



Australian Government

Department of Defence

Defence Science and
Technology Organisation

O

F

S

D

**Short- and Long-term Effects
of Participation in a Cross-
cultural Simulation Game on
Intercultural Awareness**

Vanessa Mills and Rebekah Smith

DSTO-TR-1636

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited



Australian Government
Department of Defence
Defence Science and
Technology Organisation

Short- and Long-term Effects of Participation in a Cross-cultural Simulation Game on Intercultural Awareness

Vanessa Mills and Rebekah Smith

Land Operations Division
Systems Sciences Laboratory

DSTO-TR-1636

ABSTRACT

The increase in military operations in urban terrain has created a requirement for deployed personnel to interact with people from other cultural backgrounds. This research aims to identify a base level method of enhancing the general cultural awareness of deployed personnel. Previous research in the business community has led to developing simulation games to enhance these generic intercultural skills. The general approach of this work is for teams of players, each adopting a different synthetic culture, to negotiate a pre-defined outcome with the other teams. The aim is to produce insight into cultural differences through interactions with others, and to develop skills for dealing with those differences through negotiation. Debriefs immediately following game play are used to reinforce learning. To date, however, there are no quantitative methods of measuring the effectiveness of these games in terms of their ability to change attitudes and awareness. In addition, there do not appear to be any attempts to examine long-term retention of such changes. Consequently, this research measured the short- and long-term effectiveness of training through simulation to enhance intercultural awareness. Overall, results indicate an immediate and long-term increase in cultural understanding, while there were no changes in underlying value systems.

RELEASE LIMITATION

Approved for public release

AQ F05-04-0720

20050119 054

Published by

*DSTO Systems Sciences Laboratory
PO Box 1500
Edinburgh South Australia 5111 Australia*

*Telephone: (08) 8259 5555
Fax: (08) 8259 6567*

*© Commonwealth of Australia 2004
AR 013-258*

*Submitted: April 2004
Published: November 2004*

APPROVED FOR PUBLIC RELEASE

Short- and Long-term Effects of Participation in a Cross-cultural Simulation Game on Intercultural Awareness

Executive Summary

The increase in military operations in urban terrain has created a requirement for deployed personnel to interact with people from other cultural backgrounds. This has led to the requirement for increased training for intercultural encounters. The current research aims to identify a base level method of enhancing the general cultural awareness of deployed personnel, and equipping them with an intercultural skill set rather than contextually specific knowledge.

Previous research suggests that the path to culturally competent individuals involves both (a) experiential training, which includes role-playing, implicit learning and personal experience, and (b) formal culture training, including area studies. However, both training methods tend to be focused on specific cultures, rather than being theoretically driven. The disadvantage of this is that it does not provide trainees with the broader understanding of cultural variation that a theoretically driven approach would afford. Consequently, the general aim of the current research is to examine the effectiveness of a theoretically driven role-playing exercise as a form of experiential training for military personnel. A specific objective is to identify/develop a technique of cultural training that is based on the Hofstede model of cultural variation.

Previous research in the business community has led to the development of simulation games based on the Hofstede model that have been used to enhance these generic intercultural skills. The general approach of this work is to arrange for teams of players, each adopting a different synthetic culture, to negotiate a pre-defined outcome with the other teams. The aim is to produce insight into cultural differences through interactions with others, and to develop skills for dealing with those differences through negotiation. Debriefs immediately following game play are used as a means of reinforcing learning. To date, however, there are no quantitative methods of measuring the effectiveness of these games in terms of their ability to change attitudes and awareness. In addition, there do not appear to be any attempts to examine long-term retention of such changes. Consequently, the current research measured the short- and long-term effectiveness of training through simulation to enhance intercultural awareness.

Participants were civilian employees of the Department of Defence. Thirty-one participants were recruited via a DSTO site-wide email. A further 21 participants made up a control group. A minimum of 3 days before participation in the training, participants were asked to fill in a battery of cultural understanding and value surveys. This allowed the identification of baseline attitudes. Four separate sessions were conducted, each with eight to twelve participants, making up four teams of two to three people. The three-hour experimental procedure commenced with a 20 minute brief in the largest of the rooms. During this time, the aim and structure of the session was outlined. Following the brief, each team was taken to a different room to learn their synthetic culture (15 minutes). They

were then given 15 minutes to read the game rules and develop a strategy for selling their product. Game play then commenced, lasting for 20 minutes. Game play was repeated three times.

Directly after the exercise, participants were asked to again complete surveys, to test immediate effects of the simulation. This was repeated twelve weeks after the session (Time 3) to test whether there was retention of effects. The control group completed the surveys at the three times, but did not participate in training.

Overall, results indicate an immediate and long-term increase in cultural understanding, while there was no change in underlying value systems. For use in a military or business training setting, this is a positive outcome, as the goal of training should not be to alter employee's personal values. Instead, it should be to enhance their ability to perform their tasks. A further positive element of this result is the relative ease with which the training can be provided. Specifically, it was complete in three hours, with negligible financial overhead (other than staff time).

Because the Hofstede model was found to be an effective model on which to base cultural training, it also opens the door to using it for other areas of cultural management. Examples include cultural frameworks for predicting behaviour and for managing the vast quantities of information on specific cultures. The advantage is a common framework that personnel can more rapidly assimilate.

Despite the positive results, the simulation training does require further testing. In particular, it is necessary for the method to be tested with a sample of military participants, who can then be compared with non-trained personnel in a behavioural test of cultural competence.

Finally, it is important to recognise that training alone is not capable of bringing about a radical change in intercultural effectiveness. Instead, it is only one ingredient in the recipe for intercultural success. Effective overseas performance is a function of many variables, including the aptitude and motivation of the expatriate (including their spouse and family); the aptitudes and motivations of their local counterparts; and the overall organisation of the project (eg. adequate definition, host institution commitment, funding).

Authors

Vanessa Mills

Land Operations Division

Vanessa Mills graduated from the University of Adelaide in 1994 with a Bachelor of Arts degree and Honours in Psychology. She has since worked at the University of Adelaide, Department of Psychology, lecturing in the areas of Learning, Environmental Psychology, and Animal Behaviour. She completed her PhD in 1998, and in 1999 joined the Department of Defence, where she is employed within the Human Sciences Discipline in Land Operations Division. She is currently conducting research focused on socio-cultural influences on military performance.

Rebekah Smith

Land Operations Division

Rebekah Smith graduated from the University of Adelaide in 2002 with a Bachelor of Science degree, majoring in the areas of Psychology and Physiology. She has since worked within the Human Sciences Discipline in Land Operations Division, focussing on cultural facets of military training. She returned to the University of Adelaide in 2004 to commence her Honours degree in the area of human physiology.

Contents

1. INTRODUCTION.....	1
1.1 The Urbanisation of Military Operations.....	1
1.2 Cultural Conflict and Ethnocentrism	2
1.3 Towards Cultural Awareness During MOUT	3
1.4 A Theory of Culture.....	4
1.5 Cultural Training	5
1.6 Testing the Training Effectiveness	6
1.7 Previous Research on Training Effectiveness.....	7
1.8 Current Research	7
1.8.1 Aims and Objectives.....	8
2. PILOT STUDY.....	9
2.1 Participants.....	9
2.2 Materials	9
2.2.1 Questionnaires.....	9
2.2.1.1 Cultural Value Surveys	9
2.2.1.2 Cultural Understanding Surveys.....	10
2.2.1.3 Other	10
2.2.2 Game materials.....	10
2.3 Procedure	10
2.3.1 Feedback from Pilot Study	11
3. MAIN STUDY	12
3.1 Participants.....	12
3.2 Materials	12
3.2.1 Questionnaires.....	12
3.2.2 Game materials.....	13
3.3 Procedure	13
3.3.1 Experimental sessions	13
4. RESULTS.....	14
4.1 Cultural Relativity	14
4.1.1 Main Effect.....	14
4.1.2 Interactions	14
4.2 Multicultural Acceptance (QDI-M)	15
4.3 Cultural Values.....	15
5. DISCUSSION	16
5.1 Summary.....	16
5.2 Using the Hofstede Model.....	16
5.3 Gender Difference	16
5.4 Limitations.....	17
6. REFERENCES	17
APPENDIX A: PARTICIPANT INFORMATION SHEETS.....	21
APPENDIX B: CONSENT FORM.....	23

APPENDIX C: DEMOGRAPHIC SURVEY	24
APPENDIX D: CALIFORNIA F SCALE	25
APPENDIX E: DOGMATISM SCALE	28
APPENDIX F: CULTURAL AWARENESS SCALE	31
APPENDIX G: MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE.....	35
APPENDIX H: QUICK SCALES.....	36
APPENDIX I: QUICK DISCRIMINATION INDEX.....	38
APPENDIX J: PARTICIPANT FEEDBACK FORM	40
APPENDIX K: HOW TO ROLE-PLAY THE SYNTHETIC CULTURE PROFILES .	41
APPENDIX L: TEAM PROFILES	42
APPENDIX M: THE TRADE MISSION: ORIGINAL RULES OF PLAY	52
APPENDIX N: RULES OF PLAY.....	53
APPENDIX O: ACTIVITY STRUCTURE – GENERAL TIMELINE.....	63

1. Introduction

Over recent years, the increased internationalisation of the economic, political, and social arenas has led to greater interpersonal cross-cultural contact. Because much of this contact has not been successful, cross-cultural training has been proposed by many scholars as a means of encouraging more effective interaction (Eschbach, Parker, & Stoeberl 2001). In particular, the need to manage cultural differences in military operations has been made increasingly apparent. From general infantry to the highly specialised domain of human intelligence collection and interpretation, the need for deployed personnel to have well-developed intercultural competence has also been acknowledged by the Australian Defence Force (Ison and Australian Defence Studies Centre 1997). Consequently, research within Land Operations Division at DSTO has been looking at socio-cultural facets of military operations. This paper reports on a research project that has been examining the effectiveness of simulation training based on the Hofstede model of culture as a means of enhancing intercultural skills in a military domain.

To set the context for the research, there is a review of the increased focus on cultural issues in military operations. This is followed by an explanation of Hofstede's model of cultural variation, and methods of training people to deal with cultural differences. Finally, there is a description of the experiment that has tested the effectiveness of the training in terms of its ability to enhance cultural awareness.

1.1 The Urbanisation of Military Operations

Current demographic trends suggest that the world population is becoming increasingly urban (Desch 2001). For example, in the 43 years from 1950 to 1993, the urban population increased from 737 million to 2.5 billion (James 1998). It has been estimated that by the year 2010, nearly 75% of people will be living in urban areas (Desch 2001). The implication for military operations is an increase in urban conflict. Military operations in urban terrain (MOUT) are defined as military actions planned and conducted on a complex terrain where manmade construction and human population impact on the tactical options available to commanders (James 1998). MOUT can include stability and support operations, such as humanitarian intervention and peacekeeping/peace enforcement, as well as antiterrorist operations, narcotics interdiction, and non-combatant evacuation operations.

Recent history indicates forces of different cultures are likely to engage in conflict with or against each other during MOUT. Conflicts in Rwanda, Somalia, Bosnia, Sri Lanka, Afghanistan, Lebanon, and the Sudan exemplify the growing resurgence of conflict based on culture, where issues of ethnicity, language, race, tradition, religion and region all create an escalation of violence (Kimmel 1998). In addition, deployed forces may participate in coalitions with other cultural groups to respond to intra-cultural conflict, as in Desert Storm or Somalia (Trahan 1995). An implication of MOUT is that deployed personnel will encounter unprecedented densities of both non-combatants and combatants from different cultural backgrounds during the maelstrom of conflict (Peters 1995).

Despite the growing awareness of MOUT, there have been a number of catastrophic failures in its administration. For example, the costly US fight in the Bakara market place in Mogadishu, Somalia, in 1993, and the Russian defeat in the first battle for Grozny, Chechnya, in 1994-95, refocussed attention on the general challenges of MOUT operations (Desch 2001). It was

suggested that the errors made in Chechnya were a reflection of cultural prejudices and ignorance, which led the Russians to underestimate their enemy (Lieven 2001). Similarly, during the conflict in Somalia, the US military were at a loss when they encountered Mohamed Farah Aideed's forces. The modern military force did not have the ability to deal with an opponent who did things in an unconventional manner (Waller 2001). In fact, Westerners, with their advanced technology and organization, have been killed for a long time by so called "primitives" whose style of war they misunderstood and whose skills exceeded those of the West in irregular wars (White 2002).

Some of the current difficulties in dealing with cultural differences during MOUT stem from the fact that deployments prior to the late 1980s did not require interaction between political/military and humanitarian efforts (Landon 2000). As noted by Kimmel (1998), military conflict was epitomised by the separation of different parties. Consequently, training concentrated on technical skills, with less attention given to background historical and cultural elements relevant to specific conflicts (Leeds 2001). A result is that the Australian military appear to have an inadequate understanding of many of the cultural aspects of inter-cultural military operations. This results in poor military efficiency and causes difficulty in resolving conflict with cultural groups that possess values alien to Western traditions (Trahan 1995).

1.2 Cultural Conflict and Ethnocentrism

Intercultural conflicts often start with different culture-based expectations of how a misunderstanding should be handled. Moreover, once the cultural conflict is activated, the various parties will often develop heightened ethnocentrism. Ethnocentrism has been defined as an "exaggerated tendency to think the characteristics of one's own group or race superior to those of other groups or races" (Drever 1952, p.86). Sumner (1906, cited by Kimmel 1998) coined the term "ethnocentrism" to describe the acceptance of those who are culturally like oneself and rejection of those who are different. If the cultural parties persist in their ethnocentric ways of approaching the conflict, the initial misunderstanding can easily spiral into a complex, polarized situation (Ting-Toomey & Oetzel 2001).

When a person's physical or psychological security is threatened, their cultural identity can be aroused against cultural differences. In this case, cultural identification serves a negative social function: the promotion of their group's values, norms, and patterns of thought at the expense of those of other groups. When people perceive themselves to be threatened, there is a tendency to develop an increase in ethnocentrism, and seek an enemy as the focus of their fears and anger (Kimmel 1998). A consequence during cultural conflict is an increased number of attacks on non-combatants, including massacre, torture, rape, starvation, and incarceration (Kimmel 1998).

This suggests that the degree of cultural identification and ethnocentrism among deployed military personnel is a critical factor of the success or failure of an operation. The risk of violence among soldiers and other combatants is increased when security, trust and communication break down and cultural differences are emphasised. Deployed forces need training in cultural awareness to help them, not only with the combatants, but also with local customs, meaningful contacts with citizens and other peacekeepers. Without such training, the increased ethnocentrism makes them part of the problem, rather than part of the solution (Kimmel 1998).

Language problems are also a constant point of friction during MOUT, with minimal deployed personnel being proficient in the host language. Similarly, problem solving, decision-making

and negotiation skills learned in one's own culture may interfere with successful communication in an intercultural situation (Kimmel 1998). In particular, lack of understanding in day-to-day operations can equate to disastrous miscommunications in combat actions (Marshall 1997). At the tactical level, MOUT require ground troops to have much of the same cultural and political insight as strategic planners (McGuinness 2000). However, military planners are often without accurate mapping of a city's political, ethnic and religious enclaves (McGuinness 2000). Moreover, where there are attempts to incorporate cultural factors, it often comes down to a series of stereotypes. This can almost be as dangerous as sheer ignorance (Lieven 2001).

