

# The Role of Team's Communication Practices in Between-Team Decision Making Activities

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## Abstract

Research into teams has focused largely on intra-team or sub-team activities. Although activities involving two or more teams are becoming increasingly common due to outsourcing and globalization in the workplace, there are few studies about them. In this project, we studied two engineering teams and their activities for five months. The two teams, which belong to a Canadian company, are located in different countries. We collected different kinds of data to explore various aspects of the teams and their activities. In this research note, we report our preliminary findings about two teams' communication practices. Specifically, the findings suggest that despite the presence of video conference tool, file sharing tool, electronic mails, and phones, onsite visit and/or face-to-face interactions have great impact on the satisfaction level of the members' experiences of working with another remote team of different national culture.

**Keywords:** inter-cultural teamwork, inter-team communication, qualitative study

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## 1 Introduction

A lot of studies have been conducted to understand group dynamics (e.g., Janis, 1982; Hoyt & Blascovich, 2003), predict group performance (Kolfshoten et al., 2011, Kelly et al., 2011, Busche & Coetzer, 2007), and improve the quality of group activities (Shapira et al., 2001; Spring & Vathanophas, 2003). Team decision making, in particular, has been studied extensively in different fields. For example, a keyword search of “team decision making” returns 752 results in Business Source Complete (a leading database for scholarly work in business) and 661 in ProQuest (a leading database for scholarly work in humanities, social sciences, and education). The introduction of group technologies enables teams to work together with less time and location constraint. Various studies have investigated technology related issues for supporting and enriching team decision making with either focuses on technology design and evaluation, or teamwork issues introduced by the technology-mediated communication and collaboration channels.

Our work is focused on understanding and supporting decision-making activities between two teams. Between-teams activities are different from those of sub-teams or sometimes referred to as subgroups in the literature. A subgroup is a collective entity that characterizes itself by a form or degree of interdependence and that is unique when compared to that of other members, and has to be a subset of members of the same work team whose membership and tasks formally recognized by the organization (Kozlowski & Bell, 2003). Although there have been a number of studies on subgroups in teamwork (e.g., Ocker et al., 2011, Carton and Cummings, 2012), there are much fewer studies investigating activities which involve two or more groups. On the other hand, decision-making activities that involve two international teams are increasingly common in our globalizing work environment. According to research in organizational behavior (e.g., Tannenbaum et al., 2012), many global teams may have new unique characteristics that are

not yet well understood. For example, little is known how teams adapt to distance and communication technologies. In an attempt to address this literature gap, we studied an international company's two engineering teams that regularly faced the situation of making design decisions together in their work. These teams are located in two countries: one is at the company's home location in a major Canadian city, and the other is at a branch office in a major Chinese city. During the study, we collected various kinds of data that are about different group variables adopting McGrath's classical conceptual model about small groups (1984). In this report of preliminary findings, we report the observed teams' communication practices and discuss the implications of our findings.

## 2 Related Work

Our literature review shows that the study of culture's impact on teamwork has been focused on three levels of cultural understanding: national culture, organizational culture, and team culture. Researchers have examined the impact of national culture on decision-making styles, process, and involvement (Muller & Ozcan, 2008; Waragarn & Rafique, 2007). The research focus has mainly been on understanding the differences in decision-making styles among different cultures, e.g., comparison of decision-making styles between German team and Swedish teams (Turner & Muller, 2003). Given that Canada and China have two distinct cultures, we expect that the national culture plays an important role in the process. For example, China's cultural tendency is toward high power distance due to its Confucian roots (Martinsons & Westwood, 1997). This leads to a hierarchical power structure in work place, whereby the project managers or team leaders are often much more powerful in decision making processes than teams of Western culture. Also, Chinese people prefer group-based operations emphasizing individual relationships and informal forms of communication within small groups (i.e., *guanxi* network) (Lai et al., 2001; Kunnathur & Shi, 2001; Zhang et al., 2003).

Schein defined organizational culture as a set of implicit assumptions shared within the group that determine its perspective of and reaction to various environments (Schein, 1992). The empirical study by Hofstede et al. (1990) showed that shared perceptions of daily practices to be the core of an organization's culture. Although there have been a lot of studies relevant to organizational culture (e.g., Hofstede et al.'s paper was cited over 2,000 times according to Google Scholar), we have not identified articles that are about the role of organizational culture in team decision-making. However, there are a few studies that relate organizational culture and organizational decision-making or decision-making processes in the organization in general. For example, in demonstrating how leaders could create organizational culture that supersedes national culture values and norms McLaurin (2008) discussed how different organizational cultures could affect decision-making practice and process in the organization. Feldman (1988) presented how organizational culture affects organizational decision-making process in his work on innovation in the organization.

