## Feature

## Writing-4-Sharing: A Web-based EFL Course Management System

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Abstract This paper describes a web-based application that facilitates the meeting of pedagogical goals of process-oriented writing. The system supports the teaching strategies used in an EFL (English as a Foreign Language) writing class and allows the construction of electronic portfolios. It allows for online submission, peer-review, marking and revision of papers and performs administrative tasks. It also makes possible th1e smooth completion of collaborative writing, process writing and peer reviewing activities, all essential components of the curriculum of an EFL writing course.

Course management systems have increasingly become part Introduction of college students' learning experiences. However, there is an acute need for the design of Web-based systems that are domain specific, especially in the area of second language education (Wible et al, 2001). Current efforts include IWiLL (Wible et al, 2001) in Taiwan and Web-CALL (Fujii et al, 2000) and CoCoA (Ogata et al, 2000) in Japan. The objective of the project described in this paper was to develop a Web-based environment especially tailored to an EFL (English as a Foreign Language) writing class. The Writing-4-Sharing (W4S) system was developed in response to a group of writing teachers looking for an environment that could facilitate the activities of collaborative writing, process writing and peer reviewing. The dire need to manage the sizeable numbers of papers in large writing classes efficiently was an additional motivator for the development of the system.

> One of the difficulties encountered by teachers of writing in Asia is the large number of students in a class. It is not uncommon for an EFL teacher to be facing classes of fifty or

more students. While collaborative writing, drafting and revising, and peer reviewing are techniques that are frequently used in writing classes, they require that multiple copies be made to distribute to all the reviewers and that the teacher keep track of all the papers and of all the changing team members for each assignment. The teacher is thus heavily burdened with record-keeping tasks and the students frequently lose track of what assignment is due at what time. What is needed is a system that can track assignments, assign grades to all the members of a team, and publish the students' work in an electronic space where all the students can view each other's work as well as the corrections made by the teacher. Both students and teachers would be able to see what work has been submitted and what still needs to be done. When all the class materials including the syllabus, reading, assignments and due dates are on line, they are readily available for student use in and out of class and not easily misplaced. The reduction in the number of administrative tasks that the teacher needs to perform and the conservation of natural resources are important, though secondary, benefits.

Despite the availability of the learning management systems on the market, none of them meets the needs of this kind of EFL writing class. Most all-purpose course management systems such as Blackboard, WebCT or Lotus Notes are unsuitable for several reasons. They tend to be costly, unchangeable and contain a myriad of superfluous features. Another even more important reason is that they cannot perform the crucial tasks of easily making groups and marking papers online. When forming groups, these systems require that the teacher create and name the groups and then assign members to each one. This is a very time-consuming process, impractical for a writing teacher with a large class who might want each student to be paired with different classmates for different assignments. The existing systems also do not allow online marking of the assignments in a way similar to the one teachers are used to doing with pen and paper. Writing teachers frequently write comments (sometimes in different colors) on the margins, underline words or sentences, make strike-through lines and use correction symbols such as "frag." to mark a sentence fragment and "VT" to mark an error in verb tense. Current solutions to the problem of marking are using word processors or the software Markin (Krajka, 2002). However, these methods require uploading and downloading of documents from the Web and do not allow for tracking of students' errors from paper to paper.

With these predicaments in mind, a decision was made to create a system in-house. A customized system allows the developers to work closely with the teachers and students who will use it. It also enjoys the advantage of being easily modifiable if changes are needed in the future. The system was designed following Boling and Soo's (1999) suggestions regarding good software design:

- The interface and terminology are consistent from screen to screen.
- The layout of each screen makes good use of space.
- Legibility and readability are high.
- The software makes good use of contrast, repetition, alignment, and proximity.
- Serious navigational errors are prevented.
- Undesirable actions are easily reversed.
- Audio and video playback (where applicable) are of good quality.

Other guidelines that were followed in the design of the course supported by the system were the following conditions of optimal language learning environments (Egbert et al, 1999):

- Learners have opportunities to interact and negotiate meaning.
- Learners interact in the target language with an authentic audience.
- Learners are involved in authentic tasks.
- Learners are exposed to and encouraged to produce varied and creative language.
- Learners have enough time and feedback.
- Learners are guided to attend mindfully to the learning process.
- Learners work in an atmosphere with an ideal stress/ anxiety level.
- Learner autonomy is supported.

