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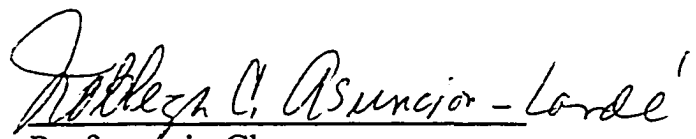
A COMPARATIVE STUDY OF
CHINESE-AMERICAN AND EURO-AMERICAN ENGINEERS'
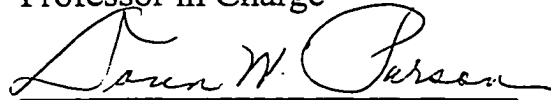# CONCEPTS OF TEAM, TEAMWORK
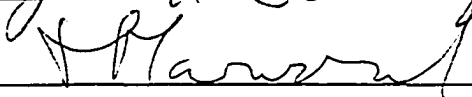# AND PERCEPTIONS OF TEAM EFFECTIVENESS

by

Wei Wu
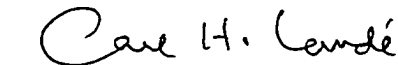
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Abstract

Wei Wu
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In the environment of the global economy, the workforce today has increasingly integrated different cultures, nationalities, and ethnicities. Diversity management is one of the critical issues in multicultural and multinational organizations. While the team approach is one of the popular management practices in organizations, it faces a challenge in a multicultural environment as people from different cultures may perceive things differently. The primary purposes of this study were to explore cultural differences in team and teamwork concepts, as well as team effectiveness perceptions of Chinese-Americans and Euro-Americans in American organizations. The secondary objectives were: (1) To develop a research instrument to measure Chinese-American perceptions of team effectiveness. (2) To explore the Chinese-Americans' concepts of team and teamwork and their perceptual characteristics about team effectiveness. (3) To explain the cultural differences between Chinese-American and Euro-American in terms of their team effectiveness perceptions.

Based on the literature and interview data from Chinese-Americans who are currently working in American organizations, the Cross-cultural Perceptions of Team Effectiveness (CPTE) was constructed to measure the perceptions of team effectiveness, with additional questions to examine the concept of team and teamwork. Through email and contact persons, 236 Chinese-Americans and 62 Euro-Americans in engineering fields across the United States participated in this study.

The study showed that the Chinese-Americans shared similar concepts of team and teamwork, and also demonstrated similarities in their view of team effective characteristics of participation, cooperation, and individual development with Euro-Americans. They differed significantly in terms of team motivation, team climate, and team leadership.

The results of this study suggested that Chinese work-related cultural values strongly influence Chinese-American perceptions of team effectiveness in the following: A strong need to become an insider, a high valuation on harmony relationships, and moral requirements for team leadership. This study supports both sides of the convergence/divergence debate in international and intercultural management theory building. It also found that convergence will more likely occur in team structure and behavioral aspects, while divergence will more likely happen in the relationship aspects and attitudes. This research empirically supported the multicultural team management theories which emphasize the relationship aspects of team building.

Dedication

This dissertation is dedicated to Hong, my wife, and to Angela, my daughter. Thank you for your unconditional love and support during my school years. I will never forget all the good and hard times which we shared.

Also to my parents, who geve me spiritual life and encouraged me to fight for what I dreamed. Without their understanding and inspiration, I would have reached this point in my life.

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I first wish to express my sincere thanks to the University of Kansas, the Academic Computing Service and the Department of Communication Studies at the University of Kansas. Without its institutional help, I would not have been able to pursue the highest degree of my education in the United States.

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My gratitude also goes to Dr. Donn Parson, Dr. Jon Blubaugh, Dr. Jake Harwood, Dr. Carl Lande, who served on my dissertation committee. Their academic knowledge and insights into the research subject were invaluable for the completion of this study.

I should extend my special thanks to my advisor, Dr. Nobleza C. Asuncion-Lande, who taught me, challenged me and great supported me during my years in the graduate program at the University of Kansas.

Finally, I want to thank the Chinese-American and Euro-American engineers who participated in this study. Without their generous help and involvement, I would have still wandered in the dark with my dissertation title.

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Chapter One

Introduction

1. The challenge of a growing global economy and a changing workforce in the workplace

In the last several decades, as world trade and global economic activity has grown exponentially, many organizations have moved from a mainly domestic concern to being international, multinational, and even global in their strategies (Adler, 1990). U. S. direct investment abroad grew from $502 billion in 1992 to $711 billion in 1995 (Commerce Department, 1996a), and currently employs more than 5.5 million people outside of the United States (Commerce Department, 1996b). Many American companies, such as Coca-Cola and Dow Chemical, now earn a majority of their profits in another country or other countries (Adler, 1990). At the same time, foreign direct investment in the United States doubled from $263 billion in 1987 to $560 billion in 1995 (Commerce Department, 1995). With these changes, cultural diversity has emerged as a challenge, not only for marketing and production of goods in other cultures but also for the management of interaction among people of many cultures within international settings.

At the same time, cultural diversity is also increasing within the United States. According to information from the Immigration and Naturalization Service, in the last ten years, the immigration rate increased 63% as compared with the previous decade,

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and the foreign-born U.S. population numbered close to 8% of the total population (INS, 1996).

America's domestic workplaces have undergone dramatic metamorphosis in recent years and that is expected to continue in coming years. As shown in the landmark report, *Workforce 2000: Work and Workers for the 21st Century* (Johnbston & Packer, 1987), the composition of U. S. workforce will change with respect to race, ethnicity, gender, national origin, and age: (1) Throughout the 1990s, immigrants, women, and minorities will account for 85 percent of the net growth in the labor force. (2) By the year 2000, women will account for more than 47 percent of the total workforce, and 61 percent of all American women will be employed. (3) By the end of the 1990s, African Americans will make up 12 percent of the labor force; Hispanics, 10 percent; and Asians, Pacific Islanders, and native Americans, 4 percent. More than 25 percent of the workforce will be comprised of Third world peoples. (4) By the year 2000, people aged thirty-five to fifty-four will make up 51 percent of the workforce. But those aged sixteen to twenty-four will decline to about 8 percent.

Both international and domestic changes increasingly require business people and organization leaders to deal with people from different national and cultural backgrounds. Internationally, more and more business people realize that a global economy does not mean common business practices. An international survey among 12,000 managers showed that "the idea of a corporate global village where a common culture of management unifies the practice of business around the world is more dream than reality" (Kanter, 1991, pp.152). A study of Japanese investment in North America also found that global investment involved much more than just the

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investment of capital in promising products, technologies, and markets. To achieve full value on their investments, corporations and firms must be able to construct a work system and practice that best harnesses the ideas and energy of people in a given culture (Cutcher-Gershenfeld, et al. 1994). Domestically, as "valuing diversity" increasingly becomes an objective of management, diversity training programs are being implemented to help people open their minds and attitudes toward people of different cultural backgrounds, so to as enable them to understand and appreciate the cultural differences. However, researchers find that simply increasing racial and gender diversity in organization and work groups, while necessary, is insufficient to promote a favorable diversity climate. They stress the importance of diversity management by showing that "diversity-enlargement strategies are most likely to succeed if they also include group-based change approaches that are devised to alter the design of jobs, the structure of the workplace, and the supporting reward systems in a manner that fosters collaboration, mentoring, voluntary role modeling, and other forms of intergroup teamwork" (Kossek, Zonia, & Young, 1996).

Facing the new challenge in the global economy, diversity management and team approaches are widely accepted as means for increasing organizational effectiveness. This study is an attempt to explore the concepts of team, teamwork and perceptions of team effectiveness under cultural constraints in multicultural working environments.

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2. The significance of the multicultural team as a subject of study

Organization effectiveness and teamwork are not new concepts in organization management research. In order to be effective, any organization requires a high degree of cooperation and integration among its members. For many years, scholars and researchers have developed the concept of team through addressing the dynamics of small groups. The team is generally thought of as a group of people working together toward a common goal. Sundstrom, Demeuse, and Futrell define work teams as "interdependent collections of individuals who share responsibility for specific outcomes for their organization"(1990, p.120). Larson and LaFasto regard a team as "two or more people, (who) have a specific performance objective or recognizable goal to be attained; and coordination of activity among the members of the team is required for the attainment of the team goal or objective" (1989, p.19). Today, organizations largely depend on teams to integrate different functions so that a group of people may accomplish together what one person could never do alone.

According to Van Auken and Ireland (1978), teamwork became one of the ten basic philosophical themes of modern management in the United States in the 1970s. However, the widespread rhetoric about the use of teams in organizations was not matched by action until 1987 (Dyer, 1995). Since then, the use of teams in organization has almost exploded. The global competitive environment and cultural diverse workforces are two factors which have contributed to the new wave of team-building efforts. A globalized economy requires a sensitivity to different cultural patterns and value systems. This has led to an increased need to develop teams made up of people of different backgrounds, cultures, and experiences to do strategic

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planning for worldwide endeavors. The advantage of teamwork in organizations is clear: it is able to synthesize human effort and integrate differences into a coordinated whole (Sullivan, 1989).

Multicultural team building becomes a new issue in organizations. The problem is that diversity has the potential of bringing out the best and worst in people. It can result in both positive and negative outcomes. On the positive side, for example, heterogeneous teams have been found to bring multiple perspectives to tasks, and as a result, outperform homogeneous teams in generating ideas (Filley, House, & Kerr, 1976; Hoffman, 1979; Mcgrath, 1984). Similarly, diversity of functional backgrounds of top-management teams has been associated with organizational innovation (Bantel & Jackson, 1989; Finkelstein & Hambrick, 1990). On the negative side, researchers have found that diversity generates higher turnover rates because it inhibits the development of strong affective ties among group members (Jackson, Brett, Sessa, Cooper, Julin, & Peyronnin, 1991; O'Reilly, Caldwell, & Barnett, 1989; Wagner, Pffefer, & O'Reilly, 1984). Stereotyping is another deleterious consequence of diversity (Jackson, Stone, & Alvarez, 1993; Kanter, 1977a, 1977b).

How can we successfully take the benefits of diversity while wisely avoiding the negative impact of diversity? Organization researchers identified that teams and groups are interdependent in two arenas--the technical and institutional (Scott, 1987; Raghuram & Garud, 1996). The technical arena is one where team members are interdependent with one another on the basis of their task-related knowledge and skills. In this arena, members focus on controlling and coordinating their technical

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processes to enhance the efficiency with which they, as a group, produce goods and services. The institutional arena is one where teams and group members are interdependent with one another on the basis of their work-related values. These values include the need for achievement, concern for others, honesty, and fairness (Ravlin & Meglino, 1987); they also include attitudes toward group work, risk-taking, and authority (Hofstede, 1983). The values become manifest in work rules and norms that dictate how productivity is measured, how rewards are disbursed, and how people behave on the job. In this arena, members focus on shaping value systems to enhance the effectiveness with which they as a group produce goods and services. These two arenas are two interdependent dimensions of diversity. While the technical dimension of diversity has the potential to create benefits and positive outcomes, the institutional dimension may impact on the cohesiveness and productivity of the team because of the differences of work-related values. Raghuram and Garud (1996) found that a team or group was more likely to be cohesive and productive if the members of teams or groups had different task-related skills but similar work-related values (Raghuram & Garud, 1996). However, different work-related values are inevitable in multicultural teams or groups because of the different cultural and social backgrounds of the team members.

The study of the "multicultural team" becomes significant in terms of improving cohesiveness and productivity of teamwork. It combines two critical issues of today's management theories and practice: diversity management and team management. A multicultural team, by definition, is a group that operates within a larger cultural and social context. It can be effectively used to solve problems and to

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promote change, and it can also be used to promote a sense of belonging and loyalty

for team members and organizations. But the potential of detraction from these

outcomes is obvious if the differences of work-related values among team members

are not properly identified, and a desire to build a common ground under the base of

respecting individual differences and to promote team and organization cohesiveness

is not properly addressed.

3. Specifications of the problem area

There are many ways for researchers to identify work-related values in cross

cultural and multicultural environments. The famous study by Hofstede (1980)

identified four major cultural value dimensions and argued that they are crucial to the

regulation of social systems and individual behavior. Some other researches

challenged Hofstede's Western perspective in his values study and found some new

cultural dimensions from Far Eastern perspective, such as Confucian Dynamics

(Chinese Cultural Connection, 1987), and Paternalism (Uhl-Bien, Tierney, Graen, and

Wakabayashi, 1990). Their findings contribute to current organization management

theories and practice. However, these studies were conducted on an individual basis

without taking organizational constraints into account. For instance, the Chinese

value survey project was based on students' personal value preferences from 27

different countries (Bond, 1988). Regarding team and diversity management, more

specific information that takes the organizational factors into account needs to be

explored. If the research subjects belong to a certain kind of work team or group,

how will they understand team effectiveness? What kinds of team characteristics will

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they consider more important than others? What kinds of cultural and social values and beliefs support their choice and preferences? Identifying these team-related work values is important in building a common ground in multicultural teams, thus increasing our understanding of team effectiveness.

Cox (1991) argued that effective multicultural organizations must insure that core organizational goals, norms, practices, systems, and values are congruent with the various cultural perspectives held by different groups of employees. Success at doing this requires use of the results of intercultural research to see how the cultures of different groups interact with specific types of organizational features. Although the popularity of intercultural and cross-cultural research is increasing in the United States, surveys of publications have shown that less than five percent of the organizational behavior articles that appeared in top American management journals addressed cross-cultural or international issues. The majority of the cross-cultural articles were single culture, single-country studies. Less than two percent compared two or more cultures and less than one percent studied the interaction between employees of different countries (Adler, 1983; Godkin, Braye & Caunch, 1989; Peng, Peterson, & Shyi, 1990). In multicultural team effectiveness investigation, there definitely is a need for conducting intercultural research that examines how the cultural values of the different ethnic groups of workers within the team might moderate understanding and performance in terms of team effectiveness.

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4. Chinese-American professionals as team worker in the United States

During the last two decades, China has become a major international economic power. According to Shan (1997), from 1979 to 1995, China's Gross Domestic Products (GDP) had been growing at the annual rate of over 9%, reaching $695.2 billion in 1995 and ranked the seventh in the GDP among countries in the world, next to the United States, Japan, Germany, France, Italy and Great Britain. China is also planning to double its GDP by the year 2010. The foreign trade of China enjoyed an annual growth rate of over 16% for the last 16 years, and the volume reached $280.85 billion in 1995. As one of the fastest growing economies in the world, China drew huge foreign investments. By the end of 1996, China approved the establishment of 284,000 foreign direct investment projects which involved a contractual investment of $467.2 billion. Among these projects, 140,000 became operational, and China had actually used $177.7 billion of funds. A total of 17 million people are employed by these enterprises (Chinese Embassy in the United States, January 17, 1997). Besides China's fast growing economy, there are several other factors that draw the researcher's attention to conduct a comparative study of American team workers and team workers in U. S. organizations who have Chinese cultural backgrounds. Among these are:

(1) Many Chinese workers are involved in American businesses and work practices in China. To effectively manage this new labor force, it is necessary for both Chinese and American managers to know the specific cultural differences between these two countries. U. S. direct investment in China has increased substantially since 1992. By late June of 1996, U. S. investments totaled $12.29

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billion, with more than 2,000 US-funded projects and ventures in China (China World Trade News, 1996). Many U. S. multinationals, from AT&T, General Electric, General Motors, Chrysler, Philip Morris, Cock-Cola to high technology companies Intel, Motorola, Microsoft and IBM, began their ventures or branches in China. Motorola alone employed more than 7,000 Chinese workers, and started its own programs in 1994 to train the new workforce.

(2) There are also many Chinese professionals who have joined American work forces in the United States. To effectively include these new professionals in team work, we need to know how they adopt to the host culture and where the cultural similarities and differences are in terms of their concepts of team, teamwork and perceptions of team effectiveness. Since 1979, the Chinese government has sent more than 270,000 students to further their education abroad. Only one third of them have returned to China. Based on INS information, almost half of the Chinese new immigrants in the U. S. were employment based rather than family or relatives based in recent year. This was the highest number among immigrants of all countries (INS, 1993, 1994, 1995). Most of these Chinese employees are well educated professionals. They joined the American workforce, but many may still keep their own cultural traditions. It should be interesting to investigate how these cultural traditions influence their understanding of team effectiveness and their performance in team works.

(3) From a research perspective, there is no single study that compares Chinese-Americans and Euro-Americans in terms of their concepts of team,

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teamwork and their perceptions of team effectiveness, although the differences between these two sub-cultures are obvious and interesting.

Taking the above mentioned specifications of the problem into consideration, this study will focus on Chinese-Americans and Euro-Americans in a certain professional field. It proposes to explore the similarities and differences in their concepts of team, teamwork, and their perceptions of team effectiveness. By identifying these similarities and differences, people will gain a better understanding of multicultural team, teamwork, and team effectiveness.

5. Purpose of the study

The primary purposes of this study are to explore similarities and differences in the concepts of team and teamwork, as well as in the perceptions of team effectiveness from both Chinese-Americans' and Euro-Americans' perspectives.

Secondary objectives include: (1) To develop a research instrument to reveal Chinese-Americans' perceptions of team effectiveness. (2) To explore the Chinese-Americans' concepts of team and teamwork, and to examine how these concepts influence their perceptions about team effectiveness. (3) To analyze the similarities and differences of Chinese-Americans and Euro-Americans in terms of their team effectiveness perceptions, and to identify cultural influences in these similarities and differences.

6. Research Questions

Based on the purpose and objectives of the study, three research questions have been formulated:

(1) How reliable is the instrument in measuring Chinese-Americans' and Euro-Americans' perceptions of team effectiveness?

(2) What are the concepts of team and teamwork from the Chinese-Americans' perspective? Are there any conceptual differences between the Chinese-Americans and Euro-Americans about team and teamwork?

(3) What are the characteristics of an effective team from the view of Chinese-Americans? What are the similarities and differences between the Chinese-Americans and Euro-Americans in terms of their perceptions of team effectiveness?

7. Definitions of Terms

Culture -- Culture is a learned set of shared perceptions about beliefs, values, and norms, which affect the behaviors of a relatively large group of people (Lustig & Koester, 1996). Culture manifests itself both in language and thinking patterns, and in forms of activities and behaviors. The present study is focused on both national and ethnic culture.

Multicultural Organization – A multicultural organization is defined in this study as an organization that employs individuals who belong to different national and/or ethnic cultural groups.

Cultural Synergy – The concept of cultural synergy refers to the way in which the

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very differences in the world's people can promote mutual growth and accomplishment through cooperation. Cultural synergy through collaboration emphasizes similarities and common concerns, integrating differences to enrich human activities and system. By combining the best in varied cultures and seeking the widest input, multiple effects and complex solutions can result. Synergy is separate parts functioning together to create a greater whole and to achieve a common goal (Harris & Moran, 1991, p. 11).

Values -- Values are mental concepts of desirable and undesirable aspects of behavior existing in the mind as an interdependent network of priorities among different kinds of behavior. A value orientation is a set of criteria or standards about what is desirable and undesirable.

Work-related Values -- Work-related values are the end states people desire and feel they ought to be able to realize through working (Nord, Brief, Atieh, & Donerty, 1988). Work-related values are of great practical importance because they affect the means that can be used to manage a society's economic activities. For example, as shared interpretations of what people want and expect, work values are an important component of social reality that influence, the type of work people design for others, how people are socialized for work, and how people can successfully relate work to other aspects of their lives.

Euro-Americans – Euro-Americans refer to individuals of European ancestry, most of whom use English as their native language and who currently work and reside in the United States.

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Chinese-Americans -- Chinese-Americans refer to individuals who are first

generation of immigrants and currently work and reside in the United States.

First generation of immigrants, means that they were born in other countries

and immigrated to the United States. United States citizenship is not a

requirement.

8. Organization of the dissertation

The material is organized into five chapters.

Chapter one, the introduction, discusses the significance of multicultural team

study, and specifications of the problem area, research purpose, research questions,

definition of terms and the organization of the dissertation.

Chapter two consists of a comprehensive review of the literature in the

following areas: team and team effectiveness from both Chinese and American

perspectives, multicultural team management theories, and Chinese cultural factors

which may affect Chinese-Americans' organizational behaviors.

Chapter three presents the methodology and research design for the study. It

includes instrument preparation, sampling, administration of the questionnaire, and

data analysis procedure.

Chapter four reports the research results, including details of the analysis of

the data and discussion of the findings.

Chapter five summarizes the findings, final conclusions and implications of

the study, discusses its limitations, and offers recommendations for future research.

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Chapter Two

Literature Review

Though there has been much interest in multicultural teams and in the effectiveness of multicultural and multinational organizations, little research has systematically explored the nature of the team, teamwork concepts, and the characteristics of an effective team from a Chinese perspective either in China or in other multicultural organizations. This review first focuses on literature related to organizational teams, outlining the way in which teams have typically been defined and characterized from both the American and the Chinese perspectives. Then selected research on multicultural team management is reviewed, demonstrating some special characteristics of effective multicultural teams. Finally, since the study focuses mainly on Chinese-Americans' perceptions of team effectiveness, a review of Chinese cultural factors that affect organizational behaviors is offered.

1. Team, teamwork and team effectiveness

(1) Team research development in the United States and China

Although cross-cultural studies have revealed that the United States manifested an individualistic rather than a collectivistic orientation (Hofstede, 1980; Gudykunst & Ting-Toomey, 1988), group research and team study have been some of the basic themes in American modern management theories (Auken & Ireland, 1978).

Due to the nature of modern industry, the relationship of organizational man and organizational structure became the focus of modern managerial research. However, in earlier theories, such as Theory X, researchers argued that jobs should be individualized because group influences restrict worker output. For example, Taylor (1911) stated that "when workmen are herded together in gangs, each man in the gang becomes far less efficient than when his personal ambition is stimulated...when men work in gangs, their individual ambition falls almost invariably down to or below the level of the worst man in the gang...they are pulled down instead of being elevated by being herded together" (p.73). It was not until the 1920s that the effects of groups in the workplace began to be recognized and examined. The first recognition of the "human component" in industrial organizations is attributed to Elton Mayo (1925, 1946) and his research associates at Harvard University (Mayo & Lombard, 1944). Through their research, they demonstrated that informal or not, groups do exist and flourish in the industrial setting. Groups are formed as a result of conditions of the workplace environment and /or the work process itself. These groups create norms that dictate the performance behaviors of their members. The results can be either positive or negative in terms of output or productivity. Research in the 1940s followed this direction and further proved that groups can have a positive influence on worker behavior and performance (Coch & French, 1948). Unlike earlier research which used participant observation and interview methods, the research in the 1950s used quantitative methods to specify these issues more precisely. Correlational studies were carried out in an attempt to explain the variables that made groups behave as they did in the workplace.

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Technological factors in forming these work groups were also examined through the survey research techniques employed (e.g. Seashore, 1954).

The research of the 1960s marked a period of transition for group and team research. It represented a revolution of ideas and the breaking of traditions. These research studies offered us a new way of exploring the behavior of the work group not just through observation techniques or recording and measuring instruments but through planned change: change and adaptation to the social technology of the work environment and change in the managerial climate. In the early 1960s, researchers like Douglas McGregor (1960) and Rensis Likert (1961) summarized the findings of the group dynamics movement with lists of effective group characteristics, which became known as team characteristics. McGregor and Likert's team characteristics became popular, in part, because they were linked with performance and productivity. Their work marked a point of transition from research on groups to the application of the results of the research to a wide variety of organizations. Later on, Robert Blake and Jane Mouton (1964), Chris Argyris (1965) and other organizational researchers also joined this effort. Organizational development consultants began applying the research information of the 1950s through training programs within organizations in the 1960s, 1970s and 1980s.

Team research during the last three decades has centered on helping organizations deal with the ever-growing problems brought about by a global economy. A typical example was the quality circle/total quality management movement. Perhaps there is no single organizational innovation that has received more publicity and more popularity than this movement. In the 1970s, in order to

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improve productivity, the Japanese concept of quality circles was introduced to the United States. The QC movement has led to a great emphasis on teamwork. Early proponents of QCs turned to this employee participation technique hoping to improve quality, to smooth communications, to increase productivity, to reduce the adversarial relationships between union and management, to deal with an alienated, overeducated workforce, and to offset foreign competition (Kornbluh, 1984; Lawler, Mohrman, & Ledford, 1992). Another example is the current interest in the multicultural team and the transnational team, which has become popular since the late 1980s. The essential aspect of the multicultural team management lies in increasing understanding of cultural factors and work-related values among team members in order to increase team effectiveness.

