Copyright 2018 Mei-Tzu Huang
THE RELATIONSHIPS AMONG STUDENT CHARACTERISTICS, USE OF TEAM LEARNING PRINCIPLES IN A WORKSHOP SETTING, AND THE LIKELIHOOD OF INTENT TO APPLY TEAM LEARNING PRINCIPLES AS A FUTURE MANAGER AMONG UNDERGRADUATE STUDENTS IN TAIWAN

BY

MEI-TZU HUANG

DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Human Resource Education with a concentration in Human Resource Development in the Graduate College of the University of Illinois at Urbana-Champaign, 2018

Urbana, Illinois

Doctoral Committee:

Professor Ronald L. Jacobs, Chair
Associate Professor Wen-Hao Huang
Professor Joseph J. Martocchio
Associate Professor Jinming Zhang
Abstract

Work teams have been adopted in many organizations. Given that cooperation among team members is fundamental for all work teams, team learning further enhances the capabilities of teams. Team learning occurs when team members begin to share and reflect upon information openly with each other during the course of performing work. As a result, team learning has become a highly desirable aspect of employing work teams. Most research on team learning has focused on confirming the existence of the construct of team learning itself—that is, confirming the existence of the phenomenon. However, few, if any, studies have been conducted that seek to use team learning as an instructional strategy, with the proposition that individuals who learn to use these principles might be more likely to later integrate those same principles in their management practice. This study made use of three team learning principles from the literature—boundary spanning, reflection, and experimentation—as the basis for designing an instructional strategy for a workshop to be delivered to undergraduate business students. Further, the study sought to identify the likelihood that the students would use team learning principles in their future job roles as managers, based on their workshop experience.

Thus, the purpose of the study is to investigate the relationships among student characteristics, team learning principles, and team outcomes, with a particular focus on the likelihood that undergraduate business students in Taiwan might use team learning principles as future managers subsequent to having participated in a cross-cultural communication workshop that uses the team learning strategy.

The following are research questions for this research:

1. What is the relationship between student characteristics and team outcomes?
2. What is the relationship between team learning principles and team outcomes?
3. What are the relationships among student characteristics, team learning principles, and team outcomes?

4. Were students aware that the workshop setting used the team learning strategy?

5. What is the likelihood of intent to apply team learning principles in the future?

The research setting for this study consisted of business-related courses offered at three universities in Taiwan. Four-hour workshops on cross-cultural communication skills were conducted in the three identified courses. Quantitative data were used to clarify the correlational relationships among student characteristics, team learning principles, and team outcomes. Initial surveys on student characteristics were distributed to students at the beginning of the workshops, and the same number of surveys on team outcomes was administered after the workshops. Meanwhile, semi-structured interviews were conducted to collect additional information to support or extend results from quantitative data. Thirteen student participants were interviewed and provided information with respect to their perceptions and observations regarding their teams and the workshops.

The results show that there was a relationship among student characteristics, team learning principles, and team outcomes. Compared to student characteristics, team learning principles showed a stronger relationship with team outcome variables. Moreover, reflection and motivation to learn were the main predictors of intent to apply team learning principles and team processes. The results of the interviews show that most interviewees were not aware that the workshop setting used the team learning strategy, and only one student recalled the use of boundary spanning in the workshop. Although most students were not aware of the use of the team learning strategy, some of them perceived different questions, the role of the instructor, more interaction, or opportunities to express thoughts, all of which might be related to the use of
the team learning strategy in the workshops. Additional information was obtained from survey responses, which suggests that during the workshops most students had observed that their teams exhibited boundary spanning, reflection, and experimentation.

Most interviewees replied that in the future they would try to apply reflection together with boundary spanning, or all three of the team learning principles. A team that lacks positive interaction, finds no consensus, or proves less willing to cooperate would act to prevent students from applying the three principles. A more dominate supervisor would also restrain the application of the team learning principles. On the other hand, a more cooperative team, with more serious team members or more proactive individuals, would help students apply the team learning principles. A supportive supervisor who would give subordinates more latitude also would help achieve this particular goal.

Based on the findings, the implications of the study are provided.
Acknowledgements

The doctoral journey, full of challenges and memories, is one of discovering myself and domains of knowledge to which I would like to devote my time in research. I have enjoyed my doctoral journey since the first day from my arrival at the beautiful University of Illinois at Urbana-Champaign campus. During my journey, I have strived to learn more about Human Resource Development and Human Resource Management, hoping to better connect these two disciplines with which that I love to spend time. Near the end of my journey, I better know my deficiencies and what to improve and pursue in the future. Before starting my next journey, I would like to express my deeply felt thanks and appreciation to those who accompanied me during my journey and kindly provided their support when I struggled.

I would like to express my profound gratitude to my advisor, Dr. Ronald L. Jacobs, for pushing me beyond my limits, encouraging me to think critically, and guiding me through my journey. I have learned a lot about how to approach an issue from different angles and to think as a scholar. I also would like to thank my thesis advisor at National Central University, Dr. Wen-Jeng Lin, for encouraging me to pursue my dream to study abroad and inspiring me to choose team learning as my research topic.

I would like to thank my dissertation committee faculty, Dr. Joseph J. Martocchio, Dr. Wen-Hao Huang, and Dr. Jinming Zhang, who provided valuable advice and feedback to help me refine my research design and implementation. I also want to thank Dr. Yi-Chun Lin, Dr. Wen-Rong, Dr. Daniel Steve Villarreal, Dr. Wei-Wen Chang, Dr. Chun-Yu Lin, and Dr. Chung-Kai Huang for assisting me in conducting my research in Taiwan; Dr. Allison Witt for providing me an assistantship to support my study at U of I. I also would like to express sincere appreciation and thanks to all of my good friends in Urbana-Champaign, Taiwan, South Korea,
and China. Further thanks to my friend, Jiang Tian and Debbie Hrubec, who provided their endless support and caring throughout my doctoral life; Yi-Hsuan Meng, Yu-Chuan Shen, and Xiaoyu Liao, all of whom helped check my interview transcripts by translating them back into Chinese.

Above all I convey my deepest gratitude to my beloved parents, Mr. Chun-Chia Huang and Mrs. Man-Mei Chang, for their sacrifice, encouragement, support, love, and belief in me. Although my father has been gone for many years, I shall always remember him as an honest, diligent, and kindhearted man who held more than one job to try to give us the best education he and my mother could afford. I would like to thank my two sisters and two brothers, who stayed with my mother in Taiwan and cared for her so that I could concentrate on my studies in the U.S. My elder sister, Mei-Ching Huang, always gives me wise advice about my career path and unconditionally supports my decisions. She is my best friend and the person who supports me the most.

My journey as a doctoral student is coming to an end, but my journey as a scholar has just begun. Additionally, for anyone whose name I may have forgotten to list here, I will continue to work hard and extend many thanks to and appreciation for those who have accompanied and helped me in my journey.
# Table of Contents

Chapter 1: Introduction ........................................................................................................... 1  
Chapter 2: Literature Review ................................................................................................. 12  
Chapter 3: Methods ................................................................................................................ 58  
Chapter 4: Results .................................................................................................................. 79  
Chapter 5: Summary, Discussion, Implications, and Conclusion .......................................... 114  
References .............................................................................................................................. 133  
Appendix A: Pre-learning Survey ......................................................................................... 160  
Appendix B: Post-learning Survey ......................................................................................... 163  
Appendix C: Semi-structured Interview Protocol ................................................................. 167  
Appendix D: Script for Face-to-Face Recruitment .................................................................. 171  
Appendix E: Recruitment Email for Interview ..................................................................... 173  
Appendix F: Consent Form for Survey ................................................................................. 174  
Appendix G: Consent Form for Interview .......................................................................... 176  
Appendix H: Training Slides ................................................................................................. 178  
Appendix I: Interview Data ..................................................................................................... 205
Chapter 1: Introduction

Human beings began to learn to work with others when they started searching for food in prehistoric times. Teamwork provided larger harvests for individuals. Later, the use of teams became endorsed in numerous aspects of collective activities. Work teams henceforth have been adopted in organizations to achieve results, facilitate innovation, and foster communication and control (Kozlowski & Ilgen, 2006). Teams may accomplish what an individual cannot, even with much effort on the latter’s part. A project team, a product development team, a self-management team, a taskforce, and a quality circle are among various types of teams that organizations employ to complete tasks. Informal and formal teams coexist in organizations. Informal teams are those without formal structures and command lines. Team members in informal units typically have equal status. Formal teams are those established with the aim of achieving organizational goals, and they are often equipped with specified missions and goals, structure and command lines, staff members with varying skills, and work processes. Because of their accessibility and ease of observation, student teams that are intentionally assembled in a classroom setting are the subjects of this study.

A team is a typical system, and it works as a subsystem under a larger one, such as within organizations. Input, process, output, feedback, and context comprise the basic components of a team. London and Sessa (2006) assumed that teams are living systems with three characteristics: 1) they remain self-organizing through interacting with environments to retain and revive themselves; 2) they are open and closed systems that contain unchanging forms or structures together with converted information, materials, or viewpoints; and 3) they have an organizing activity or process representing their pattern of organization and structure. Typical types of team input in research include team composition and team beliefs. Team composition is what its
members bring to a team as it is established, such as team demographics and student characteristics, while team beliefs are characteristics evolving from interpersonal interactions such as cohesion and interdependence (Arrow, McGrath, & Berdahl, 2000). Team output is what teams carry out to meet their goals, which reflects expected results from various stakeholders such as team performance and team effectiveness. A team undertakes numerous work processes, and it is plausible that team members are required to learn as they adapt to consecutive changes in order to achieve their goals.

