

Chapter 1 – INTRODUCTION

1.1 ORIGIN OF ACTIVITY

The United States Army Research Laboratory Human Research and Engineering Directorate proposed a program of research to NATO Allied Command Transformation (ACT) Futures and Engagement Concept Development and Experimentation (CD&E) aimed at improving the ability of NATO officers to understand – and behaviourally adapt to - culturally based behavioural differences that impact multicultural teamwork. The concept was approved as an ACT CD&E project in December 2003 with the title “*Leader and Team Adaptability in Multinational Coalitions (LTAMC)*.” Shortly thereafter, the NATO Research and Technology Organization (RTO) Human Factors and Medicine (HFM) Panel approved an exploratory team, HFM ET 049 titled “*Adaptability in Coalition Teamwork*,” to support the CD&E effort. In September 2005, HFM ET 049 transitioned to a fully functional Research Task Group (RTG), HFM RTG 138.” Since its inception, the combined ACT CD&E LTAMC – RTO HFM RTG 138 project has been chaired by Dr. Janet Sutton, (2006 – present, U.S. Air Force Research Laboratory; 2002-2006, U.S. Army Research Laboratory).

The combined effort followed the CD&E process and was reported as a project for both the ACT and RTO. The project was unique in that, in addition to delivering a cultural awareness training tool as a CD&E product and an international research symposium as a RTO product, team members conducted national and multinational field and laboratory experiments to advance science in the domains of adaptability and teamwork by providing evidentiary data on the impact of culture on operational-level teamwork. The impact of culture on teamwork was the primary focus. The program of research included developing a conceptual model of cultural adaptability for military operations, developing methods for experimentation (e.g. experimental design, reference scenarios, and process and outcome measures), establishing national and international testbeds, all with the intent to improve leader and team cultural adaptability in multicultural environments.

1.2 RATIONALE

The need to improve leader and team adaptability is expressed within a number of NATO documents and initiatives: The NATO Alliance Strategic Concept [1], Combined Joint Task Force (CJTF) Concept [2], Defence Capabilities Initiative [3], and the Prague Summit Declaration [4], where the creation of a NATO Response Force (NRF) consisting of a technologically advanced, flexible, deployable, interoperable and sustainable force was announced. The CJTF, NRF, and standing NATO headquarters (such as HQ Supreme Allied Command Transformation (HQ SACT)) challenge commanders to optimize the effect of cultural diversity on teamwork.

1.3 PROGRAM OF RESEARCH

Culture is the acquired knowledge used to form values, create attitudes, interpret experience, and influence behaviour. Individuals can have significantly different culturally based biases that influence their behaviour. In concert with the biases of others, resulting behaviours will either enhance or hinder team performance. Those who recognize cultural biases and understand the impact of culture on teamwork are better prepared to adapt, as needed, to ensure mission success. Other factors impacting multicultural teamwork may include, but are not limited to, the presence of a military culture that transcends national cultural boundaries, organizational issues that arise from distributed teams and collaborative information technology, and individual differences such as personality or cognitive style. Experimentation is needed to define training requirements, organizational design, and information system requirements for adaptable performance of coalition headquarters personnel.

INTRODUCTION

Coalitions are the norm in today's global theatre of operations with future operations regularly consisting of multiple branches of military service, government and non-government agencies, and nations. Needed are models, methods, and tools that support rapid development of effective multicultural teams comprised of individuals that (a) understand their own culturally based biases and predisposition to action, (b) recognize the need to adapt to cultural diversity, (c) understand how to adapt, and, importantly, (d) choose to adapt. Additionally, the ability to predict adaptable performance in leaders and teams and the promise of improving adaptability through training can provide an opportunity for NATO to optimize the CJTF and NRF concepts and improve effectiveness in multinational headquarters, in general.

The principle findings of the combined ACT CD&E / RTO HFM 138 research task group serve as a basis for developing a common understanding of cultural implications for teamwork. The international research community who provide support to military leadership must leverage what is known about individual differences, national/organizational/military cultures, teams, **teamwork**, and training in order to provide a model of coalition teamwork that can be used to guide doctrine, training, personnel, and organization.

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INTRODUCTION

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There were seven working meetings, held in Brussels, Canada, Sweden, and the United States over the course of the project. The Internet, including web-conferencing, was also used to support the research effort.

1.5 RESEARCH VENUES

1.5.1 NATO Response Force Exercises

In accordance with the overall NATO Response Force Military Concept [5] joint NRF Command and Control (C2), embedded in Strategic Command HQ, Joint Force Command HQ, and Command Control HQs must provide a high degree of interoperability and the capability to rapidly plan and prepare for deployment during an emerging crisis, as well as the capability to operate as a stand-alone initial entry force for up to 30 days. Exercises are conducted to demonstrate the readiness of headquarters, component commands, and selected units to integrate, activate, prepare and deploy within NRF Operational Readiness Timelines [6]. The ACT CD&E / HFM RTG 138 project focused primarily on operational level teamwork on two NRF Deployable Joint Task Forces.