Compared with team research development in the United States, the Chinese have just started research on the teams and teamwork that they have employed for many years in their organizations. According to Wang (1991), there is a strong tradition of group work and collectivism in Chinese organizations. Group approaches to work are greatly valued. However, before the Communists took over China, group loyalties were directed mainly towards the family and clan. "To the Chinese, kinship composed both a permanent group and a reference group as well, it served as a framework in which to measure achievement and social standing " (Hsu & Chu, 1979, p.406). Thus, interpersonal obligations were defined solely in terms of the family or clan system. After the People's Republic of China was founded, Chinese Communist party leaders realized that this attitude was inadequate for guiding the Chinese in the modern industrial world on the one hand, and was also on obstacle to effective

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governmental and party. China's new leaders believed that if every Chinese could broaden his/her view to look on the state as his/her own family and extend to it the interpersonal obligations that were once rendered only to family members, then there would be cooperation among all inhabitants of the country. Otherwise, the billion people who make up China's population would be nothing but a "heap of loose sand"--a term used by Dr. Sun Yat-sen, founder of the Chinese Republic in 1911, to describe the Chinese at the turn of the twentieth century. Based on this belief, group approaches were widely used by communists as a means to promote cooperation as well as to control the people. "Individuals in many different organizational settings in China--such as schools, offices, factories, urban neighborhoods, military units, forced labor camps--are organized on a regular basis into hsiao-tsu, which commonly have about eight to fifteen members" (Whyte, 1979). Hsiao-tsu, which means "small group" or "team" in English, was one of the organizational innovations of the Chinese communists. By controlling these basic social groups, individuals in the whole society were organized and manipulated by the communists in terms of both political ideology and economic productivity. During the recent nationwide economic reform, although political control was not withdrawn from these small groups, more emphasis was given to work efficiency, responsibility and competition. An annual national "Excellent Group Evaluation Campaign" was launched to improve the productivity of the Chinese workers and professionals. A national QC evaluation campaign for the Excellent Quality Circle Award is held every year. Team management has now become a new issue in Chinese organizational life.

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In response to the new challenge of economic reform, the Chinese Society of Industrial Psychology was organized in 1978, and the Chinese Society of Behavioral Sciences was established in 1985. Although the Chinese only started their researchon this subject in recent years, the issues they faced were quite universal: group development, team effectiveness, and cultural differences of teamwork in sino-foreign joint ventures.

(2) Team and Teamwork concepts in the United States and China

The team research development in the United States and China discussed above showed that American researchers found teams were a useful means for improving productivity in the individualistic society, while Chinese practitioners took it for granted in view of their collectivist cultural traditions. In these two different societies, how are team and teamwork conceptualized? Are there any similarities and differences in terms of these concepts?

In the individualistic societies, a simple rationale for people work in teams is that Together Everyone Accomplishes More (Gorden, Nagel, Myers & Barbato, 1996). To conceptualize team, American researchers tend to use individuals as their starting point to see how they function together to perform tasks that are impossible or difficult to accomplish by single individuals. The following are some definitions of team offered by organizational consultants and researchers.

- Teams are collections of people who must rely on group collaboration if each member is to experience the optimum of success and goal achievement. (Dyer, 1977, p.4)

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- A team may be simply defined as any group of people who must significantly relate with each other in order to accomplish shared objectives. (Woodcock & Francis, 1981, p.3).

- A team has two or more people; it has a specific performance objective or recognizable goal to be attained; and coordination of activity among the members of the team is required for the attainment of the team goal or objective. (Larson & LaFasto, 1989, p. 19)

- [Teams are] small groups of interdependent individuals who share responsibility for outcomes for their organization. (Sundstrom, DeMeuse, & Futrell, 1990, p. 120)

- A team is defined as a distinguishable set of two or more people who interact dynamically, interdependently, and adaptively toward a common and valued goal/objective/mission; who have each been assigned specific roles or functions to perform, and who have a limited life-span of membership. (Swezey & Salas, 1992, p. 4)

Based on these conceptualizations, teamwork was understood as "a condition that may come and go. It may exist only for the time that it takes a group to perform a particular task. After the task is performed, the need for teamwork no longer exists. Group members can have teamwork one moment, then be disjunctive and at odds with each other the next. People can rally around some purpose and cooperate to achieve it, then break up and become very competitive and proprietary" (Kinlaw, 1991, pp.1-2). Some researchers defined teamwork as consisting of a complex of behaviors including: coordination, mutual adjustment, compensatory behavior, communication, flexibility / adaptability, and cohesion (McIntyre, Morgan, Salas, & Clickman, 1988).

In mainland China, because of the group approaches used by the Chinese communists, the team concept is the same as that of the small group. It is viewed as

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the basic, and the smallest work unit in organizations. In Chinese industrial enterprises, according to the Chinese official definition, team " is the basic production and management unit of industrial enterprises. It is not only one of the components of the workshop in enterprises, but also a basic business accounting unit in industrial enterprises" (Ma & Sun, 1985, p.959). Based on this definition, a team is the natural work unit in China. Usually, a team was formed to fulfill a production or service requirement. The major function of a team is to organize team member's production or service activities to fulfill a qualitative or quantitative quota. Because teams are basic natural work units, the annual national "Excellent Group Evaluation Campaign" is able to objectively evaluate the excellence of a team based on certain productivity and financial indexes. The campaigns are designed to serve two purposes: (1) to develop friendly competition between teams so that they will surpass their past performance records; and (2) to help the less advanced teams catch up with the more advanced ones. The latter notion is foreign to U.S. enterprises. However, this is part of Chinese concept of cooperation and teamwork.

In contrast to the American view of teamwork, the Chinese perspective of teamwork is more concerned with people's attitude rather than with their behavior. The Chinese communist leaders claimed that they served the people, and tried to extend a person's interpersonal obligations from family to the state. They encouraged a kind of cooperation and teamwork based on the ideology of "serve the people" (Mao Zhe-Dong, former chairman of Chinese Communist Party) or a more realistic and persuasive slogan, " I work for everyone, and everyone works for me" (Liu Shao-Qi, former president of People's Republic of China). They believed that an

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individual who acquired this new spirit and outlook would be more receptive to criticism and suggestions from peers and even from subordinates, more willing to cooperate and share responsibility, and more willing to work toward the broad objectives of the state, even if this involved temporary inconvenience and sacrifice on one's part.

(3) Team Effectiveness from American and Chinese perspectives

Team effectiveness is a group of characteristics that are used to label an effective team. For many years, group and team researchers generalized many theories and characteristics necessary for a team to be effective. This review summarized some of the notable ones from an American perspective and some available literature from a Chinese perspective.

In the early 1960s, Douglas McGregor(1960) and Rensis Likert (1961) provided the initial theoretical framework from which to build the effective team. McGregor (1960) is most noted for his explanation of basic assumptions about human behavior. His Theory X and Theory Y perspectives provides a dichotomous view of people in organizations and how these assumptions about people will influence the style of management practiced by managers. For McGregor (1960), the characteristics of an effective team are summarized as follows:

- An informal, conformable, relaxed atmosphere
- Everyone participates in discussions
- The objective of the group is well understood and accepted by the members
- Team members listen to each other
- Disagreement exists, but the group shows no signs of having to avoid conflict
- Consensus decisions are generally reached

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- Constructive criticism is frequent and frank without evidence of personal attack
- 'Hidden agendas' are not present
- Clear work assignments are made and accepted.
- The chairperson does not dominate, leadership shifts to different members depending on the circumstances, knowledge, and experience.

Likert's (1961) research is congruent with McGregor's (1960), in that each found positive relationships between effective organizations and the style of management. Likert (1961) offers the properties and performance characteristics of the ideal, highly effective group:

- Team members are skilled at roles and functions necessary for group interaction
- Team members have a well established working relationship
- Team members are attracted to the group and loyal to all members
- All members have confidence and trust in each other
- Team members help shape the values and goals of the group which are an integrated expression of values and needs of individuals
- Linking functions are in harmony with each other, sharing the same value and goals
- Team members are highly motivated to achieve the goals
- The atmosphere is supportive for interaction, problem-solving and decision making
- The group helps each person develop to their potential
- Team members willingly accept the goals and expectations of the group without resentment.
- Team members are motivated to be creative
- All members are strongly motivated to communicate all information relevant to the group's activities
- The group processes enable the members to influence the leader and provide positive feedback on how the leader can best serve the group
- There is a general group consensus on the competencies of the leader

Likert (1961) also pointed out that the application of a common principle was found in each of the properties and performance characteristics of the highly effective group. That principle was the extensive use of supportive relationships as the binding principle that enable groups to be effective. Chris Argyris (1965) suggested that an

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effective team should foster positive team norms, which included candidness about ideas and feelings, communicating openly, experimenting with new ways of doing things, individuality, thought, concern, and internal commitment.

Blake, Mouton, and Allen (1987) extend the 'managerial grid' (Blake & Mouton, 1964) framework to analyze underlying patterns of team culture. Their "Teamwork Grid" was two-dimensional: concern for production and concern for people. The grid measures the level of concern on a 9-point scale. Low concern is represented by the number one, while high concern is represented by the number nine. A '9,9 Team' is characterized by high concern for production and high concern for people. The following list of traits shows specific characteristics of a 9,9 team.

- Involvement by team members is encouraged and stimulated
- Team members feel responsible for a positive contribution to team tasks and individual tasks
- Individual and organizational goals are integrated
- Team members consistently hold each other accountable for performance standards which are created by the team members
- Work assignments and responsibilities are determined by individual competencies, but are also used to help less competent members develop skills which advance the team objective
- Continuity is maintained by reliance on interdependence among members
- The team examines performance and learns from it through open and candid feedback
- The team morale is cohesive and positive. Members are committed to be involved and there is high level of trust and support for each other.

While these characteristics of an effective team were more generalized from a theory driven perspective, Larson and LaFasto (1989) explored some critical characteristics of an effective team based on some successful teams in the United States. After a three-year process of interviewing some successful American teams,

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such as the American Leadership Forum, the Presidential Commission on the Space

Shuttle Challenger Accident, and the Centers for Disease Control Epidemiology

Teams, Larson and LaFasto identified 8 categories of characteristics of team

effectiveness, constructed survey items and continued to statistically test this

instrument through 302 team members in 32 different successful teams in the United

States. These 8 categories of team effectiveness are listed as follows.

- Clear, elevating goal: A worthwhile and challenging objective which is compelling enough to create a team identity and has clear consequences connected with its achievement.
- Results-driven structure: A team design which is determined by the objective to be achieved and supported by clear lines of responsibility, open communication, fact-based judgment and methods for providing individual performance feedback.
- Competent team members: Team members who possess the essential skills and abilities to accomplish the team's objectives, and demonstrate a confidence in each other and the ability to collaborate effectively.
- Unified commitment: Among team members, the achievement of the team goal is a higher priority than any individual objective and inspires willingness for members to devote whatever effort is necessary to achieve team success.
- Collaborative climate: A climate which embraces a common set of guiding values, allowing team members to trust each other sufficiently to accurately share information, perceptions, and feedback.
- Standards of excellence: Pressure to constantly improve team performance, which is dependent upon how each individual executes assigned responsibilities.
- External support and recognition: the presence of the necessary resources and external acknowledgement required to accomplish the team's objectives, including the appropriate forms of recognition and incentives.
- Principled leadership: the articulation of the team goal in such a way as to inspire commitment, and actions which stem from strong adherence to principles such as trusting team members with responsibility, confronting inadequate performance and rewarding superior performance (Blubaugh & Varona, 1991).

Another data-driven, team-effective theory comes from Glenn Parker (1990).

While acknowledging the work of behavioral scientists and others, Parker recognized

that the organizational environment has changed. He has offered a model of team

effectiveness developed from the results of two surveys he conducted. The first

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survey was an open-ended questionnaire completed by managers and human resource professionals in 51 companies in a variety of industries. The second survey was developed from the first survey results and mailed to CEOs and Vice Presidents of Human Resources of the top 100 companies in the 1987 Fortune magazine list of America's most admired corporations. Parker (1990) identified 12 characteristics or behaviors that distinguish effective teams from ineffective teams.

- The team has a clear sense of purpose
- The atmosphere for effective teams tends to be relaxed, informal and comfortable
- All members of the team actively participate, but participation may vary
- The ability and practice of members listening to each other
- Effective team members have civilized disagreements. Effective teams expect differences to be expressed. They see diversity as a team strength
- A consensus is reached when all members either agree with the decision or are comfortable that they have been heard and they were unable to convince the others of their viewpoint
- Team members communicate openly. There is clearly a deep level of trust, providing an avenue for members to express themselves without fear of reprisal or embarrassment.
- Effective teamwork requires interdependence of roles and tasks being performed by each member
- While the formal leader may have certain administrative responsibilities, the leadership responsibilities are shared by all team members
- Effective teams remain in touch with customers and clients who benefit from the team's efforts. Key relationships are built with people outside of the team by creating a positive image of the team
- Style diversity strengthens a team. Four team-player styles are identified: contributor, collaborator, communicator and challenger
- Effective teams evaluate how well they are operating

There are many other theories about team effectiveness in the United States. Compared with America's rich team theories, the Chinese studies are very limited. Although there was no systematical research about the characteristics of team effectiveness, some studies offered insights on this topic. In terms of the team building process, in a field study among 16 companies, Jin (1983) tried some

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sociometric measures in a group development study when workers were asked to choose those they most preferred as co-workers in the same group and to reorganize such groups autonomously. Managers and supervisors then gave some guidance and made a few adjustments in group assignments. The results showed that the experimental groups significantly increased their group cohesiveness and improved team performance when compared to a quasi-control group. In terms of team relationships and climate, Yu (1985) used a group climate scale in seven factories in Shanghai to investigate the social- psychological climate of in-groups, and found that relationships with the management and among fellow workers were the two major indicators of the social-psychological climate. Xu (1986) also found that the formal group system had been more structured and influential on group behavior, whereas the informal group had been relatively weak, largely functioning as a friendship group, and often coordinating well with the formal group. In terms of team reward system, in a quasi-experiment conducted at a large chain factory, Wang (1986) found that a team reward program with a clear team-goal structure and individual member responsibilities was more effective than an individual reward program.

In terms of team leadership, a large-scale assessment of leadership behavior involving 53 factories with 16,260 respondents was carried out during 1984 and 1985. Initially, the Chinese researchers adapted a Japanese two-dimensional instrument to measure task performance and relationship maintenance. But Chinese research data soon revealed that a three-dimensional assessment of leadership was needed. In addition to the performance and maintenance dimensions, there was a moral dimension. The moral factor generally includes some personal characteristics such as

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honesty, integrity and organizational commitment. Later, a three-dimensional scale (performance, maintenance, and morality) was developed and implemented in a number of factories and proved to be a valid assessment of leadership (Lin, Chen and Wang, 1987).

In recent years it has been a nationwide practice to develop and award 'excellent team' titles in Chinese organizations. Some researchers examined the characteristics of these excellent teams. It was shown that the key to team excellence includes a high degree of group involvement and a good fit between task requirements and group goals with clear member responsibility. Team goal-setting activity could greatly strengthen a kind of team-goal-directed behavior and lead to a high degree of responsibility sharing, group cohesiveness and morale (Wang, 1991). In summary, the characteristics of team effectiveness from the Chinese perspective included, but not limited to the follows:

- A optimization through regrouping with voluntary team members
- Harmonious relationship between management and co-workers for healthy team climate
- Group responsibility with a team reward system
- Moral requirement as one of the measurements for team leadership
- High degree of group involvement
- Realistic group goal setting with clear job responsibility

2. Effectiveness of multicultural team

Since the focus of this study was the multicultural team, it was necessary to review some multicultural team management theories and characteristics of effectiveness, general cultural differences between Westerners and Easterners on the team issues were also discussed.

(1) Multicultural team management models and theories

As the researcher pointed out earlier, multicultural team management and diversity management is inseparable. The question was how to define diversity in work teams and how to manage the diverse factors that affect group interaction and performance.

Diversity usually refers to the differences among members of some particular collectivity. In multicultural teams, according to McGrath, Berdahl, and Arrow (1995), diversity on five clusters of attributes is especially important: (1) Demographic attributes that are socially meaningful in the society in which the organization is embedded (e.g., age, race, ethnicity, gender, sexual orientation, physical status, religion, and education). (2) Task-related knowledge, skills, and abilities. (3) Values, beliefs, and attitudes. (4)Personality and cognitive and behavioral styles. (5) Status in the work group's embedding organization (e.g., organizational rank, occupational specialty, departmental affiliation, and tenure). Diversity researchers use different frameworks to explain how these diverse factors influence team member behavior, team interaction and team performance. One of the multicultural approaches which combines trait, expectations, and differential power approaches was offered by McGrath, Berdahl, and Arrow (1995). According to this model, when group members are diverse on certain demographic attributes, they can be regarded as having diverse cultural identities. Those cultural identities reflect differential sociohistorical experiences and, hence, are likely to be associated with actual differences in expertise (task –related knowledge, skills, and abilities, abbreviated as KSA in the model), in value (values, beliefs, and attitudes, abbreviated

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as VBA in the model) and in habits (personality and cognitive and behavioral styles,

abbreviated as PCB in the model). Moreover, group members recognize those

cultural identities and carry certain expectations about attributes and behaviors

probably associated with them. Furthermore, in many instances, the different cultural

identities carry differential power and status in the organizational and cultural context

in which that work group is operating. Hence, members of more dominant cultures

can, and probably will, exercise more influence over the group's interaction and task

performance. As a consequence, the underlying attributes of those powerful members

are likely to play a greater role in shaping the group's interaction and task

performance than are the underlying attributes of the less powerful members (see

Figure 1).
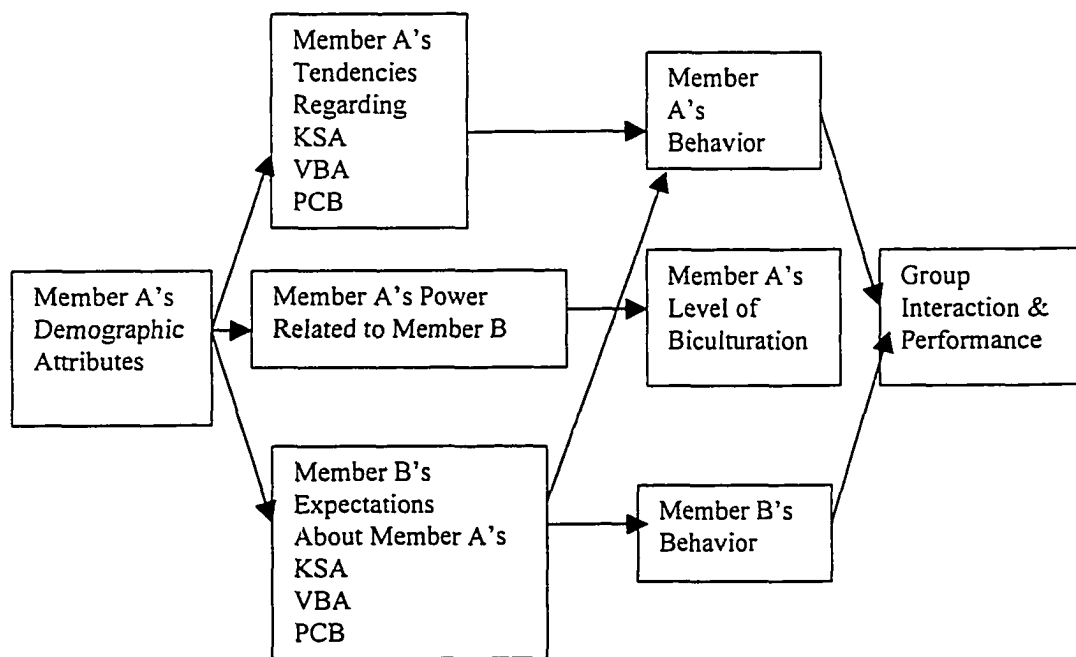
Figure 1 Multicultural Approach for Team Diversity Management
(Adopted from McGrath, Berdahl, and Arrow, 1995)

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Based on this model, when culturally based differences pose problems for a team, the member of the less dominant cultural group may choose to accommodate the dominant culture, to integrate with the dominant culture, or to emphasize the ways in which his or her own culture or subcultures is different, downplaying similarities. To get the best consequence, team members from different cultures need to feel that they are included in the team. Weisbord (1989) claimed that each person in a work group continuously struggles with three questions that must be resolved over and over. The three questions are: " Am I in or out? Do I have any power and control? And, Can I use, develop, and be appreciated for my skills and resources?" (p.305). This is especially true in multicultural teams. Team members want to be "in", to belong, to be valued, to have tasks that matter, and to be acknowledged by others. When team members feel "out," they withdraw, work alone, and defeat themselves and others (Weisbord, 1989).

To make members of multicultural teams feel that they are all included in the team, Sylvia B. Odenwald(1994) suggested a four-phased team building process. In phase one, each team member comes with his or her own expectations, culture and value. Team members need to recognize that values are merely a set of norms particular to their society, not universal. Phase two comes after this self-awareness. Individuals begin to respect the cultures of other team members by listening to others and moving into a neutral zone where they appreciate others and work together. During phase three, team members begin to trust each other. They start to share knowledge and begin to focus on achieving team goals. And then, in phase four, the team begins to work in a collaborative way. Among these phases, building trust is the

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one most difficult in a multicultural team. Without trust, collaboration is not impossible but may not be effective. This is why Gehani (1996) claimed that trust is the key to superior performance of a multicultural team.

Trust, according to Hosmer (1995), is defined as the reliance (and willingness) by one person, group or an organization (Trustor), upon a voluntarily accepted duty on the part of another person, group or organization (Trustee), to recognize and protect the rights and interests of all others engaged in a joint (interdependent) endeavor or economic exchange. The components of trust included: (1) integrity: the reputation for honesty and truthfulness, particularly of the trusted person; (2) Open mindedness and benevolence: the willingness to share, support, encourage and protect others; (3) Consistency: the reliability and predictability of good judgment in handling and responding to diverse situations; and (4) Competence: the ability, technical knowledge, and interpersonal skills needed to perform the assigned jobs(Gehani, 1996). Trust between diverse members of a multicultural work-group builds on cumulative experiences and learning, based on a series of mutually satisfying social interactions in the past and present. Trust-building involves a set of commonly shared social expectations (Zucker, 1986). These expectations emerge from three sources: First, the persons involved. Trust-building involves dyadic relationships and social influences between trustworthy persons. A trustworthy manager is presumed to proactively promote excellence and reward competence in subordinates – irrespective of their cultural backgrounds. Second, the processes used. Trust-building depends on a historical record of past operations of the same or similar teams. Respect in these recorded events builds more trust. Third, institutional

frameworks. Trust-building is based on formal mechanisms and institutions that

guarantee trustworthy behavior and performance (Gehani, 1996). A multicultural

team with trust relationships among team members and between members and the

leader will lead to superior performance of the work-group.

(2) Characteristics of multicultural team effectiveness

Multicultural teams are different from teams with single cultures. The

differences come from team members' demographic attributes; cultural values,

beliefs, and attitudes; personality and cognitive and behavioral styles; and task-related

knowledge, skills, and abilities. Such differences can create a balance (cohesion and

unity) or an imbalance (subgroup dominance, member exclusion, and other

undesirable outcomes), depending on how they are handled.

Cultural diversity makes interaction between team members more difficult

because team members see situations, understand them, and act upon them differently

based on their cultural assumptions. Cultural diversity makes compromise and

agreement more difficult because group members have more difficulty in

communicating. Diverse cultural teams are subject to increases in ambiguity,

complexity, and inherent confusion in the group's process. Therefore, it is more

challenging to create an effective multicultural team than an effective team with a

homogenous culture. Harris & Moran (1991) recommended eight ground rules for

creating an effective multicultural team from the cultural perspective:

- **Be experimental**--in this learning experience test new styles of leadership and communication, different kinds of behavior and attitudes, new patterns of personal participation and relationships, joint problem-solving efforts.

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- **Be authentic**--level in your communication; tell it like it is in your feedback; care about team members, even enough to confront them, rather than play games.
- **Be sensitive**--express your feelings, and be conscious of the other person's feelings; emphatically respond and reflect on the sender's real meaning, not just his or her words. Be aware of the whole range of non-verbal communication and cues.
- **Be spontaneous**--respond creatively to the here and now data produced in the group; to the person as he or she now reveals self. Warmly receive the sharing of another and thereby be confirmed yourself.
- **Be helpful**--accept the other's perception of self and the situation; avoid imposing your system, values, or opinions upon the other. A helping relationship means that the other must perceive your assistance as being helpful...
- **Be open**--consider other viewpoints and possibilities, rather than being closed-minded or locked into your own pervious conceptions. Evaluate and check feedback from others to arrive at your own determination. Be flexible, not rigid in responding to new ideas and different perceptions.
- **Be time conscious**--the team meetings are limited in time availability for accomplishing a specific task. Avoid taking up too much "air time" or diverting the group from its mission...
- **Exercise group leadership**--team participation is an opportunity to practice the whole range of leadership skills, whether as an initiator or follower. The participative team is a leaderless group, in the sense that there is no authoritarian leader. The leadership is shared and group centered...(pp.185-186).