Team learning occurs as team members start to share and reflect on information encountered during teamwork. Senge (1990), in his book, *The Fifth Discipline: The Art and Practice of The Learning Organization*, introduced the five enabling disciplines for organizational learning, and team learning is one of the five disciplines. People thereafter began to understand more about team learning and attempted to discuss it in a more practical manner, either to connect it to organizational learning or to identify factors and interventions that may promote team learning.

Team learning represents either a process or an outcome variable in current research. Team learning as a process denotes activities or behaviors that teams engage in to acquire, process, and share information, thereby making adjustment or improving performance. Team learning as an outcome denotes change in capabilities or performance (Runhaar, ten Brinke, Kuijpers, Wesselink, & Mulder, 2014). There are only a few studies that discuss the use of team learning as input variables. In this study team learning is more of a means to an end. Team learning principles are input variables that later shape an instructional strategy, which may affect participants’ intent to apply recognized principles in future job roles as an outcome variable. Furthermore, most research on team learning has given much attention to verify the existence of
team learning as well as its relationship to team performance. However, few if any studies, have been conducted that look for the use of team learning as an instructional strategy, assuming that an individual who acquired these team learning principles during the workshops might apply them to a future job role as a manager.

Considerable attention has been paid to team learning in recent years because it is an enabling condition for organizational learning, and researchers have found that team learning predicts team performance and effectiveness (Bunderson & Sutcliffe, 2003; Van den Bossche, Gijselaers, Segers, & Kirschner, 2006; Van den Bossche, Gijselaers, Segers, Woltjer, & Kirschner, 2011; Van der Vegt & Bunderson, 2005; Van Offenbeek, 2001; Van Woerkom & Croon, 2009; Zellmer-Bruhn & Gibson, 2006). A widely known training intervention embracing team learning concepts is team-based learning (TBL). It is an attempt to identify core learning elements and embed them in learning with teams, and TBL as an instructional strategy has been found to improve classroom performance and students’ levels of satisfaction (Hernandez, 2002; Zgheib, Simaan, & Sabra, 2010). In the field of HRD, no attempt has yet been made to specify fundamental elements of team learning and incorporate them as an instructional strategy. This research is the first endeavor to utilize essential team learning components as an HRD intervention, and to implement this training intervention to increase learning among teams.

There seem to be more discussions about individual learning and organizational learning than about team learning. Team learning not only helps to connect individual learning to organizational learning, but it also assists in accelerating organizational outcomes. The faster teams learn, the more rapidly they can cultivate innovative practices, learn from mistakes, and share insights across boundaries (Moran, 2005). Moreover, given the culture of continuous improvement fostered by team learning, organizations seem to respond to change more
effectively. Organizations that continue learning are believed to survive fierce competition in the present and future, so team learning as a catalyst for organizational learning will play an important role in organizations that strive to win over others. Moreover, additional investigation of the use of the team learning strategy to increase intent to apply team learning principles, team performance, and team processes will grant a better understanding of team learning and methods to improve it. It also will assist HRD professionals to improve team learning more competently.

**Statement of the Problem**

Research has shown that the capabilities of teams can be improved when principles from a team learning strategy are used. Team learning strategy, as the abbreviation of team learning as an instructional strategy, refers to various instructional approaches in which a training program can be delivered to facilitate trainees by using the following elements: actively speaking up, boundary spanning, reflection, and experimentation. Team learning principles specify team learning behaviors and their relevant conditions that may facilitate learning of teams. Gibson and Vermeulen (2003) proposed team learning as a cycle of experimentation, reflective communication, and codification. Meanwhile, Edmondson (2003) demonstrated that team leader coaching, ease of speaking up, and boundary spanning led to successful technology implementation in hospitals. Moreover, Kim, Hong, Bonk, and Lim (2011) reported that group reflection approaches improved team effectiveness at the end of team projects. Correspondingly, Hagen and Gavrilova (2012) argued that a reflective process facilitated by coaching positively affected team learning outcomes.

However, little is known regarding the extent to which individuals will transfer to future work situations what has been learned from a training program using the team learning strategy. Studies in the area of TBL, another instructional strategy that also endorses the concept of team learning, have been found to pay special attention to learners’ attitudes rather than training
transfer. Hunt, Haidet, Coverdale, and Richards (2003) argued that TBL enhanced individual accountability and teamwork. Haberyan (2007) showed that students preferred TBL, which was found to be more effective in applying course information than was the case for lectures. Tai and Koh (2008) also reported a higher level of engagement and interaction in an evidence-based medical course employing TBL. Evidence about transfer of learned skills is still lacking with regard to training that utilizes TBL or team learning core components as the preferred instructional strategy. Specifically, little, if any research, has been conducted with regard to employing team learning as an instructional strategy while assuming that individuals who learn by using these principles might be more likely to later integrate the same principles into their management practice.

If the team learning strategy as a training intervention is intended to increase the use of team learning principles on future jobs, and if little is known about the relationship between the team learning strategy and transfer intention, more effort should be devoted to examine how the team learning strategy facilitates intent to apply team learning principles.

**Purpose of the Study**

The purpose of the study is to investigate the relationships among student characteristics, team learning principles, and team outcomes, with a particular focus on intent to apply team learning principles in future management situations among undergraduate business students in Taiwan after they have received cross-cultural workshops that use the team learning strategy. Team project performance and team processes as prominent team outcome variables are also examined in the study. Organizations may, at a future date, try to apply the team learning strategy as an intervention to improve team learning.
Research Questions

Within the context of a training intervention using the team learning instructional strategy, this study will be concerned with the following questions:

1. What is the relationship between student characteristics and team outcomes?
2. What is the relationship between team learning principles and team outcomes?
3. What are the relationships among student characteristics, team learning principles, and team outcomes?
4. Were students aware that the workshop setting used the team learning strategy?
5. What is the likelihood of intent to apply team learning principles in the future?

Definition of Terms

Key terms in this study are defined as follows:

**Team learning strategy.** Team learning strategy is the short form of team learning as an instructional strategy. Team learning in this article is defined as a collection of relevant group behaviors that help to form shared mental models that may facilitate the development of human competence, team functions, and team performance. Strategy is a mechanism or plan of action for achieving goals. Instructional strategy refers to the process of arranging and organizing content, identifying learning activities, and deciding on a method for delivering training content and activities (Dick & Carey, 1996). Team learning strategy in this study is a mechanism that may facilitate the learning of teams. It is therefore an instructional process that may include such concepts as speaking up, boundary spanning, reflection, and experimentation in training activities. In this study, speaking up will not be incorporated into the training design, because teams have decided their attitudes about choosing to speak up or not from the time they were established, and it is not easy to change their attitudes later with a one-shot training program.
**Team learning principles.** Team learning principles refer to learning principles that are derived from identified core team learning elements. After identifying four components from team learning processes and models, this research has further developed relevant behaviors from three chosen principles, namely, boundary spanning, reflection, and experimentation. The use of team learning principles is comparable to the use of adult learning principles in designing training for adult learners. The researcher tries to identify conditions that are appropriate for students to learn, and attempts to replicate these conditions in training activities in order to inspire more learning behaviors. For example, student groups would learn better through reflection in cases in which they actively review whether their tasks contributed to attaining their goals. It is worth noting that the four-hour cross-cultural communication sessions may not be able to include all possible conditions that may facilitate the chosen team learning principles.

**Speaking up.** Speaking up is one of the core team learning elements identified in this study. It indicates open, direct conversation among individuals, and encompasses asking questions; seeking feedback; offering suggestions; and discussing problems, errors, and concerns (Edmondson, 2012). Speaking up entails the process of sharing, in which team members exchange information and ideas with one another. It emerges when students feel safe and sufficiently comfortable to express various opinions within teams.

**Boundary spanning.** Boundary spanning is one of the core team learning elements included in this study. Individuals cross boundaries when asking for help, collaborating with others to achieve an end, or actively seeking others’ opinions. Boundary spanning refers to how “individuals seek or give information, views, and ideas through interaction with other individuals or units” (Kasl, Marsick, & Dechant, 1997, p. 230). In the context of classroom teams, boundary spanning occurs as students move beyond team boundaries to acquire information and resources.
Reflection. Reflection is one of the core team learning elements employed in this study. Most team learning definitions include the key concept of reflection (Knapp, 2010). Mezirow and Associates (1990) defined reflection as “an assessment of how or why we have perceived, thought, felt, or acted” (p. 6). It is the extent to which team members collectively ruminate on their own assumptions, objectives, strategies, and processes (West, 2000). In student teams, reflection arises when students review team processes and practice for proposing improvements.

Experimentation. Experimentation is one of the core team learning elements used in this study. It entails testing hypotheses or moving to understand intended or unintended consequences of actions (Watkins & Marsick, 1993). Students are involved in experimentation when they begin to appraise alternative ways to complete goals.

Intent to apply team learning principles. Intent to apply team learning principles represents an intention to transfer learned team principles to future job roles. Transfer intention signifies an endpoint to a trainee’s motivational process (Al-Eisa, Furayyan, & Alhemoud, 2009); therefore, it often initiates the transfer process. In the present context, team learning principles indicate the extended application of pertinent team learning behaviors that are taught to participants during training. Intent to apply team learning principles in this research describes the likelihood that a student will make use of acquired team learning principles in the context of future jobs.

