Team Tutoring

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Project Description:
Intelligent tutoring systems (ITSs) have been successful in improving performance in domains ranging from academic topics such as math to work-based tasks. But few ITSs have been designed for teams. Despite much research on teaming since the 1970s, team performance is widely variable and difficult to predict, which requires a significant need for team based ITSs. More specifically, this type of tutoring is concurrent with the military's need for effective team training. It is the aim of this project for students to develop training scenarios that assess team performance in military environments. This will be accomplished by developing small virtual environments which allow users to experience scenarios that are otherwise hazardous or expensive to create. These environments then will provide team/individual feedback to a group undergoing a team-based event. Students will have access to a variety of tools such as an electroencephalograph (EEG) wireless dry sensor cap and an electrodermal activity wristband. These physiological sensors will be used to infer learner cognitive states. Project members also will have access to the Virtual Battle Space 2.0 game engine and other programs such as Matlab for processing physiological data.