The writing process

The class that the W4S system supports places special emphasis on clear writing for the purpose of communicating ideas in academic writing. Grammatical errors are pointed out and the students take on the responsibility of correcting them. All the writing done in this class goes through the process of prewriting, writing, peer-reviewing, rewriting, teacher-reviewing, rewriting, and grading. A typical cycle in the writing process starts with the teacher setting up the assignment. He or she decides whether the current assignment is to be done individually or in a group and how many peer-reviewers will examine this particular paper. If the assignment should be done in a group, the teacher designates the teams. The teacher then assigns the peer-reviewers or has the system do it randomly. Next, the students brainstorm, organize, outline, and compose their papers directly online or in a word processor. Once the papers are submitted, the peer reviewers read the papers and offer suggestions. The authors submit a second draft and the teacher offers comments and marks the errors. The papers are revised once more in light of the corrections and a final draft is submitted. Finally, the teacher gives a grade to this assignment. If it was done in a group, each member of the team gets assigned the same grade. In practice, writing cycles almost always overlap with new papers being written at the same as old papers are going through the reviewing and revising process.

**Description of the system** The current version of the system has features that are common to most course management systems as well as features that set it apart. Like most course management systems, W4S allows teachers to post announcements, syllabi, and Web pages with assignments or course materials. Students can submit assignments, participate in chat room discussions, and post messages to bulletin boards.

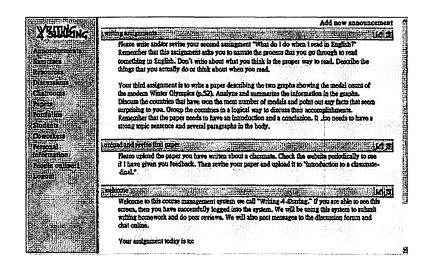
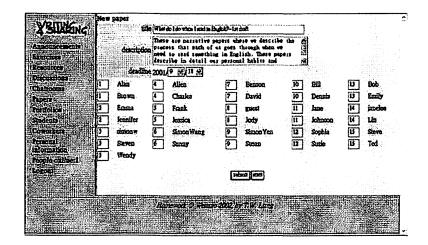
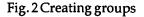


Fig. 1 The Writing-4-Sharing system

## Forming and tracking groups

The W4S system differs from other course management systems most substantially in the way that groups are formed. In the writing classes this system was created for, the students write both collaboratively and independently. Many times students are assigned to work in different groups for different assignments. In a semester of 18 weeks, students write between 6 to 9 assignments, sometimes by themselves and other times with one or two partners. A single student could conceivably be participating in many different teams with multiple partners. For every assignment that students write, they also review and offer feedback to at least one of their peers' papers. Most course management systems currently on the market require that the teacher first create and name groups for each assignment and then assign members to each group. This time-consuming task is almost impossible for a teacher with a large class of approximately fifty students. The system facilitates the task of forming groups of students for different assignments by allowing the teacher to make groups by creating an assignment first and then putting a number next to a student's name. All the students with the same number are then assigned to the same group for writing and revising that particular assignment.





Online marking

A recently implemented feature of the system is the online WYSIWYG editor. The editor facilitates the process of marking and giving feedback on papers. In the process of correcting papers, most teachers use standard correction symbols, make strike-through lines, underline words or phrases, highlight words or add comments between words or lines. These tasks

can be easily done with a pen on paper and with a word processor, but are impossible to do using a Web browser. The text areas in the forms of HTML documents do not support styles. Teachers can use word processing programs like Microsoft Word to mark the sections or sentences needing correction with different colors. However, in order to do this, the teachers must download the papers (or at least copy and paste the text into a word processor), correct them, and upload them. This three-step procedure is cumbersome and opens up the possibility of losing papers or uploading them to the wrong places. It is also inconvenient for the student author and his or her peers to view each other's work if they are in word processor rather than HTML files. A self-contained WYSIWYG HTML editor was therefore incorporated in the Web page. Using this editor, no additional plug-ins are required. The teacher and peer editors can control their output using HTML forms and correct students' papers as if they were using a word processor. Additionally, a series of standard marking symbols appears one side of the screen. Clicking on one of them inserts that symbol into the document.

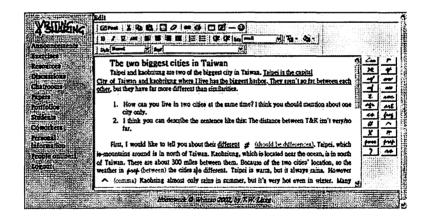


Fig. 3 Marking assignments online

## Formative Evaluation

The Writing-4-Sharing system has been in use for three years. In the first year, it was used for a traditional writing class that met weekly in a computer lab. Forty-eight college students enrolled in a required college freshman writing course participated in formative evaluation of the system. The participants were English majors and placed at the intermediate or high intermediate level of language ability. During the academic year starting in Fall 2001, they used the system to complete all their writing assignments. Training in the use of the system required less than half an hour. The students wrote narrative and descriptive paragraphs, process essays, comparison/contrast essays, classification essays, definition essays, and argumentative essays. They sometimes collaborated on papers either face-to-face or in the chat rooms. They also discussed their classmates' work asynchronously through the discussion board and peer edited each other's papers.

