

Scaffolding Collaborative Technical Writing with Procedural Facilitation and Synchronous Discussion

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Abstract

With the advent of computer technology, researchers and instructors are attempting to devise computer support for effective collaborative technical writing. In this study, a computer-supported environment for collaborative technical writing was developed. This system (Process-Writing Wizard) provides process-oriented scaffolds and a synchronous online chat room to facilitate real-time collaborative writing practice. It allows multiple students to work synchronously on collaborative writing task via the Internet. It also helps develop collaborative writing strategies, such as creating team agendas, brainstorming, creating team outlines, and generating team articles. An experiment was conducted to examine the effect of the system on EFL (English as a Foreign Language) students' collaborative writing experiences. First, an attitude questionnaire was utilized to evaluate learners' perceptions, acceptance, attitudes, and continuing motivation toward the functionalities and guidance provided by the system. Second, students' writing products were examined to evaluate the effect of the system on EFL students' collaborative writing quality, especially on content and organization. Finally, this study analyzed and coded students' synchronous chats with three categories (article related interactions, social interactions, and technology related interactions) to evaluate the effect of the system on students' interactions. The results of the experiment showed: (1) the students had positive attitudes toward the system and continuing motivation to use the system in future writing tasks; (2) analysis of writing products suggested, with the support of the system, students produced better content and organization; (3) the procedural facilitation provided by the system successfully scaffolds students to converse more in the category of article-related interactions. Limitations and future

research directions are also discussed.

Keyword : Collaborative technical writing * Process writing * Synchronous
online discussions * Computer-supported writing