

Collaborative Design of an Online Instructional Support Site

Carla Meskill, Ed Alston, Anthony Ho, Goulnara Sadykova, Edwige Simon,
Phyliann Tseng, and Jieun You

University at Albany, State University of New York

Keywords: telecollaborations, instructional design, sociocollaborative teaching and learning

Abstract

In the past ten years, higher education faculty have found multiple and powerful purposes for telecommunications in their teaching. Applications range from simply posting a course syllabus on the web to carrying on semester-long constructive telecollaboration projects. This paper discusses the design and formative evaluation of a collaboratively constructed instructional website. The goals of the project's design research activities were to 1) undertake a collaborative design research project; 2) design telecollaborative spaces and routines for doing so; and 3) construct the site for a specific audience (language in education graduate students). These processes and their outcomes are here discussed by the design research participants.

Introduction

More and more telecommunications is playing a central role in teaching and learning. Not only does the technology allow for communication between and among faculty, students, and others but has, in many instances, become a virtual *place* where complex collegial and instructional relationships unfold. These powerful instructional conversations and collaborations have been widely documented (Harasim, 1993; Jiang & Meskill, 2001; King, 1998; Warschauer, 1996) almost always with an accompanying caveat: the design and orchestration of these collaborations are eminently human, the success or failure of their activity being likewise dependent on people, not machines.

The TALL (Technology Assisted Language Learning) design research project was undertaken to examine the processes involved in the design of such online collaboration places when design and formative evaluation processes themselves are collaborative in nature. Instead of a single faculty member with or without technical assistance designing interaction spaces and routines for student learning, this project employed a collaborative design model as 1) a method of exploring design collaboration when a group of doctoral students undertook the design process; 2) a method of training doctoral students to design and evaluate learning communities; and 3) a method for designing collaborative spaces that maximize conversations among language teaching professionals.

Perspective

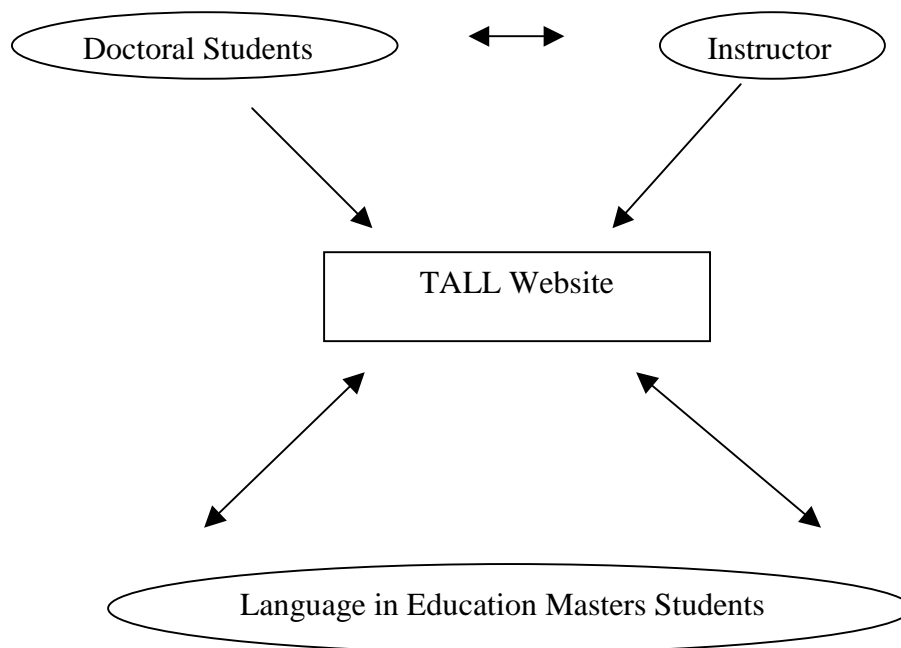
Socioculturally-grounded approaches to instruction – approaches founded on sociocollaborative theories of teaching and learning – are what have guided the instructional processes outlined in this presentation. The instructional mode of having learners themselves engage in the design and evaluation of a telecollaboration site for use by other language education graduate students models process, involvement, and the collaborative language required for such an undertaking. Koschmann (1994) and others have emphasized that a prerequisite facility with a wide range of communication patterns must be considered an essential facet of collaborative activity. This project served as a training ground for doctoral students to learn firsthand these many dimensions of instruction in general, and instructional support through telecommunications in particular.

Process

As more faculty come to use technology and receive support for doing so, the number and types of models for instructional support employing telecommunications increase. The model developed here entailed a group of doctoral students learning to be specialists in instructional technology who engaged in collaborative design and evaluation processes required to create an instructional support site for masters level students in language education. The group was composed of six students representing five countries (France, Korea, Russia, Taiwan, and the US). Each brought a range of cultural and experiential backgrounds to the task. Two of the six students brought extensive web design expertise to the process, where others brought pedagogical expertise in language teaching and learning and in instructional technology design (see Figure 1).

Their assignment was to take skeletal structures, telecommunications functionalities along with the objectives for the target audience and 1) design an instructional support site; and 2) design the telecollaborative structures they needed to do so. The result was the Technology Assisted Language Learning (TALL) website.

Figure 1: Collaborative Design of online Instructional Sites



The group used an online telecommunications forum and live meetings (one per week) to complete the task. The online forum served as a venue for generating ideas whereas live meetings we found more effective for actual decision-making. Thanks to the online forum, the conversation could be ongoing. It served as a bridge between class meetings whereby ideas could be sounded out and discussed, and responsibilities for various design tasks could be assigned to individuals. This division of responsibilities brought multiple perspectives to and enriched the site's content.

