Impact of Argumentation Scripts on Socio-Cognitive Conflict Induction in Intelligent Tutoring System Environments

Zhou Long, Hongli Gao, Nia Dowell and Xiangen Hu

Corresponding Author: xiangenhu@gmail.com

Abstract

Socio-cognitive conflict is an internal contradictory state that the individual perceives in the social interaction. Previously, researchers have successfully proved that the socio-cognitive conflict had an active effect for learning by presenting contradictory information scripts in group learning environments, such as small group discussion or computer-mediated collaborative problem solving. However, the impact of argumentation scripts on group learning performance has not been investigated to the same degree, although the argumentation scripts foster critical and reflective activities in group learning by restricting the set of communicative possibilities. In this chapter, we first examine the internal mechanism of socio-cognitive conflict on learning gains, and then explore the relationship between socio-cognitive conflict and argumentation scripts in college students within a simulated group learning session in which the human learner and two virtual peer agents work. Findings show that confusion partially mediated the relationship between socio-cognitive conflict and learning gains, and argumentation scripts affect the impact of socio-cognitive conflict on learning gains.

Keywords: socio-cognitive conflict, argumentation scripts, intelligent tutoring systems

APA citation information

References


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