

Remedial Instruction for Japanese Language Less Successful Students
—through Strategies of On-Line Reinforcement

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The rapid increase in computer use has naturally influenced the field of education, including foreign language education. As the Internet has become increasingly available, the Web has become a powerful medium for sharing information. Students from around the world can enjoy equal access to the many learning resources available on the Web. As a result, Web-based instruction (WBI) has emerged.

The authors' experiences in teaching Japanese in higher education institutions have suggested that students, especially low-achievement students, need more opportunities for practice, interaction, and collaborative learning. Research shows reinforcement learning has attracted rapidly increasing interest in the machine learning and artificial intelligence communities (Kaelbling & Moore, 1996). It is important to find additional tools, such as the Internet, to support classroom instruction and create a remedial learning environment.

This is an ongoing research. The purpose of this study is to build a free Web-based, computer-oriented, multimedia remedial instruction for Japanese learners and to examine the on-line reinforcement effectiveness of improving Japanese language low achievement students' abilities. This research will be divided into two sections. The first section is to develop online teaching materials. The lessons designed by researchers include 30 lessons, which are from a basic level to Japanese-Language Proficiency Test level 4.

The second section is to examine learners' WBI satisfactions using survey questionnaires. TAM model developed by Davis (1989) will be applied in the study. In questionnaires, this study

will investigate various learning factors of students who take the first-year Japanese language classes at four Institutions of Technology (about 500 college students) during the fall semester of 2004 (from September, 2004 to June, 2005). All students who are previously diagnosed as having Japanese language learning problems will participate in the study and will receive six months (2 sessions per week, 50 minutes per session, from December, 2004 to June, 2005) of remediation.

Data will be collected quantitatively during and after the study. The data obtained from the sample will be analyzed and reported using descriptive and inferential statistics. All statistical analyses in this study will be performed using the Statistical Package for the Social Sciences (SPSS) version 11.0.

Based on the results of statistic analysis, conclusions will be made. Also, future suggestions for building Japanese language Web-based instruction will be made.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of

information technology. *MIS Quarterly*, 13(3), 319-340.

Kaelbling, L.P. & Moore, A.W. (1996). "Reinforcement learning: a survey," *Journal of Artificial Intelligence Research*, vol. 4, pp. 237-285.

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