Researchers also study team culture. Teams are microcosms of organizational culture (Suzuki, 1997). Although there is no clear definition given from the literature, group culture in general is considered to include a set of norms and values that are about how things should work and how people should behave in a group (Schein, 1985). The values and attitudes of the working group affect the behavior of the group, whose collective patterns of behavior contribute to the group culture. The group culture, in return, has significant impact on the values and attitudes of the group. We found very few research studies that investigated team culture or group culture in business setting (6 results returned with the keyword search "team culture" in title of the articles in business source complete), and no article was found that discusses the role of team culture in team decision-making. Hofstede's measure (1980) for organizational culture was used in Workman's study (2005) to measure virtual team culture such as team's structure, relationships, and primacy.

In our study, we considered the effects of both national culture and team culture in the between-team decision-making processes. For example, we collected data to understand each team's characteristics and intercultural sensitivity, practices in communication and decision-making, and strategies in conflict management. By comparing these dimensions of the two teams, it provides us with a better understanding of the cultural differences and influences in between-team decision-making activities.

### 3 Research Methodology

The two international teams consisted of members from their country of residence (i.e., Canada and China). We assumed several key aspects of their team cultures that would affect the between-team decision making: the team members' attitudes on intercultural communication, their personalities that would affect their work attitudes, their communication practices, their decision-making styles, and their conflict management styles. During the six month study period, we used different data collection techniques to help us understand these aspects, including two sets of online questionnaires to measure the team members' intercultural sensitivity and personalities, three semi-structured interviews per team member to measure the teams' communication, decision-making, and conflict management styles, over 70 hours of field observations to understand the teams' daily work practices within the team and between the teams (observation of the remote team meetings), and electronic mail records that showed the between-team communications. We were not able to be on the mailing lists of the teams so as to collect all the communication records between teams and/or within the team during the study period. This was the company's decision due to its concerns about the leaking of sensitive information. Instead, the company designated a team member who was a participant in our study to forward us the emails that were deemed to be sharable to the researchers. We were not able to attend all the meetings either for the same reason. In total, we attended three meetings (two within-team meetings and one between-team meeting) and 147 emails that were about nine topics. We also hoped to analyze the company's policies regarding teamwork and communication between remote sites but were told that such documentation was not available.

We report here the preliminary findings from our interview data that helped us understand the difference and similarity in communication practice between the two teams.

### 4 Preliminary Findings – Teams' Communication Practices

We interviewed each participating member three times during the study. The first interview was about members' roles, experiences of working in multicultural environment, and teams' history. The second interview was about communication structures and practices, meeting structure and practices, and interpersonal relationship. And the third interview was about conflict management. In the third interview, we also included the interview questions related to understanding the impact of national culture on decision-making styles. The third interviews' questions were adapted from Waragarn and Rafique's study (2007).

Overall, thirty interviews were conducted with fifteen on the Canadian site, five on the Chinese site, and ten with the Chinese team members via Skype. All interviews were conducted face-to-face within a one-to-one setting. All interviews were audio recorded and the recordings were transcribed. The interviews were conducted in Chinese and English depending on the interviewees' primary language.

#### 4.1 Forms of Communication within the Teams

Both teams acknowledged that in-person communication is a common communication method within the team. All interview participants from the Canadian team mentioned in-person communication before they mentioned any other form, which suggests that it is the first kind of communication that they are likely to use, and the one that they are most likely to rely on. Three participants mentioned that they are able to talk in person, and two specifically mentioned that it is very easy for them to talk in person. One participant explained that it is intentional to have team members sit close to each other – "All the teams, we try and

cohabitate them, so they are sitting together. So there's a lot of interaction just...they're all within a short distance, so a lot of communication that way. And if the rest of the team is in XX, they'll go and talk to them, go to their desk and talk to them." Four Chinese participants also suggested the main communication method is face-to-face. All implied the office's physical setting contributes to the possibilities for face-to-face communication. One participant mentioned that face-to-face communication could fully meet the needs for primary internal discussions.

Email is considered another common approach used for internal communication within both teams. However, there seems to be a difference between the teams in terms of how frequently email is used. In the Canadian team, three of five participants acknowledged that email is their most common communication method. One participant mentioned that he writes "20 emails a day, work emails" and that communication "is email-intense". Another participant acknowledged a preference for email by saying: "Here, we generally always send by email." Such statements were not observed in interviews with the Chinese team members. One participant commented that there are about two to three emails in a day. Another Chinese participant explained that depending on the problem's complexity and importance, emails may be used for receiving background information or involving more people in the process. Why emails are so commonly used in the Canadian team is unknown, although one participant made note of the record-keeping and follow-up potential with email, noting: "Sometimes I use email...I'm not a big email person, unless I am trying to record things. But if I go and talk to somebody in person, I'll just send an email about it." Interviews with the Chinese team members suggested several reasons for using emails within the team including the record-keeping and follow-up potential, the importance of the matter, getting other people involved, and sending Internet links or files.