In sum, the increase in MOUT, and the previous difficulties faced by western commanders, indicate that cultural literacy is an essential tool for the military professional of the future (Trahan 1995). The untrained soldier who ventures outside his or her own country into other parts of the world is like Alice in Wonderland. He or she will meet strange beings, customs, ways of organizing or disorganizing, and theories that may appear stupid, old-fashioned or even immoral – yet they may work, or at least they may not fail more frequently than corresponding theories do at home (Hofstede 1997). In such a setting, ethnocentrism, culture shock and cultural misunderstandings are inevitable if there is inadequate training and cultural analysis (Kimmel 1998). In contrast to this, if cultural expertise is directly available to military decision makers, it will provide insight into the thought processes of the enemy and their coalition partners. Specifically, it will permit a quicker and more decisive military effort, focusing directly on the enemy's Centre of Gravity (Kaczmar 1996).

1.3 Towards Cultural Awareness During MOUT

Achieving cultural insight requires a deep appreciation of the society in which the thought processes occur (White 2002). If a commander is equipped with adequate cultural understanding and analysis tools, there will undoubtedly be a reduction in loss of life and a decrease in expenditure. Commanders must understand the cultural implications of the selection of military objectives, the conduct of troops on liberty, the treatment and control of non-combatants, the role of the sexes, and the intricacy of command relationships that differ from one culture to the next. They must tailor the conduct of military operations to the culture of the players involved, whether allies or enemies. An understanding of the mechanisms of culture will allow the analysis of specific actions and attributes, an understanding of how to use the enemies' cultural vulnerabilities against them, and will allow the identification of both pitfalls and opportunities that are not immediately apparent to those who view the world only through the lens of the Australian cultural perspective.

It is also important to recognise that military personnel will likely be deployed to an array of different cultures during their careers. Therefore, training should not only target specific cultures but must be broad in nature to arm personnel with a rich appreciation of culture in general (Hills 2001). In addition, it has been suggested that short-term assignments, such as military deployments, require more cross-cultural effectiveness than long-term assignments because the individuals have such limited time to understand and act effectively in the other culture (McCaffrey and Hafner 1985). Cross-cultural training must therefore be comprehensive and efficient, and also needs to be consistently provided to all members of a deployed force (including coalition partners). Differences and inconsistencies in organisation and training among multicultural peacekeeping forces have been found to create pay and privilege differences and bias among some contingents (Kimmel 1998).

The need to train a wide group of personnel, often at relatively short notice, suggests that training methods must be simple, quick to implement, and relatively cheap. It also demonstrates that the development of appropriate cultural training requires a deep understanding of the nature of cultural variation. Simplistic formulas like "clan loyalties" may be actively misleading, pointing the way to faulty and even dangerous strategies (Lieven 2001). The requirement is instead for analysts to have detailed local knowledge, and/or be highly flexible, with a strong theoretical understanding of cultural differences. The theoretical model adopted by the current research is based on the work of Geert Hofstede. Hofstede's model of national culture is currently the model most commonly applied to understanding differences in consumer behaviour across countries (de Mooij and Hofstede 2002). This suggests that the Hofstede model of culture may also be useful in a military domain. The following provides a summary of the approach.

1.4 A Theory of Culture

Geert Hofstede defines culture as the "collective mental programming ... that we share with other members of our nation, region, or group but not with members of other nations, regions, or groups" (Hofstede, Bond, & Luk 1993, p.76). Culture, then, is seen as the collective programming of the mind that distinguishes the members of one group or category of people from another. The mind stands for the head, heart and hands – thinking, feeling and acting – with consequences for beliefs, attitudes and skills.

In developing a framework for understanding the variation that exists in this collective programming, Hofstede's research on national culture involved surveying the values of 160,000 IBM employees from more than 50 countries (Hofstede 1980; Hofstede 2001). From his studies, he identified five dimensions of national culture differences, each conceptually linked to a basic problem with which all societies have to cope, but to which different societies have found different answers. They are as follows:

- Uncertainty avoidance: This relates to the level of stress in a society in the face of an unknown future.
- Power distance: This is related to the different solutions to the basic problem of human inequality.
- Individualism versus collectivism: This is related to the integration of individuals into primary groups (self versus group).
- Achievement versus cooperation orientation: Also known as performance vs. cooperation (formerly known as masculinity vs. femininity).
- Long-term versus short-term orientation: This is related to the choice of focus for people's efforts, the future of the present.

These dimensions were empirically found and validated, and all countries can be positioned on the scale represented by each dimension. Moreover, the dimensions are statistically distinct and occur in all possible combinations. A further advantage of Hofstede's quantitative dimensionalisation of national culture is that it allows for the examination of specific ways in which cultural values are different (Schwartz & Sagiv 1995). In the past, researchers have looked at differences in national culture in terms of practices rather than the underlying causes of those differences (Adler, Doktor & Redding 1986). However, Hofstede's investigations involved both possible antecedents and consequences. Perhaps most importantly, Hofstede's model has been replicated and tested for validity (Hofstede & Bond 1984; Bosland 1985). Results from 38 other studies

comparing from 5 to 39 countries were significantly correlated with at least one of the Hofstede dimensions (Hofstede 2001).

Some limitations and general concerns associated with Hofstede's research, as expressed in the literature, include the issue of sampling. Both Jaeger (1986) and Schwartz (1992) expressed concern that his sample size was limited to countries where IBM had subsidiaries. In addition, criticism has been levelled at the model because the original data were collected from one company, where the organisational culture may be having an effect (Hunt 1981; Triandis 1982). However, Hofstede (1991) points out that the only variable that could account for differences across more than fifty countries is national culture. Laurent (1993, cited by Williams 1996) supports this with findings that multinational companies do not reduce the cultural variability amongst employees.

Researchers have also questioned whether Hofstede's dimensions, developed from 1968 to 1973, were artefacts of that period of time (Baumgartel 1984). However, Hofstede's work has no shortage of more recent corroborating research (Goodstein 1981; Hunt 1981; Bhagat 1982; Triandis 1982; Ronen 1985; Hoppe 1990; Shackleton & Ali 1990; Hofstede et al. 1993). Moreover, Söndergaard (1994) found 1036 quotations from Hofstede's seminal *Culture's Consequences* in journals from 1980 to September 1993. The general adoption of the five dimensions over almost two decades raises the possibility that these dimensions may indeed represent the best conceptualisation of the cultural antecedents of organisational behaviour. Söndergaard (1994) also noted that there is no consistent pattern of non-confirmation of studies using the Hofstede model. Several studies asking different questions independent of Hofstede's research have been meaningfully classified along the lines of the Hofstede indices (McCarrey 1978; Bond 1983; Argyle 1986; Buss 1990). In sum, too many other studies have demonstrated the reliability and validity of Hofstede's work to discount it as an effective methodological resource (Hofstede 2002). Consequently, it is seen as the most appropriate cultural model for the current training research¹.

1.5 Cultural Training

Training has been defined as "any interaction aimed at increasing the knowledge and skills of individuals, so as to help them cope better personally, work more effectively with others, and perform better professionally" (Kealey and Protheroe 1996 pg. 145). Requisite skills for cultural competence include:

- Adaptation skills: These enable the individual to cope with the transition to a new culture.
- Cross-cultural communication skills: These are needed to build trust and understanding between people of different cultures (eg. skills on how to listen and observe, and tolerate differences).
- Negotiation skills: These focus on the need to manage exchanges, and on joint decision-making.

The development of these skills requires a range of training techniques. Intercultural training typically encompasses two broad activities. The first is area training (eg. giving information on a country through lectures), while the second involves experiential learning (involving activities

¹ It is beyond the scope of this report to provide any more than a brief summary of Hofstede's vast 30-year work. The reader is therefore referred to Hofstede (2001) for complete detail of his theory of cultural differences.

that combine cognitive and behavioural techniques, such as role-playing). The intention of area training programs is to prepare people for specific overseas assignments. Designers of these programs recognize the difficulties in using this method of training for cultural awareness, as the student learns the values and practices of a society but often cannot relate them to specific behaviours of host nationals (Trahan 1995). The goal of experiential learning is to enhance intercultural effectiveness skills, including cross-cultural communication and negotiation techniques that help individuals with their overseas adaptation (Kealey and Protheroe 1996). Note that the goal of training is not to alter people's personalities, but rather to add on social skills, coping techniques, professional skills, ideas, etc to the existing person (Kealey and Protheroe 1996).

Training also needs to be targeted at the different experience levels of the trainees. For those who begin at the ethnocentric level of awareness, the main goal of initial training is to provide a better understanding of cultural differences and their implications for one's own behaviour (Kimmel 1998). For trainees with more experience, it is possible to enhance their skills in intercultural communication (Kimmel 1998). More advanced trainees can be assigned to more challenging duties, such as extracting specific information from others during a role-playing negotiation task.

1.6 Testing the Training Effectiveness

Numerous studies have addressed the question of whether cross-cultural training makes a difference to the overseas adaptation and work performance of expatriate personnel. While this literature contains many insights, most studies have methodological weaknesses which make it impossible to take as definitive the general consensus of the literature that such training is effective (Kealey and Protheroe 1996). Specifically, longitudinal designs using control groups have often been ignored in favour of simpler cross-sectional studies (Bhagat and Prien 1996). Kealey and Protheroe (1996) argue that a test of training effectiveness should involve:

1. Comparison between control and experimental groups
2. Pre- and post-training measures of changes to variables of interest
3. Assignment of participants to treatment and control on a random basis
4. Longitudinal measures of variables of interest. Notably, measures of training effectiveness may show greater effects longer term as participants have had time to assimilate what they have learnt (Kealey and Protheroe 1996).
5. Measures of immediate results and longer-term effects that are more objective than self-reports
6. Multiple outcome measures

In testing training effectiveness, key questions are also whether intercultural sensitivities and communication skills are actually important to the functioning of expatriate workers, and whether cross-cultural training can significantly equip people with the appropriate skills. Evidence suggests that this is the case. For example, it has been found that even individuals without previous knowledge of the host country culture can be sensitised to the various aspects of the culture and to cultural differences in general (Bhagat & Prien 1996).

1.7 Previous Research on Training Effectiveness

Purely informational briefing (area training) on a host country has not been shown to produce substantial changes in attitudes or to enhance qualities like empathy to a different culture (Kealey and Protheroe 1996). For example, area training was less effective in improving the cross-cultural skills of navy personnel than a role-playing seminar (Blake 1996). Experiential training has also been shown to correlate with higher evaluation of expatriate effectiveness (based on subjective supervisor ratings) (Kealey and Protheroe 1996). Results of a review of 29 studies suggest that cross-cultural experiential training has a positive impact on the individual's skill development, situation adjustment, and job performance (Black and Mendenhall 1990). For expatriate managers in Pacific Rim countries (Japan, Hong Kong, Korea, and Taiwan), pre-departure culture training was significantly related to interaction adjustment (Black and Gregersen 1991).

In terms of overseas experience, interaction adjustment does appear to be related to duration of stay. Research has shown that a short amount of overseas experience is not predictive of individual effectiveness overseas (as measured by peers and host country colleagues) (Kealey and Protheroe 1996). Conversely, people who have spent two or more years in another culture appear to develop cross-cultural sensitivity through their intercultural interactions, even in the absence of formal training (Bhawuk & Triandis 1996). Notably, while training may increase cross-cultural sensitivity, it does not appear to increase positive evaluations of the other culture (Kealey and Protheroe 1996). In terms of military training, this is preferred, as the aim should not be to alter personal views. Instead, the goal of training should simply be to enhance the ability of a deployed soldier to do his or her job.

Harrison (1992) examined the separate and combined effects of experiential learning (behaviour modelling) and an area studies approach in the cross-cultural management training of 65 US Government employees. Training evaluation criteria of learning, behaviour, and reactions were used. Results were generally supportive of the greater effectiveness of a combined approach. Participants receiving the combination of methods displayed significantly higher performance on a role-play task (behaviour evaluation) than a no-training control group, and significantly higher gains in learning than those receiving either a single method or those in the no-training control group. Moreover, despite its longer time and effort, participants viewed the combined approach as favourably as each individual method. These results suggest the need for both a cognitive- and experiential-based program in cross-cultural training (Harrison 1992). This is supported by Gudykunst, Guzley and Hammer (1996), who also recommend the combined approach as a way of catering to a variety of learning styles.

1.8 Current Research

As mentioned, evidence suggests that the path to culturally competent individuals involves both (a) experiential training, which includes role playing, implicit learning and personal experience, and (b) formal culture training, including area studies (Lonner 1997). To provide a broad understanding of culture, it also needs to have theoretical underpinnings. Currently, military training, whether it is area based or experiential, tends to be focused on specific cultures, rather than being theoretically driven (Dansby 1996). The disadvantage of this is that it does not provide trainees with the broader understanding of cultural variation that a theoretically driven approach would afford, and that is so necessary in the current military climate. Consequently, the aim of the current research is to examine the effectiveness of a role-playing exercise as a

form of experiential training for military personnel. A specific objective is to identify / develop a technique of cultural training that is based on the Hofstede model of cultural variation.

Hofstede's model of culture led to the development of several simulation, or role-playing games, based on the use of synthetic cultures. These synthetic cultures represent extreme ends of the five dimensions (eg. high and low power distance). While they do not correspond to specific real-world cultures, and are relatively simplistic, they are designed to represent aspects of existing cultures, so should act to highlight broad cultural differences.

In terms of their use for military training, these games also have the advantage of being relatively simple, inexpensive and quick. Their simplicity allows a substantial quantity of information to be conveyed without focusing on the many intricacies of real-world cultures. They also require nothing more than training space, written instructions, and a facilitator, and can be conducted in half to one day (for base level training).

Of the training games based on Hofstede's dimensions, one of the most widely used is *The Trade Mission* (Hofstede 2002). The Trade Mission is a negotiation exercise where small teams representing trade delegations from different countries try to sell their national product to other countries at an international trade event and establish positive trade relationships with the other countries. This allows for a potential conflict to occur in the context of an intercultural exchange, somewhat mimicking the circumstances of a culture clash.

Despite its wide use in the business community, there have been no empirical tests of the effectiveness of *The Trade Mission* (Gert Jan Hofstede, personal communication, 2003). In the current research, then, there is a quantitative examination of the short- and long-term effects of *The Trade Mission* on attitudes related to cultural competence. In addition, there is an examination of any mediating variables that may enhance / interfere with cultural competence. In particular, the research includes an examination of the relationship between individual differences and cultural attitudes.

To ensure that the research meets the criteria specified by Kealey and Protheroe (1996), the following methodological conditions will be met:

1. Comparison will be made between control and experimental groups.
2. Pre- and post-training measures of changes to variables of interest will be taken.
3. Participants will be randomly assigned to treatment and control.
4. Longitudinal measures of variables of interest will be taken 12 weeks after the training. This is consistent with the approach taken by Hill and Augoustinos (2001) that found a degradation of learning effects after 12 weeks.
5. Measures of immediate results and longer-term effects will include an array of attitudinal surveys, and not simply self-reports. This also satisfies the criterion of using multiple outcome measures.

1.8.1 Aims and Objectives

In summary, the main aim of this study is to identify a base level method of enhancing the general cultural awareness of deployed personnel, and equipping them with an intercultural skill set, rather than contextually specific knowledge. Specific objectives are to:

1. Conduct a quantitative evaluation of The Trade Mission in terms of its short- and long-term effects on attitudes related to cultural competence, and on individual value systems. As was mentioned, an aim of military cultural training is to enhance cultural competence, without affecting underlying value systems.
2. Examine the relationship between individual differences and attitudes related to cultural competence. Specifically, examine relationship with age, gender, personality, and previous intercultural experience.

2. Pilot Study

2.1 Participants

Eight participants were recruited via word of mouth within DSTO. The group consisted of three males and five females, aged between 20 and 35 years, (mean 28.50, \pm 5.98). During the recruitment process, participants were provided with an anonymity number to use when filling in all survey material. This number was known only to them, and guaranteed that their responses would remain anonymous throughout the study.

