

0148-71
Matthias Lampe

ABSTRACT

An abstract of the thesis of Matthias Lampe for the Master of Science in Computer Science presented November 8, 1999.

PSU CS

Title: Structured Chatroom Usage in First-Year German Classes.

Teaching language proficiency means teaching students of foreign languages to communicate about real-world topics with a native speaker of the target language. The Internet offers many possibilities for language learners and instructors to reach this goal of language proficiency. The enormous library of connected information, the ability to communicate easily and fast across the world, and the capability to organize multimedia content in a cross-platform way, are important advantages of the Internet.

The purpose of this thesis is to show that the Internet chatroom program *BabelChat* is a valid educational activity, designed effectively to promote teaching language proficiency, to present the technical design and implementation considerations, and to conduct research about the effectiveness of the tool compared to similar paper activities.

BabelChat was designed for first-year language classes, providing the means for contextualized, interactive, communicative and collaborative writing activities for novice and intermediate language levels. *BabelChat* includes an on-line dictionary,

a collection of target language phrases with sentence-builder capability, support for contextualized activities, multi-language support, and an instructor administration Web interface. The automated storage of chat conversations provides an important tool for researchers and instructors.

The technical design is based on an object-oriented client-server application using TCP/IP network communication and is implemented in Java 1.1, to be able to run in a Web browser environment. UML package and class diagrams of the design are presented. The instructor administration interface is implemented as a Web application using Java Servlets.

The results of the research conducted in the first-year German classes at PSU during spring term 1999 need to be taken tentatively and not conclusively due to the high dropout rate of 38% in the subjects and the short period of time the study was conducted. The study was not able to show measurable significant effect of the chatroom activity compared to a similar paper activity. However, the use of *BabelChat* can save a significant amount of classroom time and connects students in their effort to acquire communicative competence in a more interactive and communicative way than a paper-and-pencil activity would allow.