These rules require all team members to practice during the multicultural team building and interacting process. They are guidelines for members' attitude and behavior in teams. With these kinds of attitude and behavior, they can develop the following ten characteristics to make an effective multicultural team.

- **Group Background**. Every group develops a history in relation to its immediate environment or setting. Individually members contribute to the group's uniqueness by reason of their own attitudes, interests, feelings, and competencies.
- **Group participation Patterns**. Teams develop involvement patterns, and the forms of group participation may frequently change. Participation in group activities and accomplishment is one way in which power is exercised—influence upon the behavior, direction, and work of the team. Some of these patterns place great emphasis upon status, politics, forcefulness, or even competence.
- **Group Communication Patterns**. The system of communication within a group can be objectively analyzed, both verbally and nonverbally.
- **Group Cohesion**. When the group is working well together, it is attractive to members. Usually, cohesion is evident when morale is high, and members like one another, but are interdependent...Cohesion means that members work as one, or a unit, for the common cause, and are concerned about the welfare of each member as well as the whole team.

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- **Group Atmosphere**. In an unfriendly, formal, and rigid situation, members are unwilling to be open and to express themselves...When the group climate encourages frankness and participation, it facilitates sharing, leveling, and creative exchange.
- **Group Standards**. As a group, members adopt, formally or informally, norms of behavior, a code of operations. This results from the need to coordinate group effort and activities toward a common goal.
- **Group Procedures**. Every group needs to define ways for getting its work done, its mission accomplished...For example, procedures regarding group decision-making are critical for high performance.
- **Group Goals**. Members must agree and accept what are considered the group's primary purposes...When the group is clear on its goals and all members endorse them, members tend to be more supportive and committed.
- **Group Leadership**. Rather than authoritarian leadership, the trend today is democratic and participatory. Within groups, leadership style must be flexible and respond to the situation and people, using both formal and informal structures and communication.
- **Group Alignments**. Group life usually involves development of sub-groups of one kind or another, and affiliation with other groups of like concerns. Within the group, the formation of such relationships depends somewhat on its total size, and may result from the member's mutual needs, interests, shared friendships, antipathy toward another or the group's direction, or simply because the persons live in the same neighborhood or work together in a functional unit. (Moran, Harris & Stripp, 1995, pp.68-71)

A two-year transnational teams research study (Snow, Snell, Davison, & Hambrick, 1996) funded by the International Consortium for Executive Development Research (ICEDR) empirically proved that transnational teams have a multicultural dynamic and are also different from other types of work teams in terms of task complexity and importance. A transnational team is a work group composed of multinational members whose activities span multiple countries. It is one kind of multicultural team. The study identified successful transnational teams and interviewed more than 100 team members and their leaders in 13 companies. A questionnaire was then used to survey 35 transnational teams both within and outside 32 international companies that associated with ICEDR. The study suggested that the development of a healthy group process must take into account five major factors reflecting national and corporate cultures: (1) degree of similarity among the cultural

norms of the individuals on the team, (2) extent to which such norms are manifested

in the group, (3) level of fluency in the common language used by the team, (4)

communication styles and expectations of what constitutes effective group behavior,

and (5) management style of the team leader. The study reported that successful

teams were characterized by leaders and members who trust each other, were

committed to the team's mission, could be counted on to perform their respective

tasks, and enjoy working with each other (see Table 2.1).

Table 2.1 A model of transnational team effectiveness

Transnational Team Drivers →	Design and Management levels →	Team Process Measures →	Key Business Result
• Task complexity and importance • Multicultural dynamics	• Contribution to business strategy • Leadership roles and skills • Staffing • Alignment with company structures and systems • Communications and decision-making technologies • Group process facilitation • Cross-cultural management	• Safe and trusting environment • Camaraderie • Flexibility • Shared responsibility • Commitment	• Time to peak sales • Regulatory approvals • Study protocol • Statistical analysis plan • Clinical development plan

(Adopt from Snow, Snell, Davison, & Hambrick, 1996, p.52)

3. Chinese cultural factors related to organizational behavior

In searching for Chinese cultural factors which may influence the first generation of Chinese-American organizational behaviors, there are four major aspects to which we need to pay attention: cognitive patterns, cultural values, management style, and communication behavior.

(1) Cognitive Patterns

Since the1970's, there has been general agreement about the importance of the subjective environment for influencing organizational behavior. Silverman (1970) stressed the importance of understanding the subjective logic of social situations in comparative management research. He identified five issues that foreshadowed comparative management's current methodological dilemma: (1) the nature of the predominant meaning structure and its associated system in different organizations and the extent to which they rely on varying degrees of coercion or consent; (2) the characteristic pattern of involvement of the actors' differing attachment to rules and to definitions of their situation; (3) the typical strategies used by the actors to attain their ends; (4) the relative ability of different actors to impose their definition of the situation upon others, and (5) the origin and pattern of change of meaning structures in different organizations.

All of these give central importance to the individual's definition of the situation, an emphasis which is reflected in the emergence of such approaches as ethnomethodology and the action frame of reference. Bougon, Weich, and Binkhorst (1977) gave more specific attention to cognition as a factor in organizational analysis and presented an empirically based picture of organizational participants' "cause

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maps". They concluded that " Social settings are defined and must be analyzed in terms of the participant's epistemology: organization problems are mind-environment problems... Cause maps will help us find that by a non-logical, but highly intelligent mental process, organization participants perform translation from the world of experience to the world of mind" (p.23).

Cognition patterns are different from culture to culture. As Redding (1980) pointed out, culture influences the organizing of social activity by affecting meaning via (1) the cause-maps of the paradigms and (2) the values which make them prefer doing things one way rather than another. For quite a long time, some Westerners denigrated the Oriental style of thinking as nonspecific and therefore primitive, but Needham(1978) defended its richness and strength. He noted that many Western scholars embrace "total system" and "contingency" concepts in most branches of science, including management, but they rarely associate these approaches with Oriental cognitive processes. Maruyama (1984) in relating cognitive issues to comparative management, has expanded upon similar points:

> The principles, styles and methods of management are affected by mind patterns, which may vary from individual to individual and from culture to culture. As the cultural heterogeneity increases, managers become aware of some new phenomena:
> 1. That management principles and methods must be adapted both to the cultural heterogeneity within the office and to the local culture;
> 2. That there are significant individual differences within each culture;
> 3. That some managers and workers from the local culture may look excellent if judged by the criteria of the superior from a foreign culture, but they may be cultural deviants who reject their own culture, and their credibility may be very high among foreigners but very low among their compatriots;
> 4. That those who appreciate both local and foreign cultures are a valuable asset. (p.126)

In considering Maruyama's implications, we note that the foundation of all managerial interaction, especially in the informal organization, is ultimately the

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unique set of cognitive maps in the manager's head. These maps are the basic

components of culture. For understanding Chinese managerial behavior and

communication, it is necessary to examine typical Chinese cognitive patterns and to

consider the implications of these cognitive patterns for managerial behavior.

Redding (1980) suggested comparing Chinese and Western forms of cognition

under five categories:" (1) Causation or the form of explanation of connections

between events or phenomena. (2) Probability which is the extension of this same

process into prediction. (3) Time which is looked at in terms of its 'shape',

importance, and uniformity. (4) Self which is the view of the individual, especially in

relation to others. (5) Morality which is seen in terms of the mechanism of its

operation as a controlling force, rather than in any absolute sense." (p.131). In these

five categories, the Chinese are different from Westerners.

1.**Causation**. Needham (1978) once pointed out that the idea of causation

developed via one route in the West, beginning with ancient Greeks and culminating

in Newtonian physics, while taking a totally different route in China: "We are driven

to the conclusion that there are two ways of advancing from primitive truth. One was

the way taken by some of the Greeks: to refine the ideas of causation in such a way

that one ended up with a mechanical explanation of the universe, just as Democritus

did with his atoms. The other way is to systematize the universe of things and events

into a structural pattern which conditioned all the mutual influences of its different

parts. In the Greek world view, if a particle of matter occupied a particular place at a

particular time, it was because another particle had pushed it there. In the other view,

the particle's behavior was governed by the fact that it was taking its place in a 'field

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of force' alongside other particles that are similarly responsive: causation here is not ' responsive' but 'environmental'." (p.166) Another difference was what Northrop (1944) named "intuitive think." When thinking about a problem, Westerners use abstract concepts or constructs such as 'productivity', 'morale', 'leadership style' and line them up in a logical and sequential set of connections. The Chinese mind tends to resort instead to ideas which are much more concrete. Nakamura (1964) summarized some characteristics of typical Chinese thinking as following: (1) Emphasis on the perception of the concrete. (2) Non-development of abstract thought. (3) Emphasis on the particular, rather than universals. (4) Practicality as a central focus. (5) Concern for reconciliation, harmony, balance. In general, Redding (1980) pointed out the basic differences of Chinese and Western cognition:

- Western cognition: Logical, sequential connections. Use of abstract notions of reality which represent universals. Emphasis on cause.

- Chinese cognition: Intuitive perception and more reliance on sense data. Non-abstract. Non-logical (in the Caucasian sense). Emphasis on the particular rather than the universal. High sensitivity to context and relationships. (pp. 132-133)

    2. Probability. Based on the Western concept of causation, the function of theory is prediction. In other words, the future can be 'calculated' to some degree. The Chinese mind might well take a more "fatalistic" view of the future and, consequently, be less prone to fine calculation. Wright et al (1977) conducted research to find cultural differences in probability thinking. They focused upon comparing: (1) accuracy of response to straightforward questions and (2) estimations

by the subjects of the probability of being right. The questions were of such a general nature that there was no sharp distinction between English and Asian groups in the overall proportion of items answered correctly. However, there was a sharp distinction in the estimated accuracy, i.e. the subjective probability of being right. Chinese subjects in Hong Kong could assess accuracy at 90 per cent when only 50 per cent of the answers were correct. English groups calibrated more closely, assessing at 90 per cent and achieving 75 per cent. The implications of the study were two fold: first, the technology of decision analysis must be treated with caution in Asian cultures because of the different forms of subjective probability which appear to exist. Second, the communication of uncertainty across cultures must be handled with caution. Chinese also seem to have more confidence in themselves and their ability.

   3. Time. Westerners have a linear view of time. Time is viewed as an infinite straight line which can be divided into portions for precise measurement. Westerners have an accurate time-sense and out of this come concepts such as punctuality, scheduling and deadlines. In contrast, absolute time was hardly touched upon in Chinese philosophy. With Chinese philosophers, time has always been associated with event. In Buddhism, since events are illusory, time is illusory. As such it moves on but will come to an end in Nirvana. In Taoism, time travels in a circle, since a thing comes from non-being and returns to not-being (Chan, 1967). Hall (1976) contrasted these linear and cyclical time views with his terms "monochronic" and "polychronic". In his argument, monochronic time perception creates a system in which scheduling and keeping to dates is given high priority. This allows for the coordination of complex processes and decentralized systems. Polychronic time

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perception, on the other hand, leads to more of a stress on general accountability for end-results, but not in a time-frame, and this leads to a need for centralized control.

4. Self. While the Westerners perceive that "man" is individual, the Chinese idea of a person includes his relationships and is not analyzable separately from them. This perception is deeply rooted in the three most important Chinese religions and philosophies. First, in Buddhism the value of man is sacred: 'look within, thou art Buddha', but there is no distinct ego whose uniqueness has a sublime dignity. Buddha insisted that ego is illusion. All men are manifestations of the Universal Self, but in their ignorance they claim for themselves a separate existence. And the whole movement towards salvation is exactly the opposite process of Western civilization aiming at the full development of the person. It consists of the passage to a new plane of consciousness where there is no longer an ego but only pure being: the Unborn. Second, the Taoist virtues of 'wu-wei' and selflessness flow in the same direction. ' Men should lose themselves in Tao as fish lose themselves in water'. 'Your self is a body lent to you by the universe... You do not own yourself'. And third, with Confucianism, it is no longer the cosmic Reality which takes precedence over the individual, but his family, his clan, his sovereign. The great-hearted man cultivates his virtues in order to serve society. "Inspired by these three traditions, Asian societies do not recognize the dignity of the person as an end in itself"(To, 1972). Recent empirical research with Hong Kong and Mainland Chinese have confirmed that perception of the importance of various needs follows a different pattern from that in the West. Redding (1977) found that for Hong Kong Chinese social needs accord almost equivalent weight with autonomy and self-actualization, and social

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needs are significantly more important for Chinese than for Westerners. Nevis (1983) spent more than three months in China to observe, interview and conduct a survey. He found two basic characteristics of the Chinese hierarchy of needs: First, it rests on the basic assumption of collectivism at a time when the society is grappling with serious problems in satisfying basic life needs. Therefore, "belonging need" becomes the first stage of the hierarchy instead of the third stage in Maslow's original hierarchy model. Second, ego needs are not highly valued in Chinese culture. Self-actualization becomes understandable only in terms of goals beyond self-enhancement, which means it has a strong social orientation.

5. Morality. Benedict (1946) once pointed out the difference between "Shame" and "Guilt" cultures:" A society that inculcates absolute standards of morality and relies on men's developing a conscience is a guilt culture by definition... True shame cultures rely on external sanctions for good behavior, not, as true guilt cultures do, on an internalized conviction of sin. Shame is a reaction to other peoples' criticism...Shame has the same place of authority in Japanese ethics that 'a clear conscience', 'being right with God', and the avoidance of sin have in Western ethics" (p.222). Although this distinction was first proposed in discussing the Japanese, it extends easily to other Oriental cultures and certainly to the Chinese. The notion of shame produces a face saving phenomenon in Chinese social behavior. Its powerful effects on interpersonal relations, negotiating, staff appraisal, and person-to-person aspects of management control, cannot be ignored in the intercultural study of organizational behavior.

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2. Cultural values

In the fields of intercultural communication and cross-cultural management, the influence of cultural value systems on management attitude and behavior has been an important and controversial issue for a long time. People once argued over whether cultural values influence managerial practice; afterward, they argued over the extent to which cultural values play a role in management. Over the last decade, remarkable progress was achieved in the debate. More and more people now notice the crucial role of cultural values in business practice and realize the importance of understanding the values that managers hold.

In the early literature, Harbison and Myers (1959) stated that as nations industrialize, beliefs concerning leadership change and increasing constraints are placed upon management's authority. This hypothesis proposed that managerial beliefs are correlated with the stages of industrial development. Soon after this statement, Oberg (1963) proposed the converse: " Cultural differences from one country to another are more significant than many writers now appear to recognize. A [universalist claim] is hardly warranted by either evidence or institution at this stage in the development of management theory" (p. 142).

As the debate developed, John Child (1981) reviewed a large number of cross-cultural studies and named one subset of articles as convergence and another subset as divergence. The former expressed the view that organizations were becoming more and more similar across cultures and that it would therefore be appropriate to look for and apply universal theories and approaches to management. In contrast, those who concluded that there was divergence posited that the world was not becoming more

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and more homogeneous but that, on the contrary, national and cultural differences were being maintained. On closer examination, Child discovered that the majority of the convergence studies focused on macrolevel issues - for example, the structure and technology used by organizations across countries. The majority of the divergence studies focused on microlevel issues - on the behavior of people within organizations. Child's conclusion was that organizations in different countries around the world are becoming more and more alike, but that the behavior of people within those organizations is maintaining its cultural specificity.

Child's conclusion was supported by some empirical studies. Laurent (1983) designed a study to better understand managerial philosophies and behaviors in nine European countries and the United States. He found differences in the ways managers from each culture approaches organizational issues. The unambiguous conclusion was that employees were maintaining their cultural specific ways of working even when employed within the same multinational organization. Hofstede (1980) conducted a massive 40-country, 100,000 subjects study in one multinational organization (IBM). He found highly significant differences in the behavior of employees from different cultures working within IBM. Culture was found to explain more of the nonrandom variance in attitudes and behaviors than did any of the competing variables, including the employee's profession, level within the organizational hierarchy and his or her specific job, age, or gender.

Hofstede's (1980) study included Chinese areas like Taiwan, Hong Kong, and Singapore. He presented four cultural dimensions which appear to have significant impact on managerial practices from culture to culture. They are: power distance,

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individualism, masculinity, and uncertainty avoidance. One concern about Hofstede's dimensions of cultural variation is that they may themselves be culture bound. Social science is Western in origin, practitioners, and instrumentation. Hofstede's survey of work-related values is only one bequest of this legacy. For the Chinese, these Western cultural dimensions may not be culture-free or sufficiently robust. Based on this consideration, a survey measuring Chinese values was developed by social scientists in Hong Kong and was administered in 22 countries around the world (The Chinese Culture Connection, 1987). Its aim was to tap concerns fundamental to the Chinese worldview and to find what was unique for the Chinese. The Chinese Value Survey (CVS) found another four cultural factors: integration, human-heartedness, moral discipline, and Confucian work dynamism. The CVS also found that there is a significant correlation between its integration dimension and Hofstede's power distance, between human-heartedness and masculinity, and between moral discipline and individualism.

The study also found that Hofstede's (1980) uncertainty avoidance dimension did not correlate with any of the CVS dimensions. Hofstede and Bond (1988) acknowledged that uncertainty avoidance, which Hofstede had described as man's search for truth, may not be an essential issue with the Chinese. Recently, Ralston et al (1992, 1993) conducted a series of studies to compare managerial values in the U.S., Hong Kong and the People's Republic of China with CVS using both Western measurement and CVS. From the studies of Hofstede, the Chinese Culture Connection, and Ralston et al, some Chinese cultural value dimensions can be summarized as follows:

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1. Integration. This dimension focuses upon social stability and can be characterized by having tolerance for others. Integration also places importance upon being trustworthy and enjoying a close friendship. It corresponds to Hofstede's power distance dimension which identifies the degree of power distance that is seen as appropriate between a superior and a subordinate. In the organizational context, it can be an indicator of the degree of centralization deemed appropriate. Hofstede (1980) reported that the US respondents, who ranked 38th out of the 53 countries in his study, were well below average on power distance and much lower than the 15th ranked Hong Kong subjects who have been described as somewhat high on power distance. The Chinese Culture Connection (1987), in its study of college students, showed Hong Kong lower on Integration than the U.S. and identified the U.S. score as relatively high. Since power distance and Integration are inversely related, this relationship is consistent with Hofstede's findings. Ralston, et al (1993) found that there is a stronger feeling of power distance in the PRC than in Hong Kong and the U.S., and over the past decade the Hong Kong scores may have moved from relatively high to low on power distance. Capitalism may lead to lower levels of power distance, the movement from powerless to powerful in capitalistic societies is more a function of one's skills and abilities than one's birth right or political preference.

2. Moral Discipline. The focus of this dimension is upon keeping oneself under control in relation to others. It is characterized by the need to be moderate, prudent and adaptable. Following the "high road" is a part of moral discipline. This dimension corresponds to Hofstede's individualism/collectivism and identifies how much individuals see themselves as an integral part of a group. It is an indicator of

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whether the good of the group or the good of the individual is more important to an individual. Hofstede (1980) found that the U.S. ranked 1st in individualism while Hong Kong had a somewhat lowly 37th ranking. The Chinese Culture Connection (1987) found that the U.S. students responded much lower on the Moral Discipline dimension than did their Hong Kong counterparts. Since Moral Discipline is inversely correlated with individualism, the implication is that U. S. subjects would score higher on individualism. Ralston, et al (1992, 1993) found that there are no significant differences among the managers of the U. S., PRC, and HK for their commitment to their work group. They have two explanations for this phenomenon. First, the correlation (r=-.54) between moral discipline and individualism is not overly strong; thus we should proceed with caution when comparing findings from these two dimensions. Second, in the highly competitive global business world of today, it may be becoming more widely believed that putting the good of one's group ahead of one's personal good is necessary for personal as well as organizational survival and success.

   3. Human-heartedness. This dimension deals with an individual's level of social consciousness or awareness. It is a measure of one's compassion toward others. It is characterized by the need to be kind, forgiving and courteous. In the business setting, it contrasts the task-oriented and people-oriented styles of management. It is considered comparable to Hofstede's (1980) masculinity dimension. High scores on masculinity and Human-heartedness indicate a task orientation. The Hofstede (1980) and Chinese Culture Connection (1987) obtained similar results for the U. S. and Hong Kong. Both found that the U.S. and Hong Kong scored high on their respective dimensions. Ralston, et al (1993) found that U.S. respondents were higher on the

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Human-heartedness scale than Hong Kong respondents, while the PRC was the most people-oriented (i.e. least masculine) culture, and its Human- heartedness score of 4.9 on the 9-point scale was moderate.

4. Confucian Work Dynamism. This dimension looks at a society's search for virtue (Hofstede & Bond, 1988). It reflects the teachings of Confucius that emphasize a social hierarchy or structure. It can be characterized by a respect for tradition with a strong desire to save "face". It also implies a need to order relationships by status and to respect the order of that status. Confucian work dynamism fills a void in the content of Western instruments which, not too surprisingly, do not include Confucian values in their constructs (Hofstede & Bond, 1988). The Chinese Culture Connection (1987) found that Hong Kong, Taiwan, Japan and South Korea hold Confucian values at the top end of the scale. Ralston, et al (1992, 1993) found PRC managers scored significantly higher than Hong Kong managers, and Hong Kong managers, in turn, scored significantly higher than U. S. managers. Confucian work dynamism may be closely connected to economic success of the Chinese culture area and countries. Kahn (1979), for example, has written: " Both aspects of Confucian ethics--the creation of dedicated, motivated, responsible, and educated individuals and the enhanced sense of commitment, organizational identity, and loyalty to various institutions--will result in all neo-Confucian societies having at least potentially higher growth rates than other cultures." (p.122)

The Chinese cultural value dimensions help us to classify the Chinese value systems and to compare those dimensions to Western value systems. Chinese cultural value research (Ralston, et al , 1993) in different areas shows us an interesting

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phenomenon, that the Hong Kong Chinese managers' scores lie between those of PRC Chinese and U.S. managers. It reminds us that managerial values are not only influenced by national cultural tradition, but also the business environment (Webber, 1969. Ronen 1986). Other studies also show that the value system of overseas Chinese differs from Mainland Chinese in some ways. For example, Shenkar and Ronen (1987) found that the most important work goal for mainland Chinese was to make a contribution to their society; for Hong Kong it was promotion; for Taiwan it was training; and for Singapore it was co-workers who cooperate.

Therefore, if we focus research on the Chinese-Americans, we need to know their value position in terms of Eastern cultural heritage and Western living environment. Early research shows that Chinese-Americans in general retain many values from the past (Sue, 1973). But they are also becoming progressively removed from their ethnic culture and have greater contact with their host culture. They show an increase in their internalization of the affective-cognitive norms of western culture (Fong, 1965). Recently, Feldman and Rosenthal (1990) found the Chinese in Australia and the U.S. still tend to value responsibility to family, the interdependence of family members, and conformity to rules of good behavior, in contrast with the values of U.S. and Australian cultures which have traditionally emphasized the needs, rights, and achievements of the individual. Ownbey and Horridge (1992) conducted their survey among Chinese-Americans in the Los Angeles metropolitan area, and offered us a Chinese-American value system in terms of long term goals and guiding principles.

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Table 2.2 Chinese-Americans' value system

Values as long-term goals	% rating (Importance)	Values as guiding principle	% rating (Importance)
1. Inner Harmony (freedom from inner conflict)	92.9	1. Honest (sincere, truthful)	92.2
2. Happiness (contentedness)	91.6	2. Helpful (working for the welfare of others)	90.3
3. True friendship (close companionship)	90.3	3. Broad-minded (open-minded)	90.3
4. Wisdom (a mature understanding of life)	90.3	4. Cheerful (lighthearted, joyful)	87.6
5. Freedom (independence, free choice)	89.6	5. Loving (affectionate, tender)	87.6
6. Family security (taking care of loved ones)	89.0	6. Forgiving (willing to pardon others)	87.6
7. Mutual love (sexual and spiritual harmony)	88.3	7. Responsible (dependable, reliable)	87.0
8. Self-respect (self-esteem)	88.3	8. Self-controlled (restrained, self-disciplined)	86.3
9. National security (protection from attack)	86.3	9. Clean (neat, tidy)	85.1
10. A world at peace (free of war & conflict)	84.4	10. Obedient (dutiful, respectful)	85.0

Table 1. N=154
(Source: Ownbey & Horridge (1992). Chinese-American values: A psychographic perspective. Journal of Home Economics. 4, P.13-14)

Table 2.2 compares the 10 most important Chinese-Americans' values between long-term goals and guiding principles in daily life. It offers us a basic view about Chinese-Americans' value system.

3. Management style

As the researcher mentioned earlier, Child (1981) found that organizations in different countries around the world are becoming more and more alike, but that the behavior of people within those organizations is maintaining its cultural specificity. Child's finding makes it necessary to examine management styles in different cultures when we conduct cross-cultural management studies and intercultural communication in organizations. What we need to know here is to what extent Chinese managers are influenced by their culture, and what aspects of management style reflect those cultural factors.