There also seems to be a difference between two teams in terms of the phone usage for local communication. Phone use is somewhat rare for local communication within the Canadian team, with three participants mentioning low local phone use and giving reasons for it. For example, one participant states that, "Phone's rare. Well, rare enough." And the second participant states that "Phone not so much either, unless I feel somewhat lazy". Four Chinese team members mentioned phone usage for local communication. All participants commented the use of it on different occasions. For example, two participants noted the practice of calling members when they are off site, and four participants noted the practice of using it when members are after work or on vacation. There is no clear reason why the Chinese team members seem to be more likely to make phone calls when off-site, a practice that is not mentioned by the Canadian team members.

All four participants who hold managerial roles in the company noted that they have regular team meetings. One Canadian engineer/designer participant also acknowledged regular team meetings. Only one of the three Chinese engineer participants noted that team meetings are not design review meetings and explained that such meetings are need-based.

One Chinese participant's response implies that instant messaging (IM) is a tool that is allowed at the Chinese site, and that the team members sometimes use IM. One Canadian participant's response, however, suggests that IM is not allowed at the Canadian site.

## 4.2 Forms of Communication between the Teams

We asked both teams' participants how they communicate with the other team. Canadian participants' responses are somewhat diverse. One participant discusses communication in a general sense, claiming that, "That is on an individual basis, and a need to basis. So if you are working on something that needs to be communicated, then we take it upon ourselves to initiate or carry forward that communication." This statement appears to position communication primarily as a need and a function of the job.

The other Canadian participants discuss communication in more specific terms such as meetings, phone calls, and email. Three participants frame communication with Chinese at least partially in terms

of meetings, which is a regular form of communication. Two of these participants also mention using phone to communicate with the Chinese team. However, a different Canadian participant notes that the 12-hour time difference makes it impractical to use phone as a regular communication method between the teams. As a result, he/she states that most of his/her communication with Chinese is by email, but this results in a one-day delay in receiving a response.

Only one Canadian participant discusses communication with Chinese in terms of more personal communication, such as chatting with the team from home. Interestingly, the same participant comments on the use of IM as a tool for communicating with Chinese team members and expected the usefulness of video conferencing tool for improving relationships between the teams, explaining that it would be, “So I can see them and they can see me. That would keep that relationship going”.

The responses of the Chinese participants are more homogeneous compared to those from the Canadian team. All Chinese participants discussed the specific communication methods used, including email, conference calls, and meetings. Their perspectives on these methods are somewhat similar. Emails are the main method to communicate with the Canadian team, according to all participants. However, one participant also noted that he sometimes made phone calls to the Canadian team in urgent situations. Two participants mentioned the database in terms of sharing blue prints. One participant said: “The database we use to save blueprints is called the vault. If anyone makes any changes, they need to check in and email the team of which prints he made a change.” Another participant mentioned that any change he made would be available to the other team. In the interview only one Canadian participant mentioned that he made phone calls to the Chinese team. Interestingly this is the same participant who commented that phone call is impractical because of the 12-hour difference. Chinese participants’ responses on communication also indicate the need-based communication approach. None of the Chinese participants noted that they engaged in more personal communication, such as simply chatting, with the Canadian team.

### 4.3 Similarities and Differences in Communication Between the Teams

The Canadian participants were asked to compare communication within the team and with the Chinese team. Accessibility is recognized as a significant issue that explains the differences in communication between the teams. Participants recognized that the accessibility issue is due to the distance and different time zones. Two participants who have managerial roles in the company note the impact of accessibility issues on management. For example, one participant explained that although he/she would use the same authoritative style, he/she might “...be more careful how that tone [comes] across” especially if he/she is doing talking on the phone. For him/her, it is very important not to “insult them or have them shut down”. His/her response indicates a focus on equality while still understanding that there are differences between the teams both in terms of culture and in terms of how communication happens (for instance, little to no face-to-face communication). The other participant commented on how accessibility might have affected decision-making processes, noting that, “I think that sometimes with the decisions we tend to have more significant decision conversations. The time to have that discussion is quite different. So we might have pre-conversations here and involve nobody from [the Chinese team] and then involve them later. Whereas when it is here, it is much easier to involve everybody in right away”. The same participant also commented that when comparing the communication between the two teams what interests him/her more is not the communication method or style but the content of the communication.

