ability. Blog-based writing is seemed to be a potential solution which supports frequently composition practice.

In this phase, students can practice composition in their own personal blog every day. Teacher assigns three or four topics for each time which is related to the similar subject matter around students' experience, such as "the outing" and "my favorite outdoor activities". Teachers and parents can assist students in writing by cuing some ideas which facilitate students' recollection of experience. When students finish the articles, teachers encourage students to make the article known to the public then students can see other's articles.

In this phase, students keep on writing every day despite they don't have much time to accomplish an entire article in the irregular course at school. Students can dominate their blog to determine whether (and when) the article is public or private. In addition, students accumulate their personal compositions through blog to foster their senses of writing ownership. The main objective in this phase is to cultivate students' daily writing habit.

2.3.2 Phases 2: Peers Giving Reflection and Comments

From the interview, we founded that some teachers have already applied convenient peer assess which with the paper-based rating scale in their composition activity. Teachers initially instruct and explain the meaning of these criterions, and then assigned students to comment peer's articles through this rating scale. This kind of paper-based peer assessment has one potential limitation, especially in the composition activity. The limitation is related to the relatively small amount assessors for each article who are always assigned by the teacher. The assessors have few options to choose the assigned article and have less motivation to savor the article due to the compulsion from teachers. In addition, the more important one is the feedbacks and comments from specific minority would lead to some biased suggestions which confuse the author. In this phase, we use the blog to overcome these drawbacks.

The *blog-based peer assessment* emphasizes the choosing freedom of giving comment and feedback. Students may feel free to read articles from other's blogs before giving any comment. Different from the traditional model which only minority students are compelled to read and comment specific articles, any student who is willing to share opinions is welcome to make the comments in the blog. In addition, students' reading articles and giving comments are no longer only for the teachers but, are replaced by the emotional expression and opinions exchange. More readers stay and savor the articles on the blog should bring more passion of composition.

Students only need to read in the first step. Everyday students can frequently check the blog and look for new articles posted just a moment ago. The feature of asynchronous posting of blog gives the assessors more opportunities to skim through the articles so that facilitate them to pick two or three *just right articles* which can stimulate the authors to naturally make a comment out of personal feeling without any hesitation. In the second step, students can choose two or three articles to give comments. Teachers can provide students with some guidelines to give positive comments. The emotion voice and opinions without the support of guidelines are also encouraged. And then, in the last step, students can keep discussing on the blog. Besides giving comments, the readers and authors are allowed to give comments for others comments through the blog function. The blog system has inherent affordance which supports the conversational comments discussion.

2.3.3 Phases 3: The Autonomic Class Journal

During the interview with eleven teachers, one teacher showed us one composition script which has corrected by the teacher. Besides that, the teacher even designed one specific table, which is similar to the four-point Likert scale, to fill in the composition grade separately according to the different scales. There is no doubt that the teacher industriously engages in correcting every fault the students made. We know that teachers' correcting articles can promote students' composition ability; however, it may cause the sense of frustration and thus lead to low motivation of composition, especially when these young students are at the beginning of their writing journey. Teacher's comment for students is often associated with the authoritative true; compare to teacher's comment, peer's comment is more like a suggestion that could facilitate discussion.

The *Autonomic Class Journal* is followed this idea: a group of peers are as the reviewers to select and edit the articles for the class journal. The class journal is a regular activity. Students can submit their articles to the class journal. One group of peers plays the role of reviewer to examine the quality of the submitted articles and determine whether accept or not. They have to establish consensus for criteria and provide schedule for the class journal. The *Autonomic Class Journal* provides students a peer correcting platform to improve their composition ability.

The blog not only provides authors a personal place to composition but also provides reviewers a channel to communicate the information and exchange ideas with the journal submitter. In the blog-based peer assessment, assessors still can communicate with other people through the blog. For example, a journal committee reviewer can provide some examples of evaluation on the blog for the submitters to understand his judgment criteria. On the other hand, the submitters can communicate with the reviewers about their judgment comments. The conversational feature of blog-based peer assess gives peers more opportunities to communicate and discuss their production.

2.4 Preliminary evaluation for the composition model and system implementation

In order to understand the initial opinions of the teachers who are going to use this composition model and system. We invited eleven teachers as our preliminary evaluators. Each teacher was provided a document with the detail of the composition model design and system implementation. A questionnaire, which has twenty five-point rating scale questions and five open end questions, was also provided. These questions are designed to investigate the attitudes and opinions of the teachers with the following issue.

- (a) Students can continue to discuss articles on the blog. Can this blog-based model foster conversational discussion? Would it able to collect more voices from the students?
- (b) The blog-based model emphasizes the choosing freedom of giving comments and feedbacks. Would it able to encourage students to write down their opinions and facilitate them to give more appropriate comments?
- (c) The class journal activity provides students a platform of peer correction to improve their composition ability without teacher's correction. The author can communicate with the reviewer through blog. Can this model foster student to think of the problems in the article and improve their composition ability?

3. Results

The results from the questionnaire indicated that most of the teachers agreed the issue (a), which mentions that students can continue to discuss on the blog. Teachers believed this blog-based model can foster a conversational discussion and is able to collect more voices from the students. Some teachers provided suggestions for this perspective. One teacher thinks blog can support cross-class interaction and encourage more students to composition through the conversational discussion of blog. Another teacher argued the young children have insufficient experience to express their thinking. The children should accept training to learn how to give comments.

For the issue (b), the result showed that the teachers partly agreed this perspective, which mentions giving students the choosing freedom of giving comments and feedbacks can encourage students to write down their opinions. But not the entire teachers agreed the following descriptions, which the choosing freedom can facilitate students to give more appropriate comments. Some teachers believed

the key point of giving appropriate comments mainly depends on the complexity of the article. The teachers suggested that students can begin to write the short essays, because it is relatively simple for the readers to comprehend and organize their thinking.

For the issue (c), the result showed that the teachers partly agreed this perspective, which mentions the class journal activity provides students a platform of peer correction to improve their composition ability without teacher's correction. The teachers agreed that the detailed correction from teacher may bring the sense of frustration. But even thus, the teachers still believed they would give appropriate encouragement in the end of the correction. They don't completely make sure the peer would do it. In sum, some teacher still feel worried about the frustration from peer's provoked comments.

4. Discussion & Conclusion

In this study, we design a blog-based peer assessment composition model for the elementary school students and try to identify the specific benefits of the blog-based assessment. We totally generalized three characters in our composition model design.

- (1) The free characteristic of choosing article to give comments and feedbacks.
- (2) The conversational characteristic which supports ceaseless discussion.
- (3) The communicative characteristic which facilitates the debate between authors and assessors.

In addition, the preliminary evaluation to understand teachers' initial opinions about this composition model was also put into practice. The result indicated the teachers mostly approve this peer assessment approach. But some teachers worried about the provoked comments which may injure the original intention of peer assessment. This model should include more detail about the assessments for student to foster positive attitude during peer assessment.

This study spent much effort to explain the character of blog-based peer assessment through designing a composition model so that the preliminary evaluation only investigates teachers' opinions. The future study should focus on more detailed effects of the proposed composition model.

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