Before we move forward, one thing is worth pointing out. Management is a modern concept, but not a practice that happens only in modern society. Modern theories describe, analyze, and predict management phenomena. As a social practice,

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management is part of its culture and is deeply rooted in the society in which it operates day by day. Therefore, when we examine Chinese management style, not only can we use modern management theories to compare it with other cultures' management style, but we can also study management practices' historical development. In this section, the tradition of Chinese management thought will be examined, then the literature which uses modern theories to examine Chinese management style will also be reviewed.

Throughout Chinese history, China maintained its cultural unity through a common language, a code of social ethics, and an imperial political system. The imperial system was established at the time the first emperor unified China in 221 B.C. and lasted until the demise of imperial China in 1911. Its ideological base found root in the intellectually productive period from 700-221 B.C. During that period, the "one hundred schools of thought" flourished, four of which-- Confucianism, Legalism, Taoism, and Moism-- were extensively studied and firmly established. In competing with each other, the schools interacted to produce a theoretical synthesis. The Legalist philosophers and administrators, concerned with building a strong solidified China, assisted the first emperor in unifying China. They advocated three principles of government: Fa (law), Shih (authority or power), and Shu (statecraft) and deeply influenced the study and practice of management in China (Chang, 1976).

The tradition of Chinese management thought was characterized by the Confucian dictum of " Government of Man", in contrast to the Western idea of "Government by Law". The central interest of management was to discover, develop and use the rare commodity of administrative talent. For the ancient Chinese, leaders

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were born, but executives were nurtured. This is one of the reasons that Chinese traditionally value education. Because the talented man plays a critical role in management, most of today's Chinese managers still see training as one of the most important work goals in their lives. For example, Hofstede (1980) found that Taiwan managers put training as their most important goal, followed by promotion, Singapore Chinese put it as their second goal, also followed by promotion, Hong Kong managers put promotion first and training next. This is not a coincidence, all of them connect training and promotion because they believe only talented people can be qualified for higher positions.

Although Confucian scholars contributed the idea of " Government of man", other principles and strategies of management were offered by other schools. Han Fei Tsu, a famous Legalist, noted four management principles: (1) management by standards. This was the way to avoid arbitrary rule and self-seeking temptation. Leaders were advised to use plans and standards to induce and measure performance. (2) management of people. The function of the chief executive was to plan strategy and to control people. Leaders were advised to study individual actions, motives, and power schemes so as to avoid being confused by devious advice, misled by self-seeking individuals, or manipulated by power factions. (3) organizational practices. With respect to organization, maintaining authority through the application of law, punishment and reward was the fundamental principle. Leaders were advised to use rewards wisely and make penalties severe. On structure, organizations must have clearly established boundaries. (4) usurpation of power. In an absolute rule, Leaders were continuously reminded of the danger of usurpation. Han Fei Tsu expounded the

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theme that human nature was motivated by self-interest and power hunger, he recognized eight sources of usurpation and discussed various methods of preventing usurpation (Chang, 1976). The principles of the Legalists were contradicted by Taoism which emphasized "Wu-Wei". However, in terms of management strategies, Taoism's ideas of "become weak to overcome the strong", "emphasize negatives to induce positives", and "equate wrong with right" deeply influenced Chinese as well as Sun Tsu, the most famous Chinese strategist known to the west, who also had tremendous influence through his book *Art of War*.

Traditional Chinese management thought was oriented toward human relations in organizations. Many researchers identified this characteristic in their studies (Chang, 1985, Swierczek, 1991). The issue is where this characteristic and other cognitive patterns, and cultural values are manifested in terms of modern management and organizational behavior theories. Boje, Vance and Stage (1993) adapted classic management theory from Henry Fayol to identify the cultural influences in management styles among Asian countries. They argued that among five factors of management style, planning and organizing are more similar while influencing and controlling are more divergent, and leading is both convergent and divergent. According to Redding (1980), even organizing is influenced by cultural factors. For example, a Chinese's personal relationships play an important role in organizing, and the informal organization is especially strong, particularly in terms of vertical links, and this diminishes the rational operation of the hierarchy. Since influencing, controlling and leading factors are essentially related to the issue of

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communication, I will pay more attention on the leadership function in management style.

Redding (1980) argues that leading and controlling are largely influenced by cognitive perceptions of self and morality. (1) Self and leading. Since self in Chinese perspective is strongly related to others, it is common for a Chinese manager to behave paternalistically and for his judgments of subordinates to be more personalistic than objective. A more "autocratic" style for the Chinese is indicated from data on managerial beliefs (Redding & Casey, 1976), particularly in terms of less subordinate participation. Chinese social sensitivities, which derive from Confucianism, especially respect for elders, may contribute to this view of the leader-subordinate relationship. (2) Self and control. The personalistic networks of Chinese society, combined with other aspects of perception, affect control processes. There are two main outcomes: firstly 'conflict' situations such as occur in assessment and performance appraisal interviews may be avoided, as they are counter to the ethic of harmony. Empirical studies found that Chinese managers rated their subordinates more positively than American managers (McGuire, 1980, Saner-Yui et al. 1984, Lou & Borden,1989). Secondly, the use of objective performance measures which "put people on the spot", are avoided and replaced with more personalistic assessments. Conformity and willingness to accept direction become highly valued and are rewarded. (3) Morality and leading. If leadership is largely the control of people's behavior, it must rest on a sensitivity to what people will respond to as controlling forces. If social norms are maintained more by shame than by guilt, then a different set of leadership behaviors may emerge. For the shame culture, control of the

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individual is external, rather than internal as it is in guilt culture. Therefore, "giving

face" and "saving face" become motivators for the Chinese. A survey of 102 Chinese

managers in Hong Kong found that the role of face in organizational relationships is

strongly affirmed: first, strong feelings of satisfaction, pride, and confidence are

reported to follow from gaining face, and equally strong negative feelings from losing

it; Second, the justification for face-related behavior is normally in terms of group or

interpersonal harmony (Redding & Ng, 1982). (4) As one of the results of

collectivism and paternalism, Chinese managers tend to maintain a balance between

task-related actions (initiation) and supportive actions (consideration) (Dorfman and

Howell, 1988). Swierczek(1991) also found that the key features of best leaders from

an Asian perspective are: efficient decision making, good communication, delegates,

concern for human resources, solves problems, and supports employees.

In general, Chinese management style is human relation oriented with an

emphasis on the role of people in the organization. Personal relationships play a

critical role in organizational behavior and management practice. It is manifested in

informal organization, paternalistic behavior, conflict avoidance, face giving

motivation, and keeping balance between people and tasks.

4. Communication behavior

Early in the 1960's, Smith (1966) assessed the relationship between

communication and culture: " our perception is behavior that is learned and shared,

and it is mediated by symbol. Culture is a code we learn and share, and learning and

sharing require communication. And communication requires coding and symbols,

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which must be learned and shared. Communication and culture are inseparable" (p. 7) . Communication is the process in which culture was born and diffused. Culture is the content of this process. The function of communication in culture is to maintain a healthy balance between the forces of individual and community, and to provide a sense of shared identity which nonetheless preserves individual dignity, freedom and creativity. Therefore, communication is part of culture, even culture itself.

Since communication and culture are bound together, communication is influenced by the philosophical foundations and value systems of the society in which it is found. Yum (1988) discussed East Asian communication patterns through comparing the value systems of interpersonal relationship between the North American and the East Asian. She addressed four East Asian communication patterns based on Confucianism. They are also Chinese cultural patterns. The four patterns are: process orientation, differentiated linguistic codes, indirect communication emphasis, and receiver centered.

(1) Process orientation. This pattern was compared with the North American's outcome orientation which perceives communication as the transference of messages. The main function of communication under Confucian philosophy is to initiate, develop, and maintain social relationships. There is a strong emphasis on the kind of communication that promotes such relationships. For example, it is very important in East Asia to engage in small talk before initiating business and to communicate personalized information, especially information that would help place each person in the proper context. Cheng (1987) also pointed out that, in Chinese philosophy, communication is perceived to be an infinite interpretive process which cannot be

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compartmentalized into sender, message, channel, and receiver. It presumes that each partner is engaged in an ongoing process and that the relationship is in flux.

2. Differentiated linguistic code. East Asian languages are very complex and are differentiated according to social status, the degree of intimacy, age, sex, and the level of formality. There are also extensive and elaborate honorific linguistic systems in East Asian languages. The importance of social relationships in Confucian societies has promoted the differentiation of linguistic codes to accommodate highly differentiated relationships.

3. Emphasis on indirect communication. The Confucian legacy of consideration for others and concern for proper human relationships has led to the development of communication patterns that preserve one another's face. Indirect communication helps to prevent embarrassment or rejection by the other person or disagreement among partners, leaving the relationship and each other's face intact. Bond and Lee (1981) have argued that there are three situations which make face become an important issue and where indirect communication is necessary: (1) when the same people meet again and again so that no escape is allowed if face is lost. (2) where members of a society achieve identity more through group participation than through individual activities. Here the act of saving another's face promotes cohesiveness among group members who help one another in this way; and (3) in authoritarian societies where criticism of a superior by a subordinate threatens the social order. There are many ways to defend face through indirect communication, such as mediated communication (asking someone else to transmit the message), refracted communication (talking to a third person in the presence of the hearer), and

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acting as a delegate (conveying one's message as being from someone else) (Lebra, 1976).

4. Receiver-centeredness. North American communication very often centers on the sender, much emphasis has been placed on how senders can formulate better messages, improve source credibility, polish their delivery skills, and so forth. In contrast, the emphasis in East Asia has always been on listening and interpretation. According to Lebra (1976), "anticipatory communication" is common in Japan, in which, instead of the speaker's having to tell or ask for what he or she wants specifically, others guess and accommodate his or her needs, sparing him or her embarrassment. In such cases, the burden of communication falls not on the message sender but on the message receiver. To catch on quickly and to adjust oneself to another's position before his or her position is clearly revealed is regarded as an important communication skill. With the emphasis on indirect communication, the receiver's sensitivity and ability to capture the under-the-surface meaning and to understand implicit meaning become critical.

How do these communication patterns affect organizations with East Asian managers in general and Chinese managers in particular? As we noticed before, organizational behavior in developing countries and areas has convergent and divergent directions. On the one hand, it is influenced by Western organizational and management theories. On the other hand, cultural traditions remain in many aspects of people's behavior. In terms of organizational communication, Redding (1990) quotes one Hong Kong Chinese senior manager put it in this way:

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" I think communication is a Western concept. It's never been a Chinese concept. We never talk about the skill of communication. If you're smart, you learn to feel it. You learn to be very observant. You look at the face of your boss--the little actions that he does--and you pick up the hints, you know. You would be very bloody stupid if--until the boss told you, to do certain things. Although you know how to do it.
(Question) What's the function?
It's the art of ruling that I put you in a situation where you have to keep guessing what I'm thinking. So I put you in a role where you are always trying to please me...In the older Chinese style, quite often what is not said is more important than what is said--and they just deliberately leave little hints without being explicit--to test you. And this is said to be the highest art of leadership and management." (p. 163)

This manager tells us some important Chinese traditions about communication. They more often use indirect communication, require receivers to interpret message meanings, and take it as an interpretation process. Some other Chinese managers acknowledged that communication and interpersonal relationships were very important in their jobs (Krone, Garrett, and Chen, 1992). Even if employees do not wish to communicate their feelings and desires, they must be "encouraged" to do so; managers, in turn, must be "thick-skinned" and persistent in their communication attempts even when others may not want to talk with them. " If communication is stuck, it means you've lost ears" (Krone. Garrett, and Chen, 1992, p.243).

Few studies have been done about Chinese organizational communication. However, current research found some Chinese communication patterns in organizations.

First, Motivational patterns. Yang (1986) summarized a general motivational pattern for Chinese: relatively strong on abasement, achievement (social oriented), change, endurance, intraception, nurturance, order, moderate on autonomy, deference, dominance, and succorance, and low on achievement (individual oriented), affiliation,

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aggression, exhibition, heterosexuality, and power. In an organizational context, managers in Mainland China reported using both direct and indirect strategies which often involved promising a range of material and "spiritual" rewards to motivate workers. Most typically, "spiritual" encouragement and inspiration are given more frequently and freely than are material rewards. These strategies include awarding outstanding workers with certificates, flowers, and other marks of distinction (such as a nominal bonus), as well as singling them out by name for praise during speeches (Krone, Garrett, & Chen, 1992). These findings partially support former studies (Tung, 1982, Henley & Nyaw, 1987). The difference is that, according to Henley & Nyaw (1987), Chinese workers today emphasize material incentives such as wage increases and bonuses, and they rank non-material stimuli such as recognition or a "model worker" award on a low level. In contrast, Chinese managers put more emphasis on the importance of non-material incentives such as "responsibility and challenge of work," "personal fulfillment," "development of individual potential," spiritual inspirations are basic driving forces for Chinese managers.

Second, vertical and horizontal relationships and communication. Chu and Ju (1993) found that vertical organizational relations were expected to be more harmonious than tense as China proceeded with its reform policies, and they believe that reform would bring even healthier superior-subordinate relations. The three important qualifications that people look for in their leaders are qualifications usually possessed by young, educated, and caring people. In terms of vertical communication, many Chinese managers created formal avenues for upward communication. These managers insist on clear lines of communication; delegate authority, often to

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committees; and restrict access, holding open hours only at specified times. Their downward communication usually is through regularly scheduled and unscheduled meetings with various groups of employees (Krone, Garrett & Chen, 1992). For horizontal relations in Chinese organizations, according to Chu and Ju (1993), an overwhelming Chinese majority would prefer a workmate with high work ability even though not a close friend. The attitude that people took toward their colleagues was generally constructive. When there was a problem involving collegial relations, most were willing to talk and tried to solve the problem through communication. For example, 72.5 percent of survey subjects (N=2,000) reported that they would "talk to him" if a coworker fails to work; 39.4 percent of respondents also said they would directly bring up the difference with whom they have different opinions in their organization, while the least popular solution was to "ask a third person to mediate" (10.) percent). It was quite different from the traditional approach, which would require one to keep silent or to find a third person to mediate. But at the same time, when asked, "If someone in your work unit has done something he should not have done, would you consider his face before you talk to him", 22.4 percent of the sample said they would consider face a lot, and 64.7 percent would consider some, making a total of 87.1 percent (Chu and Ju, 1993, p.139)

Third, attitude toward conflict and conflict management style. Research found that fewer Chinese than Americans view conflict between people as constructive; more Chinese than Americans reported that when in conflict with someone they were inclined to avoid discussing the problem. They felt less strongly about the statement "problem between people ought to be talked out openly"; and they were less inclined

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than Americans to challenge their superiors or correct their mistakes even when they know their superiors are wrong (Yu, 1992). For most Chinese managers, to manage conflict means to manage complaining workers, conflicts over coming late to work, failing to meet production deadlines, stealing from the enterprise, and such (from the Chinese view) disruptive, selfish, and antisocial activities as quarreling with family members or gambling. The solution for these conflicts usually involves several steps. First, find the reason; second, if there was no good reason, "ideological education" was necessary for the people involved. The so-called "ideological education" was a mixture of cajoling, threats, and promise of reward. Third, if this still did not work, the problem worker's coworkers, friends, and family are often enlisted to intensify the "education" (Krone, Garrett, and Chen, 1992).

Fourth, preferred communication channels in Chinese organization. There is an interesting phenomenon in the Chinese workplace in terms of communication channels. Some research found that Chinese workers and subordinates pay less attention to their superior's oral instruction than to written messages (Yu, 1992, Hildebrandt, 1988). But other research found that Chinese managers rely more on oral communication to exchange information, motivate and confront problem workers (Krone, Garrett, and Chen, 1992). This contradictory preference between superiors and subordinates may be reflected not only in some bureaucratic features in Chinese organizations, such as the responsibility issue, but also in cultural communication patterns. Superiors require their subordinates to understand what they said and anything behind the words, but the subordinates may only like to be responsible for what is explicit. Further research will be necessary for this issue. Related to the

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channel preference for subordinates, compared to Americans, Chinese workers did

not necessarily prefer speaking to people face-to-face, felt uncomfortable with face-

to-face performance appraisal, and were less willing to look their superiors in the eye

when talking to them (Yu, 1992). Other studies also found that Chinese managers

rate their subordinates more positively than American managers do during face-to-

face performance appraisal (Saner-Yui & Saner-Yui, 1984; McGuire, 1980; Lou &

Borden, 1989). The channel itself may play a role in the process of appraisal because

Chinese avoid face-to-face conflict.

In summary, the review of literature showed that the Chinese have different

concepts of team and teamwork from the Americans. The Chinese perception of team

effectiveness may also be different from those of Americans because of the influences

of Chinese cultural factors. As the first generation of immigrants, Chinese-Americans

are carrying their cultural heritage in terms of their organizational behaviors. The

interesting question is how large is the impact of Chinese cultural heritage on

Chinese-Americans' perception of team effectiveness?

As the review of literature showed, a cross-cultural management study found

that Hong Kong Chinese were influenced by their cultural heritage, but the business

environment modifies this influence, and Hong Kong Chinese lie between the

mainland Chinese and Americans in terms of two value dimensions of Eastern and

Western thought: Confucian Dynamism and Uncertainty Avoidance (Ralston, et al,

1993). Cultures can also be examined in terms of their propensity for change, some

being more static--close and fixed--and others being more versatile--open and

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adaptable. For example, the Chinese have integrated in many Pacific Basin countries with considerable economic success. A study of the Chinese experience in Hawaii has shown that the Chinese apply dynamic versatility in overcoming cultural integration barriers in a host country without losing their unique cultural identity (Kelley, Whatley, and Worthley, 1987). Another study also found that, while authoritarian leadership produced a greater degree of cohesiveness of judgment than laissez-faire or democratic leaders with Chinese subjects, both democratic and authoritarian leadership atmospheres produced a high level of group cohesion of judgment for Chinese-Americans (Meade, 1970). This means Chinese-Americans are able to switch their attitudes and to adjust their behavior for both leadership styles, perhaps because they combine both Chinese and American values. In a study of a multinational corporation, researchers found that U.S. and Taiwanese managers think that neither the American culture nor the Chinese culture dominates the organization, although both exist. A combination subculture makes the organization effective (Lou & Borden, 1989). This subculture is also a third culture which functions on the organizational level. In this study, the researcher's aims were to examine Chinese-Americans' concepts of team and teamwork, their perceptions of team effectiveness, and to explore the cultural differences between Chinese-Americans and Euro-Americans on these issues. Thus, the reviewing of literature on cultural influences would provide insights to the researcher for developing the research questions.

Chapter Three

Methodology

The purposes of this study were to explore Chinese-Americans' perceptions of team, teamwork and team effectiveness and to compare perceptual differences between Chinese-Americans and Euro-Americans on these issues. This chapter describes the design and research methodology used in this study.

1. The initial research instrument development

Since one of the major purposes of the study was to explore Chinese-Americans' perceptions of team, teamwork and team effectiveness, a questionnaire was developed. In this study it is called the Cross-cultural Perceptions of Team Effectiveness (CPTE) questionnaire. The general process of the instrument development follows several steps: (1) review of literature from both American and Chinese perspectives about team issues; (2) interview with Chinese-Americans who have team experiences in American organizations to gather insights about these team issues; (3) construct an item pool under the supervision of advisor for the research, who is an expert on intercultural communication and international organizations; (4) pretest the instrument with a group of Chinese-American engineers who are currently working in American companies.

The literature review in the previous chapter generalized some basic concepts of team, teamwork and characteristics of effective teams. It also discussed some

potential cultural factors that might affect the Chinese's understanding of team, teamwork and team effectiveness. A common problem cited by cross-cultural researchers such as Berry (1980), Lonner (1981), Hui and Triandis (1984), Hall (1986), Trimble (1988), Shuter (1990) is that most instruments and tests used cross-culturally are Western in origin and often reflect Western values and content. Thus, cross-cultural research, according to Berry, (1) produces trivial, tautological, or highly abstract generalizations, (2) many generalizations are based on one-shot multiple comparisons between many cultures and thus, do not provide an in-depth understanding of any one culture regarding the variables in question, and (3) cross-cultural research sometimes compares the "incomparable" from different societies, leading to distortions of reality for the cultures and variables involved (Berry, 1980). Concerns of this nature have been shared with communication scholars such as Hall (1986) and Shuter (1990). In order to avoid this problem, this study initially applied an ethnographic interview in which the questions were usually related to a current situation or to the individual experience of the interviewee. According to Lindlof (1994), the advantages of this method are "learning about things that cannot be observed directly by other means", " understanding a social actor's perspective", and " inferring the communicative properties and processes of interpersonal relationships" (p. 166).

Using this method, a pilot study was conducted. Eight Chinese-American engineers who are currently working in American companies were selected as interviewees. A set of core questions was asked in every interview. These questions were designed to enable the interviewees to articulate their definition of team,

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teamwork, and their perception of effective team through their team experiences. A copy of the interview questions is included in the appendix. In order to gain more cultural insights about team issues, all interviews were conducted in Chinese and were tape-recorded. A content analysis of the interview data generated different concepts of team and teamwork. For example, team is a natural work unit, or team is a specific task related work group; and teamwork is like a Chinese saying " I work for everyone, and everyone works for me", or teamwork is task related collaborative work among people in the same group. Seven dimensions of team effectiveness were also identified through the analysis: (1) team structure, (2) team leadership, (3) team membership, (4) team climate, (5) team communication, (6) team performance, (7) team diversity. An explanation of these dimensions are as follows:

Team Structure-- In a multicultural team, it is important for everyone to realize that it is necessary to build and share a common team culture. A successful team should develop a common goal, a common language, and a common procedure. A successful team structure should consider both the task achievement and the cohesiveness of people. Group responsibility and shared credits, voluntary team members, and long-term team organization will increase the cohesiveness of the team, thus strengthen its effectiveness. Relationships among team members should not be limited to work and professions. Getting to know each other and learning from each other can smooth the work relationship. In this kind of structure, the individuals grow as the team matures.

Team Leadership--The leader is the soul of the team. For a competent leader, professional knowledge and skills are not the first requirement. The abilities

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to set up ethical norms for the team, to know every team member's specialty and uniqueness, to coordinate each individual's efforts, and to care about them are more important for team success.

Team Members-- In a professional team, real team sprit is more important than competence. Willingness to work as a team, willingness to help or assist others, and not trying to be the star in the team, will help to build a harmonious relationship. Competence should focus on uniqueness, not excellence. Everyone can get something from others; thus everyone can be re-educated in a successful team.

Team Climate--A democratic, collaborative climate is the soil to cultivate trust among team members. Participation, consensus, and involvement in decision making can increase the sense of connectiveness and belonging, which positively impact on cohesiveness of a team. " I work for everyone, and everyone works for me" is the base for collaboration, which in turn foster trust and commitment within the team. A successful team is focused on cooperation rather than on competition among members.

Team Communication--Teamwork is essentially a communication activity. It is communication that makes individuals become team members and create an entity that combines commonality and diversity as "Yin" and "Yang" in Chinese philosophical orientation. Team communication should be multichanneled. Formal channels, such as regular group meetings, are especially necessary for those inactive and minority members. Informal channels, such as team social activities, are also highly recommended by the respondents in the pilot study. Openness is critical for successful team communication. From the task perspective, openness means sharing

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information, constructive criticism, and authentic, non-evaluative feedback. From the social integration perspective, openness means encouraging members to express feelings, to be concerned about group morale or maintenance, and to create an informal, relaxed, and comfortable team atmosphere.

Team Diversity--Diversity is what makes the team unique. Team members should respect and trust each other no matter where they are from and who they are. Valuing diversity means not only to value different knowledge and skills, but also, different cultural perspectives. A successful team should integrate its members with regard to both their talents and their social relationships.

These seven dimensions served as the basic indicators for the initial structure of the Cross-cultural Perception of Team and Team Effectiveness (CPTE) questionnaire scales and corresponding items. During the interview, most of the interviewees mentioned the differences between Chinese and Americans in terms of the concepts of team, teamwork and perception of team effectiveness in organizational context. They were puzzled by these differences. With this problem in mind, it was necessary to develop the items of the Cross-cultural Perception of Team Effectiveness from a combination of items in the literature review and the interview data to represent both Chinese and American perspectives. The initial items for the instrument were guided by the recommendations of Dillman (1978) and Sudman and Bradburn (1982) for writing survey questions. Three guiding principles were followed: (1) Is the question appropriate for the kind of information desired? (2) Is the question appropriately structured? And (3) Is the choice of words appropriate? (Dillman, 1978). English was used in the questionnaire since most Chinese-American

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engineers received their higher education in the States and have been working for American organizations for many years. Questions in English would be most closely connect to the current working environment. After constructing the initial items for the questionnaire, a pretest was held using a panel of three Chinese-American engineers. Some ambiguous items or items which were not very meaningful in terms of the American organizational context were eliminated.