Significance of the Study

This study may lead to a better understanding of team learning and training transfer in both theory and practice. First, few attempts have been made to investigate the relationship between HRD interventions and team learning. Sparrow and Heel (2006) observed the relationship between dialogue process and team learning development in their qualitative study, but no further investigation into the effect of the intervention on team performance or other
outcome variables has taken place. Compared to studies that discuss the relationship between interventions and team learning, this study takes one additional step in examining the application of team learning principles to future job roles, team project performance, and team processes.

Second, the role of motivation to learn in training transfer will be investigated in this study. Some researchers have identified motivation to learn as a mediator in training transfer, whereas other researchers, such as Tziner, Fisher, Senior, and Weisberg (2007), have named motivation to learn as a trainee characteristic that functions as an independent variable. This study will focus on investigating motivation to learn as a student characteristic and its relationships with intent to apply team learning principles, team project performance, and team processes.

Third, the relationship between team learning behaviors and team performance has been confirmed in several studies, but there are not many studies that examine the relationship between team learning and team processes. Schippers, Den Hartog, Koopman, and Wienk (2003) focused on one specific type of team processes, reflexivity, and investigated its role as a mediator among team components and team outcomes as performance, satisfaction, and commitment. Mathieu, Heffner, Goodwin, Salas, and Cannon-Bowers (2000) investigated the effect of shared mental models on team process and team effectiveness, and found that team process mediated the relationship between mental model convergence and team effectiveness. In their study, team process refers to three specific dimensions: information exchange, communication, and viability. It is suspected that team learning will cause change in team processes; hence, this study examines the relationship between team learning and team processes in a classroom setting.
Finally, this is the first study that strives to identify core team learning components and derivative principles, and integrate them into a training design as the team learning strategy. It is assumed that trainees would not only learn the content of the selected training, but also would apply team learning principles. Implications of this study will go far beyond the sample organization: these findings will present implications for other organizations, which may at some point plan to implement team learning to realize organizational learning. The results of the study may be used to help HRD practitioners select interventions that work best to improve team learning.

**Limitations of the Study**

The limitations of the study are as follows:

1. The sample contains 75 students enrolled in a business communication and presentation class at a private university, 30 international business students enrolled in a business English-related class at a public university, plus 86 business administration students enrolled in an organizational development class at a private university. Generalizations of the findings to other organizations or settings may be restricted.

2. The identified team learning elements and strategy may not be accurate or exhaustive. Thus, the effect of the team learning strategy on intent to apply team learning principles in future job roles, team project performance, or team processes may not be accurately estimated.

3. The instruments were translated into Chinese. Validation and translation procedures were executed to ensure the validity of the instruments. However, there is no guarantee that the Chinese version corresponds to the original English version.
4. Due to the limitation of time frame, classroom setting, and training content, it is difficult to observe the transfer of training in the long run. To apply the designed team learning strategy in a company setting for a period of time in the future will help to better understand the transfer of skills acquired through training, as well as team learning principles put into practice in the work setting.

5. It is impossible to exclude or control factors that may affect training transfer after students finish their course. Transfer climate, project content, team job design, and other factors may impact the effect of using the team learning strategy with regard to the intent of applying team learning principles, team project performance, and team processes.
Chapter 2: Literature Review

This chapter contains five sections. The beginning section examines definitions of HRD and the significance of interventions in HRD. The second section on team learning discusses definitions of team learning, relevant research in the major HRD journals, and team learning and HRD interventions. The third section, team learning strategy, identifies four core team learning elements, their derivative team learning principles, and possible applications of team learning as an instructional strategy. The following section examines factors that may contribute to transfer of training in a classroom setting, including student characteristics and training design. Three team outcome variables, intent to apply team learning principles, team project performance, and team processes, constitute the last section of the literature. A conceptual framework that delineates the relationship among all variables is presented at the end of this chapter.

**Human Resource Development (HRD)**

This section is composed of two parts, which present the significance of learning in teams and interventions in the context of HRD. The first part briefly reviews HRD definitions pertaining to learning, including definitions in regard to the context of the learning and performance paradigm. The second introduces the essential role of interventions in HRD.

**HRD definitions.** HRD has been recognized as a multidisciplinary field that has drawn on its foundation from several bodies of knowledge, namely, education, systems theory, economics, psychology, and organizational behavior (Jacobs, 1990). The multidisciplinary nature of HRD can also be found in Watkins’ (1991) article, in which she stated that HRD is a field of practice affected by economics, industrial psychology, adult learning, organizational behavior and management models, as well as other disciplines. Due to its multidisciplinary origin, researchers view HRD in various ways, and there is no generally agreed upon definition of HRD. Nadler (1970) emphasized the purpose of changing behaviors in HRD and defined it as
activities administered in an orderly way for a particular period of time, for the purpose of initiating changes in behaviors. The substance of this definition was to change behaviors that were in accordance with the purpose of learning. The other definition, given by Chalofsky and Lincoln (1983), also underscored the role of learning in HRD. They specified the discipline of HRD as an investigation of the ways in which individuals and groups change by means of learning.

Learning and performance are two paradigms pertaining to HRD. Watkins (1989), as the main proponent of the learning paradigm, portrayed HRD as an applied field that aims to facilitate long-term, work-relevant learning at all levels of organizations. The learning paradigm holds that HRD should develop individuals for contributing to productive workplaces (Bierema, 1996).

Weinberger (1998) acknowledged that performance improvement became a fundamental component of the definition of HRD in the late 1980s. Swanson was the first researcher to uphold the performance orientation of HRD (Weinberger, 1998). Swanson (1987) interpreted HRD as a process by which human capability advances through different HRD interventions in order to ameliorate performance. All activities are geared toward improving performance in organizations. Swanson further explicated that organization, work process, and group/individual are objects of performance. The performance paradigm contends that the purpose of HRD is to improve organizational performance (Swanson & Arnold, 1996).

Although there still are advocates for the learning and performance paradigm, both parties concur with the notion that learning and performance are not mutually exclusive. Each plays a role in individual and organizational development (Swanson & Holton, 2001). Consequently, researchers have begun to characterize HRD as an integration of these two
orientations. For example, Chalofsky (1992) proposed a “unifying definition” of HRD and argued that HRD is a field that combines research and practice while leveraging learning-oriented interventions to enhance individuals’, groups’, collectives’, and organizations’ learning capabilities to make possible proliferation and effectiveness in organizations. This definition not only discloses the nature of HRD as research and practice, but also highlights the use of interventions to improve learning and performance. In a similar vein, Gilley and Maycunich (1998) construed HRD as the process of making use of interventions, initiatives, and management actions to improve learning, performance, and change so as to enhance organizations’ results in various ways. In addition to learning and performance, this definition expands to integrate change into the field of HRD. Interventions, initiatives, and management actions are available means for achieving the ends of organizational performance and other goals.

The role of interventions in HRD. Grieves and Redman (1999) reviewed the literature and concluded there are four differences between HRD and the traditional training approach. The first difference values the strategic orientation of HRD. They assumed HRD to be a strategic intervention to link to business strategy to achieve organizational goals. Gilley, Eggland, and Gilley (2002) further stated that the mission of HRD is to provide individual development, career development, performance management, and organizational development that bear on current and future jobs. With proper design and implementation, interventions and initiatives in these four HRD functions would help HRD link to business strategy. Dirkx, Gilley, and Gilley (2004) identified the comparable purpose of HRD professionals, namely, to provide interventions and initiatives to improve (1) skills and competencies, (2) performance, and (3) organizational effectiveness. Applying appropriate interventions for assorted purposes is critical for the work of HRD professionals. Brinkerhoff and Gill (1994) and Torraco and Swanson (1995) noted that it is
critical to the success of HRD to link interventions and initiatives to strategic organizational goals and objectives. The role of interventions and initiatives has been accentuated in HRD literature.

Reviewing the aforementioned HRD definitions, two key words emerge, both of which resonate with one pivotal theme in this research: groups and learning. Chalofsky and Lincoln (1983), Watkins (1989), and Chalofsky (1992) underlined the importance of HRD on improving learning in groups. This research is an embryonic integration of applying the HRD intervention of the team learning strategy to facilitate learning, performance, and change in teams. Employing the team learning strategy as a training intervention not only may enhance the learning of teams but also improve team capabilities. Change is also an important goal for this research because the adaptation of the team learning process may initiate a fundamental change in how teams and the organization go about learning.

**Team Learning**

Team learning is one emerging research focus in HRD, and this section contains three parts to help understand the development of team learning in HRD. The first introduces definitions of team learning in light of process and outcome. The following section describes team learning research in four HRD journals. The last section discusses HRD interventions that may facilitate team learning.

**Team learning definitions.** Researchers have developed a variety of definitions depending on whether they regard team learning as a process, an outcome, or both. The earliest definition can be found in 1967, when Mills proposed that team learning was a reconfiguration of a group’s purpose to achieve a continually greater and more complex purpose (Mills, 1967). This definition did not specify constituents or a process of team learning, nor did it address an outcome of this process. It only described team learning as a transformed process to pursue a
higher goal, which implied change in a team. Generally speaking, this definition is applicable to many HRD interventions that may cause change, not specifically team learning.