2.2 Materials

Materials included an information sheet that outlined what participation in the study would involve (Appendix A), and a consent form that outlined any possible negative consequences of participation and informed participants that they were free to withdraw at any time (Appendix B). In addition, to control for other mediating variables, a demographic survey asked participants to indicate their gender, cultural background, and team experiences (Appendix C).

2.2.1 Questionnaires

2.2.1.1 Cultural Value Surveys

The California F scale (Adorno 1950) was used as a measure of ethnic prejudice and right-wing authoritarianism (Appendix D). Items relating to outdated concepts and occurrences were removed, leaving 33 items. In addition, changes were made to wording to make it suitable for the target group (eg. replacing the word *America* with *Australia*). Participants were asked to rate their agreement on a seven-point scale from 'strongly disagree' to 'strongly agree'.

The 40-item dogmatism scale (Rokeach 1956) was used as a measure of rigid beliefs, covering both left- and right-wing authoritarianism (Appendix E). Specific items were again modified to suit the target group (eg. replacing "the United States and Russia" with "Australia and Indonesia"). These statements were again rated on a seven-point scale.

The Culture Survey (Jung 2002) comprised 49 items and was used as a measure of Hofstede's cultural dimensions and of ethnocentrism (Appendix F). Specifically, it provided scores for ethnocentrism, individualism, collectivism, power distance, achievement orientation, and uncertainty avoidance. These statements were rated on a seven-point scale.

2.2.1.2 *Cultural Understanding Surveys*

Jung's culture survey (2002) also included a measure of cultural relativism (Appendix F). This was used to measure the degree to which participants recognised the difficulties involved in comparing the value systems of different cultures. They included such statements as "what is ethical varies from one situation and society to another" and "different types of moralities cannot be compared as to rightness". Participants were asked to rate their agreement on a seven-point scale from 'strongly disagree' to 'strongly agree'.

2.2.1.3 *Other*

The Marlowe-Crowne Social Desirability Scale (20-item form) (Crowne 1960) was used to identify participants who were giving false responses in order to portray themselves in a positive light (Appendix G). True or false answers were required to such statements as "I am always courteous, even to people who are disagreeable", and "I am sometimes irritated by people who ask favours of me" (Appendices H, I & J).

2.2.2 *Game materials*

A "How to role-play" handout (Appendix K) served as a general guideline to outline aspects of culture and role playing that participants should be aware of during game play (eg. use of body language). Culture profiles for the ten synthetic cultures were used to describe the synthetic cultures to participants (Appendix L). To prevent participants who were aware of Hofstede's dimensions associating the profiles with real-world cultures, each synthetic culture was named after one of Jupiter's moons (Appendix L and N). Similarly, colour labels were given to participants to wear and use as names (eg. Mr or Ms Orange), instead of allowing names that have salient cultural connotations (eg. Bruce). The rules of play for "The Trade Mission" (Appendix M) were the same for each team.

2.3 *Procedure*

In order to identify baseline attitudes and values, participants were asked to fill in the questionnaires a minimum of 3 days prior to participation in The Trade Mission (Time 1).

The Trade Mission sessions were held on site at DSTO in four meeting rooms located within Land Operations Division. The three-hour experimental procedure commenced with a 20 minute brief in the largest of the rooms. During this time, the aim and structure of the session was outlined. Participants were then randomly assigned into four teams of two, and were provided with a country and colour name. Participants were asked not to discuss their synthetic culture with other teams outside of actual game-play, so as to not provide clues about their cultural profile (the procedure during game play is summarised in Table 1).

Following the brief, each team was taken to a different room and allowed 20 minutes to learn their synthetic culture. They were then given 10 minutes to read the game rules and develop a product for their team to sell during the game. They were informed that the product had to be compatible with their synthetic culture.

Game play then commenced, lasting for 20 minutes. Participants were required to initiate and continue the interaction while remaining in character. An observer was present, but was not

permitted to provide feedback to participants during game play. A warning was given five minutes before the end of game play.

At Time 2, directly after the end of the exercise, participants were asked to again complete the California F scales, the culture survey, and the 40-item dogmatism scale, to test any immediate effects that the simulation may have had on their attitudes. The other surveys (such as the demographics questionnaire and Marlowe-Crowne) were not administered a second time because they were designed to collect static information that was not expected to change after the experimental session.

A 60-minute feedback session was held following the completion of the post-tests. Discussion focused on methods of improving the procedure.

Twelve weeks after the session (Time 3) participants were again asked to complete the California F Scale, Culture Scale and 40-item Dogmatism Scale.

Table 1. Procedure during Game Play

	Duration	Purpose	Location
Brief	20 minutes	Give information	Main room 1
Team Meeting 1	20 minutes	Learn culture	Team rooms
Team meeting 2	10 minutes	Develop product	Team rooms
Game Play 1	20 minutes	Cultural Interaction	Main rooms
Break	10 minutes	Rest	Kitchen
Team Meeting 3	10 minutes	Discuss progress/strategy	Team rooms
Game Play 2	20 minutes	Interaction	Main rooms
Break	10 minutes	Rest	Kitchen
Team Meeting 4	10 minutes	Discuss progress/strategy	Team rooms
Game Play 3	20 minutes	Interaction	Main rooms
Break	10 minutes	Rest	Kitchen
Post-tests	30 minutes	Test for effects	Main room 1
Feedback session	60 minutes	Get information	Main room 1

2.3.1 Feedback from Pilot Study

All participants reported that it was difficult to use the culture profile during game play because of the large amount of information it contained. It was suggested that flash cards should be provided to supplement the profiles, and act as reminders of the main points. Sets of ten flashcards were therefore created for each synthetic culture, stating the core value, summary of the seven key elements, positive connotation words and negative connotation words.

Another difficulty that participants reported was the development of culturally relevant products. This was said to take up the majority of the team meeting time, leaving little time to practice the actual culture. In addition, there was a vast amount of variation in the economic status of the products that were developed. Consequently, the experimenters developed a pre-set group of products that were consistent with each cultural profile, but which were

standardised in terms of socio-economic status. These were incorporated into the rules for each team (Appendix N).

Participants also suggested that personality was playing a substantial role in how well people interacted during game play. Consequently, The Quickscales (a personality measure developed by Brebner, University of Adelaide) was added to the survey set (see Section 3.2.1 and Appendix H).

The amount of survey material was also reported as being too large. Because the California F Scale only provides a measure of right wing authoritarianism, while the Dogmatism scale provides a measure of both left and right wing values, the former was dropped as the two scales were significantly correlated ($r = .792, p < 0.05$). To further reduce survey material, responses on the 20-item and 40-item Dogmatism scale were compared at Times 1 and 2. The correlations were significant (T1: $r = .796, p < 0.05$; T2: $r = .915, p < 0.01$), so the 20-item version was adopted for the main study (Appendix E).

To allow the experimenters to trial the updated methodology, a second pilot session was conducted. Seven people took part, including six of the original participants. Feedback from this session indicated that the set team products and flashcards were useful to participants, but that the set of ten cards should be reduced in number.

3. Main Study

3.1 Participants

Participants were recruited via a DSTO site-wide email. Thirty-one participants took part in the main study (17 males and 14 females). Their ages ranged from 21 to 53 years (mean 32.10 ± 9.69). Five additional participants volunteered, but withdrew at varying stages, so their data were excluded from analysis.

A further 21 participants (14 males and 7 females) made up a control group and completed the surveys at the three times, but did not participate in The Trade Mission. Their ages ranged from 18 to 56 years (mean 35.75 ± 12.90 years).

All participants were again provided with an anonymity number.

3.2 Materials

Other than where specified below, materials were the same as those used in the pilot study.

3.2.1 Questionnaires

The Quick Scales (Appendix H) is a 30-item questionnaire designed to measure Eysenck's Big Five personality factors (extraversion, neuroticism, openness to experience, conscientiousness and agreeableness). Each factor is measured using 6 items. Statements were rated on a 7 point scale from 'not at all' to 'extremely.'

The Quick Discrimination Index (Ponterotto 1995) was introduced into the main study after the first session (having not been available previously). It was designed to measure receptivity to multiculturalism with three subscales: attitudes towards multiculturalism, racial intimacy and women's equality. The women's equality questions were removed so that only the multiculturalism and racial diversity subscales were included (Appendix I). Items such as "All Americans should learn to speak two languages" were altered to instead refer to "Australians". These statements were rated on a five-point scale from 'strongly disagree' to 'strongly agree'.

A Trade Mission participation feedback form (Appendix J) was also developed to ask participants about their attitudes towards game play at Time 2. This included such things as how different their synthetic culture was from their own, how difficult, enjoyable and useful the game was and whether they felt the game had impacted on their cultural awareness and communication skills.

3.2.2 Game materials

The team profiles remained unchanged, while the team rules were modified to include the set products. Minor additions were made to the "How to role-play" handout to point out that one's own culture will impact on the exercise, and to be aware of when this is happening (Appendix K). Participants were also provided with a timeline sheet, which outlined the session structure (Appendix O). Three flashcards were also given to each participant, stating their team's core value, positive connotation and negative connotation words.

3.3 Procedure

Other than where specified, the procedure was the same as specified in Table 1.

3.3.1 Experimental sessions

Four sessions were conducted, each with eight to twelve participants, making up four teams of two to three people. At the beginning of the session, participants were given the timeline sheet and "How to role-play" guidelines. They were then briefed, during which time they were assigned to teams and given their colour nametags. Participants were also asked not to use props and not to play opposite gender roles during game play. They were told to take and use notes during the game but not to share their information with other teams, as the objective was to develop an understanding of the other teams and adapt to them while staying in character. They were also told that they had the responsibility in initiating the game play once they entered the room, and that the experimenters would be present only as observers.

To promote an impression of neutral territory, both teams entered the meeting room at the same time. Time provided for learning the team profiles and rules was changed to 15 minutes each, and team meeting times were reduced to five minutes. The remainder of the session was conducted in the same manner as the pilot, minus the feedback session, with three 20-minute team interactions each separated by a team meeting and a break.

4. Results

Data were analysed using a repeated measures analysis of variance (RoV). It should be noted that a limitation of this method is that it will not always show a main effect if only one of the scores is significantly different. In the current study, it was expected that there would be a change from Time 1 to Time 2, but not necessarily from Time 2 to Time 3. In addition, these changes were expected to occur for the measures of cultural understanding but not for the measures of cultural values. Consequently, post hoc tests were used to delineate whether the specific comparisons were significantly different.

4.1 Cultural Relativity

4.1.1 Main Effect

The expectation that participation in the game would produce an increase in cultural understanding was tested by comparing mean cultural relativity scores across the three times for both the experimental and control groups. The RAoV revealed that cultural relativity scores significantly differed for *time by group* ($F(2)=4.663, p < 0.05$). Post hoc tests revealed a significant difference between Time 1 and 2 ($p < 0.05$) and Time 1 and 3 ($p < 0.05$), but not between Time 2 and 3 ($p = 0.6$). Inspection of the means revealed that there was an increase in relativity scores in the experimental group from Time 1 to 2, while scores for the control group remained static (Table 2). This suggests that participation in The Trade Mission produced an increased understanding of cultural relativism. In addition, relativity scores for the experimental group remained at the increased level at Time 3, suggesting retention of the effect.

Table 2. Mean Cultural Relativity Scores

	Time	Mean	Standard Deviation
Experimental	1	4.25	1.07
	2	4.59	0.99
	3	4.60	1.06
Control	1	4.33	0.98
	2	4.39	0.98
	3	4.47	1.034

4.1.2 Interactions

Further analysis revealed a significant *time by gender* interaction for cultural relativity ($F(2)=4.85, p < 0.05$). Inspection of the means revealed that the retention effect only occurred in the female group, while male scores returned to the baseline levels at Time 3 (Table 3). Moreover, the female scores showed a mild increase from Time 2 to 3, suggesting a continual effect of treatment. As will be discussed, this result has important implications for training in the male dominated military arena.

Table 3. Mean Scores for Cultural Relativity for Gender

		Mean	Standard Deviation
Time 1	Male	4.16	1.35
	Female	4.28	0.86
Time 2	Male	4.54	1.24
	Female	4.84	0.58
Time 3	Male	4.34	1.33
	Female	5.08	0.52

Further analysis revealed that age, personality, cultural background, and previous experience in role-playing had no effect on cultural relativity scores.

4.2 Multicultural Acceptance (QDI-M)

The expectation that participation in the game would produce an increase in cultural understanding was further tested by comparing mean QDI-M scores across the three times for both the experimental and control groups. The RoV showed that scores for the QDI measure of multiculturalism approached significance for *time by group* ($F(2)=2.98$, $p = 0.06$). Post hoc test revealed that there was a significant difference between Times 1 and 3 ($p < 0.05$) and Times 2 and 3 ($p < 0.05$) for the experimental group, with participants increasing their acceptance at Time 3 (see Table 4). There were no significant changes for the control group.

Table 4. Mean Scores for QDI-M for Experimental Group

	Time	Mean	Standard Deviation
Experimental	1	31.92	4.54
	2	32.17	5.23
	3	33.04	5.46
Control	1	31.68	4.55
	2	32.84	4.95
	3	31.79	5.60

Further analysis revealed that age, personality, gender, cultural background, and previous experience in role-playing had no effect on multicultural scores. Unlike relatively, then, this effect was seen at Time 3 in both males and females.

4.3 Cultural Values

The expectation that participation in the game would not produce a change in cultural values was tested by comparing mean scores across the three times for both the experimental and control groups for each of the cultural value measures. There were no significant differences between the experimental and control groups for any of the Hofstede dimensions at any of the three times. This suggests that the simulation had no effect on underlying cultural values. In addition, all scores remained static across time, supporting the concept that Hofstede's cultural dimensions represent relatively stable traits. Similarly, dogmatism and QDI-R scores remained static across time and groups, suggesting that they are relatively stable traits.

Scores for ethnocentrism, however, showed conflicting results. The RoV showed that scores approached significance for *time by group* ($F(2)=2.592$, $p=0.085$). Post hoc tests revealed that this difference was between Times 1 and 2 ($p < 0.05$), and Times 1 and 3 ($p < 0.05$) for the control group, but not the experimental group. In addition, further analysis revealed that the *time by age* interaction approached significance ($F(2)=2.814$, $p=0.065$). Post hoc tests revealed that this difference was in the experimental group ($p < 0.05$), but not the control group. Because this test has only recently been developed, these inconsistencies do raise questions as to the validity of the ethnocentrism measure. Consequently, these data will not be used to form conclusions. Instead, it is suggested the ethnocentrism sub-scale undergo further validation testing.

5. Discussion

5.1 Summary

Overall, results indicate a change in cultural understanding, but not in underlying value systems. For use in a military training setting, this is a positive outcome. As was mentioned, the goal of military training should not be to alter participants' personal belief systems. Instead, it should be to enhance their ability to perform their tasks.

A further positive element of this result is the relative ease with which the training can be provided. Specifically, it was complete in three hours, with negligible financial overhead (other than staff time).

5.2 Using the Hofstede Model

Because the Hofstede model appears to be an effective model on which to base cultural training, it also opens the door to using it for other areas of cultural management. Examples include cultural frameworks for predicting behaviour and for managing the vast quantities of information on specific cultures. The advantage is a common framework that personnel can more rapidly assimilate.

5.3 Gender Difference

A proposed explanation for the gender difference in relativity is the possibility that the females continued to consider the cultural issues that arose during the session after completing training. For the males, processing may have ceased at the completion of the Trade Mission session. This is not necessarily a disadvantage as it may free cognitive resources for attending to other information. However, the difference in retention rates indicates that it may be necessary to increase the regularity of cultural training in the male dominated military setting. In order to reduce overhead, a simple method of achieving this may be to get participants to return for a debrief 1-2 weeks following training to reinforce learning.