2. The initial research instrument

The actual structure of the Cross-cultural Perception of Team Effectiveness (CPTE) used in this study was composed of 63 items (IT3 to IT65, see Appendix III). These asked subjects about their perception of team effectiveness from the seven dimensions mentioned earlier in this chapter. Four questions were added concerning the subjects' concepts of team and teamwork (IT1 to IT2, see Appendix III). Each item had two different concepts. Five questions (IT66, see Appendix III) asked subjects for demographic information, such as gender, education level, team experience, years work in the United States, and total years of residence in the United States.

A five-point Likert-type scale was used to assess the respondent's level of agreement/disagreement with the first sixty-five statements. The scale for each statement ranged from strongly agree (1), to strongly disagree (5), with verbal labels for each scale point: agree (2), neutral (3), and disagree (4). Item sixty-six dealt with alternative-choice questions for which the respondents had to circle one of the multiple choices such as gender and levels of education, numbers of team they joined,

and years of work and residency in the United States. Table 3.1 specifies the

dimensions and corresponding items in the questionnaire.

Table 3.1 Dimensions, item number and item content of Cross-cultural perceptions of team effectiveness questionnaire

1. Team and teamwork concepts
(1). In your opinion, a team is
    A. A natural work unit
    B. A group of people who work for a specific task
(2). In your opinion, teamwork means
    A. I work for everyone, and everyone works for me
    B. Task related collaborative work among people in the same group

2. Team structure—
- team building

(3) Team member should voluntary join the team

(10) Team member should be assigned by the management level

(17) Long-term member relationships will make team more effective to accomplish multiple tasks

(24) Team should be reorganized after each task

- team orientation

(31) Team members should have a common goal

(38) The team goal should focus on the specific task

(44) The team objective should not ignore the harmony of the group

(50) All team members should be highly motivated to accomplish the team goal

- team role define

(55) Team members' role should be clearly defined

(59) The team members should accept the expectations of the team

- team responsibility

(62) The team should have strong group responsibility toward its goal

(64) The team should have clear job responsibilities for each member

3. Team leadership---
- role model

(4) The team leader should be a role model of team spirit

(11) The team leader needs to show the sense of equality, justice and fairness

- co-ordination ability

(18) The team leader is not necessarily a specialist, but need strong co-ordinate skills

(25) The team leader should build good relationships with up-level managers and other teams

- task/relationship orientation,

(32) The team leader should consider members' well-being

(39) The team leader should balance the need of team achievement and the needs of individual development

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- leadership sharing

(45) The team leadership should be shared by members depending on the task

(51) The team should offer opportunity for rotating the team facilitation role

4. Team membership---

- competence

(5) Team members should be selected on the basis of same level of competence

(12) Member's competence should based on uniqueness rather than excellence

- commitment

(19) Team members should commit to accomplish the team task

(26) An effective team should establish a sense of loyalty

- co-operation

(33) Team members should understand how individual functions link together

(40) Team members should support each other to accomplish tasks

- group/individual orientation

(46) Team members are willing to sacrifice their personal needs to let the team needs to be met first

(52) Team members will more likely assist others rather than playing as a star

(56) The team should value those members who do what others do not like to do

(60) Team members should accomplish more as a team than as individual

- personal development

(63) Team members should be motivated to constantly improve themselves

(65) The team should help its members develop individually

5. Team climate---

- member relationship

(6) Team members should have well established working relationships

(13) Team members should trust each other in terms of work ability and accountability

(20) Team members should feel that they are socially included in the team

(27) The team should work well together and has cohesion

- team participation

(34) Team members should have opportunities to provide feedback on how the leader can best serve the team

(41) The team should foster members' participation and positively reinforce their contributions

- consensus decision making

(47) Team members should have inputs on major team decisions

(53) The team should make consensus decisions on important matters

- formal/informal climate

(57) The work environment of team should be enjoyable

(61) The team should create an informal and friendly working atmosphere

6. Team communication---

- communication styles

(7) Team members should be patient listeners when someone encounters language problems

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(14) Team members should be willing to disagree openly with others
- conflict management

(21) Conflict among team members is constructive

(28) Conflict among team members is bad and should be avoided

(35) Team members should not complain when they get extra/difficult assignment or trivial assistant work
- feedback

(42) There should be no "hidden agendas" in the team

(48) Team members should give constructive feedback to each other
- information sharing

(54) The team should seek out all information relevant to issues

(58) All team members should selflessly share job related information

7. Team performance---
- creativity & innovation

(8) Team members should feel they are creative

(15) The team tries new ways of doing things
- initiative, group success

(22) Team members should share credits for the team's success

(29) Team members recognize each other for their individual contributions to the team
- individual development satisfaction

(36) Team members should have opportunities to learn from each other

(43) Team members should satisfy with their individual development
- team recognition

(49) The team should be recognized for its member's efforts

8. Team diversity---
- respect/appreciate diversity

(9) All team members appreciate cultural differences

(16) Team members respect each other' ideas and feelings
- sense of personal worth,

(23) Team members feel a sense of personal worthiness on the team
- integrating uniqueness

(30) Team members view individual differences as a positive team asset

(37) The team should not ignore or smooth over differences for task accomplishment

9. Demographic information

(66) Gender, Levels of Education, Numbers of Team Joined, Years Work in the United States, Total Years in the United States.

3. Assessing instrument reliability and validity

In designing any good survey questionnaire, the designers must ensure that the

measure has relatively high degree of reliability and validity. In this study, assessing

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the initial research instrument was focused on the 63-items related to the perceptions of team effectiveness.

The reliability of an instrument is concerned with the precision or accuracy and consistency of sets of numerical data generated by a measurement (Nunnally, 1970; Kerlinger, 1986). Reliability can be defined as " the relative absence of errors of measurement in a measuring instrument"(Kerlinger, 1986, p. 405). Reliability of measurement is a critical facet of instrument development. Kerlinger (1986) recommends the "maxmincon principle" to improve reliability: " Maximize the variance of the individual differences and minimize the error variance" (p. 415). More concretely, he suggests the general procedure to follow: First, write unambiguous items. An ambiguous item permits error variance or measurement error to become a problem because individuals may interpret the item in more than one way. Second, if an instrument is not reliable enough, add more items of the same kind and quality. More items increase the probability of accurate measurement. Third, clearly and carefully state the instructions for completing the measurement tool. Ambiguous instructions increase error variance. Further, the measuring instruments should always be administered under standard, well-controlled, and similar conditions (Kerlinger, 1986). In accordance with these rules of procedure, the items of Cross-cultural Perception of Team Effectiveness were carefully generated with clear statement, and it was pre-tested by a panel of Chinese-American engineers to eliminate any ambiguous items. The instrument also included different items with similar meanings. More details about the administration of the questionnaire will be reported late in this chapter. In order to increase the reliability of the instrument, the

scale refinement process was conducted in the data analysis stage. More evidence of statistic reliability will be reported and discussed in the next chapter.

Nunnally (1970) once points out " high reliability is a necessary but not sufficient condition for high validity" (p.107). Validity of the instrument is another crucial important component in the development of an instrument. In a general sense, " a measuring instrument is valid if it does what it is intended to do" (Nunnally, 1970, p. 132). The most common definition of validity is epitomized by the question: "Are we measuring what we think we are measuring?"(Kerlinger, 1986, p. 417). The emphasis in this question is on *what* is being measured.

The American Psychological Association (1974) recognizes three principal types of validity that can be established on a measure: content validity, criterion-related validity, and construct validity. Content validity is "the representativeness or sampling adequacy of the content", is the degree to which an instrument measures an intended content area or domain (Kerlinger, 1986, p. 417). Nunnally (1970) recommends two major standards for ensuring content validity: a representative collection of items, and sensible methods of test construction. The item content of the Cross-cultural Perception of Team Effectiveness focused on a large number of team effectiveness issues in the organizational context and appeared to be representative of the constructs they aimed to assess. Sensible methods of test construction involve careful attention to the process by which an instrument is developed. As the researcher described earlier, special attention was paid to the cultural and organizational factors during the development of the instrument.

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Criterion-related validity requires demonstrating that the scale scores of one measure correlate with one or more independent variables or criteria, the higher the correlation, the better the validity (Kerlinger, 1986, p. 419). This type of validity is characterized by prediction to an outside criterion and by checking a measuring instrument, either now or in the future, against some outcome or measure. As the Cross-cultural Perceptions of Team Effectiveness is not designed to deal with outside criteria, more attention will be paid to increase the reliability of the instrument. In turn, the correlation among items would also increase.

The third type of validity, construct validity, is the degree to which an instrument measures an intended hypothetical construct. It differs from the other types of validity mainly because of its preoccupation with theory, theoretical constructs, and scientific empirical inquiry requiring the testing of hypothesized relationships (Kerlinger, 1986). Traditionally, measures of construct validity include a comparison between the instrument being evaluated and an existing validated instrument. In this case, there are no other existing instruments that were designed to measure the Chinese-Americans' perception of team and team effectiveness. Therefore, no comparison or contrast is possible at this point to ensure the construct validity of the instrument. However, construct validity can also be tested by an item-analysis procedure that is similar to some techniques used to determine internal consistency, a form of reliability. By correlating scores on all items with each other or with the total score, one can test hypothetical constructs based on those relationships. Items highly correlated with each other converge on the same construct. On the other hand, items unrelated to a theoretical construct will diverge

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from the construct (Shontz, 1986). As this study was an exploratory one, the instrument went through a refinement process. During the refinement process, the low related variables within scale were eliminated. In this way, construct validity of the instrument was also increased.

4. The sampling of the study

To answer the research questions the study needed to pay attention to cultural, professional, experiential issues in the sampling as well as the necessary size. The selection of the research subjects depended on following four basic criteria.

(1) The target population should come from two culturally-defined groups. For reasons of simplicity "culture" here is defined as ethnic culture. According to Brown and Sechrest (1980), intercultural research must be carefully guided by theory with cultures being chosen deliberately to represent particular theoretical variables of interest. In this study, the two target ethnic groups were Chinese-American and Euro-American. For the Chinese-American group, U.S. nationality was not a requirement, but subjects should have been educated in the United States and be currently working as first generation immigrants in the States. The Chinese-American sample consisted of 236 people who were members of the Association of Chinese Scientists and Engineers-USA and members of many different U.S. alumni associations of Chinese universities. Among the Chinese-American subjects, 172 (72.9%) were male, 64 (27.1%) were female. 102 (43.2%) persons had their Ph. D degrees, 121 (51.3%) had M.S. degrees, and 13 (5.5%) had B.S. degrees. These Chinese-Americans were first generation immigrants, 53 (22.5%) of them had lived in the United States for more

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than 10 years. 82 (34.7%) had lived from 7 to 10 years. 83 (35.2%) had lived from

4 to 6 years, and 18 (7.6%) had lived in the United States for less than 3 years (See

Table 3.2). For the Euro-American group, 31 (50%) were male, 31 (50%) were

female. 36 (58.1%) of them had B.S degrees, 21 (33.9%) had M.S. degrees, and 5

(8.1%) had Ph.D degrees (See Table 3.2).

Table 3.2 Demographic information of Chinese-American respondents (n=236)

Demographic Factors		Number	Percentage(%)
Gender	Male	172	72.9
	Female	64	27.1
Education	B.S.	13	5.5
	M.S.	121	51.3
	Ph.D	102	34.2
Team Experiences	1-2 Teams	75	31.8
	3-5 Teams	105	44.5
	5 or more Teams	56	23.7
Work Years in U. S.	Less than 1 Year	18	7.6
	1-3 Years	92	39
	3-5 Years	59	25
	5 or more Years	67	28.4
Resident Year in U. S	Less than 3 Years	18	7.6
	4-6 Years	83	35.2
	7-10 Years	82	34.7
	10 Years	53	22.5

(2) The target subjects should be professional engineers. As many Chinese-

Americans are engineers, a profession which usually requires team work, the subjects

for this study were chosen exclusively from the engineering profession. The

researcher identified these subjects from the directories of Association of Chinese

Scientists and Engineers-USA and many different U.S. alumni associations of

Chinese universities to ensure that they have comparable professional experiences.

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The comparison group of Euro-Americans were also engineers from professional engineer associations, including organizations in which the researcher distributed the questionnaire.

(3) The target population should have exposure to or experience with teams. In today's organizational environment, team cultures are so widespread that most individuals have had at least some experience with teamwork. All of the individuals who participated in this study had previous team experience. From the Chinese-American group, 55 (23.3%) persons had joined more than 5 teams, 105 (44.5%) had joined 3 to 5 teams, 76 (32.2) had joined 1 to 2 teams. They also had many American organizational experiences, 67 (28.4%) of them had been working in the United States for more than 5 years, 59 (25%) worked for 3 to 5 years, 92 (39.0%) worked for 1 to 3 years, only 18 (7.6%) worked for less than 1 year (See Table3.3). For the Euro-American group, 26 (41.9%) persons had joined more than 5 teams, 22 (35.5%) had joined 3 to 5 teams, and 14 (22.6%) had joined 1-2 teams (See Table 3.3).

Table 3.3 Demographic information of Euro-American respondents (n=62)

Demographic Factors		Number	Percentage (%)
Gender	Male	31	50
	Female	31	50
Education	B.S.	36	58.1
	M.S.	21	33.9
	Ph.D	5	8.1
Team Experiences	1-2 Teams	14	22.6
	3-5 Teams	22	35.5
	5 or more Teams	26	41.9

(4) The sample should be of sufficient size to be meaningful. This criteria item relates to the power of the statistic. For instrument development, the sample size should be large enough so that the factor analysis can produce an adequate number of dimensions. According to Gorsuch(1983), a large number is usually defined as five or ten times the number of variables. For Rummel (1970), four times will be adequate. For the current study, the initial factor analysis variables were 63 and the actual number of respondents was 236. The criterion was set at around four times respondents for each factor analysis variable for two reasons. First, many instrument developers have used sample size 200 to refine instruments containing more than 60 variables (Churchill, Ford, & Walder, 1974; Parasuraman, Zeithaml, & Berry, 1988; Saxe & Weitz, 1982). During the refinement process, some unrelated variables would be eliminated from the instrument, thus increasing the power of factor analysis. Second, this number of respondents was a feasible sample size for the researcher to collect. For the Euro-American group, since it was to be only a comparison group for one way ANOVA tests, 40 to 50 respondents would have been sufficient for the statistic needs. The actual respondents numbered 62.

3. Data Collection

Two approaches were used in the data collection process. While one was traditional, the other was experimental. The traditional method was through a contact person in an organization who was asked to help distribute the questionnaires to respondents. The experimental method used email enabled the researcher to distribute questionnaires directly to the respondents.

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Currently, tens of thousands of Chinese-American engineers work in the United States, but they are physically separated not only by their organizations, but also by geographic areas. It is almost impossible to find a single organization that employs the number of Chinese-American engineers this study required. Thus, the researcher decided to use email and Internet to distribute the questionnaire. The reasons for doing so were as follows: First, email is now widely used in American organizations. Most companies and organizations offer email and Internet access to their employees, thus an email survey became possible. Second, the Chinese-Americans are accustomed to using the email system to serve their community activities, having found it is the most efficient and economic means of communication, and thus have established a solid cybercommunity across the country (Wu, 1996). Third, through directories of Association of Chinese Scientists and Engineers-USA and other alumni associations of Chinese universities, the researcher identified more than one thousand Chinese-American engineers' email addresses. These factors gave the researcher confidence in the feasibility of using email for his survey.

In order to conduct the email survey, a research email account was set up at the host university to deal with the possible return of a large number of email responses. The email questionnaire consisted of three-parts: an invitation letter, a consent form, and the actual research questionnaire. It totaled seven pages. Technically, one page consisted of 2,000 electronic bits, thus seven pages consisted 140,000 bits. One hundred return questionnaires would occupy 1.4 MB space in the email account. Based on this calculation, the research set up a 2 MB email account

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and decided to deliver the email questionnaire from four different time periods. Each time was separated by three days. A total of 1350 email questionnaires were delivered within two weeks. 312 of them were undeliverable due to changing jobs or email accounts. Among 1038 delivered questionnaires, 236 were completed and returned to the researcher. The return rate was 22.74%. The same method was also used for part of the Euro-American sample. A total of 57 email questionnaires were delivered to Euro-American engineers whom the researcher identified through different professional engineer association web sites. Among those 57 email questionnaires, 14 were undeliverable. 21 were completed and returned to the researcher. The return rate was 48.84%. Because the return questionnaires came at different times, and were downloaded on a daily basis, the researcher did not experience any technical difficulties.

The email survey is an experimental method that takes advantage of modern technologies such as the computer and Internet. It is worth discussing some of the strengths and difficulties of this method. The most notable strength of email survey is that it offers an interactive opportunity for both researcher and research subjects. In this study, the interactions between the researcher and respondents included positive support messages, and also negative rejections. From the positive side, many respondents attached supportive messages to the researcher to show their concern about the issue. Some of them even forwarded the email questionnaire to their Chinese-American engineer friends. However, there were also negative rejections about the research. Some people sent email to ask the researcher to remove them from the email list, no matter what kind of intention or purpose the researcher had.

The researcher received a total of 8 negative messages, which was less than 1% of the 1038 delivered email questionnaires. All these interactions, regardless of whether they were positive or negative, created mutual understanding between the researcher and the research subjects. In one case, after the researcher responded to a subject's request about his personal background and posted it to all potential participants, the return questionnaires were tripled the following day, and more people attached supportive messages with their return questionnaires. This was a culturally significant response. The interaction process gave a chance for Chinese-Americans to build a personal relationship, and to foster a supportive atmosphere in cyberspace and for the study. The second strength of an email survey is that it puts the situation under the researcher's direct control. In this study, some people asked questions before they answered the questionnaire. They expressed their concerns about the right way to fill out the questionnaire. There were also some technical questions about how to reply to the questionnaire. Although the researcher gave clear instructions about the method of replying in the instrument, some respondents still experienced difficulties due to the different email software and computer systems. The email system gave the researcher opportunities to give further explanations and instructions and to monitor the on-going data collection process. In turn, it increased the reliability and validity of the research questionnaire. The third strength of email survey is that it is efficient and economical. After posting the questionnaire, the researcher may get immediate responses. In this study, most responses were received on the next day after posting the questionnaire, or after sending a new message. The free email also enabled the researcher to send multiple messages to the potential respondents. However, the

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researcher could not abuse the free email system by spamming (A new computer jargon referring to the sending a large amount of unsolicited email) people's email boxes.

This suggests some difficulties arising from this new survey method. Where is the line between spam and regular email? It is impossible for the researcher to get information or data only from friends. Usually, the potential research subjects are not friends of the researcher. Therefore, any email survey is a kind of unsolicited message. While some people do not mind this kind of message, others will show annoyance when the same message is repeated several times. During the data collection process of this study, the researcher learned that sending the questionnaire more than twice would cross the limit of acceptance. Because of lack of experience, after sending the initial message and the questionnaire to the first group, the researcher sent his background information with the questionnaire based on the requests of some research subjects; then reported the responding rate to the subjects based on some other people's requests. This repeated message irritated some people who were not interested in the study. Most negative responses were received after the third message to the first group. The researcher took the lesson and never sent third messages to the remaining three groups.

Another difficulty of email survey is the return rate. In this study, there was a substantial difference between Euro-Americans and Chinese-Americans in their return rate. While some people may argue that Euro-Americans maybe more familiar with survey methods, there was also a delivery method which might have caused the difference. The researcher delivered the questionnaires to the Chinese-American

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subjects by groups. Each group consisted of approximately 25 to 35 people, and the subject's name was not directly mentioned in the invitation letter. In contrast, the delivery method of the Euro-American's questionnaire was based on individuals. Each person was called "Dear Mr. or Ms.". This method increased the direct connection between the researcher and the potential respondents. It could be one of the reasons for the higher return rate of the Euro-American's responses.

The current study also used the traditional method of collecting data through a contact person in an organization. For part of the Euro-American sample, the researcher obtained some assistance from a large telecommunication corporation in the Kansas City area and a chemical industry company in the New York area. Three managers distributed 80 questionnaires to their Euro-American colleagues and collected 41 completed ones which they sent back to the researcher. Even though one of the managers was out of town in business for 10 days, the return rate still reached 51.25 percent.

6. The statistic procedures for data analysis

In order to answer the research questions, statistical analyses of both Chinese-American and Euro-American raw data were conducted in three major areas: First, the research instrument scale refinement, second, an exploration of the characteristics of the Chinese-Americans' perceptions of team and team effectiveness, and third, an examination of the cultural differences between the Chinese-American sand Euro-Americans in terms of their perceptions.

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(1) The research instrument scale refinement

The initial questionnaire for this study was an exploratory research instrument. Although the researcher devoted considerable attention to reliability and validity issues in the initial design process, it was necessary to improve reliability through statistical procedures. In accordance with a method suggested by Churchill (1979) for developing better multi-item measures with desirable psychometric properties, four steps of statistic analysis were conducted for the data of the Chinese-American group(See Table 3.4).

Table 3.4 Statistical procedures for instrument scale refinement process

Steps	Statistical procedures
1	Compute coefficient alpha (Cronbach's alpha)
2	Compute item-to-total correlation on sub-scales Delete items with low item-to-total correlation
3	Compute item-to-item correlation on sub-scale Delete items with high and relatively low item-to-total correlation
4	Compute exploratory factor analysis to suggest possible dimensions Re-assign items and restructure dimensions

The purposes of the instrument scale refinement were two-fold: First, to retain only those items that were capable of discrimination well across differing perceptions of effective work team and the elimination if items that failed to contribute to the internal consistency of the instrument. Second, to explore the factor structure, and re-structure the instrument where appropriate. After building the new sub-scales, the coefficient alpha for items and each sub-scales were recomputed, and the succeeding statistical analyses were based on the new instrument.

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(2) Exploration of the characteristics of the Chinese-American team and team effectiveness perceptions

One of the major purposes of this study was to explore the Chinese-American's perceptions of team and team effectiveness. In order to answer the first research question, besides the new dimensions extracted from the factor analysis, an additional three statistical procedures were used: (A) To explore the Chinese-American's concepts of team and teamwork. (B) To examine the relationships between different team concepts and the variables of team effectiveness. (C) To determine how some of the independent variables, such as gender, levels of education, team experience, work years in the United States, and total years in the United State would affect the Chinese-American's perception of team effectiveness (See Table 3.5).

Table 3.5 Statistical procedures for exploring the Characteristics of the Chinese Americans' perceptions on team, teamwork, and team effectiveness

Area of Focus	Statistical Procedures
Comparing team/teamwork concepts	Paired t-test
Examining relationships between team concepts and team effectiveness variables	Correlation
Exploring the influence of demographic data	One-way ANOVA

Through all of these analysis, the researcher expected to come to some generalizations concerning the characteristics of Chinese-Americans' perception of team, teamwork, and team effectiveness. However, at this stage of analysis, the study

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did not allow direct conclusions about whether these perceptions were influenced by Chinese culture. Cultural differences were explored in the next stage analysis.

(3) The cultural differences between the Chinese-Americans and the Euro-Americans in the perception of team and team effectiveness

Since cultural differences were the major focus of statistical analysis at this stage, the Euro-American data were further examined and compared with the data from the Chinese-American. The Euro-American data set was analyzed for instrument reliability, computed for its coefficient alpha, and its means of sub-scales were computed and used to compare the means of sub-scales with the Chinese-American data. One way ANOVA for mean comparison method was applied in this stage (See Table 3.6). The significant differences between data from the two cultural groups were reported, and possible cultural differences were discussed.

Table 3.6 Statistical procedures for cultural difference analysis

Areas of Focus	Statistical Methods
Reliability of item and scale in the instrument	Cornbach Alpha
Sub-scale mean differences between C/A & E/A	One way ANOVA
Euro-American's team concept	Paired t-test
Differences between C/A & E/A on removed items	One way ANOVA

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Chapter Four

Results

This chapter reports the results of the statistical analysis for three major areas: the research instrument refinement, the exploration of Chinese-American characteristics of team effectiveness perceptions, and the cultural differences between the Chinese-American group and Euro-American group in terms of these perceptions. All analyses were conducted through window version 6.1 of SPSS.

1. The research instrument refinement

The purposes of the research instrument refinement were two: (1) condensing the instrument by retaining only those items capable of discriminating well across respondents having differing team effectiveness in several categories, and (2) examining the dimensionality of the scale and establishing the reliabilities of its components.

