
Abstract:
We examined how the presence and nonverbal communication of an animated pedagogical agent affects students’ perceptions and learning. College students learned about astronomy either without an agent’s image or with an agent under one of the following conditions: a static agent (S), an agent with deictic movements (D), an agent with facial expressions (E), or an agent with both deictic movements and facial expressions (DE). Group S outperformed group E on a comprehension test, but no other differences were found on students’ learning or perceptions. The results show that the presence of the studied agent – regardless of nonverbal learning – did not produce at least a moderate effect size. Further, a static version of the agent was preferable to one with only facial expressions.

Keywords: Multimedia; Nonverbal communication; Pedagogical agents