Higher Levels of Agency for Children in Knowledge-Building: A Challenge for the Design of New Knowledge Media

Abstract:

Although adults and children both have zones of proximal development in which more knowledgeable others play essential roles, there is a difference in executive control that is most salient in question-answer dialogue. Adult learners typically ask questions based on their perceived knowledge needs, whereas with school children, questions are typically asked by the teacher, based on the teacher's perception of the child's needs. Evidence is presented showing that children can produce and recognize educationally productive questions and can adapt them to their knowledge needs. The challenge is to design environments in which students can use such questions to guide their building of knowledge, thus assuming a higher level of agency in learning. CSILE, a computer-supported knowledge medium designed to support intentional learning, is described, with illustrations of children's use of it in cooperative knowledge-building.