Culturally Heterogeneous vs. Culturally Homogeneous Groups in Distributed Group Support Systems: Effects on Group Process and Consensus

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Abstract

As global virtual teams become more common, the need to better understand how groups composed of individuals from different cultural backgrounds perform has never been more pressing. This study compares groups from the same cultural background with groups from varied cultural backgrounds when they used two different communication media (face-to-face and an asynchronous conferencing system). Data was collected on 46 groups, which included a total of 268 subjects representing 39 countries. Research questions regarding group process and consensus were addressed specifically as they relate to cross-cultural group work. The results of this study suggest that distributed, asynchronous GSS may be effectively used by mixed cultural groups facing a value-based cognitive conflict (negotiation) task.

1. Introduction

Jessup and Valacich [26] recommend that future GSS research needs to focus primarily on issues related to the group, rather than the technology, and include studies of cultural norms, values, and processes. They define this challenge as "culture bridging" (p. 316). Raman and Wei [35] suggest that differences in cultural attributes and decision environments have important implications in the design of GDSS for people of different cultures. These differences include communication style and mode, status, appropriate ways of expressing disagreement, and recognizing that in collectivist countries, the preservation of group harmony may be more important than the pursuit of the organization's short-term goals. Task-oriented considerations for some cultures may be far less important than social-oriented considerations. Consequently, different types and levels of communication support may be needed.

As Watson, Ho & Raman [50] note, "Cross-cultural studies of GSS technology are highly relevant to a post-industrial society in which managerial teams, often composed of individuals from different national cultures, will make extensive use of information technology to support group decision-making." Despite the potential importance of cultural composition to the process and outcomes of groups using Group Support Systems, very few studies have used this variable. The review by Fjermestad and Hiltz [16] of 200 GSS experiments identified only six studies where either ethnic diversity or culture were used as an independent variable. All of these studies involved the use of synchronous (decision room) systems, and none of them compared culturally homogeneous to culturally heterogeneous groups.

1.1 Cultural Dimensions

Most definitions of culture include direct or indirect references to the notion of shared values and beliefs that produce norms which, in turn, guide and influence behavior [28, 48]. Beliefs and values emerge from the educational and life experiences that take place within a cultural environment.

Among the most influential work in the area of cross-cultural research is the substantial contribution of Hofstede [24]. Based on an ecological factor analysis of data collected on nearly 117,000 questionnaires completed by employees of a large multinational U.S. firm (IBM), Hofstede proposed a series of four dimensions that differentiate work-related values. Bond [5] later proposed a fifth dimension as a result of a study he completed with 2,200 subjects in 22 countries. These five cultural dimensions are briefly described below.

**Individualism-Collectivism** - individualism implies a loosely knit social framework in which people are supposed to take care of themselves and of their immediate families only, while collectivism is characterized by a tight social framework in which people distinguish between in-groups and out-groups; they expect their in-group (relatives, clan, organizations) to look after them, in exchange for that they feel they owe absolute loyalty to it.

**Power Distance** - the extent to which a society accepts the fact that power in institutions and organizations is