An important insight gained in the attempt to assess W4S was that evaluating the system was almost impossible to do separately from the course. The course management tool was an integral part of the course and was used in every single class. Semi-structured group interviews revealed that the students believed the system to be reliable and easy to use. The students valued being able to check on line which papers they had submitted and which they had not. Tracking their progress in the class and using Web resources were also mentioned as advantages. Peer editing had been a new activity that they all approached with apprehension and reluctance. However, after the teacher's repeated modeling of the task and the thinking process involved, the students gained confidence and increasingly appreciated its value in their learning process.

The instructor of the course found the system to be a valuable tool that supported the teaching strategies used in her EFL writing class and allowed for the construction of electronic portfolios. Electronic portfolios with drafts and final papers showed a student's progress throughout the school year and offered a better assessment of a student's growth. The writing platform made possible the smooth completion of resource sharing, process writing and peer-reviewing activities. Although the time spent on marking papers did not decrease, the system dramatically reduced the amount of time that she would spend on administrative tasks. Marking papers online, additionally, allowed her to demonstrate the thinking process involved in editing and proof-reading papers to her students during class time and share the product with the whole class rather than just an individual student.

In the second year, W4S was used to support a distance learning course where the teacher and the students did not have face-to-face contact at all. The bulletin board and chat rooms were used in a much more extensive way in this class.

	The students were public servants taking a continuing education course. None of the students had had previous experience with course management systems. They received face-to-face training in using the system in their first class and were then able to use it comfortably throughout the semester. The students in this class most appreciated the opportunity to interact with the teacher and their classmates through synchronous and asynchronous computer-mediated communication.
Implications & future development	W4S not only serves as a medium to submit, display and mark papers but could potentially help in facilitating research into the writing of foreign language learners. Given that all the teacher's corrections on students' drafts can be traced and recorded, it would be possible to tabulate the errors that students make as individuals and as a group. An analysis of the mistakes made by the class in general can reveal the weaknesses of a group of students. Teachers could use this data to focus classroom instruction. A personal profile of frequent mistakes will allow individual students to pay more attention to those particular areas in future papers. The system will be further developed to include online exercises to help students tackle their weaknesses. For example, if a student makes many errors in subject-verb agreement or frequently writes sentence fragments, the system could provide practice exercises in those focused areas for a more personalized instruction and suggest Websites with further explanations or examples. In the next version of the system, we also hope to incorporate online evaluations such as diagnostic, mid-term and final exams. A test version of the system can be found at http:// homework.wtuc.edu.tw/W4S.Readers can use the usernames "teacher" or "student" and the password "w4s" to try out the system.
References	Boling, E., and Soo, K.S. 1999. CALL Issues: Designing CALL software. In J. Egbert & E. Hanson-Smith, (Eds.), <i>CALL</i> <i>Environments: research, practice, and crucial issues.</i> Alexandria, VA: TESOL, 442-456.
	Egbert, J., Chao, C.C., and Hanson-Smith, E. 1999. Computer- enhanced language learning environments: An overview. In J. Egbert & E. Hanson-Smith, (Eds.), CALL Environments: research, practice, and crucial issues. Alexandria, VA: TESOL. 1-13.

- Fujii, S., Iwata, J., Hattori, M., Iijima, M. and Mizuno, T. 2000. OWeb-CALLO: A language learning support system using Internet. Proceedings of the Seventh International Conference on Parallel and Distributed Systems, 326– 331.
- Krajka, J. 2002. Correcting student work with the computer using dedicated software and a word processor. Teaching English with Technology, 2(4). Available on the World Wide Web: http://www.iatefl.org.pl/sig/call/.
- Ogata, H., Feng, C., Hada, Y., and Yano, Y. 2000. Online markup base language learning environment. *Computers & Education* 34, 51-66.
- Wible, D., Kuo, C.H., Chien, F.Y., Liu, A. and Tsao, N.L. 2001. A web-based EFL writing environment: integrating information for learners, teachers, and researchers. *Computers & Education* 37, 297-315.

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