In terms of acceptance of multiculturalism, however, the experimental group showed an increase in cultural understanding at Time 3, with no gender difference. This suggests that the training encourages different facets of cultural understanding, both of which should predict enhanced performance, albeit differentially for males and females.

5.4 Limitations

A clear limitation in the current study was the lack of behavioural measures that would indicate an actual change in intercultural behaviour. However, as was mentioned in the introduction, previous research has suggested that an increased understanding of cultural relativity would enhance the ability of expatriates (and subsequently deployed personnel) to interact in a different culture. Nonetheless, it is necessary for this method to be tested with a sample of military participants, who can then be compared with non-trained military personnel in an operational setting.

This type of test would also overcome the issue of self-selected trainees. Specifically, in the current study, participants were all volunteers. This raises the possibility that they were more responsive to cultural differences than is the norm. Thus, they may be the population that least need the training, but are most likely to have a positive response to it.

Finally, it is important to recognise that training alone is not capable of bringing about a radical change in intercultural effectiveness during MOUT. Instead, it is only one ingredient in the recipe for intercultural success. Effective overseas performance is a function of many variables, including the aptitude and motivation of the expatriate (including their spouse and family); the aptitudes and motivations of their local counterparts; and the overall organisation of the project (eg. adequate definition, host institution commitment, funding) (Kealey & Protheroe 1996).

6. References

- Adler, N. J., Doktor, R. & Redding, S. G. (1986). From the Atlantic to the Pacific century: Cross-cultural management reviewed. *Journal of Management Development*, 12(2): 295-318.
- Adorno, T. W., Levinson, D. J., Frenkel-Brunswick, E., & Sanford, R. N. (1950). *The Authoritarian Personality*. New York, Harper & Row.
- Argyle, M., Henderson, M., Bond, M., Iizuka, Y., & Contarello, A. (1986). Cross-cultural variations in relationship rules. *International Journal of Psychology*, 21: 287-315.
- Baumgartel, H. J., Reynolds, J. I. & Pathan, R. Z. (1984). How personality and organisational climate variables moderate the effectiveness of management development programmes: A review and some recent research findings. *Management and Labour Studies*, 9(1): 1-16.
- Bhagat, R. S. & Prien, K. O. (1996). Cross-cultural training in organizational contexts. Landis, Dan (Ed); Bhagat, Rabi S (Ed) (1996). *Handbook of Intercultural Training* (2nd ed), Thousand Oaks, California: SAGE: 216-230
- Bhagat, R. S & McQuaid, S. J. (1982). Role of subjective culture in organizations: A review and directions for future research. *Journal of Applied Psychology*, 67(5): 653-685.
- Bhawuk, D. P. & Triandis, H. C. (1996). The role of culture theory in the study of culture and intercultural training. *Handbook of Intercultural Training* (2nd ed). Thousand Oaks, California: SAGE: 17-34

- Black, J. & Gregersen, H. B. (1991). Antecedents to cross-cultural adjustment for expatriates in Pacific Rim assignments. *Human Relations* 44(5): 497-515.
- Black, J. & Mendenhall, M. (1990). Cross-cultural training effectiveness: A review and a theoretical framework for future research. *Academy of Management Review*, 15(1): 113-136.
- Blake, B. F., Heslin, R., & Curtis, S. C. (1996). Measuring Impacts of Cross-Cultural Training. *Handbook of Intercultural Training* (2nd ed.). Thousand Oaks, California: SAGE: 165-182
- Bond, M. (1983). How language variation affects intercultural differentiation of values by Hong Kong bilinguals. *Psychology*, 2: 57-66.
- Bosland, N. (1985). *An Evaluation of Replication Studies using the Value Survey Model*. Tilburg, Institute for Research on Cultural Cooperation.
- Buss, D. M. (1990). International preferences in selecting mates. *Journal of Cross-Cultural Psychology* 21: 5-47.
- Crowne, D. P. & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology* 24: 349-354.
- Dansby, M. R., & Landis, D. (1996). Intercultural training in the military. *Handbook of Intercultural Training*. Thousand Oaks, California, SAGE: 203-215.
- de Mooij, M. & Hofstede, G. (2002). Convergence and divergence in consumer behavior: Implications for international retailing. *Journal of Retailing*, 78(1): 61-69.
- Desch, M. C. (2001). Why MOUT now? *Soldiers in cities: Military operations in urban terrain*. Carlisle, Strategic Studies Institute: 1-15.
- Drever, J. (1952). *A Dictionary of Psychology*. Harmondsworth, Middlesex: Penguin.
- Eschbach, D., Parker, M & Stoeberl, G. E. (2001). American repatriate employees' retrospective assessments of the effects of cross-cultural training on their adaptation to international assignments. *The International Journal of Human Resource Management*, 12(2): 270-287.
- Goodstein, L. D. (1981). Commentary: Do American theories apply abroad? *Organizational Dynamics*, 10(1): 49-54.
- Gudykunst, W. B., Guzley, R. M., & Hammer, M. R. (1996). Designing Intercultural Training. *Handbook of Intercultural Training*. Thousand Oaks, California, SAGE: 61-80.
- Harrison, J. (1992). Individual and combined effects of behavior modeling and the cultural assimilator in cross-cultural management training. *Journal of Applied Psychology*, 77(6): 952-962.
- Hill, M. E & Augoustinos, M. (2001). Stereotype change and prejudice reduction: Short- and long-term evaluation of a cross-cultural awareness programme. *Journal of Community & Applied Social Psychology*. Vol 11(4), 243-262. John Wiley & Sons, US
- Hills, A. (2001). Can we fight in cities? *Rusi Journal*, October: 6-10.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: SAGE.
- Hofstede, G. (1991). Empirical models of cultural differences. *Contemporary Issues in Cross-Cultural Psychology* : 4-20.
- Hofstede, G. (1997). Cultural constraints in management theories. *Leadership: Understanding the dynamics of power and influence in organizations*: 465-483.

- Hofstede, G. (2001). *Cultures Consequences: Comparing Values, Behaviors, Institutions, and Organisations Across Nations*. Thousand Oaks, Sage Publications.
- Hofstede, G. (2002). The pitfalls of cross-national survey research: A reply to the article by Spector et al. on the psychometric properties of the Hofstede Values Survey Module 1994. *Applied Psychology*. 51(1): 170-173.
- Hofstede, G. & Bond, M. H. (1984). Hofstede's culture dimensions: An independent validation using Rokeach's Value Survey. *Journal of Cross-Cultural Psychology* 15(4): 417-433.
- Hofstede, G., Bond, M. H. & Luk, C. (1993). Individual perceptions of organizational cultures: A methodological treatise on levels of analysis. *Organization Studies* 14(4): 483-503.
- Hofstede, G. J., Pedersen, P.B. and Hofstede, G. (2002). *Exploring Culture: Exercises, Stories and Synthetic Cultures*. Yarmouth, Maine, US, Intercultural Press.
- Hoppe, M. H. (1990). *A Comparative Study of Country Elites: International Differences in Work-Related Values and Learning and their Implications for Management Training and Development*, Chapel Hill: University of North Carolina.
- Hunt, J. W. (1981). Commentary: Do American theories apply abroad? *Organizational Dynamics* 10(1): 55-62.
- Ison, G. and Australian Defence Studies Centre (1997). *Cross-cultural connections : Australian defence relations in the Asia-Pacific*. Canberra, A.C.T., Australian Defence Studies Centre.
- Jaeger, A. M. (1986). Organisational development and national culture: Where's the fit? *Academy of Management Review* 11: 178-190.
- James, W. T. (1998). *From siege to surgical: The evolution of urban combat from World War II to the present and its effect on current doctrine*, US Army Command and General Staff College: 126.
- Jung, J. M. (2002). *Interactive Impact of Culture and Individual Characteristics on Ethical Decision-Making Processes, Criteria, and Judgmental Outcomes: A Cross-National Comparison between South Korea and United States*. PhD Dissertation, Department of Marketing of the College of Business Administration. Cincinnati: University of Cincinnati.
- Kaczmar, S. R. (1996). Cultural expertise and its importance in future marine corps operations. *The Urban Operations Journal*.
- Kealey, D. J. & Protheroe, D. R. (1996). The effectiveness of cross-cultural training for expatriates: An assessment of the literature on the issue. *International Journal of Intercultural Relations* 20(2): 141-165.
- Kimmel, P. R. (1998). Cultural and ethnic issues of conflict and peacekeeping. *The Psychology of Peacekeeping*: 57-71.
- Landon, J. J. & Hayes., R. E. (2000). *National approaches to civil-military coordination in peace and humanitarian assistance operations*. <http://www.dodccrp.org/jjfig1.htm>.
- Leeds, C. (2001). Culture, conflict resolution, peacekeeper training and the D mediator. *International Peacekeeping*, 8(4): 92-110
- Lieven, A. (2001). Lessons of the war in Chechnya, 1994-96. *Soldiers in Cities: Military Operations in Urban Terrain*. Strategic Studies Institute: 57-74.
- Lorner, W. J. (1997). Three paths leading to culturally competent psychological practitioners. *International Journal of Intercultural Relations* 21(2): 195-212.

- Marshall, T. J., Kaiser, P. & Kessmeier, J. (1997). Problems and Solutions in Future Coalition Operations. *Soldiers in Cities: Military Operations in Urban Terrain*, Strategic Studies Institute: 89.
- McCaffrey, J. A. & Hafner, C. R. (1985). When two cultures collide: Doing business overseas. *Training & Development Journal*, 39(10): 26-31.
- McCarrey, M. W., Edwards, S., & Jones, R. (1978). Personal values of Canadian Anglophone and Frankophone employees and ethnolinguistic group membership, sex, and position level. *Journal of Social Psychology* 104: 175-184.
- McGuiness, M. P. (2000). *United States Army Special Forces - The 21st Century Urban Challenge*, US Army War College.
- Peters, R. (1995). The culture of future conflict. *Parameters* Winter: 18-27.
- Ponterotto, J. G., Burkard, A., Reiger, B. P., Greiger, I., D'Onofrio, A., Dubuisson, A., Heenehan, M., Millstein, B., Parisi, M., Rath, J. F. & Sax, G. (1995). Development and initial validation of the Quick Discrimination Index (QDI). *Educational and Psychological Measurement*, 55: 1016-1031.
- Rokeach, M. (1956). Political and religious dogmatism: An alternative to the authoritarian personality. *Psychological Monographs*, 70.
- Ronen, S. & Shenkar, O. (1985). Clustering countries on attitudinal dimensions: A review and synthesis. *Academy of Management Review*, 10: 435-454.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25: 1-65.
- Schwartz, S. H. & L. Sagiv (1995). Identifying culture-specifics in the content and structure of values. *Journal of Cross-Cultural Psychology*, 26(1): 92-116.
- Shackleton, V. J. & Ali, A. H. (1990). Work-related values of managers: A test of the Hofstede model. *Journal of Cross-Cultural Psychology*, 21(1): 109-118.
- Sondergaard, M. (1994). Hofstede's consequences: A study of reviews, citations and replications. *Organizational Studies*, 15: 447-456.
- Ting-Toomey, S. & Oetzel, J. G. (2001). Managing intercultural conflict effectively, *Communicating Effectively in Multicultural Contexts*. 6:234.
- Trahan, J. R. (1995). The Influence of Culture on Post Cold War Military Operations: An Examination of the Need for Cultural Literacy. *The Urban Operations Journal*.
- Triandis, H. C. (1982). Review of the book *Culture's Consequences*, by G. Hofstede. *Human Organisation*, 41: 86-90.
- Waller, M. J. (2001). Asymmetrical Warfare. http://www.ranger.org/root/editorials/asymmetrical_warfare.htm.
- White, J. B. (2002). A different kind of threat: Some thoughts on irregular war. <http://www.odci.gov/csi/studies/96unclass/irregular.htm>.
- Williams, G., & Bent, R. (1996). Developing Expatriate Managers for Southeast Asia. *Handbook of Intercultural Training*. Thousand Oaks, California, SAGE: 383-399.

Appendix A: Participant Information Sheets

Participant Information Sheet

*An examination of the effectiveness of
simulation games as a means of enhancing intercultural awareness*

Vanessa Mills (Ph. 82597914) and Rebekah Smith (Ph. 82597020)

Land Operations Division, DSTO

Previous work in cultural studies has resulted in the development of 10 "synthetic cultures", each representing one major value system found to occur in cultures across the world. Cultural simulation games incorporate player roles that differ according to these pre-defined synthetic cultures. They have previously been used as training tools for increasing participants' intercultural awareness. However, these games have not been quantitatively tested for their short- or long-term effectiveness. The purpose of the present study, then, is to examine the effectiveness of simulation games, in terms of their ability to enhance intercultural awareness.

Participants in this study will be assigned a synthetic culture, which they will learn and act out during group role-playing activities. While the synthetic cultures are simplistic and do not wholly represent any one culture in themselves, they have been derived from empirical studies and are based on true cultures. Hence, the "culture clashes" that are produced by these games often induce real emotions, such as anger, frustration and confusion that often occur during intercultural encounters. However, no long-term detriment to any players of these games has been reported previously, so it is expected that negative emotions that may occur during potential culture clashes will only endure during game play.

Participation will require attendance at a single session lasting for 4-hours. Participants will also be required to fill in several questionnaires at three different times:

1. One week before participation in the simulation
2. Immediately following participation in the simulation
3. Approximately 3 months after participation in the simulation

The surveys take approximately 30 minutes to complete, and will allow us to look at both the immediate and long-term effectiveness of the simulation. To safeguard the confidentiality of responses, participants will be given an identifying anonymity number to use with the questionnaires and procedures.

If you have any questions or concerns regarding your potential participation in this study, please feel free to direct your query or comment to either of the researchers named above. If you give your consent to participate in this study, please complete the accompanying consent form.

Participant Information Sheet

An examination of the effectiveness of simulation games as a means of enhancing intercultural awareness

Vanessa Mills (Ph. 82597914) and Rebekah Smith (Ph. 82597020)

Land Operations Division, DSTO

Previous work in cultural studies has resulted in the development of 10 "synthetic cultures", each representing one major value system found to occur in cultures across the world. Cultural simulation games incorporate player roles that differ according to these pre-defined synthetic cultures. They have previously been used as training tools for increasing participants' intercultural awareness. However, these games have not been quantitatively tested for their short- or long-term effectiveness. The purpose of the present study, then, is to examine the effectiveness of simulation games, in terms of their ability to enhance intercultural awareness.

Participants in the role-playing exercise were assigned a synthetic culture, which they learned and acted out during group activities. In addition, they were required to complete several questionnaires on three different occasions, before participation, immediately after participation, and three months after participation in the exercise. Participation in the current alternative task involves completing the same sets of questionnaires without taking part in the role-playing activities, so that the data collected can be compared to that of the role-playing participants. This will establish a control group, which will be important in determining whether any changes observed are due to the exercise itself or to outside factors that influence all participants.

Participants who wish to take part in the alternative task as part of our culture study will be required to fill in several questionnaires at three different times:

1. The first set of questionnaires will be administered at 'Time 1'
2. The second set a week after the first, and
3. The third and last set approximately 3 months later.

The surveys take 15 to 30 minutes to complete, and will allow us to compare the results from the experimental group to results from people who aren't taking part in the role-playing exercise. To safeguard the confidentiality of responses, participants will be given an identifying anonymity number to use with the questionnaires.

