Chapter 16
A FAQ-Based e-Learning Environment to Support Japanese Language Learning

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ABSTRACT
In traditional classes, having many questions from learners is important because these questions indicate difficult points for learners and for teachers. This paper proposes a FAQ-based e-Learning environment to support Japanese language learning that focuses on learner questions. This knowledge sharing system enables learners to interact and share information and knowledge through FAQ and e-mail. Teachers contribute answers to discussion among learners. The system also allows learners to discuss and collaborate, stimulating their motivation to study Japanese as a foreign language. All questions are stored in a FAQ database, allowing other learners to reuse resources, helping learners learn by themselves and reduce teacher workloads.

INTRODUCTION
Research in educational systems provides technological support for collaborative learning that is advocated by educational theories (Slavin, 1990, Malley, 1994, Webb & Palincsar, 1996). In developed countries like Japan, Information and Communication Technology (ICT) is widely applied in language learning.
In Japan, a Japanese language course for overseas learners is typically designed for about ten learners. In China, there are about twenty-five learners in a general Japanese language course and about fifty learners in a common course. China has about 680,000 learners of Japanese and only about 12,000 Japanese language teachers (JPF,
2009), so it is important to use computer technology and the Internet to support Japanese language learning. High teacher-learner ratio means that many questions cannot be answered in class, so an e-Learning system that allows learners to ask questions after class is desirable.

An e-learning environment allows synchronous and asynchronous online learning, so learners may be concerned about receiving support from learning companions, other teachers and domain experts (Takaoka et al., 2007). Tools and applications in e-learning environments have been developed, including CoVis (Edelson et al., 1996), KIE (Guzdial et al., 1997), CSILE (Linn, 1996), WebCamile (Scardamalia & Bereiter, 1996) and Belvedere (Slavin, 1990). CoVis focuses on making the collaboration process visible. KIE helps learners link, distinguish, compare and analyze their repertoire of ideas. CSILE and Webcamile support knowledge building for the creation of knowledge. Belvedere (Suthers & Jones, 1997) is a network based software system that provides learners with shared workspaces for coordinating and recording collaboration in scientific inquiry. In such environments, learners can actively provide knowledge to the system.

This paper proposes a FAQ-based e-Learning environment for supporting Japanese language learning that focuses on learner questions. This knowledge sharing system allows learners to interact and share information and knowledge through FAQ and e-mail. Learners who use the system discuss and collaborate, stimulating their motivation to study Japanese as a foreign language. A teacher recommends answers based on learner discussion. All questions are stored in a FAQ DB (FAQ Database), so other learners can reuse resources and learn by themselves, reducing teacher workloads.

Research in this paper relates to collaborative learning, an umbrella term for a variety of educational approaches involving joint intellectual effort by learners or learners and teachers (Smith & MacGregor, 1992). Usually, learners working in groups of two or more search together to understand lectures, answer questions or creating a product. Collaborative learning activities vary widely, but all concentrate on learner exploration or application instead of on teacher presentation or explication of course material (Smith & MacGregor, 1992). Collaborative learning encourages knowledge sharing while making use of the learner’s physical context and mobility.

In traditional classes, learners receive knowledge by answering questions proposed by the teacher. This present research involves a different approach in which learners share knowledge and collaborate to solve problems. After a learner’s question is posted on the FAQ, others can discuss and propose answer to the question. Related references are also available, so learners can learn collaboratively or autonomously.

**RELATED WORKS**

Many Japanese learning websites store Japanese learning materials or Bulletin Board Systems (BBS). Examples are HEFENGRIYU (http://www.jpwind.com/) in China and TOYOTA (http://www.toyota-j.com/), which provide some Japanese language teaching material. However, these web sites provide only a place for discussions and no administrator ensures the correctness of answers provided there. The reliability of information on these web sites is questionable. One Japanese research group has developed a FAQ system for WBT that deals with questions asked repeatedly (Shimada et al., 2003). This system is convenient for reading questions, but the FAQ system has no search function to deal with previously asked questions. The system does not take reuse into account, so questions may be asked again and have to be answered again, increasing the burden on teachers.

The system outlined in this paper aims at answering questions asked by learners in class and those answers are confirmed by teachers.
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