(1) Item reliability analysis

The initial 63-item research instrument was refined by analyzing the raw data of the Chinese-American group (n=236). Refinement of the instrument began with the computation of coefficient alpha, in accordance with Churchill's (1979) recommendations. The overall item Cronbach alpha for the initial instrument was .93. However, because of the large number of variables and the multidimensionality of the team effectiveness perceptions construct, coefficient alpha needed to be

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computed separately for the seven dimensions to ascertain the extent to which items

making up each dimension shared a common core. The values of initial sub-scale

coefficient alpha are shown in Table 4.1.

Table 4.1 The initial sub-scale coefficient alpha

Sub-scales of the instrument	Cronbach alpha
Team Structure	.65
Team Leadership	.58
Team Membership	.68
Team Climate	.72
Team Communication	.49
Team Performance	.75
Team Diversity	.68

The values of initial sub-scale coefficient alpha ranged from .49 to .78 across

the seven dimensions and suggested that deletion of certain items from each

dimension would improve the alpha values. The criterion used in deciding whether to

delete an item was the item's corrected item-to-total correlation in each sub-scale.

The corrected item-to-total correlations were plotted in descending order for each sub-

scale. Items with very low correlations /or those whose correlations produced a sharp

drop in the plotted pattern were discarded. 14 items which had low item-to-total

correlation ($r < .25$) within six of seven sub-scales were found and removed form the

instrument. Items in the dimension of "Team Performance" had considerable

medium item-to-total correlations and were retained as original. Table 4.2 showed

the deleted items for each sub-scale.

Table 4.2 Removed items with low item-to-total correlations from 6 sub-scales

Sub-scales	Item's number and its content	r
Team Structure	(3) Team member should voluntary join the team	.21
	(10)Team member should be assigned by the management level	-.00
	(17) Long term member relationships will make team more effective to accomplish multiple task	.17
	(24) Team should be reorganized after each task	-.00
Team Leadership	(18) Team leader is not necessary a specialist, but needs strong co-ordination skills	.12
	(45)Team leadership should be shared by members depending on the task	.19
	(51) The team should offer opportunity for rotating the team facilitation role	.28
Team Membership	(5) Team member should be selected on the base of same level of competence	.03
	(12) Member's competence should be based on uniqueness rather than excellence	.20
Team Climate	(6) Team members should establish good working relationships	.20
Team Communication	(21) Conflict among team members is constructive	.04
	(28)Conflict among team members is bad and should be avoided	-.13
	(35) Team members are not suppose to complain when they get extra/difficult assignment or trivial assistant work	.22
Team Diversity	(37) Team should not ignore or smooth over differences for task accomplishment	.19

During the initial reliability analysis, the item-to-item correlation was also examined to check if there was any item that was highly correlated with other items, which might indicate that they measured the same concept. The results of inter-item correlations showed very moderate to lower associations among the items in the initial instrument. No outstanding association was found among the items which indicated that the items of the instrument discriminated against one another.

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After removing the 14 low correlated items within sub-scales from the initial instrument, the Cronbach alpha was recomputed for overall items and also for each sub-scale. While the result of overall alpha increased from .93 to .94, many of the sub-scales substantially improved their reliability. The dimension of "Team Communication" gained the highest increase, jumped from .49 to .65; and the dimension of "Team Climate" also increased from already high .72 to .74. The dimension of "Team Performance" did not change since no item was removed from the scale (See Table 4.3). According to Nunnally (1967), for the early stages of research, the reliabilities of .50 to .60 are sufficient; and increasing alpha levels beyond .80 is probably wasteful.

Table 4.3 The Coefficient Alpha of Refined Sub-scales

Sub-scales of the instrument	Cronbach alpha	
	Previous	New
Team Structure	.65	.77
Team Leadership	.58	.63
Team Membership	.68	.74
Team Climate	.72	.74
Team Communication	.49	.65
Team Performance	.75	.75
Team Diversity	.68	.71

(2) Dimensionality of the refined scale

Examining the dimensionality of the refined 48-item CPTE was one of the tasks in the scale purification and was accomplished by factor analyzing the different scores on the retained items. The principal component factoring procedure was used initially. The value of KMO was .89. KMO is an index for comparing the magnitudes of the observed correlation coefficients to the magnitudes of partial correlation

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coefficients. Small values for the KMO measure indicate that a factor analysis of the variables may not be a good idea, since correlations between pairs of variables cannot be explained by the other variables. Kaiser (1974) characterizes measures in the .90's as marvelous, in the .80's as meritorious, in the .70's as middling, and below .50 as unacceptable. Since it was close to .90 in this study, the researcher gained confidence to proceed with the factor analysis.

However, when the researcher tried to use the varimax method to rotate the data in the attempt of minimizing the number of variables that had high loading on a factor, it was not successful at the beginning. The researcher then switched to maximum likelihood solution with varimax rotation and it successfully extracted 12 factors. After examining the factor pattern of this procedure, one more variable was removed from the refined instrument (Question 52: Team members will more likely assist others rather than playing as a star) because it had very lower loading in any factors (loading < .20).

With the new modified 48-item instrument, principal components factor analysis procedure with varimax rotation method was conducted once again. The researcher preferred to use the principal components factor analysis because it could maximize the variance accounted for and could gain higher loading in factors. This time, 12 factors were successfully extracted with the application of eigenvalue greater than 1.0 criterion. The 12 factors accounted for 62 percent of variance (See Table 4.4).

Table 4.4 Factor extraction from the refined 48-item instrument

Factor	Eigenvalue	% of Variance	Cumulative %
1	13.39	27.9	27.9
2	2.40	5.0	32.9
3	2.03	4.2	37.1
4	1.80	3.7	40.9
5	1.56	3.2	44.1
6	1.47	3.1	47.2
7	1.28	2.7	49.9
8	1.23	2.6	52.4
9	1.22	2.5	54.9
10	1.20	2.5	57.4
11	1.14	2.4	59.8
12	1.04	2.2	62.0

Varimax rotation in principal components analysis clearly distinguished variables which corresponded with these 12 factors. In order to define the salient variables for meaningful interpretation, a minimum factor loading value was set at .40, although the popular minimum loading for interpretation was an absolute value of .30 (Gorsuch,1983). Six factors which had at least 4 variables loaded were found. These six identified factors accounted for 47.2 percent variance of the factor analysis. 36 items were associated with these six new dimensions. The correlation among these six new factors ranged from .40 (the dimension of team cooperation with team leadership) to .69 (the dimension of team motivation and team participation). They were all significant and showed medium to high associations among those factors (See Table 4.5).

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Table 4.5 Correlation coefficients among six dimensions of 36-item CPTE

	TM(F1)	TP(F2)	TCO(F3)	ID (F4)	TCL(F5)
Team Motivation (F1)					
Team Participation(F2)	.69*				
Team Cooperation(F3)	.58*	.54*			
Individual Develop(F4)	.62*	.63*	.56*		
Team Climate (F5)	.47*	.49*	.49*	.56*	
Team Leadership (F6)	.49*	.44*	.40*	.42*	.41*

* p < .001

The final refined version of the Cross-cultural Perceptions of Team

Effectiveness was based on the 36 items which represented the six distinct

dimensions. The Cronbach alpha values for each new dimension were computed and

the summary of results from the scale purification is shown in Table 4.6.

Table 4.6 Summary of results from the scale refinement

Dimension & # of Items	Item number and content	Reliability (Alphas)	Factor Loading
Team Motivation (8 Items)	(16) Team member should respect each other's ideas and feelings	.82	.71
	(13) Team members should trust each other in terms of work ability and accountability		.69
	(9) All team members should appreciate cultural differences		.66
	(29)Team members should recognize each other for their individual contribution to the team		.54
	(20) Team members should feel that they are socially included in the team		.48
	(50) All team members should be highly motivated to accomplish the team goal		.48
	(34) Team members should have opportunities to provide feedback on how the leader best serve the team		.42
	(22) Team members should share credits for the team's success		.42

Team Participation (7 Items)	(42) There should be no "hidden agendas" in the team	.82	.67
	(47) Team members should have inputs on major team decisions		.59
	(44) The team objective should not ignore the harmony of the group		.54
	(40) Team members should support each other to accomplish tasks		.54
	(43) Team members should be satisfied with their individual development		.49
	(41) The team should foster members' participation and positively reinforces their contributions		.42
	(48) Team members should give constructive feedback to each other		.42
Team Cooperation (7 Items)	(46) Team members are willing to sacrifice their personal needs to let the team needs be met first	.76	.65
	(59) The team members should accept the expectations of the team		.58
	(64) The team should have clear job responsibilities for each member		.57
	(55) Team members' roles should be clearly defined		.57
	(60) Team members should accomplish more as a team than as individual		.48
	(54) The team should seeks out all information relevant to issues		.46
	(27) The team should work well together		.42
Individual Development (5 Items)	(33) Team members should understand how individual functions link together	.77	.76
	(49) The team should be recognized for its members' efforts		.59
	(63) Team members should be motivated to constantly improve themselves		.46
	(30) Team members should view individual differences as a positive team asset		.45
	(65) The team should help its members develop individually		.40

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Team Climate (4 Items)	(61) The team should create an informal and friendly working atmosphere	.67	.69
	(57) The work environment of team should be enjoyable		.61
	(62) The team should have strong group responsibility toward accomplishing its goals		.55
	(58) All team members should selflessly share job related information		.51
Team Leadership (5 Items)	(25) The team leader should build good relationships with up-level managers and other teams	.67	.73
	(7)Team members should be patient listeners when someone encounters language problems		.64
	(26) An effective team should establish a sense of loyalty		.50
	(4) The team leader should be a role model of team spirit		.45
	(8) Team members should feel they are creative		.44

For the new 36-item measurement, the average pairwise correlation among the six factors following varimax rotation was .28. This relatively low correlation, along with the relatively high factor loading shown in Table 4.6, suggest that the Chinese-American's perception of team effectiveness might have six fairly unique facets. Therefore, the 36-item instrument was considered to be ready for further testing in the future.

2. The exploration of Chinese-American's perceptions of team effectiveness

The factor analysis of 48-items measurement of Cross-cultural Perceptions of Team Effectiveness reduced the items to 36 and broke down the original dimensions designed for the instrument. The suggested dimensions were more related to relationship variables rather than to task variables. Did this mean Chinese-Americans hold different team concepts? How did the different concepts relate to the items of

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team effectiveness? How did the different Chinese-American groups perceive the team effectiveness? To answer these questions, the four additional team and teamwork concept items on the instrument were analyzed. First, paired sample t-tests were used to compare the two sets of team and teamwork concepts. Then, correlation coefficients were measured to see the associations between different concepts and the six new dimensions, and some other individual items. Finally, the influences of Chinese-Americans' demographic factors on team effectiveness perceptions were analyzed.

(1) The Chinese-Americans' team and teamwork concepts

The results of paired sample t-test showed that Chinese-Americans hold a team concept as "a group of people who work for a specific task", not as a natural work unit. Their teamwork concept was " task related collaborative work among people in the same group" rather than " I work for everyone, and everyone works for me" (See Table 4.7). As the researcher discussed in the literature review, the Chinese people perceived team concept more on the basis of a work unit rather than a specific task group. What the results indicated was that the Chinese-Americans held different concepts of team than those of the people in their motherland.

Table 4.7 Statistic results of the Chinese-Americans' more favorable team and teamwork concepts

Team	Variable	Mean	SD	t-Value	Df	2-tail Sig.
Concept	Unit	2.42	1.02	10.12	229	.000***
	Group	1.64	.64			
Team	Everyone/self	2.99	1.10	15.68	228	.000***
Work concept	Collaboration	1.66	.69			

(*** p < .001)

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The one way ANOVA analysis also found that the male Chinese-Americans significantly differed from female Chinese-Americans in terms of the teamwork concept [F (1, 229) = 5.08, p < .05]. The males were more idealistic than their female counterparts, with the mean of 2.9 versus 3.3 for the Chinese teamwork concept "I work for everyone, and everyone works for me". No significant difference was found among the three-levels of team experiences.

(2) The correlation between different team, teamwork concepts and the six dimensions, and other items of team effectiveness perceptions on CPTE

From the above statistical analyses, the Chinese-Americans' concepts of team and teamwork were identified. The next question was how these concepts were related to Chinese-Americans' perceptions of team effectiveness. To explore these relationships, correlation coefficient tests were conducted to measure the associations between these concepts and CPTE.

Three versions of CPTE were involved in the study: the original 63-item, the refined 48-item, and the final 36-item versions. The researcher was interested in the associations between the concepts of team, teamwork, the six dimensions of the final 36-item version; some individual items of the refined 48-item version; and the 15 removed items from the original 63-item version.

First, correlation coefficients between the different concepts of team, teamwork and the six dimensions of the final 36-item CPTE. The results showed that team as a task related work group and teamwork as collaborative work were significantly associated with all the six dimensions; whereas team as a natural work

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unit and teamwork as "I work for everyone, and everyone works for me" were

significantly associated with 5 of the six dimensions (See Table 4.8). These

associations showed that the "task related work group" team concept and teamwork as

collaborative work were more suitable for CPTE to measure the team effectiveness

perceptions of Chinese-Americans.

Table 4.8 Correlation Coefficients between different team, teamwork concepts and six team effectiveness dimensions

Concepts Dimensions	Team Concepts		Teamwork Concepts	
	Unit	Group	Everyone/self	Collaboration
Team Motivation	.23 ***	.14*	.23***	.17**
Team Participation	.12	.13*	.23***	.22***
Team Cooperation	.19**	.19**	.14*	.17*
Individual Develop	.20**	.14*	.13*	.22**
Team Climate	.15*	.27***	-.006	.16*
Team Leadership	.20**	.22**	.18**	.23***

(* $p < .05$, ** $p < .01$, *** $p < .001$)

Second, the results of the association between different team concepts and the

48-items of instrument showed that both concepts had lower, but significant

associations with 8 items. However, the results also showed that each concept was

related to certain specific items: team as a "natural work unit" was associated with 12

items which were more relationship oriented. For example, all of the 4 team diversity

items were significantly associated with this concept. Team as a "specific task work

group" was associated with 10 items which were more process oriented, such as items

on communication and group effort (See Table 4.9)

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Table 4.9 Significant correlations between different team concepts and 48-items instrument

Items \ Concepts \ Values	Team Concept	
	Natural work unit	Task work group
	r	r
Motive to teamwork	.14*	.15*
Job responsibility	.14*	.15*
Loyalty	.16*	.16*
Share information	.23**	.14*
Social inclusion	.22**	.13*
Friendly atmosphere	.14*	.20**
Creative	.21**	.18**
Share credits	.18**	.22**
Commitment	.15*	No Significance
Model	.16*	
Role	.14*	
Balance	.22**	
Participation	.16*	
Trust	.13*	
Support	.15*	
Team expectations	.23**	
Cultural differences	.18**	
Respect	.26***	
Personal worthiness	.12**	
Individual difference	.21**	
Group responsibility	No Significance	.20**
Team		.17**
Value man		.18**
New ways to do thing		.21**
Improve		.18**
Patient		.15*
Input		.13*
Seek information		.14*
Upper-level relations		.19**
Member's wellbeing		.22**
N=236 * p<.05, ** p < .01, *** p < .001		

The results of association between the different teamwork concepts and the

48-items instrument showed a similar pattern. Both teamwork concepts had lower but

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significant relationship with 9 items. Individually, the teamwork concept as "I work for everyone and everyone works for me" significantly associated with 8 relationship oriented items, such as "Harmony" and " Consensus". And the teamwork

Table 4.10 Significant correlation between teamwork concepts and 48-item instrument

Concepts / Values / Items	Teamwork concept	
	Everyone/self	Collaboration
	r	r
Motive to teamwork	.19**	.17**
Team expectation	.23***	.14*
Model	.23***	.24***
Feedback to each other	.19**	.20**
Social inclusion	.20**	.14*
Share credit	.17*	.15*
Participation	.19**	.13*
Feedback to leader	.15*	.19**
Acknowledge efforts	.14*	.20**
Harmony	.22**	No Significance
Consensus	.22**	
Support	.15*	
Cultural difference	.24***	
Personal worthiness	.16*	
Input	.13*	
Creative	.15*	
New way to do thing	.13*	
Together	No Significance	.21***
Equarlity,Justice,Fairness		.23***
Individual Functions		.21***
Upper-level relations		.14*
Value man		.18**
Job responsibility		.18**
Learn from other		.23***
Individual devlope		.18**
Recognition		.14*
Personal improvement		.20**
Patient		.17**
No hidden issue		.14**
Environment		.18**
N=236 * p<.05, ** p < .01, *** p < .001		

concept as "task related collaborative work among people in the same group" significantly associated with 13 functional or process oriented items (See Table 4.10).

To further explore the relationships between the different team, teamwork concepts and the perceptions of team effectiveness, a correlation coefficient test was also conducted for the 15 removed items from the initial 63 item instrument. The results showed that "natural work unit" team concept was significantly associated with "team member should voluntary join the team"(item 3); "team members should have well established working relationships"(item 6); "long term member relationships will make the team more effective to accomplish multiple tasks"(item 17); and "team members should not complain when they get extra/difficult assignments or trivial assistant work"(item 35). In contrast, "task group" team concept was associated with none of these removed items. Similarly, teamwork concept such as "I work for every one and every one works for me" was associated with some of the above items (items 3, 6, and 35), plus item 21 " conflict among team members is constructive", item 45 "team leadership should be shared by members depending on the task" and item 51 " the team offered opportunity for rotating the team facilitation role" (See Table 4.11 in next page). The "specific task related collaborative work" teamwork concept was only associated with one item (item 3). The interesting thing about this is that most of the removed items reflected the Chinese perspective of team effectiveness which was not very agreeable by the Chinese-Americans. From this perspective, it was clear that the "natural work unit" team concept and "I work for everyone and every one works for me" teamwork

concept were identified as Chinese concepts which were no longer accepted by the

Chinese-American.

Table 4.11 Significant correlations with 15 removed items from original 63-items instrument

Concepts Values Items	Team Concept	Teamwork Concept
	Natural work unit	Everyone/Self
	r	r
Voluntary join team	.30***	.24***
Good relations	.21***	.17**
Longterm membership	.18**	No Significance
No complain	.19**	.19**
Conflict is constructive	No Significance	.15*
Leadership sharing		.26***
Leadership rotation		.19**
N=236 * p <.05, ** p < .01, *** p < .001		

(3) The relationship between the Chinese-Americans' demographic variables and perceptions of team effectiveness

Although a relationship of gender and teamwork concepts among the Chinese-Americans was found, there was also no evidence of a connection between gender and perceptions of team effectiveness. However, through one way ANOVA, some other factors that had impacted on the perceptions were identified.

The results of one way ANOVA with Scheffé multiple range test showed two interesting phenomena: first, the more team experiences and work years the Chinese-Americans had in the United States, the more task orientation they had in their perceptions of team effectiveness. The groups of Chinese-Americans who had joined more than 5 teams and worked more than 5 years in the United States had significant differences from other less team experience and work years groups on the issues of

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harmony relationship (item 44 " team objective should not ignore the harmony of the group) and balancing individual and team needs (item 39 "team leader should balance the need of team achievement and the needs of individual development"). The levels of education also showed some influences on the issue. Persons who hold master of science degrees tended to devalue the good team player roles of both leader and members(item 4 "team leader should be a role model of team spirit" and item 56 "team should value those members who do what others do not like to do"). Further analysis found that the second level of education group (with M.S. degree) had more team experiences. The results of this trend is shown in Table 4.12.

Table 4.12 The influences of demographic factors on Chinese-Americans perceptions of team effectiveness (1)

Demo. Factors	Items	Group which differs from others	Means		F.
Team Experience	Balance (item 39)	5 or more teams	1-3 teams	1.69	2.75 *
			3-5 teams	1.80	
			5 or more	1.96	
Team Experience	Harmony (item 44)	5 or more teams	1-3 teams	2.09	3.15 *
			3-5 teams	2.00	
			5 or more	2.30	
Work Years	Balance (item 39)	5 or more years	Less 1 year.	1.88	3.68*
			1-3 years	1.77	
			3-5 years	1.61	
			5 or more	2.00	
Work Years	Harmony (item 44)	5 or more years	Less 1 years	2.22	4.13**
			1-3 years	1.98	
			3-5 years	1.96	
			5 or more	2.33	
Level of Education	Model (item 4)	Master of Science	BS	1.58	4.94**
			PhD	1.59	
			MS	1.92	
Level of Education	Valueman (item 56)	Master of Science	BS	1.77	4.63 **
			PhD	1.97	
			MS	2.22	

(* $p < .05$, ** $p < .01$)

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The other phenomenon was that the less time the Chinese-Americans worked

and lived in the United States, the less attention they paid to issues like commitment,

credit share, personal worthiness and so on. The one way ANOVA results showed

that both groups with less than one year work time and three year total time in the

United States had similar responses to item 19 ("team members should commit to

accomplish the team task"), item 22 ("team members should share credits for the

team's success"), item 23 ("team members should feel a sense of personal worthiness

Table 4.13 The influences of demographic factors on Chinese-Americans perceptions of team effectiveness (2)

Demo. Factors	Items	Group which differs from others	Means		F
Years in U.S	Commit (item 19)	Less 3 years	10 more years	1.49	4.57**
			3-5 years	1.41	
			5-7 years	1.35	
			Less 3 years	1.83	
Years in U.S.	Credit (item 22)	Less 3 years	10 more years	1.72	3.96**
			3-5 years	1.67	
			5-7 years	1.60	
			Less 3 years	2.17	
Years in U.S.	Worth (item 23)	Less 3 years	10 more years	1.79	5.29**
			3-5 years	1.70	
			5-7 years	1.58	
			Less 3 years	2.28	
Years in U.S.	Learn (item 36)	Less 3 years	10 more years	1.61	4.01**
			3-5 years	1.61	
			5-7 years	1.57	
			Less 3 years	2.17	
Work Years	Commit (item 19)	Less 1 year	5 more years	1.46	6.39**
			1-3 years	1.45	
			3-5 years	1.27	
			Less 1 year	1.81	
Work Years	Support (item 40)	Less 1 year	5 more years	1.67	4.10*
			1-3 years	1.67	
			3-5 years	1.39	
			Less 1 year	2.00	

on the team"), item 36 ("team members should have opportunities to learn from each other") and item 40 ("team members should support each other to accomplish tasks"). This phenomenon may indicate two things: first, the Chinese-Americans in these groups were lacking in work experiences because of their limited years in American organizations. Second, it also reflects some new trends of value in the younger Chinese generation. As the literature review points out, researchers found that the Chinese college students had more liberal thoughts and held more positive attitudes toward individualism than that of the older generation both in China and overseas. The results are shown in Table 4.13.

3. The cultural differences of team effectiveness perceptions between the Chinese-Americans and Euro-Americans

In order to explore the cultural differences of team effectiveness perceptions between the Chinese-Americans and Euro-Americans, a series of statistical procedures were used to analyze and to compare the data from both groups. The results are reported in the following three sub-sections: the reliability comparison for the research instrument; the dimension differences of team effectiveness perceptions between the Chinese-Americans and Euro-Americans in terms of the instrument; and finally, the item differences of team effectiveness perceptions between these two groups. Through all these differences, the related cultural factors were identified and discussed.

(1) The reliability comparison of the instrument for the Chinese-American and

Euro-American groups

The original CPTE was designed to measure the team effectiveness

perceptions of Chinese-Americans. It included the culture specific items from both

Chinese and American perspectives as well as the cultural synergy perspective. There

were similarities among these perspectives in terms of team effectiveness. However,

the differences were also expected. The differences were quite obvious in their

reliability when used with the Euro-American research subjects.

For Chinese-Americans, the reliability of CPTE in its initial 63-item version

was in the medium range due to the 15 lower correlated items (see Table 4.2). After

removing those items and factor analyzing the modified CPTE, while the reliability

for Chinese-Americans was significantly increased, it did not dramatically change for

Euro-Americans. In comparison to the relatively high reliability of the final version

of the 36-item CPTE for the Chinese-American group, the reliability of the new

CPTE for the Euro-American group was medium. In some dimensions, like team

cooperation and team leadership, the reliability dropped to around .50. The final

reliability test results of sub-scales for both groups are reported in Table 4.14.

Table 4.14 The final reliability test results of the refined 36-item CPTE for
Chinese-American and Euro-American groups

Sub-Scales	Chinese-American Group(r)	Euro-American Group (r)
Team Motivation	.82	.72
Team Participation	.82	.60
Team Cooperation	.76	.54
Individual development	.76	.74
Team Climate	.67	.73
Team Leadership	.67	.50

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What were the reasons for these differences in reliability? A further examination of the item-to-total correlation for the Euro-American group in the final 36-item version of CPTE found that cultural factors contributed most of the differences to the reliability for the Euro-American group. Three outstanding lower item-to-total correlation ($r < .1$) were identified: item 42 "there should be no 'hidden agendas' in the team" ($r = .03$); item 44 "team objective should not ignore the harmony of the group"($r = .08$); and item 46 "team members are willing to sacrifice their personal needs to let the team needs be met first"($r = .06$). The concepts of harmony and sacrifice might not be foreign to Euro-Americans, but they were not highly valued in an American organizational context. Competition and individualism were still the dominant values. In the dimension of team leadership, the item-to-total correlations for all items were lower ($r < .35$) in the case of the Euro-American group, thus its reliability was only .50. The lower reliability in this dimension showed that Euro-Americans might have different perspectives for team leadership. Examining the items in this dimension, such as moral requirement for leader, upper-level relationship management ability of leader, patient listener, sense of loyalty, and creativity, they were more concentrated in the Chinese perspective by Chinese-Americans. This might explain why the reliability of the Euro-American group in this dimension was low.