Design Issues

In reflecting on these processes, the group identified six main themes in the design discussions: audience, aesthetics, distribution of tasks to complete, participation, content, and evaluation.

First, the group used the online forum to clarify and define the target audience of the website. Included in this discussion was attention to goals and objectives of the site for the given audience. We determined that the site should be aesthetically pleasing and consistent so that the target audience would find the site pleasant to use. The design team made collaborative decisions regarding the look, feel, and functionality of the site. This discussion included and made use of widely accepted web design principles, including attention to color, font, consistency of analogy (the file analogy), simplicity, user-friendliness, and the like. A great deal of discussion was given to the issue of frames -

whether or not this was a user-friendly, or user-thwarting feature. We turned to the literature and found that design theorists as well could not agree on the use of frames. Generally, using multiple frames is not recommended. However, there are cases when multi-framed sites aid instruction by providing additional interactive functions as was the case with the TALL site “Forum” section.

The group also spent some time in negotiating if and how specific tasks would be distributed among the group. Those who did not participate as much as others were called to task frequently by the others both in live and online formats. In the long term, distribution of the work that needed to be done (e.g., locating and evaluating sites and resources to include) resulted in an extensive pool of material available from the site. The site’s content clearly benefited from the contribution of the entire group; the organization of the materials benefited, as did the number and quality of links. Many eyes continually reviewing the site helped to ensure that it was of the highest quality and up to date.

Critical to this process was the recruitment of external evaluators. We felt that identifying the strengths and weaknesses of the site could best be undertaken by those outside of the design process who would be more objective than we who were becoming so closely invested. A user survey was therefore distributed to 60 masters level students who represented the target audience for the site. Feedback from the survey aided in improving the website and gave deeper understanding of design issues. In this way the collaborative design process opened up the TALL Website to ongoing formative critique and allowed it to be subject to continual evolution.

Evaluation of Collaborative Processes

In reflecting on and reviewing these collaborative web design processes, we turned to the extant literature on collaborative design. The majority of reports in the literature regarding collaborative web design processes highlight the positive aspects of using such a process. In our project, we found that we did indeed experience these reported benefits as well as some additional positive aspects, and some drawbacks. The cross-cutting aspects that we found – aspects that offer both benefits and drawbacks – are: differing cultural perspectives which can both enrich and complicate the process, and differing points of view that while taking time to work through enrich the final product. (Table 1)

Table 1: Some benefits and problems associated with collaborative web design projects

Benefits (from the literature)	Problems (we encountered)
<ul style="list-style-type: none"> • Deeper understanding of the design process (McConnell, 1999) • Social interactions (peer support) (Oliver, Omari, & Herrington, 1998) • Taking control over their own learning (McConnell, 1999) • Bringing in a range of criteria (no longer single authorial voice) (Means, & Love, 1999) • Motivation to engage deeply in design issues (Bowman, & Edenfield, 2000) • Growth as professionals (Bowman, & Enfield, 2000) 	<ul style="list-style-type: none"> • Time intensive • Labor intensive • Agreeing on audience • Aesthetic issues • Labeling elements of the site • Uneven participation • Decisions regarding content • Varying amounts of experience in web design, computer use, etc.
<p>Cross-cutting aspects we encountered (aspects of collaborative work which can be both positive and negative)</p>	
<ul style="list-style-type: none"> • Differing cultural perspectives can both enrich and complicate collaborative processes • Differing points of view, while taking time to work through, enrich the final product 	

Conclusion

This design research project set out to employ collaborative processes to the design of an instructional website with the design and development process serving as the locus of learning for doctoral students of instructional technology and language in education. Through this process, students learned firsthand about design issues, content and its design, and about the nature of telecollaborations as an instructional tool. As such, for this project, the benefits of the sociocollaborative design model outweighed the extra time and increased complexity of the process. The two main benefits of the TALL design project were 1) a richer website design; and 2) students' professional growth as web designers.

Please visit the TALL website:

<http://www.albany.edu/faculty/meskill/TALL/home/home.htm>

References

- Bowman, C., & Edenfield, R. (2000) Becoming better together through collaboration and technology., *English Journal* (2), 112-119
- Harasim, L. (1993). Networked: Networks as social space. In L. Harasim (ed) *Global networks: Computers and international communications*. Cambridge, MA: MIT Press. 15-34.
- Jiang, M. & Meskill, C. (2001). Analyzing multiple dimensions of web-based courses: The development and piloting of a coding system. *Journal of Educational Computing Research* 23, 4.
- King, K. (1998). Designing 21st century educational networked: Structuring electronic social spaces. In C. Bonk and K. King (Eds) *Electronic collaborators: Learner-centered technologies for literacy, apprenticeship, and discourse*. Mahwah, NJ: Lawrence Erlbaum.
- McConnell, D. (1999) Examining a collaborative assessment process in networked lifelong learning. *Journal of Computer Assisted Learning* 15, 232-243
- McNeill, T. (1999). A Season in Cyberspace: reflecting on web-based resources for French studies. Retrieved 20/04/02 from the World Wide Web: <http://info.ox.ac.uk/ctitext/publish/occas/eurolit/mcneill.html>).
- Means, H. W., & Love, M. S. (1999). Hypermediated learning environments: Students collaborating with technology. ED436114.

Neilsen, J. (1996). Why Frames Suck (Most of the Time). Retrieved 25/04/02 from the World Wide Web: <http://www.useit.com/alertbox/9612.html>

Oliver, R., Omari, A. & Herrington, J. (1998). Exploring student interactions in collaborative World Wide Web computer based learning environments. *Journal of Educational Multimedia and Hypermedia* 7(2/3), 263-287

Warschauer, M. (ed) (1996) *Virtual Connections: On-line Activities for Networking Language Learners*. University of Hawaii Press. (I)