The majority of available team learning definitions delineate the process of team learning. Some scholars have followed information processing theory to describe, through their own definitions, a knowledge/information handling process. Lynn and Akgün (2000) believed that team learning is a process of producing, distributing, and implementing knowledge. Later, after carrying out an empirical study, Lynn, Akgün, and Keskin (2003) articulated team learning process as a cooperative activity of creating and distributing knowledge that includes collecting, explaining, and spreading information for attaining team and organizational objectives. Lastly, Argote (2012) described the team learning process as one involving sharing, creating, assessing, and integrating knowledge.

Apart from describing an information managing process, some scholars have referred to social cognition theory in order to incorporate into their definitions the concept of interaction within a team. Kasl et al. (1997) characterized team learning as interdependent processes among which cooperative thinking and action are of primary importance. Edmondson (1999) further conceptualized team learning of details as a continuing process of reflecting upon and taking actions, including posing questions, searching for feedback, testing alternative approaches, contemplating results, and considering mistakes and unanticipated consequences. Collective thinking, reflection, feedback, and discussion in the above-stated definitions are all illustrations of team social interaction.

Several scholars have addressed the outcome perspective of team learning. Brooks (1994) defined collective team learning as constructing new knowledge within a team. Likewise, Ellis, Hollenbeck, Ilgen, Porter, and West (2003) described team learning as an enduring change in a
team’s knowledge repository caused by experiences shared among its members. Construction of knowledge and change in knowledge as outcomes are kernels of these two definitions.

Still more researchers have placed process in conjunction with outcome as a part of their team learning definitions. Argote, Gruenfeld, and Naquin (1999) specified that their definition is composed of both processes and outcomes of group interaction, and suggested that group learning as a process entails obtaining, sharing, and integrating knowledge with others, thereby tacitly or expressly causing changes in knowledge. Kozlowski & Ilgen (2006) also included process and outcome by pointing out that team learning is the attainment of capabilities from collectives by means of interacting and sharing experiences with them. To conclude, team learning involves processes such as managing information, sharing experiences, and group interaction, as well as outcomes including change in knowledge, skills, and performance.

**Team learning in main HRD literature.** Team learning is a relatively new concept in HRD, given that there are more conceptual models than empirical studies in the four major HRD journals. The first article introducing a more comprehensive team learning model was found in Brooks’ article, in the *Journal of Human Resource Development Quarterly*, in 1994. Having the same approach as Argyris and Schön (1978), Brooks (1994) assumed that team learning is an iterative process of reflective work and active work. The outcome variable in her model is an enhanced generation of technical or social knowledge. She also integrated the discussion of power with team learning, which was not much addressed in other HRD team learning articles.

Some organizational learning articles in HRD journals contain brief introductions of team learning. For instance, articles applying the Dimensions of the Learning Organization Questionnaire (DLOQ) often interpreted that team learning is among one of seven dimensions of this instrument. Another approach is to introduce team learning as one type of collective learning,
which refers to learning happening among more than one individual (Sadler-Smith, 2006). In HRD, there are few articles introducing team learning and its relationship to other forms of collective learning (e.g., Garavan & McCarthy, 2008; Gubbins & MacCurtain, 2008).

There are only two empirical studies in HRD journals that have introduced more comprehensive team learning models. The first is a study conducted by Hagen and Gavrilova (2012), which examined the effect of coaching expertise, project difficulty, and team empowerment on team learning outcomes. Coaching expertise is similar to the concept of team leader coaching found in Edmondson’s (1999) research. Analyses denoted that levels of project difficulty predicted the most variance in team learning outcomes for team leaders, whereas team empowerment predicted the most variance in team learning outcomes for team members. The other is an article by Runhaar et al. (2014), which utilized a parallel comparative case study design to investigate connections among interdependence, team learning, and shared understanding. They found that there is an association among teachers’ goal interdependence, team learning activities, and a shared understanding of educational innovation.

Huang and Jacobs (2013) argued that there are four theories that can explain learning that occurs within a team. Applications of the three theories, information processing theory, social cognition theory, and transactive memory theory, are available in HRD team learning studies. In their conceptual paper, Silberstang and London (2009) explicated group learning as sharing, storing, and retrieving knowledge, which together represent the information processing theory. In this group learning model they also introduced the concept of a group’s readiness to learn and three types of group learning that are not seen in other related fields: adaptive, generative, and transformative group learning.
Social cognition theory takes account of social and cognitive perspectives in explaining team learning. The conceptual team learning and metacognition model developed by McCarthy and Garaven (2008) incorporated a team learning process representing the cognitive perspective, with metacognition representing the social perspective. Knapp's (2010) conceptual model of team learning consisted of team beliefs and meta-cognition as social aspect and mutually shared cognition akin to social and cognitive aspects.

Transactive memory theory is observable in the multilevel model of group learning proposed by London, Polzer, and Omoregie (2005). They observed that team-level feedback and group facilitation as team process interventions impacted the effect of identity negotiation on interpersonal congruence, the transactive memory system, and ongoing group processes. They also argued that interpersonal congruence and transactive memory systems are critical components of group learning. London and Sessa’s (2007) model of the evolution of group interaction learning patterns encompassed adaptive, generative, and transformative learning as process variables, and transactive memory as an outcome variable. Although there is no team learning model in HRD journals signifying social capital theory, Nakamura and Yorks (2011) discussed reflective practice and trust, which are two critical variables found in social capital theory.

Emphasis of culture in team learning and suggested use of HRD interventions to facilitate team learning are two noteworthy trends observed in the four HRD journals. There was a special issue published in 2003 in the Journal of Advances in Developing Human Resources, focusing on the argument about national culture and team learning in different countries. The importance of multicultural issues on team learning was emphasized in this issue. This issue also included
research discussing local culture in different countries that may decompose and re-contextualize the general understanding of team learning (Marsick, 2003).

Action learning and reflection are two interventions that are believed to enhance team learning in HRD studies. The effect of action learning and reflection on team learning is often discussed together in HRD literature because reflection is a key component in action learning teams. After reviewing and analyzing team development literature, Marquardt, Seng, and Goodson (2010) identified eight main characteristics of successful teams, and they outlined how action learning teams incorporate these characteristics according to group and action learning literature. In their discussion of continuous learning and development as one of these characteristics, they argued that the use of questions would engender reflection among and influence the learning of group members. They concurred with Marquardt, Leonard, Freedman, and Hill (2009), as well as Raelin (2008, 2009), that better questions lead to better solutions and learning, whereas deeper reflection leads to greater development of individual and team competencies. Questions here are similar to reflective inquiries posed in a discussion that occurs in the next paragraph.

As found by Hagen and Gavrilova (2012), the reflective process facilitated by coaching had a positive relationship with team learning outcomes. Similarly, Sofo, Yeo, & Villafañe (2010) suggested that action learning teams with an action learning coach, plus reflective inquiry, stimulate highly productive learning patterns at the individual, group, and organizational levels. Reflective questions help teams to improve cue recognition, context facility, and cultural intelligence, all of which contribute to group learning (Sofo et al., 2010; Silberstang & London, 2009). Cue recognition, context facility, and cultural intelligence are three learning readiness dimensions proposed by Silberstang and London (2009). Nakamura and Yorks (2011) showed
how reflection literature has highlighted the role of reflection for improving individual and group learning.

Although there are some discussions on action learning and reflection, there is only one piece of empirical research, conducted by Hagen and Gavrilova (2012), in primary HRD journals that has investigated how reflection affected team learning. More conceptual and empirical team learning studies are required in HRD to help professionals in the field know more about the significance of team learning in organizations, especially those with respect to investigating interventions that may facilitate team learning.

**Team learning and HRD interventions.** From the perspective of HRD, it may be feasible to implement interventions to improve team learning, and, consequently, team performance. There are some HRD interventions that have been suspected of affecting team learning directly, such as action learning and reflection, as previously discussed in the main HRD literature. In addition to two HRD articles on reflection, Kim et al. (2011) investigated three different group reflection (GR) methods in a Web 2.0 learning space. Findings suggested that deep learning facilitated by GR was critical for team project learning in Web-based communication.

Several HRD interventions that are believed to facilitate team learning can be found in publications other than the four main HRD journals. Sparrow and Heel (2006) demonstrated that the dialogue process improved team learning, and identified four key concepts that participants perceived as part of the team learning development process: knowledge sharing, work culture and environment, action, and personal mastery. Furthermore, Burke, Salas, and Diaz (2008) recommended three methods for promoting team learning: storytelling, action learning, and community of practice (COPs). Knowledge sharing, reflection, and the problem-oriented
approach are shared characteristics among these interventions (Huang & Jacobs, 2013). TBL is another intervention that is believed to improve learning in teams. More discussion on TBL will be included in the literature about using team learning as an instructional strategy in the section on team learning strategy that follows. Empirical studies have been lacking with regard to the effect of most interventions on team learning. Researchers should spend more time investigating the effect of different interventions on team learning to benefit research and practice. HRD professionals may want to know more about the use of different possible interventions on team learning and, subsequently, their impact on team performance.

**Team Learning Strategy**

Team learning strategy entails extracting essential behaviors from team learning models and processes as core elements, identifying conditions that may facilitate the learning of these elements, and developing training activities accordingly. Hence, this part includes three sections. The first section reviews core team learning elements from the literature. The next introduces team learning principles. The third explains team learning as an instructional strategy, using TBL as an example.