If you have any questions or concerns regarding your potential participation in this study, please feel free to direct your query or comment to any of the researchers named above. If you give your consent to participate in this study, please complete the accompanying consent form.

Appendix B: Consent Form

Defence Science and Technology Organisation Land Operations Division

Participant's Name _____

Project Title: *"An examination of the effectiveness of simulation games as a means of enhancing intercultural awareness"*

Name of responsible investigator or supervisor: *Vanessa Mills*

Name of person who issues the form: *Rebekah Smith*

1. I consent to participate in the above project. The nature of the project, including questionnaires or procedures, has been explained to me, and is summarised on an information sheet I have been given
2. I authorise the responsible investigator or the person named above to use these questionnaires or procedures with me
3. I understand that:
 - a. I am free to withdraw from the project at any time
 - b. The project is for the purpose of research or teaching, and not for treatment
 - c. I will be provided with an anonymity number to use with questionnaires and during procedures to safeguard the confidentiality of the information that I will provide
 - d. There are no known long-term adverse effects of these questionnaires or procedures

Signed: _____
(Participant)

Date: _____

Appendix C: Demographic Survey

Anonymity Number: _____

Gender: Male ____ Female ____

Age ____

Country of birth: Australia ____ Other _____

If Other, age at which first arrived in Australia _____

Cultural background (i.e. The national culture with which you most closely identify) _____

Mother's cultural background _____

Father's cultural background _____

If you have ever travelled to or lived in the United Kingdom, United States, New Zealand or Canada, please indicate the *total* time you spent overseas in these countries. If you have not visited any of these countries, please circle "never".

Never less than 7 days 1-3 weeks 1-6 months 7-12 months more than 1 year

If you have ever travelled to or lived in any *other* country outside of Australia, please indicate the *total* time spent overseas in countries not named above. If you have not visited any other countries, please circle "never".

Never less than 7 days 1-3 weeks 1-6 months 7-12 months more than 1 year

How often do you interact with people outside of your own culture? Never Yearly Monthly Weekly Daily

How often do you participate in role-playing activities? (eg. Dungeons and Dragons, theatre groups) Never Yearly Monthly Weekly Daily

How often do you participate in team sports? Never Yearly Monthly Weekly Daily

Do you participate in any other organised group or social interaction activities?

If so, please list below and indicate how often you take part in these activities.

_____ Never Yearly Monthly Weekly Daily

_____ Never Yearly Monthly Weekly Daily

_____ Never Yearly Monthly Weekly Daily

Appendix D: California F Scale

Anonymity Number: _____

Please indicate the extent to which you AGREE with the statement, circling the appropriate number.

		Strongly Disagree					Strongly Agree	
		1	2	3	4	5	6	7
1.	Although many people may scoff, it may yet be shown that astrology can explain a lot of things	1	2	3	4	5	6	7
2.	Australia is getting so far from the true Australian way of life that force may be necessary to restore it	1	2	3	4	5	6	7
3.	It is only natural and right that women be restricted in certain ways in which men have more freedom	1	2	3	4	5	6	7
4.	Too many people are living in an unnatural, soft way; we should return to fundamentals, to a more red-blooded, active way of life	1	2	3	4	5	6	7
5.	The modern church, with its many rules and hierocracies, does not appeal to the deeply religious person; it appeals mainly to the childish, the insecure, and the uncritical	1	2	3	4	5	6	7
6.	Familiarity breeds contempt	1	2	3	4	5	6	7
7.	One should avoid doing things in public that appear wrong to others, even though one knows that these things are right	1	2	3	4	5	6	7
8.	One of the main values of progressive education is that it gives the child great freedom in expressing those natural impulses and desires so often frowned upon by conventional middle class society	1	2	3	4	5	6	7
9.	He is indeed contemptible who does not feel an undying love, gratitude, and respect for his parents	1	2	3	4	5	6	7
10.	Today everything is unstable; we should be prepared for a period of constant change, conflict and upheaval	1	2	3	4	5	6	7

		Strongly Disagree					Strongly Agree	
		1	2	3	4	5	6	7
11.	Novels or stories that tell about what people think and feel are more interesting than those which contain mainly action, romance, and adventure	1	2	3	4	5	6	7
12.	Homosexuality is a particularly rotten form of delinquency and ought to be severely punished	1	2	3	4	5	6	7
13.	It is essential for learning or effective work to be done that our teachers or bosses outline in detail what is to be done and exactly how to go about it	1	2	3	4	5	6	7
14.	There are some activities so flagrantly un-Australian that, when responsible officials won't take steps, the wide-awake citizen should take the law into their own hands	1	2	3	4	5	6	7
15.	There is too much emphasis in universities on intellectual and theoretical topics, not enough emphasis on practical matters and the homely virtues of living	1	2	3	4	5	6	7
16.	Every person should have a deep faith in some supernatural force higher than themselves to which they give total allegiance and whose decisions they do not question	1	2	3	4	5	6	7
17.	No matter how they act on the surface, men are interested in women for only one reason	1	2	3	4	5	6	7
18.	Sciences like chemistry, physics and medicine have carried humans very far, but there are many important things that can never be understood by the human mind	1	2	3	4	5	6	7
19.	The sexual orgies of the old Greeks and Romans are nursery school stuff compared to some of the goings-on in this country today, even in circles where people might least expect it	1	2	3	4	5	6	7
20.	No insult to our honour should ever go unpunished	1	2	3	4	5	6	7
21.	Obedience and respect for authority are the most important virtues children should learn	1	2	3	4	5	6	7

		Strongly Disagree					Strongly Agree	
22.	There are some things too intimate or personal to talk about even with one's closest friends	1	2	3	4	5	6	7
23.	Although leisure is a fine thing, it is good hard work that makes life interesting and worthwhile	1	2	3	4	5	6	7
24.	What a person does is not so important so long as they do it well	1	2	3	4	5	6	7
25.	Human nature being what it is, there will always be war and conflict	1	2	3	4	5	6	7
26.	It is entirely possible that this series of wars and conflicts will be ended once and for all by a world-destroying earthquake, flood or other catastrophe	1	2	3	4	5	6	7
27.	Books and movies ought not to deal so much with the sordid and seamy side of life: they ought to concentrate on themes that are entertaining or uplifting	1	2	3	4	5	6	7
28.	When you come right down to it, it's human nature never to do anything without an eye to one's own profit	1	2	3	4	5	6	7
29.	To a greater extent than most people realise, our lives are governed by plots hatched in secret by politicians	1	2	3	4	5	6	7
30.	Nowadays when so many different kinds of people move around so much and mix together so freely, a person has to be especially careful to protect themselves against infection and disease	1	2	3	4	5	6	7
31.	What this country needs is fewer laws and agencies, and more courageous, tireless, devoted leaders whom the people can put their faith in	1	2	3	4	5	6	7
32.	Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped	1	2	3	4	5	6	7
33.	No sane, normal, decent person could ever think of hurting a close friend or relative	1	2	3	4	5	6	7

Appendix E: Dogmatism Scale

Anonymity Number: _____

Please indicate the extent to which you AGREE with the statement, circling the appropriate number.

		Strongly Disagree					Strongly Agree	
		1	2	3	4	5	6	7
1.	<i>Australia and Indonesia have just about nothing in common</i>	1	2	3	4	5	6	7
2.	<i>The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent</i>	1	2	3	4	5	6	7
3.	<i>It is only natural that a person would have much better acquaintance with ideas they believe in than with ideas they oppose</i>	1	2	3	4	5	6	7
4.	<i>A person alone is a helpless and miserable creature</i>	1	2	3	4	5	6	7
5.	<i>It is only natural for a person to be rather fearful of the future</i>	1	2	3	4	5	6	7
6.	<i>It is better to be a dead hero than a live coward</i>	1	2	3	4	5	6	7
7.	<i>While I don't like to admit this even to myself, my secret ambition is to become a great person, like Einstein, or Beethoven, or Shakespeare</i>	1	2	3	4	5	6	7
8.	<i>Most of the ideas that get printed nowadays aren't worth the paper they are printed on</i>	1	2	3	4	5	6	7
9.	<i>In the history of mankind there have probably been just a handful of really great thinkers</i>	1	2	3	4	5	6	7
10.	<i>Someone who does not believe in some great cause has not really lived</i>	1	2	3	4	5	6	7
11.	<i>When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do</i>	1	2	3	4	5	6	7
12.	<i>A group which tolerates too much difference of opinion among its members cannot exist for long</i>	1	2	3	4	5	6	7
13.	<i>There are two kinds of people in the world: those who are for the truth and those who are against the truth</i>	1	2	3	4	5	6	7

		Strongly Disagree					Strongly Agree	
14.	<i>In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted</i>	1	2	3	4	5	6	7
15.	<i>The present is all too often full of unhappiness. It is only the future that counts</i>	1	2	3	4	5	6	7
16.	<i>If a person is to accomplish their mission in life it is sometimes necessary to gamble "all or nothing at all"</i>	1	2	3	4	5	6	7
17.	<i>Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups</i>	1	2	3	4	5	6	7
18.	<i>Fundamentally, the world we live in is a pretty lonesome place</i>	1	2	3	4	5	6	7
19.	<i>There is so much to be done and so little time to do it in</i>	1	2	3	4	5	6	7
20.	<i>The main thing in life is for a person to want to do something important</i>	1	2	3	4	5	6	7
21.	<i>There are a number of people I have come to hate because of the things they stand for</i>	1	2	3	4	5	6	7
22.	<i>It is only when a person devotes himself to an ideal or cause that life becomes meaningful</i>	1	2	3	4	5	6	7
23.	<i>In times like these, a person must be pretty selfish if they consider primarily their own happiness</i>	1	2	3	4	5	6	7
24.	<i>The worst crime a person could commit is to attack publicly the people who believe in the same thing as they do</i>	1	2	3	4	5	6	7
25.	<i>My blood boils whenever a person stubbornly refuses to admit they're wrong</i>	1	2	3	4	5	6	7
26.	<i>It is often desirable to reserve judgement about what's going on until one has had a chance to hear the opinions of those one respects</i>	1	2	3	4	5	6	7
27.	<i>In the long run, the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own</i>	1	2	3	4	5	6	7

		Strongly Disagree					Strongly Agree	
		1	2	3	4	5	6	7
28.	Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on	1	2	3	4	5	6	7
29.	<i>Most people just don't give a "damn" for others</i>	1	2	3	4	5	6	7
30.	Once I get wound up in a heated discussion I just can't stop	1	2	3	4	5	6	7
31.	If given a chance I would do something of great benefit to the world	1	2	3	4	5	6	7
32.	<i>Of all the different philosophies which exist in the world there is probably only one which is correct</i>	1	2	3	4	5	6	7
33.	In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's camp than by those in the opposing camp	1	2	3	4	5	6	7
34.	A person who thinks primarily of their own happiness is beneath contempt	1	2	3	4	5	6	7
35.	<i>Most people just don't know what's good for them</i>	1	2	3	4	5	6	7
36.	<i>I'd like it if I could find someone who would tell me how to solve my personal problems</i>	1	2	3	4	5	6	7
37.	<i>In a discussion I often find it necessary to repeat myself several times to make sure I'm understood</i>	1	2	3	4	5	6	7
38.	A person who gets enthusiastic about too many causes is likely to be a pretty wishy-washy sort of person	1	2	3	4	5	6	7
39.	In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what others are saying	1	2	3	4	5	6	7
40.	<i>To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side</i>	1	2	3	4	5	6	7

Note: Items in italics comprise the 20-item dogmatism scale.

Appendix F: Cultural Awareness Scale

Anonymity Number: _____

Please indicate the extent to which you AGREE with the statement, circling the appropriate number.

		Strongly Disagree				Strongly Agree			
1.	We should block imports of foreign products that may affect our culture	1	2	3	4	5	6	7	
2.	A person should make certain that their actions never intentionally harm another even to a small degree	1	2	3	4	5	6	7	
3.	<i>What is ethical varies from one situation and society to another</i>	1	2	3	4	5	6	7	
4.	Acting as an individual is more appealing to me than acting as a member of a group	1	2	3	4	5	6	7	
5.	Achievement is synonymous with recognition and wealth	1	2	3	4	5	6	7	
6.	<i>Ethical considerations in interpersonal relations are so complex that individuals should be allowed to form their own individual codes</i>	1	2	3	4	5	6	7	
7.	I always believe that one should interpret things from the perspective of his/her own culture	1	2	3	4	5	6	7	
8.	I believe that group harmony is more important than personal satisfaction	1	2	3	4	5	6	7	
9.	<i>Moral standards should be seen as individualistic; what one person considers to be moral may be judged to be immoral by another person</i>	1	2	3	4	5	6	7	
10.	One should never psychologically or physically harm another person	1	2	3	4	5	6	7	
11.	I dislike unpredictable situations	1	2	3	4	5	6	7	
12.	I often do "my own thing"	1	2	3	4	5	6	7	
13.	I would not be satisfied until people recognize my name in my professional career	1	2	3	4	5	6	7	
14.	I enjoy being unique and different from others in many ways	1	2	3	4	5	6	7	

	Strongly Disagree				Strongly Agree		
15. I feel stressful when I cannot predict consequences	1	2	3	4	5	6	7
16. I find it hard to disagree with authority figures	1	2	3	4	5	6	7
17. I'd rather depend on myself than others	1	2	3	4	5	6	7
18. I tend to conform to the wishes of someone in a higher position than mine	1	2	3	4	5	6	7
19. I tend to get anxious easily when I don't know an outcome	1	2	3	4	5	6	7
20. I would never adopt the ideas that originated from other countries	1	2	3	4	5	6	7
21. I will sacrifice my self-interest for the benefit of the group I am in	1	2	3	4	5	6	7
22. I tend to give priority to the opinions of people in authority	1	2	3	4	5	6	7
23. I don't like to go into a situation without knowing what I can expect from it	1	2	3	4	5	6	7
24. I would prefer more salary to shorter working hours	1	2	3	4	5	6	7
25. It is important to me to respect decisions made by the group	1	2	3	4	5	6	7
26. I don't like situations that are uncertain	1	2	3	4	5	6	7
27. I would rather be known for who I am than as a member of an organization to which I belong	1	2	3	4	5	6	7
28. Risks to another should never be tolerated, irrespective of how small the risks might be	1	2	3	4	5	6	7
29. It is difficult for me to refuse a request if my superior asks me	1	2	3	4	5	6	7
30. It is important to maintain harmony within my group	1	2	3	4	5	6	7
31. If an action could harm an innocent other, then it should not be done	1	2	3	4	5	6	7
32. It is not worth spending time learning another country's culture	1	2	3	4	5	6	7

	Strongly Disagree				Strongly Agree		
33. Maintenance of economic growth should have highest priority in a society	1	2	3	4	5	6	7
34. It is sad to see some people adopting foreign ideas or doctrines	1	2	3	4	5	6	7
35. I find it difficult to disagree with someone in a higher position than mine	1	2	3	4	5	6	7
36. Material success is more important than relationship maintenance	1	2	3	4	5	6	7
37. <i>Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others</i>	1	2	3	4	5	6	7
38. I believe that it is my duty and obligation to observe the norms set by the group to which I belong, even if personal costs outweigh personal benefits	1	2	3	4	5	6	7
39. My country's culture is superior to those of other countries	1	2	3	4	5	6	7
40. My personal identity, independent of others, is very important to me	1	2	3	4	5	6	7
41. I dislike it when a person's statement could mean many different things	1	2	3	4	5	6	7
42. One should not perform an action which might in any way threaten the dignity and welfare of another individual	1	2	3	4	5	6	7
43. <i>Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual</i>	1	2	3	4	5	6	7
44. It is difficult for me to express my opinions to superiors	1	2	3	4	5	6	7
45. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained	1	2	3	4	5	6	7
46. The value system that my fellow countrymen hold is superior to those in other countries	1	2	3	4	5	6	7
47. To me, 'big' and 'fast' is more attractive than 'small' and 'slow'	1	2	3	4	5	6	7

		Strongly Disagree				Strongly Agree		
48.	To me, the interests of the group are generally more important than my personal interests	1	2	3	4	5	6	7
49.	<i>Different types of moralities cannot be compared as to "rightness"</i>	1	2	3	4	5	6	7

Note: Items in italics make up the cultural relativity subset.