Allied Warrior 04 (AW04) was the first time experimentation was sanctioned by Strategic Allied Command Europe to be integrated as part of a major NATO Command Post Exercise (CPX). It was an exercise designed to certify the NATO Response Force 4 (NRF 4), the force capability for the six-month period starting January 2005. Data collection was conducted at two different times and two different sites. First, surveys were administered to the NRF 4 Deployable Joint Task Force (DJTF) at Joint Force Command Naples several weeks prior to exercise start. All participants were located in one room and completed the survey at one time, taking 1-1.5 hours to complete. Second, observation and interview data was collected at the DJTF headquarters located near Verona, Italy during the actual exercise. Observation of the command post was unobtrusive and occurred several times a day and some evenings. Interviews were conducted in a room designated for the project and lasted approximately 1 hour. The room contained two desks, with a divider placed between the desks, two unclassified computers, and several chairs. Privacy was ensured by closing the door. Some individuals were unable to find the time for an interview and were given the opportunity to write their responses to interview questions on a form provided by the researchers. Feedback was provided to all participants on results of survey data previously collected in Naples. Additionally, all participants had the opportunity to look at a web-based cultural awareness training tool, GlobeSmart[®], designed for industry use and were asked to assess the merit of cultural awareness training for the DJTF.

Allied Warrior 05 (AW05) was as SHAPE/Allied Command Operations (ACO) Computer Assisted Exercise designed to certify the NATO Response Force VI (NRF-6) capability, under the command of Joint Force Command Lisbon (JFC Lisbon), for the six month period starting January 2006. Data collection was conducted at two different times and two different sites. The process was to be the same as that used for AW04. Specifically, surveys were to be administered to headquarters staff at Joint Force Command Lisbon who were scheduled to participate at the DJTF for AW05. However, a natural disaster in Pakistan resulted in deployment for many DJTF officers. And at the time, it was unknown how many and who might be relieved of disaster deployment to participate in the exercise. Even in the face of the emergency situation, JFC-Lisbon was very responsive to the research needs and objectives. Command was able to provide sufficient officers for

data collection at HQ. Surveys were administered over multiple sessions of approximately 1-1.5 hours each. Second, observation and interview data was collected at the DJTF headquarters in Montijo, Portugal during the AW05 exercise. The command post was established in an air craft hanger with dividers separating work groups and teams as designated by the commander. Experimentation was conducted in an eight foot by four foot area enclosed on three sides by dividers. Privacy was not an option. The area contained two tables, two unclassified computers, and several chairs. Observation of the command post was unobtrusive and occurred constantly throughout the days and some evenings. Interviews were conducted in a designated work area and lasted between 15 minutes and one hour, depending on the availability of the participants. Survey feedback was available to all participants who completed the surveys at Joint Force Command Lisbon, but not all persons who completed the surveys were members of the DJTF and not all members of the DJTF had completed the surveys. Researchers were unable to demonstrate the GlobeSmart® Commander cultural awareness training prototype due to limited availability of unclassified bandwidth.

Experimentation at AW04 and AW05 contributed to the following research thrusts: Assessment of Organizational and Interpersonal Factors in a Simulated Mission and an Operational Environment (Chapter 3); Modelling Cultural Adaptability (Chapter 4); and Training Cultural Adaptability (Chapter 5).

There were two critical ‘lessons learned’ with regard to participating in NATO exercises. First, there must be buy-in at the highest levels of the Deployable Joint Task Force (DJTF) command for the experiment to succeed. Experimenters must be afforded the opportunity to brief the Commander and his staff prior to the final planning stages. For example, upon being briefed on the experiment planned for Allied Warrior 04, Major General Rick Lynch, DJTF Commander at AW04, fully and enthusiastically supported the scientists’ data collection efforts at JFC-Naples and during the exercise. It cannot be stated strongly enough: the commander’s was the key to successfully achieving research objectives. The second, and equally important, ‘lesson learned’ was that the lead scientist must be invited to, and participate in, all of the planning conferences for that given exercise. Said lead experimenter must have a forum to discuss experimental design and resources needed, in addition to being kept apprised of changes to personnel, schedules, locations, and exercise plans in general. This objective was met for the AW05 exercise.

1.5.2 HQ Supreme Allied Command Transformation: Norfolk, VA USA

On several occasions, HQ SACT personnel participated in the research by completing questionnaires, answering interview questions, and testing prototype training content and delivery mechanisms. Participation was strictly on a volunteer basis. Individuals were solicited by CD&E personnel assisting the ACT CD&E / RTO HFM 138 project. Without exception, the volunteers were polite and professional in demeanour, and they usually showed genuine interest in the research. Since the target audience for the GlobeSmart® Commander product is individuals who will work, or are working, in a multicultural collaborative headquarters environment, the contribution of the HQ SACT volunteers was invaluable.

1.5.3 National Facilities

In addition to field data collection at NATO sites, Bulgaria, Canada, The Netherlands, Norway, Sweden, and the United States provided research facilities at either military laboratories or universities to complete an extensive laboratory experiment on multicultural distributed teams. These nations significantly contributed to the Leader and Team Adaptability in Multinational Coalitions (LTAMC) distributed team experiment investigating relationships among national culture, information sharing, team situations awareness, and team performance (Chapter 2).