**Core team learning elements.** Following the tenets of information processing theory, there are several articles that assume team learning to be the process of handling information. Wilson, Goodman, and Cronin (2007) posited bi-directional relationships among information sharing, storage, and retrieval. Correspondingly, Van Offenbeek (2001) included four different team learning activities in his model, specifically, information acquisition, distribution, interpreting, and storage and retrieval. Van Woerkom and Croon (2009) incorporated information acquisition, processing, and storage and retrieval in their team learning activities and performance study. They speculated that team members, during the information processing phase, would combine different insights through a process of dialogue and reflective communication.
Viewing team learning as an information processing/cognitive process may not necessarily reflect its social interactive aspect. Additionally, the gist of information processing activities lies in eliciting information sharing and reflection instead of handling information mechanically.

Watkins and Marsick (1993) argued that learning is a social rather than an individual act. They reflected upon the work of Donald Schön in 1983, and proposed various team learning processes, including five learning courses of action: framing, reframing, experimenting, crossing boundaries, and integrating perspectives. Framing and reframing here include not only information but also perceptions concerning information in a social context. Kasl et al. (1997) provided more elaborate explanations for each process. Edmondson (2003), in her study of interdisciplinary teams in operating rooms, asserted three team learning processes: ease of speaking up, boundary spanning, and practice/reflection. Later, in her book on teaming, Edmondson (2012) summarized four pillars of effective teaming: speaking up, collaboration, experimentation, and reflection. In a relatively comprehensive literature review, Decuyper, Dochy, Van den Bossche (2010) proposed an integrative systemic model of team learning that consisted of sharing, boundary crossing, team reflexivity, team activity, and information storage and retrieval as team learning processes. Most aforesaid team learning models and processes are conceptual in nature rather than verified, and there are few empirical studies validating the effect of these elements on team learning. This makes it difficult to decide which components should be chosen as elements of team learning principles and subsequently incorporate them in training as a team learning strategy.

According to the above discussion, this study identifies four team learning components: speaking up, boundary spanning, reflection, and experimentation. Reflection includes the process of framing and reframing. Information sharing is a precondition for speaking up and reflection.
Integrating perspectives and collaboration are similar to the concept of forming a shared cognition, which features a group’s emergent status rather than what is referred to as an active core element. Details on each element are addressed as follows.

**Speaking up.** Speaking up represents an active voice from employees within organizations. Morrison and Milliken (2000, 2003) acknowledged various forms of speaking up, including selling, whistle blowing, championing, dissent, and boat-rocking, as described in management literature. The authors speculated that in the case of organizational silence, employees are surrounded by social cues that discourage speaking up, and they will thereby feel a corresponding lack of control over their work environment. Research on organizational silence has pointed out that employees’ intention to speak up hinges on any potential threats or risks they might perceive (Edmondson, 2003; Milliken, Morrison, & Hewlin, 2003). Furthermore, Morrison and Milliken (2000) asserted that through information sharing, social contagion, and collective sense-making, employees form shared beliefs in regard to risks about or the usefulness of speaking up.

Edmondson (2003) in particular devoted attention to speaking up as a member of a medical team, which demonstrates a clear professional hierarchy. She emphasized the role of leaders as well as psychological safety, which signifies a climate in which different perspectives may be articulated (Edmondson, 2003; Nembhard & Edmondson, 2006). Edmondson (1999, 2002a) contended that team members believed it was safe to speak up, given that their leaders were regarded as accessible and interested in open communication. She further concluded that team leader coaching, ease of speaking up, and boundary spanning led to successful technology implementation in hospitals (Edmondson, 2003).
Speaking up has been studied mostly related to change and innovation within teams or in organizations (Morrison, 2011). Speaking up also helps individuals to avoid making errors (Stern, Katz-Navon, & Naveh, 2008) and improve creativity (Amabile & Khaire, 2008). Research has demonstrated that speaking up, seeking feedback and information, and reflection as team learning processes are all critical for improving performance (Brueller & Carmeli, 2011).

In brief, speaking up is associated with learning and team performance. Specifically, it is relevant to team leadership and physiological safety, as found in the literature. In addition, the literature on organizational voice and silence helps us to better understand speaking up and its relationship to team leadership.

**Boundary spanning.** Team boundary spanning is closely linked to team external activities. Marrone (2010) referred to team boundary spanning activities as external team processes that reflect a team’s interactions with external stakeholders. Team boundary spanning activities include representing teams to outsiders, seeking information, and coordinating with other external groups in terms of task performance (Ancona & Caldwell, 1992a; Marks, DeChurch, Mathieu, Panzer, & Alonso, 2005). Some researchers have highlighted the advantage of acquiring knowledge from a team’s environment, including an expert network and document repositories (Ancona & Caldwell, 1992a; Collins & Clark, 2003; Reagans, Zuckerman, & McEvily, 2004). Conversely, others have discussed conflicting expectations and potential threats involved in boundary spanning activities (Ancona & Caldwell, 1992a; Choi, 2002). Boundary spanning can happen intentionally or incidentally (Watkins & Marsick, 1993). Without boundary spanning, Edmondson (2003) suspected that teams could make decisions that are not aligned with other organizational goals or constraints, or may fail to take full advantage of support or resources.
Research has found that if teams are able to acquire and utilize external knowledge with regard to task-relevant information, know-how, and feedback from outside parties, they can perform more successfully (Ancona & Caldwell, 1992a; Hansen, 1999; Reagans et al., 2004). Haas (2010) concurred that acquisition and use of external knowledge may enhance task outcomes by assisting teams in making more informed judgments. Additionally, those studying innovation or new product development have paid careful attention to boundary spanning, boundary spanner, and technical information transfer across boundaries (Aldrich & Herker, 1977; Ancona & Caldwell, 1990; Hansen, 1999; Katz & Tushman, 1979).

According to Bresman (2010), the sheer volume of boundary spanning research, with little cross-referencing with the learning literature, informed the study of external team learning. This suggests a need for more collaboration between the learning literature and boundary spanning research. Moreover, researchers have advocated examining internal and external team learning in order to fully understand team learning (Argote et al., 1999; Wong, 2004). Aside from team performance, Ancona (1990) and Ancona and Caldwell (1992a) held that engaging in observing an external environment also acts to aggressively increase team learning. They found that teams perform internal activities better and attain long-term success in cases in which they scan market and technical environments, as well as communicate with outside parties and initiate programs with them. It is reasonable to assume that boundary spanning is relevant to external team learning activities and may also improve upon internal team learning activities.

Marrone (2010) concluded that research has focused on identification and exploration of antecedents for team boundary spanning behaviors, but Joshi, Pandey and Han (2009) claimed that there are few empirical and theoretical studies investigating the antecedents of a team’s boundary spanning. More effort should be spent on exploring the nature of team boundary
spanning, and, aside from the topic of team performance, how and when a team implements these behaviors and outcomes. It is also necessary to integrate the boundary spanning literature with relevant studies in order to advance team boundary spanning research (Marrone, 2010).

**Reflection.** Reflection can be performed individually or with others, such as with one other person or in small groups. While undertaking reflection, people incorporate external experiences, ruminate on them, connect them to other experiences, and screen out various personal biases as part of that thought process (Daudelin, 1997). Reflection at the team level indicates a team’s collective and explicit examination of work-related issues (Schippers, Den Hartog, & Koopman, 2007). Edmondson (2002a) considered team reflection as behaviors that facilitate new insights in relation to process and performance. Reflection occurs before, during, and after task execution, as well as along short- or long-term time scales. Reflection before task execution represents collective consideration of goals, strategies, and processes that encompass reflection on the nature of the problem faced by the team (Moreland & Levine, 1992). Reflection during task execution requires checking whether the team stays on track, solves the correct problem, and executes tasks appropriately. Reflection after task execution involves evaluating achievements and the appropriate way to accomplish tasks (Schippers et al., 2007).

Reflection, critical reflection, and reflexivity have been used interchangeably in some studies, but they are different in meaning. Mezirow and Associates (1990) defined reflection as instrumental learning, which involves assessing assumptions implicit in how people approach solving a problem. Reflection may include the concept of criticism, but it refers more to an instrument used to solve a problem. On the other hand, Mezirow and Associates (1990) expounded that critical reflection as justifying premises by which problems are initially posed or defined, as well as examining their resources and consequences. Critical reflection assists
learners in viewing issues with fundamentally new or different angles, assessing actions that may essentially change lives, or taking actions based on new assumptions (Van Woerkom, 2008). Reflection indicates solving problems that arise on the job or making knowledge explicit, while critical reflection signifies evaluating or attempting to change a value (Van Woerkom, 2004).

Reflection and reflexivity are relevant concepts, in that reflection is an essential steppingstone toward becoming reflexive (Cotter & Cullen, 2012). Reflective learning addresses the process of thinking about actions or self-concepts objectively, whereas reflexive learning entails further developing a working theory regarding the social construction of realities and possible changes in these realities (Cunliffe, 2004). Reflexivity is a recurrent process composed of reflection, planning, and action/adaption. Likewise, team learning is a cyclical process of reflection and action (Argyris & Schön, 1978; Edmondson, 1999, 2002a; Gibson & Vermeulen, 2003; Kasl et al., 1997). Hence, Widmer, Schippers, and West (2009) argued that team learning resembles the concept of reflexivity.