Appendix G: Marlowe-Crowne Social Desirability Scale

Anonymity Number: _____

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you, then circle your response.

- | | | | |
|-----|---|---|---|
| 1. | I never hesitate to go out of my way to help someone in trouble | T | F |
| 2. | I have never intensely disliked anyone | T | F |
| 3. | I sometimes feel resentful when I don't get my own way | T | F |
| 4. | I like to gossip at times | T | F |
| 5. | There have been times when I felt like rebelling against people in authority even though I knew they were right | T | F |
| 6. | I can remember "playing sick" to get out of something | T | F |
| 7. | There have been occasions when I took advantage of someone | T | F |
| 8. | I'm always willing to admit when I make a mistake | T | F |
| 9. | I always try to practice what I preach | T | F |
| 10. | I sometimes try to get even, rather than forgive and forget | T | F |
| 11. | When I don't know something I don't mind at all admitting it | T | F |
| 12. | I am always courteous, even to people who are disagreeable | T | F |
| 13. | At times I have really insisted on having things my own way | T | F |
| 14. | There have been occasions when I felt like smashing things | T | F |
| 15. | I would never think of letting someone else be punished for my wrongdoings | T | F |
| 16. | I never resent being asked to return a favour | T | F |
| 17. | I have never been irked when people expressed ideas different from my own | T | F |
| 18. | There have been times when I was quite jealous of the good fortune of others | T | F |
| 19. | I am sometimes irritated by people who ask favours of me | T | F |
| 20. | I have never deliberately said something that hurt someone's feelings | T | F |

Appendix H: Quick Scales

Anonymity Number: _____

Please answer each question by using the scale below and writing the appropriate number next to each item. Choose the response which is closest to your usual feelings or behaviour.

- | | |
|-------------------|-------------------|
| 1. Not at all | 5. More than most |
| 2. Slightly | 6. Very much so |
| 3. Less than most | 7. Extremely |
| 4. Moderately | |

- | | |
|---|-------|
| 1. How lively, outgoing, and extraverted are you? | _____ |
| 2. Do you get anxious, worried, or frightened? | _____ |
| 3. Do you easily accept new ideas, different values, or views of what is aesthetically pleasing? | _____ |
| 4. How often do you make sure you know what to expect, what will need to be done, and how to be sure you get something right? | _____ |
| 5. Do you think most people are honest, well-meaning and can be trusted? | _____ |
| 6. How much do you prefer meeting people rather than reading, studying, or being at home? | _____ |
| 7. Do you often feel moody, low spirited, and negative about yourself? | _____ |
| 8. How imaginative, intellectually enquiring, and interested to try new things are you? | _____ |
| 9. How often are you organised, well-prepared, and ready for most situations? | _____ |
| 10. How often are you careful not to be too direct, or blunt, in case the truth hurts someone? | _____ |
| 11. How sociable, friendly and relaxed are you with other people? | _____ |
| 12. Do you feel lonely, unhappy, or a bit left out of activities you would like to be part of? | _____ |
| 13. How open-minded, flexible in your attitudes, and interested in other cultures are you? | _____ |
| 14. How often are you conscientious, careful, and trustworthy? | _____ |
| 15. How often do you consider other people's wishes, feelings, or their need for help? | _____ |
| 16. How active, quick and responsive are you? | _____ |
| 17. Are you an easily affected, sensitive person whose feelings are easily hurt? | _____ |
| 18. How easily moved, and affected by, or sensitive to beautiful things are you? | _____ |
| 19. How often do you feel motivated, looking to achieve some goal, or working to high standards? | _____ |
| 20. How difficult to you find it is to be a little bit deceitful to manipulate things for your own ends? | _____ |

21. How easily can you tell jokes, or give your opinion, when you are the centre of attention? _____
22. Do other people make you flustered, take you for granted, or try to push you around? _____
23. How often do you want to go to new places, join new groups, or try novel forms of recreation? _____
24. How often do you put things in order of importance, and pace your efforts, in order to finish what you start? _____
25. Are you mostly modest, and somewhat retiring, rather than telling others of your successes? _____
26. How much do you like being at large, noisy parties with lots of people you've never met? _____
27. Do you have difficulty deciding, reacting to, or coping with, unexpected turns of events that demand an immediate response? _____
28. How often do you imagine having new experiences, or things you would like to happen, or events involving you that probably will not turn out like that? _____
29. Do you plan ahead, consider all the possibilities, and think what the best outcome would be? _____
30. How often do you feel sorry for, and willing to help someone who is poor, very old, or disabled? _____

Appendix I: Quick Discrimination Index

Anonymity Number: _____

Please indicate the extent to which you AGREE with the statement, circling the appropriate number.

		Strongly Disagree			Strongly Agree	
		1	2	3	4	5
1.	I really think affirmative action programs on university campuses constitute reverse discrimination	1	2	3	4	5
2.	I feel I could develop an intimate relationship with someone from a different race	1	2	3	4	5
3.	All Australians should learn to speak two languages	1	2	3	4	5
4.	My friendship network is very racially mixed	1	2	3	4	5
5.	I am against affirmative action programs in business	1	2	3	4	5
6.	I would feel O.K. about my son or daughter dating someone from a different racial group	1	2	3	4	5
7.	It upsets (or angers) me that a racial minority person has never been Prime Minister of Australia	1	2	3	4	5
8.	In the past few years there has been too much attention directed toward multicultural or minority issues in education	1	2	3	4	5
9.	Most of my close friends are from my own racial group	1	2	3	4	5
10.	I think that it is (or would be) important for my children to attend schools that are racially mixed	1	2	3	4	5
11.	In the past few years there has been too much attention directed toward multicultural or minority issues in business	1	2	3	4	5
12.	Overall, I think racial minorities in Australia complain too much about racial discrimination	1	2	3	4	5
13.	I think the Prime Minister of Australia should make a concerted effort to appoint more racial minorities to the country's Supreme Court	1	2	3	4	5
14.	I think White people's racism toward racial minority groups still constitutes a major problem in Australia	1	2	3	4	5
15.	I think the education system, from primary school through university, should encourage minority and immigrant children to learn and fully adopt traditional Australian values	1	2	3	4	5
16.	If I were to adopt a child, I would be happy to adopt a child of any race	1	2	3	4	5

		Strongly Disagree			Strongly Agree	
		1	2	3	4	5
17.	I think the education system, from primary school through university, should promote values representative of diverse cultures	1	2	3	4	5
18.	I believe that reading the autobiography of Nelson Mandela would be of value	1	2	3	4	5
19.	I would enjoy living in a neighbourhood consisting of a racially diverse population	1	2	3	4	5
20.	I think it is better if people marry within their own race	1	2	3	4	5

Appendix J: Participant Feedback Form

Anonymity Number: _____

Please indicate the extent to which you AGREE with the statement, circling the appropriate number.

	Strongly Disagree						Strongly Agree
1. My synthetic culture was different from my own culture	1	2	3	4	5	6	7
2. My synthetic culture was different from any other culture I have experienced	1	2	3	4	5	6	7
3. My synthetic culture was different from the other synthetic culture teams	1	2	3	4	5	6	7
4. It was difficult to play my synthetic culture	1	2	3	4	5	6	7
5. It was difficult to play against the other synthetic culture teams	1	2	3	4	5	6	7
6. Learning and playing a synthetic culture has improved my intercultural communication skills	1	2	3	4	5	6	7
7. Learning and playing a synthetic culture has increased my awareness of cultural differences	1	2	3	4	5	6	7
8. Learning and playing a synthetic culture has made me better able to adapt to new situations	1	2	3	4	5	6	7
9. Interacting with other synthetic culture teams has improved my intercultural communication skills	1	2	3	4	5	6	7
10. Interacting with other synthetic culture teams has increased my awareness of cultural differences	1	2	3	4	5	6	7
11. Interacting with other synthetic culture teams has made me better able to adapt to new situations	1	2	3	4	5	6	7
12. My involvement in this study has been an enjoyable experience	1	2	3	4	5	6	7
13. My involvement in this study has been a rewarding experience	1	2	3	4	5	6	7
14. My involvement in this study will be useful and relevant to me	1	2	3	4	5	6	7

Other comments:

Appendix K: How to role-play the synthetic culture profiles

To get the most of participating in the synthetic exercise, it is crucial for you as a player to be aware of some critical issues that relate to culture. Culture is not like a coat that you can choose to either wear or hang on the wall, or a hairdo that you can change by going to the hairdresser or wearing a wig. Instead, culture is like the colour of your eyes; you cannot change it or hide it, and although you cannot see it yourself, it is always visible to other people when you interact with them.

The synthetic culture profile determines not only how you will talk to players from other synthetic cultures during a meeting, but also how you walk, how you open the door and whether you close it, how you use the space in a room, whether you smile, how you greet one another, whether you look at one another or touch, how you say good-bye at the end of a meeting, and so on. Cultural rules are also a matter of pride. People take pride in their culture and in its rules. They take pride in being decent, well-behaved citizens of their country or region. When you role-play a synthetic culture, you must try to feel this pride and to enjoy it too. This is how you should consider the synthetic cultures: your culture profile should be ever present and affect everything you do during the exercise.

To play a synthetic culture well requires considerable emotional investment because culture is so deeply ingrained, and it is so challenging to have to enact values that are not one's own. Nonetheless, it is also a very rewarding experience, and one that has the potential to improve your cross-cultural understanding and interaction skills. *Keep in mind that your own culture will impact on the way you think, feel, talk and act during the exercise, so try to be aware of when and how this is happening. This will help you stay in character, and also make you more aware of how culture can affect people's behaviour.*

Note: The sentences in italics were added by the experimenters.

Appendix L: Team Profiles

Country: Adrastea (Adrastean) – Cooperation orientation

Core value: caring for others, especially the weak

Core distinction: caring vs needing care

Seven key elements:

- 1) Dominant values in society are caring for the weak and preservation (for example, of the environment).
- 2) Small and slow are beautiful.
- 3) Everybody is supposed to be modest, soft-spoken, and empathetic – men and women alike.
- 4) Adrasteans play down exceptional achievements and people.
- 5) Conflicts are resolved through compromise and negotiation.
- 6) Equality, solidarity, and quality of work life are emphasized.
- 7) Society is permissive

Words with a positive connotation:

- Quality, caring, solidarity, modesty, compromise, help, love, grow, small, soft, slow, tender, touch.

Words with a negative connotation:

- Career, competition, fight, aggressive, assertive, success, winner, deserve, merit, excel, force, big, hard, fast, tough, quantity, total, power, action.

Adrasteans at a glance:

- Language: Adrasteans do not raise their voices. They like small talk and agreement.
- Nonverbal: Adrasteans do not take much room and are warm and friendly in conversation.
- Stereotypes: Adrasteans complain about small things. You cannot tell the men from the women. Losers are pampered.
- Evaluation: Adrasteans tend to pity others and themselves and to avoid excessive achievements.
- Stress: Adrasteans have a hard time standing up for their rights or ending relationships.

Gender roles:

Gender is not supposed to play a role among Adrasteans. Men and women are considered socially equal. Homosexuality is not a threat. Love and tenderness are for men and women alike. Intimate relationships without sex are allowed. Children need love, and parents spend much time on them.

Role of women: Because women give birth and breastfeed, they tend to have breaks in their working lives when they have children. Otherwise they are equal to men.

Role of men: Men can fulfil any role that women can, in much the same way, without raising curiosity. They tend to work shorter hours when they have young children.

Country: Amalthea (Amalthean) – High power distance

Core value: respect for status

Core distinction: powerful vs dependent

Seven key elements:

- 1) Might makes right; power is good.
- 2) Power, status, and privilege go together.
- 3) Less powerful people are dependent on those who are more powerful.
- 4) Centralisation is popular.
- 5) Subordinates and children expect direction. They do not speak without being asked.
- 6) The ideal boss is a benevolent autocrat or "good father."
- 7) Style of speech is formal and acknowledges hierarchical positions.

Words with a positive connotation:

- Respect, father (as a title), master, servant, older brother, younger brother, wisdom, favour, protect, obey, orders, pleasing.

Words with a negative connotation:

- Rights, complain, negotiate, fairness, necessity, codetermination, objectives, question, criticize.

Amaltheans at a glance:

- Language: Amaltheans are very verbal but usually soft-spoken and polite.
- Nonverbal: Amaltheans are usually restrained and formal.
- Stereotypes: Amaltheans are hierarchical and seek to please in a formal way.
- Evaluation: Amaltheans tend to shift blame downward for any problems.
- Stress: Amaltheans internalise stress and express it indirectly.

Gender roles:

Both males and females may hold leadership roles. Either way it is obvious who hold power.

Role of women: In home and family affairs, women are likely to be very powerful even though that power might be less visible than that of the males. While women may seem subservient, that may not in fact be true.

Role of men: While males may be the visible traditional leaders, the men may be much more subservient in less visible and more private social roles in a balance of power.

Country: Ananke (Anankean) – Uncertainty avoidance

Core value: certainty

Core distinction: true vs false

Seven key elements:

- 1) What is different is dangerous.
- 2) Familiar risks are accepted, but ambiguous situations and unfamiliar risks are feared.
- 3) Rules are important, even if the rules will never work.
- 4) Rigid taboos exist about what is dirty, wrong, or indecent.
- 5) Time is money.
- 6) There is only one truth and we have it.
- 7) Experts and specialisation are valued.

Words with a positive connotation:

- Structure, duty, truth, law, order, certain, pure, clear, secure, safe, predictable, tight.

Words with a negative connotation:

- Maybe, creative, conflict, tolerant, experiment, spontaneous, relativity, insight, unstructured, loose, flexible.

Anankeans at a glance:

- Language: Anankeans are very verbal and well organised, somewhat loud, and emotional.
- Nonverbal: Anankeans are animated in using hands but are uncomfortable with physical contact.
- Stereotypes: Anankeans have rigid beliefs and are obsessed with rules. They can be xenophobic. They argue all the time.
- Evaluation: Anankeans quickly and sometimes prematurely judge a situation to establish right and wrong.
- Stress: Anankeans are uptight. They externalise stress and usually make others feel stressed.

Gender roles:

Appropriate male and female roles might or might not differ widely, but in any case, they are unambiguously defined and rigidly followed. Dress and behaviour of men and women are defined by rules, traditions, and carefully guarded boundaries. Society has romantic and idealised images of gender roles.

Role of women: Women usually rule over home, family, children, and religious rituals. They may also be professionally active and tend to specialise in certain professions. Society can be very unforgiving of women who rebel or violate the rules, although elderly women may take on traditional power roles otherwise reserved for males.

Role of men: Professional qualifications are important for public identity. Men are expected to take care of women and to provide for the home and family. Older men are usually respected.

Country: Callisto (Callistonean) – Low power distance

Core value: equality between people

Core distinction: responsible for task X vs. not responsible for task X

Seven key elements:

- 1) Inequalities among people should be minimised. Privileges and status symbols are frowned upon.
- 2) There should be, and is, interdependence between less and more powerful people.
- 3) Hierarchy in organisations means an inequality of roles only, established for convenience.
- 4) Decentralisation is popular.
- 5) Subordinates and children expect to be consulted.
- 6) In a conversation anyone can take the lead at any time.
- 7) Powerful people try to appear less powerful than they are.