The Chinese participants also talked about the problems with distance. One participant mentioned: “Because of the distance, it takes time to explain detailed situations happening in one site to the other team”. Another participant said that “Canadian engineers are familiar with people from different departments in Canadian, they know each other, work together.... Sometimes the message delivered from Canadian covers the most important information, or the most important opinions, (but not the whole picture).” The Chinese participants also commented that the atmosphere of communication with their local

team is more causal and direct, and they believed the same situation applies to the Canadian team when communicating with their local members. Although the engineers from both sides share similarities in using graphic design software and/or drafts to exchange opinions, participants are aware that not being able to communicate face-to-face causes differences in response time and efficiencies. This might explain why all five participants from the Chinese team talked about company visits as one of the communication methods in their interviews. According to one of the participants, “this type of visit received good feedback from both sides”.

## 5 Implications

Overall, the preference for personal face-to-face communication rather than remote technologies is marked in both teams. This seems to indicate that technologies that bring intimacy or synchronicity to the communication will improve the communication flow and/or experiences between two teams. However, there seems to be some reluctance around using particular technologies for communication, even when they are available (e.g.: IM, video conferencing, etc.). One participant seems to be keen on using these technologies. In contrast, another mentions that although they have increased their IM use, and use it a lot now, they do not feel efficient on some technologies. A different participant also raises another concern, and explains that although he/she is familiar with IM, his/her use at work, “depends on how much time I have. Sometimes you are busy and the message pops up, you know. In IM, people want to talk right away. And I don't have time to talk to them.”

Research literature offers several explanations why teams might not be willing to leverage available communication technologies. Thompson and Coovert (2003) observed a negative impact of computer-mediated communication on teamwork. Tannenbaum et al. (2012) suggested that despite some technologies offer 24/7 connectivity, they are not always perceived as useful for remote teamwork in organizations because of the different work hours in different countries. In addition, the use of communication technologies has been found to negatively affect the team decision-making process. In Baltes et al.'s (2002) meta analysis of studies about computer-mediated communication and group decision making, they found that computer-mediated communication leads to decreases in group effectiveness and increases in time compared to face-to face groups. Credé and Sniezek (2003) found that compared to face-to-face groups, video-conferencing groups showed lower levels of confidence in their decisions. It is worth noting that these studies were conducted over a decade ago and were about within-team communications. Since then, groupware technologies have advanced rapidly and remote teamwork has become an expected work style in the workplace. It would be interesting to revisit these issues in current remote teamwork context. On the other hand, our findings indicate that members' preferences and practices of communicating with other teams have not embraced modern groupware technologies. Moreover, our findings suggest that communication strategies that would work for within-team work might not be applicable to between-team situation. For example, Campbell and Stasser (2006) found that allowing team members ample time to discuss task could enhance information sampling and decision quality in computer-mediated groups. However, we found that in fast-pacing industrial environments where the two teams operate, time is a very limited resource. Team members prefer to allot more time to discussing engineering problems face-to-face with local team members rather than communicating their ideas and solutions with the other team. In summary, our observed communication practices of two teams suggest that that additional design requirements of groupware technologies need to be explored to support between-team work.

As Yin pointed out (2003), analytical generalizability in case study research is the ability to generalize research results to a theory. This allows work conducted with small sample populations to be applied to broader theoretical considerations of the phenomenon being studied. Analytical generalizability makes it possible to consider how our research fits within and contributes to broader considerations of inter-cultural teamwork. When compared with existing research, this work adds to existing theories on inter-

cultural teamwork, particularly with respect to inter-cultural and remote communication. Theories suggest that inter-cultural communication can result in many communicative challenges, particularly with respect to working within a team (Zakaria, Amelinckx, & Wilemon, 2004; Oertig & Buerger, 2006), and research indicates that conflicts are more likely occur in teams that are culturally heterogeneous (Dunkel & Meierewert, 2004). Our research also accounts for these concerns from between-team perspective and illustrates some of the challenges experienced by Canadian and Chinese teams with respect to differences in national culture and team culture. Furthermore, given participants' efforts to communicate effectively with remote team members, our research also reaffirms the importance of intercultural competence and intercultural sensitivity in addressing the challenges of inter-cultural teamwork (Matveev & Milter, 2004; Matveev & Nelson, 2004).

## 6 Conclusion and Future Work

With the increasing number of overseas branches in information and knowledge workplace, it is expected that decision-making activities that involve members of two teams will become more and more common, following the common distributed teamwork processes. However, there are few studies that investigate between-team activities hence our understandings of the between-team decision making phenomenon are limited. In our study, we collected various kinds of data from two engineering teams of a Canada-based company to understand the teams' characteristics, sensitivity to intercultural communication and collaboration, and teams' own practices in communication, decision-making, and managing conflicts.

In this research note, we report partial results of our study: we compare and contrast two teams' communication practices and the implications of the practices on the performance of the decision-making activities. We next will examine the other aspects of the teams' practices, i.e., their decision-making and conflict management styles, and daily group interaction patterns (e.g., whether the members of two teams had similar level of group interactions in work place). Our ultimate goal is to identify the key factors of between-team decision-making activities.

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