Researchers have assumed various team learning behaviors as an iterative process of reflection and action (Argyris & Schön, 1978; Edmondson, 1999, 2002a; Gibson & Vermeulen, 2003; Kasl et al., 1997). Meanwhile, Wiedow and Konradt (2010) concluded that team learning/improvement consists of reflection and adaptation, which are two relevant but separate dimensions. Thus, team learning includes reflection related to past activities, and adaption or action related to future work-related behaviors (Edmondson, 2002a). Reflection plays a role in experimental learning theories in that it links learning with action and experience. In the stage of reflective observation, individuals engage in reflective conversation with regard to teams’ collective experience (Kayes, Kayes & Kolb, 2005). Reflective conversation is a representation of reflection.
Although reflection has been regarded as a key component in team learning, it does not appear to be listed as a team learning behavior in some team learning empirical studies because reflection can refer to more than one team learning behavior. Gurtner, Tschan, Semmer, and Nägele (2007) investigated the influence of guided reflection on team process and performance, using a three-stage process of reflexivity, as proposed by West (2000). Results showed that reflexivity improved team performance. Additionally, the team’s interrelationships were mediated by three factors: communication, strategies implemented, and having a shared mental model. Kim et al. (2011) utilized three different group reflection methods in a Web 2.0 environment. Findings indicated that by the end of team projects all three groups improved team effectiveness. Instructor-supported reflection performed better than self-reflection or group reflection in terms of team effectiveness. Effective instructor intervention led to better performance. The sample of undergraduate students and the nature of the projects may grant instructor-supported reflection as a preferred intervention. However, that may not be the case in workplace learning with adult learners. Reflection is believed to affect team learning. The relationship between reflection and team learning is an area with a promising future. More effort should be invested in identifying core elements or processes with respect to employing reflection as an intervention.

**Experimentation.** Experimentation is the area that receives the least attention among the four components constituting core team learning elements. Experimentation is assumed to bridge the gap between new ideas and innovative outcomes, and should take place as a part of collective learning (Sadler-Smith, Gardiner, Badger, Chaston & Stubberfield, 2000). Regular review and reassessment of current conceptual frameworks and organizational routines are required for learning (Kim, 1993). As a result, organizations need to develop experimentation skills in order
to test new or alternate methods of working (Sadler-Smith et al., 2000). Pedler, Burgoyne, and Boydell (1997) recommended the use of a learning approach involving experiments that provides feedback for the planning process while allowing for constant modifications. Promoting experimentation in organizations recognizes the existence of sporadic mistakes.

Watkins and Marsick (1993) incorporated experimenting into their team learning process. Experimenting is systematic and scientific in nature; it involves the statistical representation in quality, and in trial and error. It addresses technical issues in teams, such as effectiveness and improvement. Experimenting can also refer to the social aspect, for instance, testing new roles within teams (Watkins & Marsick, 1993).

In her qualitative analysis, Edmondson (1999) defined experimenting as a construct; she is the first researcher to place experimenting into a team learning process in an empirical study. However, she did not verify whether there is a relationship between experimenting and team learning or team performance. Gibson and Vermeulen (2003) assumed that team learning behaviors comprised a cycle of experimentation, reflective communication, and codification. A team begins learning by generating ideas about work improvement through exploration or experimentation (Levitt & March, 1988; March, 1991). As a team has evolved by using experimentation, its members may have constructed various mental models concerning the experience. Reflective communication helps team members transfer or integrate insights (Walsh, Henderson, & Deighton, 1988; Zenger & Lawrence, 1989), which helps teams to develop possible solutions (Argyris & Schön, 1978). Lastly, knowledge must be transformed into solid, universal concepts, decisions, or actions (Argyris & Schön, 1978). Edmondson (1999) and Gibson and Vermeulen (2003) concurred with this point of view, including experimentation in team learning behaviors, but no effort has been made to test its relationship to team performance.
The focus of this research is the use of the team learning strategy as a training intervention. After identifying crucial team learning elements as a foundation, it is possible to develop team learning principles that specify occasions when these core elements may occur, and then it is plausible to integrate these principles into training activities as a team learning strategy. Given that the four core elements have been identified, elaboration on team learning principles will be unraveled in the next section.

**Team learning principles.** In this research, conditions that may assist learning in teams are labeled team learning principles. Additionally, team learning strategy is the process of transforming derivative team learning principles from core team learning elements into a training design. It is similar to the use of adult learning principles in designing training for adult learners or the inclusion of TBL principles in courses offered in higher or medical education. In contrast to these two types of training interventions, there are currently no generally accepted team learning elements and principles.

Nonetheless, Knowles’ principles of adult learning and Michaelsen’s principles of TBL provide pertinent examples that exhibit how researchers elicit principles from core behaviors, activities, and processes. Knowles (1984, 1989) identified six adult learning principles that shift focus from instructor-centered to learner-centered acquisition. These six principles include: reason for learning, self-concept of the learner, prior experience of the learner, readiness to learn, orientation toward learning, and motivation to learn (Knowles, Holton, & Swanson, 2015). The following two examples represent situations in which adults learn comparatively well. The principle of prior experience suggests that adults learn better when they have opportunities to share experiences with one another during training. The principle of orientation to learning indicates that adults prefer the problem-solving rather than the subject-centered approach and
learn better in real-life contexts (Park, Robinson, & Bates, 2016). These two principles suggest that training designers incorporate sharing previous experiences and mimicking real-life cases into discussions and other training activities.

Four principles of TBL include: conducting appropriate formatting and properly managing groups, accepting accountability for individual and group work, giving group assignments to improve learning and team development, and providing frequent and immediate feedback (Michaelsen, 2004). Fink (2004) echoed that TBL utilizes small group learning effectively, by putting together groups appropriately, keeping groups as a whole for a while until they form cohesive teams, and assigning challenging tasks with immediate and clear feedback. These four principles should be employed in designing course activities and assignments. In the following sections, team learning principles will describe conditions and pertinent behaviors that facilitate learning in teams and possible training activities.

**Speaking up.** As a team learning principle, speaking up indicates that student teams learn better when students feel safe as well as comfortable in expressing various opinions, as described as psychological safety by Edmondson (2003). Specifically, teams learn better when students express what is on their minds rather than remaining silent in group discussions. Students express ideas that may be different from or contrary to what others believe. Additionally, students would reveal thoughts and concerns if they were afraid that a plan or idea will not work (Premeaux & Bedeian, 2003), this demonstrates another related behavior deriving from speaking up as a team learning principle. A possible training activity for speaking up is setting up rules to encourage team members to express their opinions fearlessly in the first few meetings of a group.

**Boundary spanning.** Boundary spanning as a team learning principle indicates that students move beyond boundaries to acquire information and resources. These evolving
behaviors that draw from this principle describe circumstances in which student teams learn better, namely, when they examine internal or external environments for ideas and expertise, or when they discuss problems, acquire feedback, or coordinate and negotiate with external parties (Ancona & Caldwell, 1992a; Marrone, 2004; Marrone, Tesluk, & Carson, 2007). Designing training activities that encourage or facilitate teams to exchange information or resources with other stakeholders is an example of including this type of team learning principle in training design.

**Reflection.** Reflection occurs when students review team processes and practices in order to propose improvement actions. This guiding principle can be further divided into four relevant behaviors, with regard to how student teams learn better: when they consider whether the methods used are the best available, when they examine whether tasks performed help to achieve objectives, when they constantly assess whether their team works efficiently, and when they regularly assess how well teams exchange information (De Dreu, 2007; Schippers et al., 2007). Conducting a reflection process or writing reflection journals also are possible training activities that can be included in training design.

**Experimentation.** As a team learning principle, experimentation occurs when students consider alternative methods for completing goals. Experimentation signifies that student teams learn better when they regularly take time to figure out ways to improve their work performance, assess the impact of their actions, test the implications of their ideas, and attempt to experiment with new or other methods of working (Edmondson, 2012). Experimentation can be embedded in training by asking students to think of different scenarios or to ask if-and-then questions during training activities.
As noted in Chapter One, speaking up as one of the core team learning elements will not be addressed in the workshop because it takes longer to develop a climate of speaking freely within a group. Only boundary spanning, reflection, and experimentation will be included as the team learning principles assessed in this research. Moreover, not all relevant behaviors for each principle listed above will be incorporated into the training design because of limited session length. The researcher is only able to integrate one or two behaviors from each principle in each training activity.

**Team learning as an instructional strategy.** Using team learning as an instructional strategy can be achieved in various ways. This research proposes including principles evolving from core team learning elements in training design as team learning strategy, something that is not currently found in the literature. Conversely, the other application of team learning as an instructional strategy, TBL, can be found in the literature. The six-step instructional activity sequential (IAS) introduced by Michaelsen in 1994 and the three-phase team learning activities approach developed by Michaelsen, Knight, and Fink (2004) have been discussed in TBL literature. A further introduction to TBL will be included in this section.

TBL is an instructional strategy developed in the early 1990s by Professor Larry Michaelsen of the University of Oklahoma’s College of Business Administration. Fundamental theories in TBL are constructivism and social learning theories, with foci on collaborative group learning and problem-based learning (Gomez, Wu, & Passerini, 2010). TBL is an instructional strategy that helps students apply abstract knowledge by utilizing principles of individual work, group cooperation, and instant feedback (Parmelee, Michaelsen, Cook, & Hudes, 2012). Specifically, Fink (2004) explained that TBL is an instructional strategy characterized by a
specific sequence of learning activities rather than a teaching technique that can be employed in any chosen sequence.