Words with a positive connotation:

- Rights, complain, negotiate, fairness, necessity, codetermination, objectives, question, criticize.

Words with a negative connotation:

- Father (as a title), master, servant, older brother, younger brother, wisdom, favour, protect, obey, orders, pleasing.

Callistoneans at a glance:

- Language: Callistoneans talk freely in any social context.
- Nonverbal: Callistoneans are usually informal and unceremonious.
- Stereotypes: Callistoneans are unruly, impolite, and jealous.
- Evaluation: Callistoneans will talk back to anybody.
- Stress: Callistoneans always talk or fight conflicts out.

Gender roles:

Leadership roles may be held by either male or female. It is not obvious to an outsider who holds leadership roles. Leaders have limited power and have to be resourceful democrats; otherwise, they would be ousted.

Role of women: Women may play any social role.

Role of men: Men may play any social role.

Country: Elara (Elarian) – Short-term orientation

Core value: saving face

Core distinction: proper vs improper

Seven key elements:

- 1) Never lose face.
- 2) There is a social pressure to "keep up with the Joneses," even if it means overspending.
- 3) Quick results are expected.
- 4) Traditions should be respected.
- 5) Social demands (for example, reciprocating gifts) are met regardless of cost.
- 6) Personal stability is much valued.
- 7) Saving is not popular, so that there is little money for investment.

Words with a positive connotation:

- Relation, gift, today, yesterday, truth, quick, spend, receive, grand, tradition, show, image, the bottom line.

Words with a negative connotation:

- Work, save, moderation, endurance, duty, goal, permanent, future, economy, virtue, invest, afford, effort.

Elarians at a glance:

- Language: Elarians talk a lot. They enjoy talking about the past.
- Nonverbal: Elarians are ceremonious, attentive, stylish, and are warm and formal.
- Stereotypes: Elarians are big spenders, irresponsible.
- Evaluation: Elarians are fatalistic and live from day to day.
- Stress: Elarians are desperate to save face and are distressed at loss of face.

Gender roles:

An elaborate system of social roles, ordered by status, exists. Much time is spent maintaining this system through traditional rituals in which men and women have definite roles. Women may or may not be subservient to men

Role of women: Women know how to behave and are good hosts. They tend to give much attention to their looks.

Role of men: Men like to socialise and to womanise. They might fight for ideals, however impractical. They will respond to appeals for help in times of crisis but are poor at keeping long-term commitments. They will not do anything that might endanger their dignity.

Country: Ganymede (Ganymedean) - Individualism

Core value: individual freedom

Core distinction: me vs others

Seven key elements:

- 1) Honest people speak their mind.
- 2) Low-context communication (explicit concepts) is preferred.
- 3) The task takes precedence over relationships.
- 4) Laws and rights are the same for all.
- 5) Trespassing leads to guilt and loss of self-respect.
- 6) Everyone is supposed to have a personal opinion on any topic.
- 7) The relationship between employer and employee or between parent and child is a contract based on mutual advantage.

Words with a positive connotation:

- Self, friendship, "do your own thing", contract, litigation, self-interest, self-respect, self-actualising, individual, dignity, I, me, pleasure, adventure, guilt, privacy.

Words with a negative connotation:

- Harmony, face, obligation, sacrifice, family (in a symbolic sense), tradition, decency, honour, duty, loyalty, shame.

Ganymedeans at a glance:

- Language: Ganymedeans are verbal and self-centred, using *I* and *me* a lot.
- Nonverbal: Ganymedeans make eye contact freely. When in groups, they are likely to stand out visually.
- Stereotypes: Ganymedeans are defensive and tend to be loners; they run from one appointment to the next.
- Evaluation: Ganymedeans use other people and measure the importance of others in terms of how useful they are.
- Stress: Ganymedeans are supposed to continually test their own ability. This can be stressful. They tend to take on stress physically.

Gender roles:

Females might as easily hold power as males, especially in urban and modernised areas. Gender roles are not rigidly defined; each gender takes on the role of the other when necessary to serve her or his self-interests in public and/or private activities.

Role of women: Women are supposed to be adventurous.

Role of men: Men are supposed to be adventurous.

Country: Himalia (Himalian) – Long-term orientation

Core value: long-term benefits

Core distinction: does vs does not serve a purpose

Seven key elements:

- 1) Working very hard is good.
- 2) Thrift and saving are good.
- 3) Never give up, even if results are disappointing.
- 4) People may devote their lives to lofty, remote ideals.
- 5) Traditions can be adapted to a modern context.
- 6) Achieving one's purpose may be worth losing face.
- 7) Past and future generations are important.

Words with a positive connotation:

- Work, save, moderation, endurance, duty, goal, permanent, future, economy, virtue, invest, afford, effort.

Words with a negative connotation:

- Relation, gift, today, yesterday, truth, quick, spend, receive, grand, tradition, show, image, the bottom line.

Himalians at a glance:

- Language: Himalians are direct and focused, asking questions about implications of actions.
- Nonverbal: Himalians are restrained and unceremonious.
- Stereotypes: Himalians are dull and always working.
- Evaluation: Himalians tend to blame themselves. They are careful planners.
- Stress: Himalians can be uptight and worried. They can, however, cope with heavy workloads under difficult circumstances.

Gender roles:

An elaborate system of social roles, ordered by status, exists in which men and women may have separate or overlapping spheres. If need be, they take on each other's role.

Role of women: Women work, whether or not they have children.

Role of men: Men tend to be entrepreneurial. The extended family may participate in business, and prosperity is desirable.

Country: Lysithea (Lysithean) – Achievement orientation

Core value: winning

Core distinction: man vs woman

Seven key elements:

- 1) Material success and progress are dominant values.
- 2) Bigger and faster are better.
- 3) Men are supposed to be assertive, ambitious, and tough. Women should be subservient and tender. Attractive women can use their beauty as a weapon in social competition.
- 4) Lysitheans like to admire exceptional achievements or people.
- 5) Failing (at school, at work, in sports, or wherever) is a disaster.
- 6) Conflicts are resolved by arguing or fighting them out.
- 7) The best student, worker, or manager sets the norm.

Words with a positive connotation:

- Career, competition, fight, aggressive, assertive, success, winner, deserve, merit, excel, force, big, fast, tough, quantity, total, power, action.

Words with a negative connotation:

- Caring, solidarity, modesty, compromise, help, love, grow, small, soft, slow, tender, touch.

Lysitheans at a glance:

- Language: Lysitheans are loud and verbal, with a tendency to criticize and argue with others.
- Nonverbal: Lysitheans like physical contact, direct eye contact, and animated gestures.
- Stereotypes: Lysitheans are macho, are hero- and status-oriented, and like winners.
- Evaluation: Lysitheans are hard to please, tend to be overachievers, are defensive, and blame others for their mistakes.
- Stress: Lysitheans generate stress through fast-paced lifestyles.

Gender roles:

This synthetic culture is all about differences between socially “masculine” and socially “feminine” behaviours. Men are typically more powerful and are highly favoured in leadership roles. Women can act like “one of the guys,” but they have to be extra tough to succeed. Passive and facilitating behaviours are tolerated for women but not for men. Men are stereotyped as strong and women as weak. Sexual achievement is important, too. Everybody tries to look young and vigorous.

Role of women: Women tend to be either masculine in their personal style or subservient and docile (at least outwardly). Young and attractive women can use their beauty to win but have no romantic illusions. Older and less attractive women are at a great disadvantage.

Role of men: Men are supposed to excel in areas requiring physical strength. Young, strong, tall and attractive men are idealised as heroes and are admired or envied by others. Men see life as a game played by men, with women as cheerleaders.

Country: Metis (Metisian) - Collectivism

Core value: group harmony

Core distinction: ingroup vs outgroup

Seven key elements:

- 1) Members of one's ingroup (organisation, extended family) are very close, whereas other, outgroup people are very distant.
- 2) Harmony should always be maintained and direct confrontations avoided.
- 3) Relationships are more important than the task at hand. Much time is spent on greeting and farewell rituals.
- 4) Laws, rights and opinions differ by group.
- 5) Trespassing leads to shame and loss of face for the entire ingroup.
- 6) The relationship between employer and employee is perceived in moral terms, like a family link.
- 7) Spoken communication uses imprecise style. Discreet nonverbal clues, such as tone and pauses, are crucial. The speaker adapts to the listener.

Words with a positive connotation:

- We, harmony, face, obligation, sacrifice, family (in a symbolic sense), tradition, decency, honour, duty, loyalty, shame.

Words with a negative connotation:

- Self, friendship, "do your own thing", contract, litigation, self-interest, self-respect, self-actualising, individual, dignity, I, me, pleasure, adventure, guilt, privacy.

Metisians at a glance:

- Language: Metisians can be very silent, especially when alone among outgroup people. They use *we* instead of *I*. Silences may occur in conversation without creating tension.
- Nonverbal: Metisians are physically very close with ingroups, but reserved with outgroups.
- Stereotypes: Metisians are never on their own; they are not forthright.
- Evaluation: Metisians will go to great lengths for their friends and expect the same in return.
- Stress: Metisians internalise stress. They will suffer if they cannot avoid deviant behaviour or if they are forced to be alone. If provoked, they can be collectively violent to outgroups.

Gender roles:

Gender roles are likely to be well defined, with males and females weaving the social fabric, each in his or her own sphere. Couples are part of wider family groups.

Role of women: Metisian women tend to move into their partner's family when they marry. They tend to both care for the home and provide food and income.

Role of men: Men tend to spend much of their time in the social sphere of their work.

Country: Sinope (Sinopean) – Uncertainty tolerance

Core value: exploration

Core distinction: urgent vs. can wait

Seven key elements:

- 1) What is different causes curiosity.
- 2) Ambiguous situations and unfamiliar risks cause no discomfort.
- 3) Rules should be limited to those that are absolutely necessary.
- 4) Aggression and emotions should be hidden.
- 5) Being lazy feels good; working hard is valued only when needed.
- 6) Deviant and innovative ideas and behaviour are tolerated.
- 7) Generalists are valued, as is common sense.

Words with a positive connotation:

- Maybe, creative, conflict, tolerant, experiment, spontaneous, relativity, insight, unstructured, loose, flexible.

Words with a negative connotation:

- Structure, duty, truth, law, order, certain, pure, clear, secure, safe, predictable, tight.

Sinopeans at a glance:

- Language: Sinopeans are not loud. They can be imprecise. They ask open-ended questions.
- Nonverbal: Sinopeans are unhurried, informal, and have no taboos.
- Stereotypes: Sinopeans have no principles and talk nonsense.
- Evaluation: Sinopeans judge in pragmatic, not moral, terms.
- Stress: Sinopeans are relaxed and take each day as it comes.

Gender roles:

There may or may not be marked differences between men and women. People don't follow strict rules; exceptions are easily accepted. Personal relationships can take many forms. Homosexuality is not considered threatening.

Role of women: A wide range of roles is acceptable. A woman may easily adopt new roles if her situation in life changes.

Role of men: Men may or may not be expected to dominate over women. Deviant roles for men are acceptable.

Appendix M: The Trade Mission: Original Rules of Play

You are a member of a trade delegation from your country. You are attending an important international trade event at which you intend to conduct some good business. Although your country has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial ten-minute meeting in order to practice your synthetic culture and determine what product to offer. It could be anything. Some possible examples: flowers, refrigerators, wrist-worn communicators, zeppelins, or health-care programs. The product should be compatible with your national (synthetic) culture. You will be proud to be able to offer your product for sale. After you have chosen your country's product, plan sales strategies compatible with your synthetic culture.

Then you will visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from your country right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which your country is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one.

Appendix N: Rules of play

'The Trade Mission' : Rules of Play for Adrasteans (Cooperation orientation)

You are a member of a trade delegation from your country, Adrastea. You are attending an important international trade event at which you intend to conduct some good business. Although Adrastea has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be a multivitamin, distributed free of charge and made widely available to prevent nutritional deficits in the poor and unfortunate. Each carton of 200 packets costs 500 monetary units to buy, with each packet containing 28 multivitamins, a four-week supply. You wish to sell at least 20 cartons at this initial trade meeting, and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Adrastea right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Adrastea is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

'The Trade Mission' : Rules of Play for Amaltheans (High power distance)

You are a member of a trade delegation from your country, Amalthea. You are attending an important international trade event at which you intend to conduct some good business. Although Amalthea has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be one-way wrist-worn communicators, for bosses and managers to send messages to subordinates. Sets come with a variable number of basic receiving units for employees, and one silver sending unit for the employer. Each sending unit costs 350 monetary units, plus 40 monetary units per receiving unit. You wish to sell a minimum of 20 basic packages, each including one sending unit and five receiving units, at this initial trade meeting, and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Amalthea right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Amalthea is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

'The Trade Mission' : Rules of Play for Anankeans (Uncertainty avoidance)

You are a member of a trade delegation from your country, Ananke. You are attending an important international trade event at which you intend to conduct some good business. Although Ananke has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be a life insurance package put together by a team of experts in the field. Several sale conditions apply. A minimum of 2000 packages must be sold to the other country per year to maintain trade, individual buyers must be over the age of 21 years and married, and the beneficiary can only be a spouse or immediate relative. An initial fee of 150 monetary units applies, and payments of 10 monetary units must be made fortnightly, and no later. You wish to sell a minimum of 70 packages at this initial trade meeting (at the starting cost of 150 monetary units), and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Ananke right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Ananke is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

'The Trade Mission' : Rules of Play for Callistonians (Low power distance)

You are a member of a trade delegation from your country, Callisto. You are attending an important international trade event at which you intend to conduct some good business. Although Callisto has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be mobile phone packages, each phone coming with access to a dial-in database with the numbers of everyone on the network, making it easy for everybody to communicate with anyone, anywhere, anytime. The phone is a basic model with no special features, very affordable, allowing everybody equal footing when it comes to staying in touch. Each phone costs only 30 monetary units plus call costs, with the initial price including entry into and access to the database. You wish to sell at least 350 trial phone packages at this initial trade meeting, and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Callisto right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Callisto is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

'The Trade Mission' : Rules of Play for Elarians (Short-term orientation)

You are a member of a trade delegation from your country, Elara. You are attending an important international trade event at which you intend to conduct some good business. Although Elara has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be decorative statues, individually sculpted and made out of rare metals and precious stones. They can be made to order, so personalised statues of oneself, a friend or family member can be created. Small statues (up to 80 cm in height) are priced from 600 monetary units, larger statues from 1100 monetary units. You wish to take an order for at least half a dozen of each size statue at this initial trade meeting, and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Elara right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Elara is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

'The Trade Mission' : Rules of Play for Ganymedeans (Individualism)

You are a member of a trade delegation from your country, Ganymede. You are attending an important international trade event at which you intend to conduct some good business. Although Ganymede has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be health retreat packages for some rest, relaxation and "me time", to get away from the stress and hassles of family and work life. Includes private room with a personal spa bath, activities during the day such as rock-climbing and abseiling, and optional one-on-one advice services addressing nutrition, stress management and personal issues such as self-confidence. Weekend packages cost 450 monetary units, week-long stays 1300 monetary units. You wish to sell at least 6 weekend and 6 week-long packages at this initial trade meeting, and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Ganymede right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Ganymede is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

'The Trade Mission' : Rules of Play for Himalians (Long-term orientation)

You are a member of a trade delegation from your country, Himalia. You are attending an important international trade event at which you intend to conduct some good business. Although Himalia has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be plantations of fruiting cycads, slow growing but very valuable – seeds cost 50 monetary units each, 5 year old plants 200 monetary units. Plants start to produce fruit after 10 years, but plantations will be worth a fortune when plants are mature and ready to seed again in about 100 years. A great investment to pass on to the next generation. Set up costs 450 monetary units per acre of land. You wish to sell at least 2 one-acre plantations, each with 100 seeds planted, at this initial trade meeting, and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Himalia right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Himalia is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

'The Trade Mission' : Rules of Play for Lysitheans (Achievement orientation)

You are a member of a trade delegation from your country, Lysithea. You are attending an important international trade event at which you intend to conduct some good business. Although Lysithea has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be arcade boxing games, designed so one plays against a virtual computer opponent or real opponent, a big improvement on current one-player only games. These game modules are useful for fitness training as well as for encouraging the competitive spirit and enhancing one's power and assertiveness. Each game module costs 3400 monetary units. You wish to sell a minimum of 3 game modules at this initial trade meeting, and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Lysithea right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Lysithea is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

'The Trade Mission' : Rules of Play for Metisians (Collectivism)

You are a member of a trade delegation from your country, Metis. You are attending an important international trade event at which you intend to conduct some good business. Although Metis has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be a savings plan designed for the family, with each person having access to the account in the family name through identical bank cards that everyone carries. Initial set-up and administration fees will be 260 monetary units for accounts catering for up to 15 persons, and an extra 20 monetary units for each person after that. You wish to sell at least 40 basic packages for up to 15 people at this initial trade meeting, and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Metis right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Metis is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

'The Trade Mission' : Rules of Play for Sinopeans (Uncertainty tolerance)

You are a member of a trade delegation from your country, Sinope. You are attending an important international trade event at which you intend to conduct some good business. Although Sinope has had little to do with the other attending countries, that could change. You hope to establish a positive trading relationship with these other countries.