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(2) The differences of team and teamwork concepts between Euro-Americans

and Chinese-Americans

To compare the team and teamwork concepts between Euro-Americans and

Chinese-Americans, the paired sample t-test was first conducted for the Euro-

American data. The results showed that when team concept as choices of "natural

work unit"(Mean=2.53) and "a group of people who work for a specific task"

(Mean=1.73), Euro-Americans preferred the latter (t = 5.02, df =61, p < .001). For

the teamwork concept, the mean for "I work for everyone, and everyone works for

me" was 3.00, while the mean for "task related collaborative work among people in

the same group" was 1.73. Euro-Americans held a solid understanding of teamwork

as collaborative work (t = 6.29, df = 61, p < .001).

Comparing the Euro-Americans' concepts of team and teamwork with those

of the Chinese-Americans, both groups held similar concepts about team and

teamwork (See Table 4.15). However, the one way ANOVA found that there was a

degree difference toward the concept of teamwork. While both groups agreed that

teamwork meant collaborative work among people in the same group, the Chinese-

Americans (Mean = 1.67) had stronger attitudes than the Euro-Americans [Mean =

1.89, F (1,294) = 4.62, * p < .05].

Table 4.15 The mean comparison between Chinese-Americans and Euro-Americans in terms of the concepts of team and teamwork

Concepts ⟍ Ethnic Groups	Team Concept		Teamwork Concept	
	Natural work unit	Task related work group	Work for everyone & self	Collaborative work
Chinese-Americans	2.42	1.64*	2.99	1.67*
Euro-Americans	2.53	1.73*	3.00	1.89*

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(3) Cultural differences on the team effectiveness perceptions between Chinese-Americans and Euro-Americans

One of the major research questions in this study was to explore the cultural differences between Chinese-American and Euro-American in terms of their team effectiveness perceptions. To answer this question, one way ANOVA tests were conducted to discover if there were significant differences between the responses of Chinese-Americans and Euro-Americans for the six new dimensions in the 36-item CPTE. For this analysis, the independent variable was the ethnic groups, the dependent variable for each dimension was the average score recorded for that dimension.

The one way ANOVA results showed that there were differences as well as similarities between these two ethnic groups. In the dimensions of team motivation, team climate, and team leadership, the differences were significant. For the dimensions like team participation, team cooperation and individual development, there were no significant differences. The one way ANOVA results are reported in Table 4.16.

Table 4.16 The one way ANOVA results for six dimensions of the refined 36-item CPTE

Dimensions	Means		F
	CA	EA	
Team Motivation	1.97	2.22	11.17***
Team Climate	1.76	1.90	3.95*
Team Leadership	1.93	2.28	25.08***
Team Participation	1.89	1.99	2.23
Team Cooperation	2.17	2.13	.36
Individual Development	1.87	1.95	1.46

(df=1, 296, * p < .05, *** p < .001. CA = Chinese-American, EA = Euro-American)

Some cultural differences can be discovered from these results: (1) as a minority group, Chinese-Americans are more focused on team motivation as a predictor of team effectiveness. In the team motivation dimension, variables like respect, trust, and appreciate cultural differences were closely related to Chinese-Americans' ethnic and cultural backgrounds. Other variables in this dimension included recognize team members' individual contributions, share credit for the team success, social inclusion, feedback to leader, and higher motivation for team goal. (2) A friendly, informal but cohesive working environment was thought more desirable by the Chinese-Americans group. In the dimension of team climate, the cohesiveness of the team was emphasized by the variable of strong group responsibility and selflessly shared job related information. As the researcher mentioned earlier, group responsibility was a typical Chinese team practice. (3) Chinese-Americans had more expectations for the leader of the team. They expected the leader to be a role model of team spirit. This idea is closely related to the Chinese moral requirement for their

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leaders. For a team leader, he or she was not only expected to establish loyalty, to promote creativity, and to encourage patient listeners among team members, but also to build good relationships with up-level managers and other teams.

The results showed that the differences were greater for team relationship, while the similarities were largely for team performance. In the dimensions of team participation, team cooperation and individual development, there were no significant differences between the Chinese-American and the Euro-American groups. Both groups had a clear understanding about the issue of participation: how an effective team should interact with one another in terms of team communication, team decision making, and feedback among team members. Both groups also agreed that team members in an effective team should have a clear role, clear job responsibilities, should accept the expectations of the team, and should be willing to sacrifice their personal needs to let the team needs be met first. To cooperate well together was one of the most important requirements for an effective team. It was interesting to note that the groups were not different in the dimension of individual development. However, minor differences may still exist within these commonly agreed dimensions. Further item comparisons would reveal more cultural influences among these similarities.

(4) Cultural influences on individual items of 48-item CPTE

The differences and similarities in the six new dimensions of team effectiveness perceptions indicated that the Chinese-American and the Euro-American groups had different ways of perceiving team effectiveness. These

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reflected the research subjects' social and cultural backgrounds. To further explore

the cultural differences between Chinese-American and Euro-American groups, a one

way ANOVA was performed for each item in the 48-item CPTE by using the ethnic

Table 4.17 More agreeable items from Chinese-American group

Items	Means		F
	CA	**EA**	
(4) Team leader should be a role model of team spirit	1.77	2.44	28.71 ***
(11) Team leader needs to show a sense of equality, justice and fairness	1.42	2.45	51.88 ***
(25) Team leader should build good relationships with up-level managers and other teams	1.65	2.79	130.75 ***
(39) Team leader should balance the need of team achievement and the needs of individual development	1.80	2.02	4.73 *
(22) Team members should share credits for the team success	1.70	2.44	49.57 ***
(40) Team members should support each other to accomplish tasks	1.62	1.98	13.76 ***
(44) Team objective should not ignore the harmony of the group	2.09	2.40	8.83 **
(47) Team members should have inputs on major team decisions	1.81	2.43	36.62 ***
(7) Team members should be patient listeners when someone encounters language problems	1.81	2.58	29.21 ***
(13) Team members should trust each other in terms of work ability and accountability	1.93	2.66	36.93 ***
(19) Team members should commit to accomplish the team tasks	1.44	1.73	13.36 ***
(38) The team goal should focus on the specific task	2.08	2.61	20.86 ***
(57) The work environment of the team should be enjoyable	1.59	2.03	23.66 ***
(29) Team members should recognize each other for their individual contributions to the team	1.78	2.79	83.60 ***
(56) The team should value those members who do what others do not like to do	2.07	2.42	8.75 **
(65) The team should helps its members develop individually	1.91	2.19	7.12 **

(df for all are between 1, 292 and 1, 296. * $p < .05$, ** $p < .01$, *** $p < .0001$)

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group as independent variable. The reason to analyze 48-item CPTE instead of the 36-item final refined CPTE was that it included more variables for the purpose of cultural analysis.

The results of one way ANOVA showed that 23 of 48 items were significantly different for Chinese-American or Euro-American groups. Among these 23 items, Chinese-Americans agreed more on 16 items (See Table 4.17), while Euro-Americans led for the other 6 items (See Table 4.18).

Table 4.18 More agreeable items from Euro-American group

Items	Means		F
	EA	**CA**	
(8) Team members should feel they are creative	1.81	2.33	20.60 ***
(15) The team should try new ways of doing things	1.97	2.20	5.06 *
(20) Team members should feel that they are socially included in the team	1.84	2.23	10.35 **
(26) An effective team should establish a sense of loyalty	1.77	2.08	7.98 **
(32) The team leader should consider members' well-being	1.68	1.91	4.55 *
(41) The team should foster member's participation and positively reinforce their contributions	1.68	1.91	5.68 *

(df for all are between 1, 292 and 1, 296. * $p < .05$, ** $p < .01$, *** $p < .001$)

In comparing the results of both groups, several cultural factors were revealed:

(1) Chinese-Americans had greater expectations for team leadership. Again, the leader was expected not only to be a role model (item 4), to show a sense of equality, justice and fairness (item 11), but also to balance the needs of the individuals and the team (item 39), and to build good relationships with up-level people and outsiders (item 25). In contrast to the Chinese-Americans' expectations for the leader, Euro-

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Americans were more interested in member's participation (item 41) and leadership rotation among team members (item 51). The differences between these two groups reflected different attitudes toward power and authority in their cultural traditions. (2) Team motivations for Chinese-Americans were more concentrated on trust (item 13), recognizing their contributions (item 29) and sharing credits (item 22), while Euro-Americans were weighted more on social inclusion (item 20), and individual well-being (item 32). (3) Chinese-Americans considered that harmony relationship (item 44), support (item 40), and decision input (item 47) were important for team cooperation and participation. This consideration was influenced by their cultural tradition because relationship orientation is one of the notable characteristics of Chinese communication and interaction patterns. For Euro-Americans, the issue of loyalty (item 26) received more attention. They believed that an effective team should establish a sense of loyalty. (4) Chinese-Americans regarded commitment (item 19) as one of the important factors to accomplish task specific team goals (item 38). They valued those who do what others do not like to do in the team. However, they also expected a certain return in that the team was supposed to help individual development. The reciprocal principle of Chinese interaction patterns was extended to the individual-group situation. For the Euro-American group, some of its outstanding characteristics for effective team were focused on team member's creativity (item 8) and team's innovation (item 15). These also reflected the impact of the Americans' "doing culture".

Through the comparison of Chinese-Americans and Euro-Americans perspectives of team effectiveness, some characteristics of team effectiveness

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perceptions were identified for both groups. The cultural influences on the issue were explored. In the next chapter, a summary of the major findings of this study and the general conclusions are presented. The implications, limitations and further research directions are also discussed.

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Chapter Five

Conclusions

This chapter summarizes the scope of this study. The conclusions are presented, the implications and limitations are discussed, and recommendations for future study are given.

1. Summary of the research findings

The major purpose of this study was to explore cultural differences in team, teamwork concepts, and team effectiveness perceptions between Chinese-Americans and Euro-Americans in American organizational contexts. The specific objectives included:

(1)   To develop a research instrument to discover Cross-cultural Perceptions of Team Effectiveness (CPTE).

(2)   To explore the Chinese-Americans' concepts of team and teamwork and their perceptual characteristics about team effectiveness.

(3)   To compare the cultural differences between Chinese-Americans and Euro-Americans in terms of their team effectiveness perceptions.

Based on the literature and interview data from Chinese-Americans who are currently working in American organizations, the CPTE initially was constructed using seven scales with 63 items. In addition, four team concepts and five demographic questions were added to the questionnaire. Through electronic distribution and contact persons, 236 Chinese-Americans and 62 Euro-Americans in

the engineering fields participated in the study. The data was analyzed through SPSS window version 6.1. The major findings are summarized as follows:

(1) Chinese-Americans regard team as " a group of people who work for a specific task", and teamwork as "task related collaborative work among people in the same group". There is no difference between the Chinese-Americans and the Euro-Americans in terms of the concept of team and teamwork

The study found that Chinese-Americans hold similar concepts of team and teamwork as Euro-Americans. Both groups define a team as "a group of people who work for a specific task", and that teamwork as "task related collaborative work among people in the same group". However, there is a degree of difference toward the concept of teamwork. The Chinese-Americans have stronger attitudes than the Euro-Americans about the task related collaborative work aspect of teamwork.

(2)15 out of 63 items have lower correlations with the originally designed sub-scales. The reliability of Cross-cultural Perceptions of Team Effectiveness is high for the Chinese-Americans, but at medium range for the Euro-Americans

The original 63-item CPTE was used to collect data from both the Chinese-Americans and Euro-Americans. Since the focus of this instrument was Chinese-Americans, the data from the Chinese-American group was used to refine the instrument.

The first stage of the "refinement process" was to compute reliability for the original 63-items in CPTE. While the overall alpha was high at .93, the original

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seven sub-scales in the instrument had reliabilities varying from .49 to .75.

Considering that the high overall alpha might have been caused by the large number

of variables and the multidimensionality of the instrument, the item-to-total

correlation was examined for each item within the dimension to which it belonged. 14

items in seven dimensions were found to have lower item-to-total correlations, and

were removed from the instrument. An additional item was also deleted from the

instrument due to its small loading in later factor analysis.

The 48-item modified CPTE was factor analyzed. Six new dimensions were

suggested by the analysis. The final 36-item version of CPTE was built on the six

new dimensions. Sub-scales' reliability of the final 36-item version CPTE were high

for the Chinese-Americans (ranged from .67 to .82), but medium for the Euro-

Americans (ranged from .50 to .74).

(3) Six new dimensions were suggested by the factor analysis of CPTE. Cultural

similarities and differences were found between Chinese-American and Euro-

American groups in these dimensions: They were similar in the dimensions of

team participation, team cooperation and individual development. They were

different in the dimensions of team motivation, team climate and team

leadership.

The modified 48-item was used to conduct factor analysis to explore the

possible new dimensions. Principal components factor analysis procedure with

varimax rotation method was performed. The factor analysis extracted 12 factors

with the application of eigenvalue greater than 1.0 criterion. The 12 factors covered

62 percent of variance. Among these 12 factors, 6 factors that had at least four variables loaded with a value of .40 were found. 36 items were loaded on these factors. The loading ranged from .40 to .76. These six factors covered 47.2 percent of variance and represented six new dimensions in the final 36-item version of CPTE. These six new dimensions are: Team Motivations, Team Participation, Team Cooperation, Individual Development, Team Climate, and Team Leadership.

The comparison of the Chinese-Americans and the Euro-Americans in each dimension revealed some similarities and differences between them. In the dimensions of team participation, team cooperation, and individual development, there were no significant differences between the two groups. However, there were individual item differences among these similarities. In the dimension of team participation, the more agreeable items for Chinese-Americans were support, harmony, and input decision making, while Euro-Americans led on the item of participation.

The differences between Chinese-Americans and Euro-Americans in CPTE were significant in the other three dimensions: Team motivation, team climate and team leadership. All these three dimensions were judged more agreeable by Chinese-Americans. Further item analysis found that Chinese-Americans had high expectations for team leadership, and they also had more requirements for team relationships than for team performance.

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(4) For Chinese-Americans, different team and teamwork concepts have differences as well as similarities when related to the perceptions of team effectiveness variables.

The results of correlation showed that different concepts had different influences on the perceptions of team effectiveness. For the concepts of team, while both concepts were significantly correlated with 8 items (motivation, job responsibility, loyalty, information sharing, friendly working atmosphere, member's creativity, and credit sharing for success), they were also significantly correlated with different items that belonged to certain dimensions. Team as "a natural work unit" correlated more with items in the dimension of team motivation, such as respect, trust, cultural differences appreciation, and in the dimension of team leadership, such as role model of the leader, and leader's balance of team and individual needs. Team as " a task work group" correlated more with the items in the dimensions of team participation and team cooperation, such as group responsibility, team effort, patient listener, input in decision making, and information seeking. For the concepts of teamwork, besides their similarities in 9 items, teamwork, defined as "I work for everyone, and everyone works for me", had more correlation with group relationship and effort items, such as harmony, consensus, and support. Teamwork defined as "task related collaborative work" had more correlation with individual efforts in the group, such as the function of individual role, job responsibility, learning from each other, recognizing individual contribution and individual development.

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(5) Team experiences, work years and length of residency in the United States have influence on Chinese-Americans' perceptions of team effectiveness.

The current study tried to explore influences of some demographic factors on the perceptions of team effectiveness. The results showed that the more team experiences and work years the Chinese-Americans had in the United States, the more task orientated they were in their perceptions of team effectiveness. And the less time the Chinese-Americans worked and lived in the United States, the less attention they paid to such issues as commitment, credit sharing for success, and personal worthiness. Chinese-Americans who had joined more than 5 teams and worked for more than five years in the United States had significant differences from those who had less team experiences and work years on the issues of harmony and balance individual needs and team needs. On the other hand, groups with less than one year work time and three years of residency in the United States had lower responses on issues like commitment, credit sharing for success, and personal worthiness.

2. Conclusions and discussions

From the results of this study, several conclusions can be drawn.

(1) As the latest wave of immigrants, Chinese-Americans in this study have given up their original Chinese concepts of team and teamwork. Some cultural assimilation of Chinese-Americans on the team issues are influenced by their team work experiences and their years of residency in the United States.

Traditionally, Chinese take group approaches in their work environments based on their family, kinship and clan. The Chinese define themselves in terms of

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hierarchy and role relationships in the blood network. In this kind of cultural and social environment, harmony is the foundation of Chinese groups and networks that achieve group cohesiveness and effectiveness. The communists' take-over of China introduced reforms among which were extending the basis of group from family to society. The Communist authorities believed that this was the only way they could destroy the roots of Chinese feudalism, and establish the foundation of "socialism". Practically, the Chinese communists took the group orientation of Chinese people for granted, and imposed their political ideology on the people-at-large. In the countryside, they forced Chinese farmers to join a "Productive Team" in the special Chinese communist style of "People's Commune". In cities and industrial enterprises, they also organized people to work together as a "Team". Although the Chinese communists disbanded productive teams and people communes in agricultural areas after the 1979 economic reform, they reinforced the team and teamwork ideas in the industrial areas. Team in Chinese current society, as mentioned in this study's literature review, is a basic natural work unit in enterprises and organizations. Teamwork is still conceptualized from the dimension of self and collectivism relationships rather than from concrete collaborative efforts.

The results of this study suggest that the Chinese-Americans may have abandoned the Chinese concepts of team and teamwork, and have adopted the concepts of team and teamwork of the Euro-Americans (see Table 4.8 and 4.4.15). Three factors might contribute to the similarities in conceptual meanings between these two ethnic groups: First, the change of cultural environment may free the first generation of Chinese-Americans' thought of old practices and may lead them to

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embrace new ones. In the new cultural environment, they are no longer bound by their old Chinese interpersonal networks, such as those of family, clan, and their old circle of friends. They are no longer under the authority of communist rule. Without these social and political influences, Chinese-Americans can now concentrate more on the substance rather than on the form or style of team and teamwork. Second, the change of practices under different organizational contexts also helped Chinese-Americans to abandon traditional Chinese ideas of team and teamwork. The initial design of CPTE included some traditional Chinese team practices in its items, such as voluntary team members, long term team member relationships, no complaints for extra or trivial assignments. However, the reliability tests of these items found that many of these practices were not related to the Chinese-Americans' perceptions of team effectiveness in the American organizational context. From this perspective, it is fair to conclude that Chinese-Americans' concepts of team and teamwork are based on new organizational practices rather than on their old experiences in China. Third, the shared professional cultures of Chinese-Americans and Euro-Americans might also affect their conceptualizations of team and teamwork. This study focused on the engineering field, and every research subject was an engineer. Previous studies found that similarities of occupational cultures sometimes outweigh differences based on national or corporate cultures (Snow, Snell, Davison & Hambrick, 1996). In this study, the Chinese concepts of team and teamwork were too ambiguous and concentrated on attitudes toward relationships between self and group. The people in the engineering fields might be more interested in accurate and operational definitions. Therefore, both Chinese-American and Euro-American engineers would

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be more likely to share the concept of team as task related work group, and the concept of teamwork as collaborative work among people in the same group.

The change of team and teamwork concepts may also be the result of cultural assimilation, although we still need more data from China to prove it. In this study, a degree of acculturation was found in terms of the Chinese-Americans' perceptions of team effectiveness. The acculturation process was closely related to Chinese-Americans' team experiences and work years in the United States. The more team experiences and work years they had in the United States, the more task orientation they demonstrated in their perceptions of team effectiveness. This interesting phenomenon needs to be further studied.

(2) Chinese-Americans share some perceptions of team effectiveness with Euro-Americans in the American organizational context. The similarities are focused on team participation, team cooperation and individual development, and are shown to have been influenced by similar organizational practices as well as unique characteristics of Chinese social interaction patterns.

This study found that in three of six suggested dimensions of CPTE, Chinese-Americans and Euro-Americans had similar perceptions of team effectiveness. These three dimensions are team participation, team cooperation, and individual development. The essential part of team participation dimension focus on how team fosters member's participation, input in decision making, and constructive feedback with each other. Traditional Chinese culture promotes hierarchy and discourages group member's participation. However, the Chinese communists have changed this

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tradition in lower levels of organization through the implementation of the principles of two-way participation, one reform, and three-in-one combination, which was based on the management experiences of the Qinhua Tools factory, the Jianhua Machinery Factory, and the Cangcun No.1 Automobile Company during the late 1950s (Xu, 1984). Two-way participation meant that workers participated in high-level management and that cadres (managers and supervisors) participated in daily work at the shop-floor level. One reform changed unreasonable management regulations (most of them were adopted from the former Soviet Union) and improved the management system of "director responsibility under party committee leadership." The three-in-one combination principle meant that technicians, workers, and cadres worked together in technical innovations and enterprise management. The purposes of these three principles were to stress the importance of mass mobilization and participation on one hand, and the unquestionable party leadership on the other. This kind of organizational practice fostered a Chinese way of participating without questioning the highest leadership. Therefore, it is not surprising to see that the first generation of Chinese-Americans share the perception of team participation with Euro-Americans, but have no idea of leadership sharing in teams (two items of leadership sharing were removed from CPTE because of their lower correlations with their respective dimensions).

The essential part of the team cooperation dimension focused on the individual's role in a team and how to make the team work together. The Chinese define self in terms of role relationships within groups or networks. Because of the hierarchy system and the role relationship tradition, they have a strong need to know

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their roles and obligations in their groups. Within the group to which they belong, they have high cooperative behavior. For Euro-Americans, their individualistic cultural tradition also requires team members to define their roles in teams and to clarify their job responsibilities. Individual efforts are the basis of cooperation. Although the starting point is different, both Chinese-Americans and Euro-Americans acknowledge the importance of team members accomplishing more as a team rather than as individuals, and share similar perceptions of team effectiveness in terms of team cooperation. But some interesting differences are also revealed concerning the basis of this cooperation. The reliability tests found that the Euro-Americans had lower item-to-total correlations for the items of "all team members should accept the expectations of the team" and "team members are willing to sacrifice their personal needs to let the team needs be met first" in this dimension. For the Chinese, team expectations were to define themselves, and sacrifice personal needs as one of their obligation to the team.

The major focus of the individual development dimension of CPTE is the recognition of individual efforts in the team and individual development. It comes from the individualistic perspective. Some people may be surprised that Chinese-Americans share the same perceptions of team effectiveness in this dimension with Euro-Americans. For a long time, Chinese society has been characterized as a collective society. Self identity for Chinese people is intimately linked to cultural values regarding family and relationships. However, because of the relationship base of self identity, Chinese can be collectivists as well as individualists, depending on the level of relationship. Hwang (1987) divided Chinese relationships into three

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levels: expressive ties, including those with close family members; mixed ties, such as those with friends and other kin; and instrumental ties, such as those with strangers or out-group members with whom there is no lasting relationship. The Chinese social interaction expectations, norms, and behaviors differ for these three levels of ties in a number of ways. One of the most significant differences is that Chinese can be very cooperative and harmonious with the people within at the level of expressive ties, or with their in-group; but very competitive and antagonistic with the people on the level of instrumental ties, or with their out-group. In the former situation, the Chinese can be called collectivists, and in the latter, they can be called individualists. Understanding the duality of Chinese social interaction patterns will help us to know better about the similarity between Chinese-Americans and Euro-Americans in the individual development dimension of CPTE. As the first generation of these later immigrants, Chinese-Americans leave their family ties in China, and build instrumental ties with their new colleagues. Before they establish a sense of in-group with their current work groups, they will keep their individualistic characteristics and ask to be recognized and also to develop themselves through their working experiences in the group. However, within this similarity, one significant cultural difference exists. From the Chinese-American perspective, they consider that "the team should help its members develop individually." For Chinese-Americans, when a person joins the group, individual development is not only the responsibility of the member who is involved, but also the obligation of the group. This is a reflection of the Chinese reciprocal principle of social interaction that Euro-Americans may not understand in the individualistic cultural environment.

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(3) The significant cultural differences between Chinese-Americans and Euro-Americans show that Chinese-Americans have a great demand of being included as in-group members for an effective team, and also show that they have higher moral requirements for leadership in effective teams.

