
Title	An exploratory study on promoting students' critical thinking by using weblogs
Authors	Wang Qiyun and Woo Huaylit
Source	<i>8th International Conference of the Learning Sciences (ICLS) 2008, Utrecht, The Netherlands, June 23-28, 2008</i>
Published by	International Society of the Learning Sciences

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Original citation: Wang, Q., & Woo, H. (2008). An exploratory study on promoting students' critical thinking by using weblogs. In *Proceedings of the 8th International Conference of the Learning Sciences (ICLS) 2008* (Part 3, pp. 149-150). Utrecht, The Netherlands: International Society of the Learning Sciences.

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An Exploratory Study on Promoting Students' Critical Thinking by Using Weblogs

Qiyun Wang, Huaylit Woo, National Institute of Education, Nanyang Technological University,
1 Nanyang Walk, Singapore 637616
Email: Qiyun.wang@nie.edu.sg, huaylit.woo@nie.edu.sg

Abstract: Critical thinking becomes an essential competency for people in the new information age. The purpose of this research is to investigate to what extent writing online reflections using weblogs can promote students' critical thinking. This research is conducted in a secondary school. After completing 3 weblogs, a focus group interview was conducted to collect their feedback on the design and implementation of the research. The results showed that the students liked the way of writing online reflections. They attempted to make the weblogs interesting, convincing and logical. Also, they liked to view others' reflections and to give comments. This paper presents the formative evaluation processes and results of the research.

In 1997, The Singapore Ministry of Education launched the 'Thinking Schools, Learning Nation' initiative with the aim to promote students' thinking skills and lifelong learning capabilities. One of the ways to achieve this is to integrate critical and creative thinking skills into all aspects of school curricula (Teo, 2001). The purpose of this research is to investigate to what extent writing online reflections by using weblogs can promote students' critical thinking.

This research is carried out in a neighborhood secondary school (GMSS). The students' abilities in this school are among the average. The subject chosen for this research is History. Based on various types of interactivity (Chou, 2003), four blogging strategies are adopted in this research: i) blogging individually without ongoing scaffolding; ii) blogging within a small group with group members' comments; iii) blogging with a whole class with classmates' comments, and lastly iv) blogging with the teacher with the teacher's comments. Four Express classes, which are relatively better than the rest of classes on the same level, are chosen to participate in this research. Each class is allocated with a strategy respectively.

By the end of the first half year, the students had completed three blogs. They were interviewed to collect feedback on the design and implementation of the research. Based on the performance on the blogs, 6-8 students from each class were selected to be interviewed. Among them, 2-3 were chosen from "best" performers; 2-3 were considered as "worst" performers; and the rest were so-called "special cases".

Q1. Describe briefly how you prepared and completed your blogs

They mentioned that they listened to the teacher's instructions carefully when they first received a blogging topic. After this, they brainstormed or further referred to the textbook for answers. Two students said they borrowed books from library. A few students copied texts directly from the textbook, while the others used their own words to reorganize sentences. Most students went to the Internet to search for additional information. Furthermore, some students also mentioned that they discussed the topics with their friends or family members before they posted, or asked their friends to help check for errors or make comments to improve after posting. The majority of them completed their blogs at home, and the rest did it in the school computer lab. The average time they spent on each topic was about one hour.

Q2. How did you make your blogs interesting, convincing, or logical?

They stated that they improved the appearance of their blogs by changing blog skins, putting pictures related to the topics, changing font colors, or adding background music. To make their blogs convincing, logical or critical, they attempted to give both advantages and disadvantages of solutions, add own opinions supported by evidence, or add additional information from the Internet. One student further explained that after collecting relevant information from the Internet, she reorganized the information by adding her own reasoning to make it more logical. Another student said that he made the content more convincing by relating to his own experience. Interestingly, one student said he intentionally made the content of a topic not logical to get more feedback from others. He was happy as more comments were given to that blog.

Q3. What do you like the way of writing online reflections in the weblog?

The majority of them stated that they liked the way of writing online reflections. First, they did not need to write words by hand as they had bad handwriting. Also, they agreed that typing was easier than writing. Moreover, writing online allowed them to improve their spelling and grammars as the computer could help to

check. Second, writing online allowed them to exchange ideas with others. They could post their ideas online to get more people viewing their opinions. Moreover, they could also view others' posts and give comments. Two students mentioned they were happy with writing online reflection as they learned a new skill: blogging. Another student mentioned that she liked online blogging as she could open different applications at the same time. She could surf the Internet while reflecting. However, another student mentioned she did not like online blogging as she was not computer savvy and she had met technical problems.

Q4. Other comments, suggestions

More than half of the students loved and enjoyed blogging online as they thought it was fun. They even further recommended that this approach should be extended to other subjects as well. In addition, they suggested that each blog should involve more topics or questions so that they could have more choices. They also indicated that a longer time frame should be given so that they could have more time to search for information and get the blogging content more meaningful. Additionally, the class of blogging within a small group expected to view different peers' blogs each time.

The interview results did not show significantly different responses to the questions from different categories (best, worst, and special) of students. They followed similar approaches to completing the weblogs, such as searching information on the Internet, referring to the textbook, etc. They also used similar strategies to make content interesting or convincing. The reasons for enjoying online reflections were also quite similar. They liked to share their ideas with others and get feedback from others. Also, they loved to view others' thoughts and give comments as well. The weblog provided them with a space in which they could publish and share information. The comments and suggestions given were also quite consistent. They wanted to have more questions on one topic and also they expected a longer time frame for each blogging.

Currently this research is still going on and the content of students' posts has not been qualitatively analyzed. Therefore, to what extent writing online reflections by using weblogs can promote students' critical thinking is unclear yet. However, the formative evaluation conducted at the middle of the research process has indicated that the students are enjoying writing reflections online, and they also apply some strategies to make their posts convincing and logical. The next step of the research would be to analyze the students' posts by following the critical thinking model proposed by Newman, Webb, and Cochrane (1995). Based on the results of the four classes, recommendations on effectively facilitating students in critical thinking development will be suggested.

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Acknowledgement

This research project is funded by a Learning Sciences Lab research grant, number R8019.735.CT02. We wish to thank the staff and students of Geylang Methodist Secondary School involved in the project.