Your team will hold an initial fifteen-minute meeting in order to practice your synthetic culture and plan suitable sales strategies. Your product for sale at the trade meeting will be mystery trips to unknown destinations. People may be flown, driven, boated, (or a combination of the three) to a location unknown to them where they can explore, relax and take each day as it comes. Weekend packages or 1 to 4 week trips come with variable price ranges. While you are willing to be flexible and continue negotiations at a later time, you wish to sell at least one trip at this initial trade meeting, and should be proud to be able to offer your product for sale.

You will then visit or receive a foreign delegation for a joint team meeting to establish a trading relationship and to negotiate some actual business. You believe they might be willing to buy a sizable quantity of goods or services from Sinope right now, and you would like to conclude a deal during this meeting. A success would be good for your country as well as for your team's company and careers.

There are two preconditions, however. First, you are not interested in buying more than a symbolic amount of their product, which Sinope is not in need of, in return. Second, the instinctive feeling between you and the other country's delegation needs to be right if the relationship is to become an enduring one. This may require that you develop an awareness of the nature and needs of the other team, and perhaps point out ways in which your product can be adapted to suit their culture.

Appendix O: Activity Structure – General Timeline

Brief in conference room – 20 minutes

Team meeting - learn culture profile – 15 min
 - learn game rules, discuss strategy – 15 min

GAME PLAY – 20 min

~~~~~ 10 minute break ~~~~~

Team meeting – 5 min

GAME PLAY – 20 min

~~~~~ 10 minute break ~~~~~

Team meeting – 5 min

GAME PLAY – 20 min

Collect handouts

~~~~~ 10 minute break ~~~~~

Complete questionnaires in conference room – 15-30 minutes

Question / discussion session – 10 minutes

## DISTRIBUTION LIST

### Short- and Long-term Effects of Participation in a Cross-cultural Simulation Game on Intercultural Awareness

Vanessa Mills and Rebekah Smith

#### AUSTRALIA

##### DEFENCE ORGANISATION

| Task Sponsor                                | HQ TC-A | No. of copies            |
|---------------------------------------------|---------|--------------------------|
|                                             |         | 1                        |
| <b>S&amp;T Program</b>                      |         |                          |
| Chief Defence Scientist                     | }       | shared copy              |
| FAS Science Policy                          |         |                          |
| AS Science Corporate Management             |         |                          |
| Director General Science Policy Development |         |                          |
| Counsellor Defence Science, London          |         | Doc Data Sheet           |
| Counsellor Defence Science, Washington      |         | Doc Data Sheet           |
| Scientific Adviser to MRDC, Thailand        |         | Doc Data Sheet           |
| Scientific Adviser Joint                    |         | 1                        |
| Navy Scientific Adviser                     |         | Doc Data Sht & Dist List |
| Scientific Adviser - Army                   |         | 1                        |
| Air Force Scientific Adviser                |         | Doc Data Sht & Dist List |
| Scientific Adviser to the DMO               |         | Doc Data Sht & Dist List |

##### Systems Sciences Laboratory

|                                           |                          |
|-------------------------------------------|--------------------------|
| Chief of Land Operations Division         | Doc Data Sht & Dist List |
| Research Leader Human Systems Integration | 1                        |
| Research Leader Land Systems              | 1                        |
| Head (George Galanis)                     | 1                        |
| Task Manager (Monique Kardos)             | 1                        |
| Authors:                                  |                          |
| Vanessa Mills                             | 1                        |
| Rebekah Smith (via Vanessa Mills)         | 1                        |

##### Systems Sciences Laboratory

|                              |   |
|------------------------------|---|
| Dr Glenn Smith, ANL HUM TP11 | 1 |
| Dr Leoni Warne, DSAD         | 1 |

##### DSTO Library and Archives

|                   |                    |
|-------------------|--------------------|
| Library Edinburgh | 1 + doc Data Sheet |
| Defence Archives  | 1                  |



**Capability Systems Division**

|                                           |                |
|-------------------------------------------|----------------|
| Director General Maritime Development     | Doc Data Sheet |
| Director General Land Development         | 1              |
| Director General Capability and Plans     | Doc Data Sheet |
| Assistant Secretary Investment Analysis   | Doc Data Sheet |
| Director Capability Plans and Programming | Doc Data Sheet |
| Director Trials                           | Doc Data Sheet |

**Office of the Chief Information Officer**

|                                                       |                |
|-------------------------------------------------------|----------------|
| Deputy CIO                                            | Doc Data Sheet |
| Director General Information Policy and Plans         | Doc Data Sheet |
| AS Information Strategies and Futures                 | Doc Data Sheet |
| AS Information Architecture and Management            | Doc Data Sheet |
| Director General Australian Defence Simulation Office | Doc Data Sheet |
| Director General Information Services                 | Doc Data Sheet |

**Strategy Group**

|                                                          |                |
|----------------------------------------------------------|----------------|
| Director General Military Strategy                       | Doc Data Sheet |
| Director General Preparedness                            | Doc Data Sheet |
| Assistant Secretary Strategic Policy                     | Doc Data Sheet |
| Assistant Secretary Governance and Counter-Proliferation | Doc Data Sheet |

**Navy**

|                                                                               |                          |
|-------------------------------------------------------------------------------|--------------------------|
| Director General Navy Capability, Performance and Plans, Navy Headquarters    | Doc Data Sheet           |
| Director General Navy Strategic Policy and Futures, Navy Headquarters         | Doc Data Sheet           |
| Maritime Operational Analysis Centre, Building 89/90 Garden Island Sydney NSW | Doc Data Sht & Dist List |

**Army**

|                                                                                        |                            |
|----------------------------------------------------------------------------------------|----------------------------|
| COMD DINTTC, Canungra Q                                                                | 1                          |
| J2, Deployable Joint Force Headquarters (DJFHQ) (L), Enoggera QLD                      | Doc Data Sheet             |
| ABCA National Standardisation Officer, Land Warfare Development Sector, Puckapunyal    | 1                          |
| SO (Science) - Land Headquarters (LHQ), Victoria Barracks NSW                          | e-mailed Doc Data Sheet    |
|                                                                                        | Doc Data & Exec Summ       |
| SO (Science), Deployable Joint Force Headquarters (DJFHQ) (L), Enoggera QLD            | Doc Data Sheet & Exec Summ |
| SO (Science), 3 Bde, Lavarack Barracks, MILPO Townsville QLD 4813                      | Doc Data Sheet & Exec Summ |
| SO (Science), 1 Bde, Robertson Barracks, Palmerston NT 0830                            | Doc Data Sheet & Exec Summ |
| SO (Science), Training Command – Army, HQ TC-A, Suakin Drive, Georges Heights NSW 2088 | Doc Data Sheet & Exec Summ |

SO (Science), Special Forces, Maritime Headquarters, Garden Island, NSW  
Doc Data Sheet & Exec Summ

#### **Joint Operations Command**

|                                                      |                |
|------------------------------------------------------|----------------|
| Director General Joint Operations                    | Doc Data Sheet |
| Chief of Staff Headquarters Joint Operations Command | Doc Data Sheet |
| Commandant ADF Warfare Centre                        | Doc Data Sheet |
| Director General Strategic Logistics                 | Doc Data Sheet |

#### **Intelligence Program**

|                                                                            |                |
|----------------------------------------------------------------------------|----------------|
| DGSTA Defence Intelligence Organisation                                    | 1              |
| Manager, Information Centre, Defence Intelligence Organisation             | email pdf      |
| Assistant Secretary Corporate, Defence Imagery and Geospatial Organisation | Doc Data Sheet |

#### **Defence Materiel Organisation**

|                                 |                |
|---------------------------------|----------------|
| Deputy CEO                      | Doc Data Sheet |
| Head Aerospace Systems Division | Doc Data Sheet |
| Head Maritime Systems Division  | Doc Data Sheet |
| Chief Joint Logistics Command   | Doc Data Sheet |
| Head Materiel Finance           | Doc Data Sheet |

#### **Defence Libraries**

|                                    |                |
|------------------------------------|----------------|
| Library Manager, DLS-Canberra      | Doc Data Sheet |
| Library Manager, DLS - Sydney West | Doc Data Sheet |

#### **OTHER ORGANISATIONS**

|                               |   |
|-------------------------------|---|
| National Library of Australia | 1 |
| NASA (Canberra)               | 1 |

#### **UNIVERSITIES AND COLLEGES**

|                                                                   |                |
|-------------------------------------------------------------------|----------------|
| Australian Defence Force Academy                                  |                |
| Library                                                           | 1              |
| Head of Aerospace and Mechanical Engineering                      | 1              |
| Serials Section (M list), Deakin University Library, Geelong, VIC | 1              |
| Hargrave Library, Monash University                               | Doc Data Sheet |
| Librarian, Flinders University                                    | 1              |

### **OUTSIDE AUSTRALIA**

#### **INTERNATIONAL DEFENCE INFORMATION CENTRES**

|                                                                                       |   |
|---------------------------------------------------------------------------------------|---|
| US Defense Technical Information Center                                               | 2 |
| United Kingdom - Dstl Knowledge Services                                              | 2 |
| Canada - Defence Research Directorate R&D Knowledge & Information Management (DRDKIM) | 1 |
| NZ Defence Information Centre                                                         | 1 |

**ABSTRACTING AND INFORMATION ORGANISATIONS**

|                                                            |   |
|------------------------------------------------------------|---|
| Library, Chemical Abstracts Reference Service              | 1 |
| Engineering Societies Library, US                          | 1 |
| Materials Information, Cambridge Scientific Abstracts, US  | 1 |
| Documents Librarian, The Center for Research Libraries, US | 1 |

|        |   |
|--------|---|
| SPARES | 5 |
|--------|---|

|                                |                |           |
|--------------------------------|----------------|-----------|
| <b>Total number of copies:</b> | <b>Printed</b> | <b>40</b> |
|                                | <b>PDF</b>     | <b>1</b>  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                              |                                                                                                                                                                         |                                                              |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--|
| <b>DEFENCE SCIENCE AND TECHNOLOGY ORGANISATION<br/>DOCUMENT CONTROL DATA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                              |                                                                                                                                                                         |                                                              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                              |                                                                                                                                                                         | 1. PRIVACY MARKING/CAVEAT (OF DOCUMENT)                      |  |
| 2. TITLE<br><br>Short- and Long-term Effects of Participation in a Cross-cultural Simulation Game on Intercultural Awareness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                              | 3. SECURITY CLASSIFICATION (FOR UNCLASSIFIED REPORTS THAT ARE LIMITED RELEASE USE (L) NEXT TO DOCUMENT CLASSIFICATION)<br><br>Document (U)<br>Title (U)<br>Abstract (U) |                                                              |  |
| 4. AUTHOR(S)<br><br>Vanessa Mills and Rebekah Smith                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                              | 5. CORPORATE AUTHOR<br><br>Systems Sciences Laboratory<br>PO Box 1500<br>Edinburgh South Australia 5111 Australia                                                       |                                                              |  |
| 6a. DSTO NUMBER<br>DSTO-TR-1636                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | 6b. AR NUMBER<br>AR 013-258  |                                                                                                                                                                         | 6c. TYPE OF REPORT<br>Technical Report                       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                              |                                                                                                                                                                         | 7. DOCUMENT DATE<br>November 2004                            |  |
| 8. FILE NUMBER<br>E9505-25-244                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | 9. TASK NUMBER<br>ARM 03/017 |                                                                                                                                                                         | 10. TASK SPONSOR<br>HQ TC-A                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                              |                                                                                                                                                                         | 11. NO. OF PAGES<br>64                                       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                              |                                                                                                                                                                         | 12. NO. OF REFERENCES<br>62                                  |  |
| 13. URL on the World Wide Web<br><br><a href="http://www.dsto.defence.gov.au/corporate/reports/DSTO-TR-1636.pdf">http://www.dsto.defence.gov.au/corporate/reports/DSTO-TR-1636.pdf</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                              |                                                                                                                                                                         | 14. RELEASE AUTHORITY<br><br>Chief, Land Operations Division |  |
| 15. SECONDARY RELEASE STATEMENT OF THIS DOCUMENT<br><br><i>Approved for public release</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                              |                                                                                                                                                                         |                                                              |  |
| OVERSEAS ENQUIRIES OUTSIDE STATED LIMITATIONS SHOULD BE REFERRED THROUGH DOCUMENT EXCHANGE, PO BOX 1500, EDINBURGH, SA 5111                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                              |                                                                                                                                                                         |                                                              |  |
| 16. DELIBERATE ANNOUNCEMENT<br><br>No Limitations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                              |                                                                                                                                                                         |                                                              |  |
| 17. CITATION IN OTHER DOCUMENTS Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                              |                                                                                                                                                                         |                                                              |  |
| 18. DEFTTEST DESCRIPTORS<br><br>Urban warfare<br>Cultural differences<br>Cross culture (sociology)<br>Military training                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                              |                                                                                                                                                                         |                                                              |  |
| 19. ABSTRACT<br>The increase in military operations in urban terrain has created a requirement for deployed personnel to directly interact with people from other cultural backgrounds. This research aims to identify a base level method of enhancing the general cultural awareness of deployed personnel. Previous research in the business community has led to developing simulation games to enhance these generic intercultural skills. The general approach of this work is for teams of players, each adopting a different synthetic culture, to negotiate a pre-defined outcome with the other teams. The aim is to produce insight into cultural differences through interactions with others, and to develop skills for dealing with those differences through negotiation. Debriefs immediately following game play are used to reinforce learning. To date, however, there are no quantitative methods of measuring the effectiveness of these games in terms of their ability to change attitudes and awareness. In addition, there do not appear to be any attempts to examine long-term retention of such changes. Consequently, this research measured the short- and long-term effectiveness of training through simulation to enhance intercultural awareness. Overall, results indicate an immediate and long-term increase in cultural understanding, while there were no changes in underlying value systems. |  |                              |                                                                                                                                                                         |                                                              |  |