

# Using Weblogs to Promote Self-Directed Learning in Elementary Students' Independent Science Study

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## Abstract

*This paper provides an overview of implementing self-directed learning by utilizing weblogs in elementary students' independent study. The key feature of students' independent study in Taiwanese elementary settings was used to teacher-directed learning. By utilizing weblogs in students' science study, it is found that students seem to behave more self-directed learning behaviors and more active in pursuing their study goals because of the feedbacks and participation by the peer community.*

## 1. Introduction

The remarkable advances and diffusions of technology have an impact on the education sphere. To make students ready for a different world is a challenge and also a mission for all teachers. Students are expected to become capable of problem solving, decision making, collaborative and responsible learning. Independent study is usually adopted in a science class in Taiwanese elementary settings because of allowing the students of diverse abilities to pursue and design independent, special projects in greater depth at their own pace [1]. Independent study was usually implemented in two types of learning activities: individual or group work.

In individual independent-study, however, many teachers assigned independent study in addition to regular schoolwork as an alternative of regular assessment. Such an assignment prohibited the students from moving ahead actively because the independent study was seen as a negative, rather than a positive opportunity. Many students tended to disregard their learning responsibility and relied on teachers' frequent prompt. In group independent-study, because of the lack of communication opportunity after school, the team project tended to become individual task. It happened all the time that some students complained that their teammates didn't care about the

assignment and consequently they had to accomplish the study by themselves.

"How can we make students more active, responsible and self-directed?" is one of the most asked questions of those teachers who adopted independent study in their class. Weblogs is currently a feasible approach to overcoming the obstacles mentioned above. The minimal web-page development skills needed in maintenance of a blog has led the diffusions of weblogs in educational settings [2]. As Paquet's description [3], a blog possesses the following characteristics: Personal editorship, Hyperlinked post structure, Frequent updates, displayed in reverse chronological order, Free, public access to the content, and Archival. Weblogs provides a platform for students to "think by writing", "seek others' comments and feedback", "express their own opinions to influence others", and "share their ongoing study results with others."

In the following section we will introduce the platform (Blogolios) we used to enable the students to "blog" their independent science study on the network and communicate with their peers and teachers.

## 2. Blogolios

Blogolios (<http://elearning.ice.ntnu.edu.tw/Blog.asp>) is a subsystem of Web-based Instructional Design & e-Learning KM Environment (WIDE-KM) (<http://elearning.ice.ntnu.edu.tw>) developed by eL-Lab of National Taiwan Normal University. It is a blog-based portfolio for teacher to organize their teaching materials, reflect their professional development, to collect the feedbacks from their students or other audiences, and to interactive with their students both in class and after school. Figure 1 shows an example of a teacher's blog.

As shown in Figure 1, a teacher can use blogolios to post an announce (for example, the due date of handing in an assignment), to collect students' homework, to organize their materials into four categories, to emerge

a whole class discussion topic, and to interactive with both the online audiences and their students.

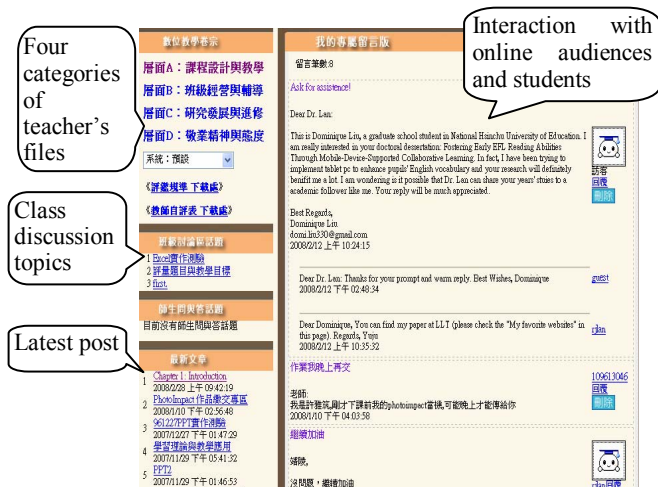


Figure 1. An example of teacher's blog

Blogolios is not only designed for teachers but also with the aim to provide students with an open platform to share their study results with their classmates and other online audiences. Figure 2 is an example of student's blog of independent science study.



Figure 1. An example of student's blog of independent science study

As show in Figure 2, the student chose “Beetle” as his study topic. He posted the pictures of beetles on his blog and invited his audiences to share their experience of beetle caring with him. He also expected him to do well in this topic. In addition, he released his sad emotion about his classmate’s transferring to other school via his blog, too.

From other students’ blogs, we can also find their expectation of an outstanding performance of their science study as well as positive attitude toward blog-based independent science study.

Furthermore, because of reading and answering the comments and feedbacks from the online audiences, their learning behaviors seems to change from teacher-directed (or -dominated) into more self-directed.

### 3. Conclusion

Independent study is a popular approach used in many science classes in Taiwanese elementary settings. To enhance students’ self-directed learning and problem solving ability is most of the teachers’ consideration when adopting this approach. However, because of the lack of after school interaction mechanism and inappropriate assignment, students usually have negative attitude toward independent study and tend to omit their own learning responsibility.

By utilizing weblogs in their independent science study, we have found that they look independent study as a positive assignment and have a great passion to expect them to perform well in their studies. Since our search is still ongoing, the further research result will be expected to come out about this May.

### 4. References

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