IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM (A1)
Behaviour, Performance and Psychosocial Issues in Space (1)

Author: Dr. Jennifer Fleischer
Duke University, United States

Dr. Jeff Ayton
Australian Antarctic Division, Australia
Ms. Maree Riley
Australian Antarctic Division, Australia
Prof. Kim Binsted
University of Hawaii, United States
Mr. Devin Cowan
Dartmouth College, United States
Ms. Abigail Fellows
United States
Mr. Jeff Weiss
United States
Dr. Jay Buckey
Dartmouth Medical School, United States

INTERACTIVE INTEREST-BASED NEGOTIATION TRAINING FOR MANAGING CONFLICT IN ISOLATED CONFINED ENVIRONMENTS

Abstract

Effective conflict resolution while maintaining positive interpersonal relationships is essential for successful long-duration space missions. Even in the best planned missions, disagreements inevitably arise between parties, and the ability to negotiate successfully while maintaining relationships is critical. Traditional positional bargaining can work for simple low-stakes transactions but does not prioritize ongoing relationships. Interest-based negotiation (IBN), where parties with competing interests and/or goals come together to create a mutually beneficial agreement, is crucial in these situations and is a skill we believe can be learned.

Using a web-based, interactive-media-approach, we scripted, filmed, and programmed an IBN interactive training module. The module begins with a reference conflict between an ISS crew and ground control about an upcoming EVA. The reference conflict reveals the interests each party is trying to meet (the crew has lost trust in ground control due to a previous interaction and wants to move things slowly, while ground control is facing pressure from administration and wants to move ahead quickly) and shows a negotiation that goes badly. The mentor in the program provides instruction in why the negotiation went poorly and how to use IBN. The user then has the opportunity to choose different responses in the negotiation and receives feedback from the mentor along the way.

This module was provided to 32 individuals with a variety of backgrounds for evaluation, including a subset of 9 subjects in isolated and confined environments (ICE) in the Australian Antarctic Program wintering research stations and the HI-SEAS Mars simulation. Feedback was collected through both free-response and numerical scaling (0/strongly disagree -> 4/strongly agree). 97% of participants found the activity valuable for learning about conflict management (defined by those who selected either somewhat agree or strongly agree), including 100% of participants in the ICE subset (mode=3). 81% of all

participants found the module realistic (mode=4), including 67% of ICE participants (mode=4). Most participants felt this would be valuable to new members of a team in an isolated and confined environment (88% of all participants, mode=4; 56% of ICE subset, mode=2). This module offers a self-directed, consistent approach to training about IBN, which is well received by users. The module could be useful for individuals in isolated and confined environments, as well as for anyone involved in a high-stakes negotiation where maintaining relationships over time is essential. Future work includes further evaluations in Antarctica and with other workgroups.