This study finds that on three of the six dimensions of CPTE, Chinese-Americans are significantly different from Euro-Americans. These three dimensions are team motivation, team climate, and team leadership. The differences are cultural. With the influences of Chinese tradition, Chinese-Americans show their desire of being included as in-group members for an effective team, and also demonstrate their standards for leadership in an effective team.

The most outstanding difference between these two ethnic groups lies in the dimension of team motivation. The core of this dimension emphasized respect, trust, appreciation of cultural differences, social inclusion, shared credits for team success, and high motivation to accomplish the team goal. According to Hofstede (1980), people in collectivistic cultures tend to stress fitting in, belonging to the in-group, and maintaining a "we" identity; whereas people in individualistic cultures emphasize self-actualization, individual initiatives and achievement, and an "I" identity. Chinese culture is commonly given as an example of a collectivistic culture. As mentioned earlier, the Chinese identify self through role relationships. Looking for self identity, they need to associate with certain kinds of in-groups to define their roles. The Chinese people place high value on identification with their various in-groups. As Chinese-Americans, they have left their natural in-groups (family, friends, and work unit) in their motherland, thus they have stronger needs to establish new in-group ties

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in the United States. However, the sense of fitting-in and belonging to are built on the bases of respect, trust, appreciation, and inclusion with other members of the group. These variables function as motivators for Chinese-Americans in work groups, and the highly cooperative behaviors are the result of the sense of being an insider for Chinese-Americans. From this perspective, the researcher labeled this dimension as team motivation. Previous studies have also shown that Chinese managers and professionals were more interested in social needs than material incentives as their motivators (Nevis, 1983; Xu, 1987; Xu & Chen, 1988; Li, 1988). This cultural factor is reflected by the Chinese-Americans' perception of team effectiveness.

The dimension of team climate considers the team working environment. For the Chinese-Americans, strong group responsibility, selfless information sharing, informal, friendly and enjoyable working environments were important for an effective team. This perception of team effectiveness reflected the Chinese traditional value of "He" (harmony). One Chinese saying indicates the place of "He" in people's lives as in "He wei Gui" (harmony is the most precious thing). The Chinese character of "He" denotes "harmony", "peace", "unity", "kindness" and "amiableness". "He" permeates many aspects of Chinese personal relationships. The Chinese are inspired to live in harmony with family members, to be on good terms with neighbors, to achieve unity with the surrounding environment, and to make peace with other nations. In the work environment, especially when people work in groups, harmony becomes one of the primary goals for effectiveness. Again, in the relational

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dimension of team management, the Chinese-Americans perceptions of team effectiveness are influenced by their cultural traditions.

The final cultural difference between Chinese-Americans and Euro-Americans in terms of team effectiveness appears in their attitudes toward team leadership. The dimension of team leadership was concentrated on the role of the team leader. The major difference between these two groups in this dimension is that Chinese-Americans set up moral requirements for a team leader. They expected the team leader to be a role model of team spirit. This finding is consistent with previous research findings from mainland China (Ling, Chen, & Wang, 1987; Xu, 1989; Peterson, 1988). When the Chinese researchers used a Japanese instrument to investigate the Chinese leadership styles in terms of task performance and relationship maintenance, the data suggested morality of leadership as the third dimension, which included the perceived moral integrity of the leader, such as honesty, willingness to listen, and commitment to the work team. Chinese society is a hierarchical society. Traditionally, people are not supposed to question the leadership in their groups and societies. However, as the literature review indicated, Chinese society is also a shame culture society. Morality is of high concern for every member in the society. The leaders of groups and society have their power, but they also have strong responsibilities and obligations to their people. If a leader abused his power and lost his morality, he lost his credibility and legitimacy with his people. A leader without followers is not a leader anymore. Confucius once said "He who exercises government by means of his virtue may be compared to the north polar star, which keeps its place and all the stars turn towards it" (The Analects, No. 2). If the

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leader does not exercise this kind of managerial behavior, he will not be able to gather people around him and even Confucius himself "will get upon a raft, and float about on the sea" (The Analects, No. 5). Confucius' leadership theory is deeply rooted in Chinese society and has influenced Chinese intellectuals for a thousand years. Morality is the means they use to judge and balance the hierarchy of power in their society. In work groups, a Chinese leader is required to exhibit his morality not only by verbal communication, but more importantly, through his own behavior. In return, his role of model will increase the cohesiveness of the group and the willingness to sacrifice of group members. For the Chinese-Americans, this cultural tradition is reflected in their perception of team leadership effectiveness.

(4) The similarities and differences between Chinese-Americans and Euro-Americans in CPTE supported both the convergence and divergence theories of intercultural and international management. The cultural differences demonstrated by CPTE raise a challenge for multicultural team building and management. In order to increase the cohesiveness and effectiveness of multicultural teams, the relational aspect of team management must be emphasized, and the sense of inclusion is the basis for motivating multicultural team members.

For quite a long time, there has been a debate between believers in convergence and divergence in management practices as to whether industrialization will lead to similar business and management behaviors around the world. Convergence theory suggests the trend towards universalism in business and

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management, while divergence theory suggests that the influences of cultural values on business and management are being maintained. In previous studies, Child (1981) found that the majority of convergence studies focused on structure and technology used by organizations across countries, while the divergence studies were more focused on the behavior of people within organizations. Laurent (1983) empirically found that even in the same multinational organization, people in different countries maintained their culture-specific ways of working and managing. This present study further investigated the perceptions of effectiveness in small multicultural teams. The results show that the Chinese-Americans shared some perceptions of an effective team with the Euro-Americans, but differed from the latter in some other important areas. This finding supports both convergence and divergence theories. On the one hand, in terms of team structure and team performance, Chinese-Americans converged with the main stream. On the other hand, Chinese-Americans were still influenced by their cultural traditions in their perceptions of teamwork motivators, team relationships, and team leadership. These two dimensions of intercultural and international management suggests that the cultural synergy approach is not only necessary, but also important for the management of multicultural teams.

According to multicultural team management theories, the effectiveness of a multicultural team depends on team members' sense of belonging, and the sense of belonging is established through respect, trust, and inclusion. This study empirically validates these multicultural team management theories. It found that as a minority group, Chinese-Americans had strong needs to be respected, trusted, appreciated, and socially included. They also showed a strong tendency toward harmonious

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relationships. This finding poses a challenge for multicultural team management. In an organizational context, the purpose of creating a team is task achievement, not for relationship maintenance. Team as a kind of organizational structure is regarded as an effective way to deal with complex problems. However, this study shows that team effectiveness is largely dependent on how team relationships are managed. In multicultural teams, the relationship issue is essential because different cultural values lead to different expectations among team members and between a member and the team. To respond to this challenge, the relational aspect of team management must be emphasized in order to increase the cohesiveness and effectiveness of a multicultural team. Without building a sense of in-group for the team members, a multicultural team can easily become an ineffective organizational structure in terms of both work productivity and relationship maintenance.

3. Implications of this study

The implications of this study are multifold. It's exploratory nature provides a new perspective for multicultural team management research, a promising method of accessing organizational personnel with different cultural backgrounds, and some insights into communication issues in multicultural environments.

First, in terms of multicultural team management, this study developed research questions from the perspectives of a minority group and focused on explaining differences from this framework. The advantage of this approach is to get unique views about team effectiveness from minority groups, rather than from the value system of a majority group. Previous studies of cultural value systems in

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multicultural organizations had indicated that different approaches produced different results. From the majority group's perspective, researchers could find differences between the majority and the minority, but might not be able to identify some unique views of minority groups. Hofstede (1980) identified four cultural dimensions of work-related value system, but he also realized his research was biased by a Western value system. He admitted that his framework might miss some important points of view in terms of its generalizability. This was why he encouraged others to conduct research which focused on Eastern values. The findings of the Chinese Cultural Connection (1987) supplemented Hofstede's study because they revealed one unique cultural dimension which could explain many organizational behaviors of Eastern Asians. The current study explored team effectiveness perceptions by a minority group and identified some unique views which a majority group might not share. The findings of this study were theoretical and practical in terms of multicultural team building and management. From the theoretical point of view, it proved that cultural synergy is necessary for successful multicultural team management. Practically, the new dimensions identified by the study would be helpful to American managers in motivating their Chinese-American employees, or it could be used as part of a training material to enable majority groups to understand cultural differences in team building and management. If more minority perspectives were identified by organizational researchers, practitioners would be able to combine more specific cultural factors in their cultural synergy approach in order to increase the effectiveness of multicultural teams.

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In terms of the methods used in this study, it took the advantages of modern computer mediated communication technology to access members of specific minority in a professional organization. In intercultural communication and multicultural management research, if the researcher takes the cultural specific approach, one of the difficult issues is how to access a large enough number of research subjects from minority groups to produce statistically significant results. In a multicultural environment, minorities belong to different groups, thus increasing the difficulties in identifying cultural factors. This study used an email survey through Internet, and successfully accessed the research subjects from a single minority group. Computer mediated communication provides a promising tool for intercultural communication researchers. By using this new technology, more unique cultural factors of minority groups may be identified. However, the experience of the researcher also showed that the new method required careful preparation in both technique and cultural aspects, and intense interpersonal communication with the research subjects. As computer mediated communication becomes more and more popular, email surveys will become more common and more important.

Communication issues in multicultural organizations are important but often puzzling. This study suggests that intercultural communication in multicultural organizations goes far beyond possession of verbal communication ability and understanding of differences in communication styles. In the case of the Chinese-American engineers, as they were educated in the United States, they had the usual American basic communication competence for team tasks and team performance. However, their original culture placed high values on relational aspects of

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communication. This difference can become a major source of cultural conflict in multicultural organizations in the United States because of the individualistic American value system. Currently, Chinese expatriates face a dilemma in terms of this issue: either their strong desire to become an insider cannot be fulfilled, or they must adopt the host culture's values and gradually reduce their relationship demands. The study showed that some Chinese-Americans have already changed their attitudes toward some important relationship issues. From the team and teamwork perspectives, neither way alone might be the right ways to increase the effectiveness of team and teamwork. The basic purpose of team building and team practice is task achievement through collective effort. Without strong relationships among team members, collective effort will be ineffective. This study showed the importance of relationship building among a minority group in multicultural team management. It may provide a direction for future intercultural communication research in multicultural organizations.

4. Limitations of the study and recommendations for future research

This study examined the Chinese-Americans' concept of team and teamwork, explored the characteristics of team effectiveness perceptions, and compared these characteristics with those of the Euro-Americans. But there are other areas which need to be investigated, and some questions that need to be answered in future studies of this sort.

First, as this study used only engineers as its respondents, we need to be cautious about its generalizibility. Whether these findings do or do not represent

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Chinese-Americans in general will be an interesting question for future study. Chinese-Americans who work in cultural and educational organizations, service industries and business management areas may have different views about team effectiveness. Future studies need to extend the research subjects from the engineering field to other occupations so as to further explore and confirm Chinese-Americans' perceptions of team effectiveness.

Second, due to resource limitations, this research contacted subjects through electronic and personal channels, rather than using a random approach. Therefore, with a random sampling of subjects, what results would a replication of the study yield? This will be another interesting question for future study.

Third, this study focused on Chinese-Americans' and Euro-Americans' general perceptions of team effectiveness, and did not consider the influences of the organizational context. Since different organizations have different cultures, their organizational values and norms also influence people's perceptions of team effectiveness. For future studies, it is important to relate the research objective to the organizational context.

Fourth, CPTE as an instrument for measuring the Chinese-Americans' perceptions of team effectiveness, underwent only a primary test and a first stage of refinement. To build a more reliable, concise, operationally, practical instrument, further refinement procedures will be necessary for CPTE employing new data. The dimensions of CPTE also need to be confirmed in future studies to accurately describe Chinese-American characteristics of team effectiveness perceptions. Thus,

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particular focus should be given to investigating the dimensionality and factor structure of the CPTE.

Fifth, the current study observed some similarities in terms of Chinese-Americans' concept of team, teamwork and perceptions of team effectiveness. Are they the results of acculturation processes for the first generation of recent Chinese-American immigrants? To solidify the conclusion, further research is necessary to compare the team and teamwork concepts and perceptions of team effectiveness between Chinese-Americans and the Chinese people in China. Further comparisons between these two groups will help us to explore the directions and degrees of acculturation for Chinese-Americans in terms of the topic of this research.

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Appendix I

Interview Questions
(Chinese Version)

访问提纲

1. 你有过团体工作的经念吗？请问那是哪种类型的工作，有多少人参加，取得过怎样的成绩？
2. 你熟悉 TEAM 这样一个词吗？当我们谈论"班组" "团队" (TEAM) 这样一个概念时，你会产生何种想法？什么是团队精神，或集体主义精神？
3. 你认为一般的工作团体是 TEAM 吗？(工作团体指你所属的工作单位) 怎样才能使一个工作团体变成TEAM？你认为 TEAM 应该是一个任务性的短期概念，还是一个社会性的集体概念？
4. 从你的角度出发，什么样的TEAM 你会考虑为最佳TEAM？或者最有效的工作团体？你认为一个 TEAM 成功的要素有哪些？
   探索问题：
   "忠诚"这样一个概念对你意味着什么？一个TEAM 怎样才能在它的成员间建立起忠诚观念？
   "信任" 是一个重要的概念，你认为在哪一程度和范围内，你可对其他成员使用这一概念？
5. 你对你的组员们有何要求？你喜欢和什么样的人一道工作？
6. 你认为你应该与你的TEAM 保持什么样的关系？你是否对你的TEAM抱过期望？什么样的期望？你认为你的 TEAM 应该如何对待你的期望？
7. 当你的TEAM 或 TEAM 成员出现问题时，请问你将如何予以对待与处理？当有荣誉或奖励时，你认为又该如何分配？
8. 请问你对一个 TEAM 领导的专业水平，领导作风与个人素质有何期望与要求？
9. 请问你对 "协作" (TEAMWORK) 一词的理解. 就你而言，什么是一个TEAM 协作的最佳内在气氛？你认为一个有效率的TEAM 又应该有一个什么样的外在环境？
10. 你认为你的文化传统与价值观念对你在 TEAM 问题上的理解有影响吗？如果有，请问是哪些？(人情，面子，关系，和为贵...) 你认为中美之间对协作的概念会有不同的理解吗？能否举例说明？

Appendix II

Interview Questions
(English Version)

1. Have you worked with group before? What type of work was it? What did you do or accomplish? How many people were involved?
2. Are you familiar with the word Team? When we talk about team, what kind of idea come to your mind? What is Team Sprit or Collective Sprit ?
3. Do you think a natural work group is a team? (By natural work group, I mean the work unit you belong to). How can we make a natural work group as a team? Do you think team should be a short term task group or a long term social work group?
4. Have you ever worked with a extraordinary successful team? What kind of team will you consider as good/effective team? What are the important factors for a successful team?

Probe questions:
  A. What does loyalty mean to you? How can a team build loyalty among its members?
  B. What do you mean trust? When you say trust, to what extent would you like to use this concept among your team members?

5. Is there any requirement for a team member? What kind of person do you like to work with as a team ?
6. What kind of relationship do you wish to have with the team? Do you have any expectation from the team and teamwork? How should the team treat your expectations?
7. How do you deal with conflict in the group or team? Where do you think the rewards should be located?
8. What qualities do you expect for a team leader in terms of professional knowledge, leadership style and personalities?
9. What is teamwork in your mind? What will be the best internal and outside environment for teamwork?
10. Do cultural traditions and values have anything to do with your understanding of team? (Probe issues: Ren Qin, Face, Guanxi, Harmony, Reciprocity...). Is there any difference between Chinese teamwork and American teamwork? Can you give any example?

Appendix III

Chinese-American Perceptions of Team Effectiveness

> INSTRUCTIONS: Imagine a team of which you are currently a member, have been a member, or could be a member some time in the future. Please indicate your perceptions of team, teamwork, and how a team could be effective by marking a "X" at one of the five choices identified on the scale of each statement. The "X" can be marked by clicking the "REPLY" button in your email software.
>
> Thank you for your cooperation.

(1) In your opinion, a team is

      A. A natural work unit

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

      B. A group of people who work for a specific task

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

(2) In your opinion, teamwork means

      A. I work for everyone, and everyone works for me

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

      B. Task related collaborative work among people in the same group

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

(3) Team member should voluntary join the team

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

(4) The team leader should be a role model of team spirit

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

(5) Team member should be selected on the basis of same level of competence

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

(6) Team members should establish good working relationships

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

(1) Team members should be patient listeners when a member encounters language problems

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

(7) Team members should feel they are creative

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

(8) All team members should appreciate cultural differences

      strongly agree___   agree___   neutral___ disagree___   strongly disagree___

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(9) A team member should be assigned by the management level
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(10) The team leader needs to show a sense of equality, justice and fairness
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(12) Member's competence should be based on uniqueness rather than excellence
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(13) Team members should trust each other in terms of work ability and accountability
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(14) Team members should be willing to disagree openly with others
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(.5) The team should try new ways of doing things
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(16) Team members should respect each other's ideas and feelings
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(17) Long term member relationships will make team more effective to accomplish multiple tasks
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(18) The team leader is not necessarily a specialist, but needs strong coordination skills
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(19) Team members should commit to accomplish the team task
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(20) Team members should feel that they are socially included in the team
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(21) Conflict among team members is constructive
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(22) Team members should share credits for the team's success
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

(23) Team members should feel a sense of personal worthiness on the team
strongly agree___ agree___ neutral___ disagree___ strongly disagree___

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(24) Team should be reorganized after each task
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(25) The team leader should build good relationships with upper-level managers and other teams
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(26) An effective team should establish a sense of loyalty
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(27) The team should work well together
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(28) Conflict among team members is bad and should be avoided
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(28) Team members should recognize each other for their individual contribution to the team
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(30) Team members should view individual differences as a positive team asset
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(31) Team members should have a common goal
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(32) The team leader should consider members' well-being
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(33) Team members should understand how individual functions link together
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(34) Team members should have opportunities to provide feedback on how the leader best serve the team
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(35) Team members should not complain when they get extra/difficult assignments or trivial assistant work
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(36) Team members should have opportunities to learn from each other
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(37) The team should not ignore or smooth over differences for task accomplishment
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

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(38) The team goal should focus on the specific task
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(39) The team leader should balance the need of team achievement and the needs for individual development
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(40) Team members should support each other to accomplish tasks
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(41) The team should fosters members' participation and positively reinforces their contributions
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(42) There should be no "hidden agendas" in the team
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(43) Team members should feel that they are satisfied with their individual development
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(44) The team objective should not ignore the harmony of the group
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(45) The team leadership should be shared by members depending on their expertise related
      to the task
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(46) Team members are willing to sacrifice their personal needs to let the team needs be met first
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(47) Team members should have inputs on major team decisions
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(48) Team members should give constructive feedback to each other
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(49) The team should be recognized for its members' efforts
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(50) All team members should be highly motivated to accomplish the team goal
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(51) The team should offer opportunity for rotating the team facilitation role
   strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(52) Team members will be more likely to assist others rather than in playing as a "star"

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(53) The team should make consensus decisions on important matters

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(54) The team should seek out all information relevant to issues

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(55) Team members' roles should be clearly defined

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(56) The team should value those members who do what others do not like to do

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(57) The work environment of team should be enjoyable

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(58) All team members should selflessly share job related information

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(59) Team members should accept the expectations of the team

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(60) Team members should accomplish more as a team than as individual

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(61) The team should create an informal and friendly working atmosphere

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(62) The team should have strong group responsibility toward accomplishing its goals

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(63) Team members should be motivated to constantly improve themselves

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(64) The team should have clear job responsibilities for each member

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(65) The team should help its members develop individually

        strongly agree___   agree___   neutral___   disagree___   strongly disagree___

(66) Please complete the following information (This is for research purposes only. Your responses will remain anonymous) :

Sex: Male____   Female____

Team experience: 1-2 teams____   3-5 teams____   5 or more teams____

Level of education: BS____   MS____   Ph. D.____

Years work in U.S.: Less 1 year___ 1-3 year___ 3-5 year___ More than 5 Year____

Total years in U. S.: Less 3 year___ 4-6 year___7-10 year___ More than 10 year___

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Appendix IV

Research Participation Consent Form

Dear Participant:

The Department of Communication Studies at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you so that you may decide whether you wish to participate in the present study. You should be aware that, even if you agree to participate, you can feel free to withdraw without penalty.

I am interested in exploring the Chinese-Americans' perception of team and team effectiveness, and comparing how it may differ from that of Americans. There are no right or wrong answers—I am interested in your opinion. You will be filling out a survey questionnaire which should take no more than 25 minutes to complete. Although participation will not directly benefit you, I believe that the information you provide will help multicultural organizations to be aware of cultural differences in team building, and to create a more friendly work environment for minority employees, thus to increase organizational effectiveness.
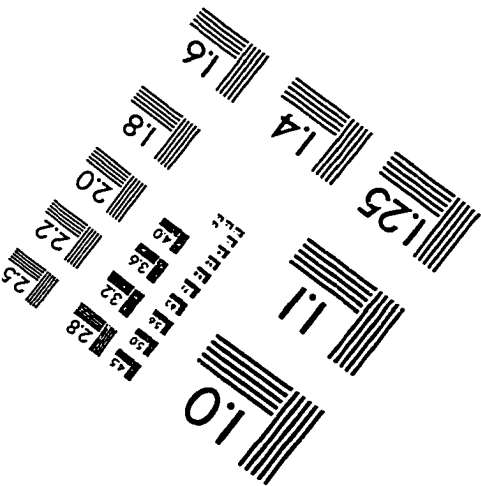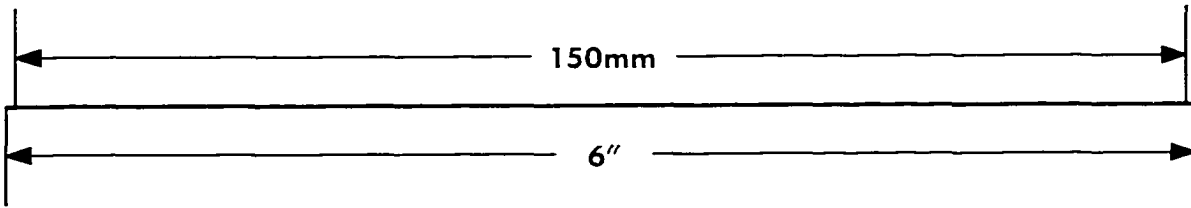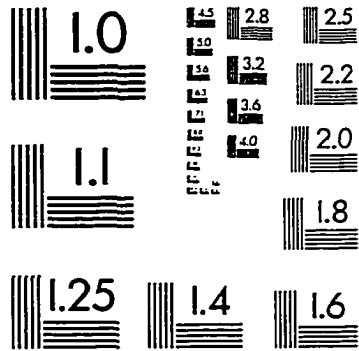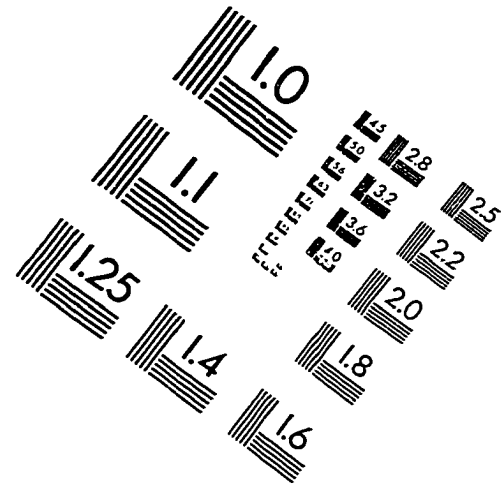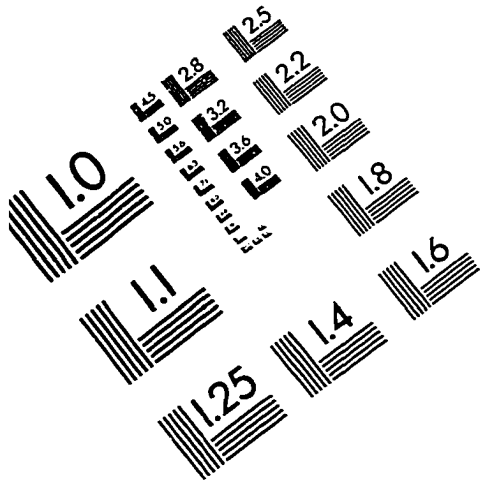
Your participation is solicited although strictly voluntary. Your name will not be associated in any way with the research findings.

If you would like additional information concerning this study before or after it is completed, please feel free to contact me by phone, by mail, or by email.

Sincerely,
Wei Wu
Principal Investigator
3090 Wescoe Hall
University of Kansas
Lawrence, KS 66045
Phone: (913) 864-3633
Email: weiwu@kuhub.cc.ukans.edu

X_____
Signature of subject agreeing to participate.
By signing the subject certifies that he or she is at least 18 years of age.

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IMAGE EVALUATION
TEST TARGET (QA-3)

150mm

6"