A Multi-Agent Based On-line Learning and Testing System Using Peer Tutoring Model For Taiwanese Language course of ...

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ABSTRACT

The purposes of this research is to build up a multi-agent based on-line learning and testing system using the peer tutoring model, through the systematic knowledge and the ability of the multi-agent technique, and focusing on different group's learning con-dition to provide different learning environment. And through the individual or separate evaluation sys-tem, assisting teachers to understand the learning result of the students. This system is formed with the multiple agent and is coordinated cooperation by the five agents to finish the specific task. According to the feedback of the peer learner, the curricu-lum agent is allowed to build up or modify the related teaching material to provide learning activity for the learning agent. The learning agent can provide the peer learners teaching data to carry on a main learning activity, and the feedback agent will record the learning reaction of the peer learner. The feedback agent will give something related record of learning and testing to provide the teacher and the peer tutor as a ref-erence of peer tutor's teaching strategy. The testing paper agent can establish the test questions and the examination paper material according to the testing feedback of the peer learners. The testing agent provides the peer learner to carry on an evaluation, and let the teacher and the peer tutor do analysis and statistics. This research follows PASSI methodology to carry on the system analysis and design, and makes to a multi-agent based on-line learning and testing system using the peer tutoring model. The contribution are: (1)Help the peer tutor be able to clarify and be familiar with the academic knowledge again. (2)Help the peer learner solve the learning difficulties and increase the self-confident and the learning motivation (3)By observing the learning interactive of peers to understand that the blind spot of student learning, teachers can adjust teaching strategies at the right time.

Keywords : Multi-Agent, on-line learning, on-line assessment, peer instruction

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