TBL has been proven to improve students’ learning in various ways. Although students did not appreciate team learning and preferred the traditional didactic lectures in an evidence-based medical course, Hunt et al. (2003) argued that TBL provided the potential merit of team learning, which enhances individual accountability and teamwork. Tai and Koh (2008), in an evidence-based medical course, also revealed a higher level of engagement and interaction by using team learning. Haidet, Morgan, O'Malley, Moran, and Richards (2004) conducted a study comparing active and passive learning strategies in a large group setting. One group was given a didactic session, whereas the other group was assigned an active session with a team learning teaching method. Similar to what Hunt et al. (2003) observed, learners in the active session perceived and observed more engagement in the learning process, but they noted less educational value and did not achieve their expressed learning objectives.

Hernandez (2002) employed in a marketing principles course the six-step instructional activity sequential (IAS) proposed by Michaelsen in 1994; results indicated that students exhibited positive attitudes toward team learning. Data collected from course evaluations and student journals confirmed the effectiveness of team learning. Haberyan (2007) adapted the three-phase team learning activities approach developed by Michaelsen, Knight, and Fink (2004). These phases include preparation, application, and assessment, as enacted in an undergraduate Industrial/Organizational Psychology course. Results showed that students preferred TBL and believed that they learned more from it. Students also exhibited increased willingness to take another TBL class. Additionally, students found TBL not only helped apply course information, but also seemed to be more intriguing, pleasant, and amusing.
The use of TBL as an instructional strategy is similar to the concept of embedding critical team learning components and their derivative principles as an instructional strategy, as proposed in this study. Both focus on implementing concepts that may facilitate team learning. Nevertheless, the instructional strategy used in TBL focuses more on the role of an instructor in forming small groups, giving challenging assignments, and providing immediate feedback. This is in contrast to viewing learning as a whole team process and using core team learning components in the team learning strategy, thereby facilitating active interaction within and outside of teams. Meanwhile, as the definition proposed by Parmelee et al. (2012) suggests, TBL is suitable for courses on conceptual knowledge, whereas this research suspects that the team learning strategy is more appropriate for courses focusing on interpersonal skills. The effect of TBL and its components has been studied since 1994, but the effect of team learning core components, their evolving principles, and the team learning strategy are still under development.

**Transfer of Training**

Researchers generally agree with the three broad categories of antecedent factors of training transfer as proposed by Baldwin and Ford in 1998, including trainee characteristics, training design, and work environment. In the classroom setting with regard to this research, factors related to the work environment are too trivial to observe; therefore, only student characteristics and training design are discussed herein. The first section depicts student characteristics, which include learning self-efficacy, career planning, and motivation to learn. The second describes training design that may help with training transfer that contains pre-training factors, training content, and post-training factors.

**Student characteristics.** Trainee characteristics, which are labeled student characteristics herein because all trainees in this study are students, refer to the abilities, motivations, and personalities of trainees (Blume, Ford, Baldwin, & Huang, 2010). Trainee characteristics that are
relevant either to personalities or motivations have been believed to affect training outcomes (Tziner et al., 2007). In other words, student characteristics that are in relation to either personalities or motivations have been believed to affect learning outcomes in classrooms. In this study, three student characteristics of interest are learning self-efficacy, career planning, and motivation to learn. Other possible student characteristics include cognitive ability, personality, expected utility, locus of control, job involvement, organizational commitment, and learning goal orientation, to list but a few.

Learning self-efficacy. Bandura (1982) defined self-efficacy as individuals’ level of discernment regarding their competency to perform a specified task. In a training context, self-efficacy is defined as trainees’ discretion regarding their ability to perform successfully in training (Chiaburu, Van Dam, & Hutchins, 2010). In this research, learning self-efficacy is used to substitute for training self-efficacy because all trainees are students, and this research pertains to students’ learning in a workshop setting. Guthrie and Schwoerer (1994) proposed that self-efficacy influences trainees’ perceptions regarding training utility. The authors assumed that trainees who believe that they can succeed in training will view training as more useful. A similar relationship has been reported (Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991), in which self-efficacy displayed a positive relationship with training fulfillment and motivation. Training self-efficacy also is believed to be positively associated with generalization and maintenance of training across various settings (Chiaburu & Marinova, 2005; Chiaburu et al., 2010; Gaudine & Saks, 2004). Having better preparation and positive expectations, trainees with high confidence in their ability are more likely to seek training opportunities, overcome obstacles, and learn training content (Al-Eisa et al., 2009; Chiaburu et al., 2010). There are two identified forms of self-efficacy in training and development: pre-training self-efficacy and post-training
self-efficacy. The former refers to a trainee’s confidence level regarding the learning of content, whereas the latter denotes the level of confidence pertaining to the application of learned knowledge and skills on the job after training (Al-Eisa et al., 2009). Pre-training self-efficacy or learning self-efficacy as in this study that happens before the workshop is the variable of interest.

Empirical studies have supported the positive relationship between self-efficacy, motivation, and training performance. Quiñones (1995) demonstrated a positive relationship between pre-training self-efficacy and motivation to learn. Similarly, Tracey, Hinkin, Tannenbaum, and Mathieu (2001) found that pre-training self-efficacy positively affected pre-training motivation. In their meta-analysis, Colquitt, LePine, and Noe (2000) acknowledged that self-efficacy positively influenced post-training self-efficacy, motivation to learn, and transfer. Several scholars have reported the effect of self-efficacy on training performance (Gist, 1989; Gist, Stevens, & Bavetta, 1991; Tannenbaum et al., 1991) and transfer performance (Ford, Smith, Weissbein, Gully, & Salas, 1998). Nevertheless, Axtell, Maitlis, and Yearta (1997) revealed that there was a relationship between self-efficacy and training motivation, but not between self-efficacy and transfer. They suspected that self-efficacy might affect transfer through motivation. Mullins, Fisher, Howell, Schmitt, and Kozlowski (1998) found that self-efficacy was a partial mediator between motivation to learn and transfer intention. There are dubious results with regard to the relationship between self-efficacy and motivation to learn.

A negative relationship between self-efficacy and training outcomes has also been observed in a few studies. Grossman and Salas (2011) noted that high self-efficacy may not definitely lead to positive training outcomes, given that studies have found negative relationships between self-efficacy and training performance. Judge, Jackson, Shaw, Scott, and Rich (2007) demonstrated that self-efficacy caused better performance in jobs or tasks of low complexity, but
not those of medium or high complexity. Vancouver and Kendall (2006) observed that self-efficacy was negatively associated with motivation and performance at the within-person level because individuals who believe they have prepared enough for a challenge may decide to lessen their motivation to prepare for or exert a satisfactory effort toward a given task. There is a need to further explore the relationship among self-efficacy, motivation, and transfer outcomes.

**Career planning.** Career planning denotes the extent to which individuals engage in developing and updating clear, specific plans for accomplishing career goals (Colquitt et al., 2000). Career planning might be associated with training motivation, provided that individuals may perceive more potential benefits from training when they become involved in career planning. Noe (1986) reported a positive connection between career planning and changes in behaviors resulting from training. Martineau (1995) confirmed a positive relationship between career planning and training motivation.

Career planning has always been linked with career exploration in training transfer studies, and their effects have been discussed together in the literature. Facteau, Dobbins, Russell, Ladd, and Kudisch (1995) explained that these mixed findings might result from the various methods regarding operationalization of career exploration and planning. Additionally, Facteau et al. (1995) observed a non-significant relationship between career exploration and planning and pre-training motivation. Colquitt et al. (2000) concluded that there are limited studies that include job/career variables, and future research would benefit from taking career variables into consideration. The same authors also stated that among various job/career variables, career identity and resilience have been less discussed. Only career planning is included in this research because it is more relevant to students’ career goals to be future managers, whereas career exploration involves various activities that help discover a range of careers.
Motivation to learn. Some researchers have believed that motivation to learn should be included among trainee characteristics, and some of these researchers have combined several related variables as motivational variables. Still others have addressed motivation to learn as a mediator between antecedents and transfer outcomes. Colquitt et al. (2000) defined training motivation as the proclivity, strength, and endurance of learning-oriented behaviors in training situations. Kanfer (1990) elaborated on motivation as a direction, indicating matters a person spends time with, intensity shown in the effort a person puts forth, and persistence a person demonstrates to stay focused. Motivation to learn and motivation to transfer are two types of training motivation in training transfer. Kontoghiorghes (2002) revealed that motivation to learn is a stronger predictor of motivation to transfer. Meanwhile, some transfer models have included both motivation to learn and motivation to transfer (Chiaburu & Lindsay, 2008; Van der Locht, Van Dam, & Chiaburu, 2013).

Except for motivation to learn and motivation to transfer, some researchers have used pre-training motivation to represent motivation to learn, or, motivation to learn together with motivation to transfer. Naquin and Holton (2002) proposed a construct titled “motivation to improve work through learning” (MTIWL), which integrated motivation to learn and motivation to transfer. They demonstrated that MTIWL had a stronger association with transfer than motivation to learn as a motivational variable. Grossman and Salas (2011) speculated that motivation to learn might affect trainees’ performance, whereas motivation to transfer might stimulate aggressive behaviors leading to actual transfer. They concluded that it is essential to keep trainees motivated through various phases of the training process in order for transfer to occur. Only motivation to learn is included in this study because this research uses transfer intention, which encompasses motivation to transfer. Additionally, research has reported that
transfer intention, labeled herein, intent to apply team learning principles, is related to motivation to learn (Al-Eisa et al., 2009). More justification for the use of transfer intention rather than transfer will be provided later in the discussion of intent to apply team learning principles.

