Cross-Cultural Collaboration in Construction Management

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Introduction

One way in which cultures differ is in terms of their mental models of work processes—how tasks are delegated, how power is distributed, the strictness of deadlines and so forth. Misunderstandings can arise when members of a global team have different mental models of such work processes and thus can't properly interpret one another's behavior. The goals of the project are (a) to understand how these mental models and discrepancies between them affect teamwork, (b) to examine how mental models change over the course of intercultural interaction, and (c) to develop interventions to facilitate intercultural teamwork.

Our focus is on mental models of work processes in civil engineering teams, an area in which international teamwork is important for global competitiveness. The teams we are studying are enrolled in a course intended to expose students to cultural issues. American students are teamed with students of one of three other countries: Brazil, Israel, and Turkey. These countries differ along Hofstede's [1] dimensions of *power distance*, *uncertainty avoidance* and *individualism/collectivism*.

Method

Participants

Participants consisted of 10 students in the U.S. enrolled in a civil engineering course. Three or four U.S.

students were paired with three students each from Brazil, Israel or Turkey. Each international team is working together on a construction project to be built in the international partners' country. Teams interact via the internet, webcams, and shared whiteboards.

Data Collection

Three types of data are being collected: (a) *Observation and interviews* of teams during their weekly meetings, (b) *surveys* about students' mental models of work processes in their own country and their international partners' country and (c) *weekly journals* in which students reflect on their experiences with international teamwork.

Preliminary Findings

To date, we have identified several central problems in our intercultural student teams:

***Communication*:** Although all students speak English, differences in accents and terminology lead to misunderstandings. Communication problems also arose when technical documents were not available in English, and had to be summarized by foreign partners or sent out for translation.

***Time*:** Teams face problems related to the time zone differences between countries, which sometimes resulted in collaborators not being available when needed. In addition, deadlines were perceived differently across cultures. For example, Americans felt that their Brazilian partners were not observing deadlines and that delivering a critical piece of work late was acceptable in the Brazilian work culture, as was stopping urgent work for a holiday (Carnival).

***Power-Distance*:** The countries varied in their organizational structures, and these differences created teamwork problems. For example, the Brazilian group and the American group had problems coordinating because they could not agree on their joint hierarchy.

***Values*:** Differences in attitudes and values across the different countries were also apparent. For example, we expected Brazilian students and Turkish students to enjoy building rapport with their American counterparts. This was true in the American-Turkish team, which often socialized before or after meetings, but was not true for the American-Brazilian team.

Expertise: In civil engineering, specialized knowledge about building methods and local materials can differ across cultures.

Next Steps

Our next steps in this project are to analyze the survey data to see whether members of the different countries come to (a) understand their foreign partners' work processes (b) adopt some of their foreign partners' work processes, and (c) gain greater appreciate of the challenges and rewards of international collaboration.

References

[1] Cannon-Bowers, J. A., Salas, E., & Converse, S. A. (1993). Shared mental models in expert team decision making. *Individual and Group Decision Making: Current Issues*, N. J. Castellan, Jr. (Ed.), (pp. 221-246). Hillsdale, NJ: LEA.

[1] Hofstede, G. (2001). *Culture's consequences': Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.