Motivation to learn reflects the extent to which individuals decide to be involved in, deal with, or persist in taking part in learning activities (Van der Locht et al., 2013). Noe (1986), in his discussion of motivational influences on training effectiveness, described motivation to learn as a trainee’s aspiration to learn training content. He proved that career and job attitudes had an impact on motivation to learn. Quiñones (1995) believed that motivation to learn connected pre-training characteristics, such as pre-training efficacy, with training outcomes. Self-efficacy and motivation to learn mediated the relationship between trainee characteristics and outcomes of training. Results also revealed that trainees’ previous experiences (Smith-Jentsch, Jentsch, Payne, & Salas, 1996) and their choice of participating in training (Baldwin, Magjuka, & Loher, 1991) affected their motivation to learn.

Researchers have confirmed a positive relationship between motivation to learn and transfer outcomes. Colquitt et al. (2000) summarized that self-efficacy, valence, anxiety, and climate had the strongest effect on motivation to learn. Motivation to learn was also found to influence training and transfer outcomes. Moreover, motivation had a moderately positive relationship with transfer. Tziner et al. (2007) found that motivation to learn and learning goal orientation both predicted training outcomes. Chiaburu and Marinova (2005) concurred that motivation to learn predicted transfer. Blume et al. (2010), however, criticized the small size of studies in Colquitt et al.’s (2000) literature review and their conclusions. They proposed a moderate association between motivation to learn and transfer. They further explicated that motivation and transfer had a stronger connection when an open skill was the training subject.
Other than transfer, researchers also found a positive relationship between motivation to learn and transfer intention. Al-Eisa et al. (2009) found that motivation to learn affected transfer intention and mediated the relationship between transfer intention and self-efficacy.

The mediating role of motivation to learn has been observed in some research. Quiñones (1995) reported that self-efficacy and motivation to learn mediated the relationship between trainee characteristics and outcomes of training. Tracey et al. (2001) verified their hypotheses that pre-training self-efficacy and motivation mediated the relationship between job involvement, organizational commitment, perceptions of the work environment, and training reactions and knowledge acquisition. Scaduto, Lindsay, and Chiaburu (2008) studied leader influences on training effectiveness, and demonstrated that training motivation fully mediated the relationship between leader–member exchange (LMX) and transfer. In addition to transfer, empirical studies have proved that motivation to learn affects employees’ willingness to attend training (Noe & Wilk, 1993; Tharenou, 2001), as well as their effort to learn and complete training (Chuang, Liao, & Tai, 2005; Hicks & Klimoski, 1987; Tracey et al., 2001). Still, there is a need for more studies that investigate motivation to learn as a mediator or moderator, plus the relationship between motivation to learn as a student characteristic and transfer intention. This second area of proposed study is treated in a later section, referred to as intent to apply team learning principles as a team outcome variable.

Training design. Training design involves how training has been planned and delivered to facilitate trainees for the purpose of transferring training to a job situation (Holton, Bates, & Ruona, 2000). It includes training objectives, methods, learning principles, training techniques, and opportunities to put this knowledge into practice. Holton et al. (2000) stated that training design ought to reflect the match between training instruction and job requirements. Training
design factors can be categorized as pre-training elements that occur prior to a training session, as well as training content and post-training factors (Knyphausen-Aufseß, Smukalla, & Abt, 2009).

**Pre-training factors.** Techniques that are implemented before training in order to facilitate training transfer are termed pre-training factors. Cannon-Bowers, Rhodenizer, Salas, and Bowers (1998) listed attentional advice, metacognitive strategies, advance organizers, preparatory information, and pre-practice briefs as pre-practice conditions that may facilitate transfer. Foster and Hoff Macan (2002) argued that trainees who received attentional advice outperformed ones who did not receive advice. Kraiger, Salas and Cannon-Bowers (1995) discovered that trainees who received an advance organizer in a simulated decision-making situation surpassed their peers in their performance. More examples of the use of pre-training interventions have been found in the training transfer literature.

**Training content.** A large number of transfer studies have focused on integrating learning principles into training design. Baldwin and Ford (1988), in their model of the transfer process, described four research foci in training transfer design: identical elements, general principles, stimulus variability, and various conditions of practice. These four conditions are categorized as training content factors (Knyphausen-Aufseß et al., 2009).

The concept of identical elements was developed by Thorndike and Woodworth (1901). It is believed that training transfer relies on whether stimulus and response in training are identical to those contained in a transfer situation. Resemblance in stimuli will help provoke trainees’ intuitive and effective responses on the job (Van der Locht et al., 2013). Machin and Fogarty (2003) investigated the relationship among several transfer-enhancing activities, learning, post-training self-efficacy, and transfer intentions. They asserted that the higher the fidelity
between training and job setting, the better the final learning performance and level of post-training self-efficacy. Van der Locht et al. (2013) also reported that identical elements along with expected utility, and motivation to learn predicted training transfer. They emphasized that the inclusion of identical elements is especially critical for management training that focuses primarily on open skills.

The significance of teaching general principles originated from Judd (Tuomi-Gröhn & Engeström, 2003). Machin and Fogarty (2003) proposed that trainees who believed they have learned general principles perceived better learning and superior transfer intention. Nijman (2004) explained that the research on general principles has shifted attention to instructional design, leading to the development of general principles or schemas.

Stimulus variability takes effect when applying an assortment of related training stimuli (Ellis, 1965). Stimulus variability has received empirical evidence in transfer. Shore and Sechrest (1961) demonstrated that various examples presented to trainees were more effective than one repeated example. Changing stimuli would prevent trainees from holding to a certain combination of stimuli and responses.

Varied practice as one of the aforementioned four research foci involves learning new skills or acquiring knowledge under various conditions by employing several examples (Machin & Fogarty, 2003). Gick and Holyoak (1987) advocated that varied practice assisted trainees in developing better comprehension of general rules through extracting abstract features from examples. Having a combination of diverse practices would better affect transfer and generalization than would repeated practices (Foster & Hoff Macan, 2002; Schmidt & Bjork, 1992).
Other than the aforementioned transfer design, there are two other approaches that may improve training transfer. Overlearning is a special representation of varied practice. It entails practicing even after successfully mastering a task, or repeatedly practicing a skill (Machin & Fogarty, 2003). In their meta-analysis on overlearning, Driskell, Willis, and Copper (1992) summarized that overlearning significantly helped retain physical and cognitive tasks. Other conditions of practice include massed or distributed training, whole or part training, and feedback. Error-based learning is a newly-added training content factor that has drawn more attention. Trainees are encouraged to make errors so that they may learn from their mistakes (Knyphausen-Aufseß et al., 2009). Keith and Frese (2005) commented that error-based training increased training transfer in comparison to the error-avoidant approach.

**Post-training factors.** The last group of training design involves post-training factors, also known as transfer strategy. It typically includes behaviors such as establishing goals, examining work situations, preparing to overcome difficulties, looking for and making use of supports, and acknowledging and monitoring opportunities to apply knowledge and skills on the job (Pham, Segers, & Gijselaers, 2010). Three post-training factors that include one or several of the above behaviors will be introduced in the following sections. These include self-management, relapse prevention, and goal setting.

Self-management strategies help individuals exercise control over their decision-making and behaviors. Effective self-management strategies come with different emphases with regard to the transfer process. For instance, one might ask trainees to set up goals (Brown, 2005; Richman-Hirsch, 2001), draft action plans (Broad & Sullivan, 2001), or involve themselves in self-regulatory/management behaviors (Gist, Bavetta, & Stevens, 1990). Research has revealed
that self-management interventions increase job performance and post-training self-efficacy (Frayne & Geringer, 2000; Pattni, Soutar, & Klobas, 2007).

Relapse prevention is a self-management technique developed for curing addictive behaviors (Burke & Baldwin, 1999). It is also a cognitive-behavioral strategy that helps trainees acknowledge high-risk situations, prepare them with coping strategies to avoid a relapse, and maintain learned behaviors after training (Gaudine & Saks, 2004). The crux of relapse prevention focuses on nourishing high levels of self-efficacy for detecting critical situations and employing corresponding coping strategies (Machin, 2002). Machin and Fogarty (2003) showed that relapse prevention is associated with learning, transfer intention, and post-training self-efficacy. Other studies have also acknowledged the positive effect of relapse prevention on training transfer (Burke & Baldwin, 1999; Tziner, Haccoun, & Kadish, 1991). However, Burke and Baldwin (1999) also specified that relapse prevention becomes less important when transfer climate is more supportive. Likewise, in their longitudinal quasi-experiment research, Gaudine and Saks (2004) noticed that the impact of relapse prevention hinged on the organizational context. Burke and Hutchins (2007) concluded that a lack of a consistent measure results in equivocal findings for relapse prevention. They urged training researchers to develop a more rigorous assessment of relapse prevention to prove its worth as a transfer strategy (Hutchins & Burke, 2006).

Goal setting is also related to the concept of self-management because many self-management strategies include setting goals as a critical element (Frayne & Geringer, 2000; Richman-Hirsch, 2001). It has long been believed that setting goals helps improve training transfer (Richman-Hirsch, 2001; Taylor, Russ-Eft, & Chan, 2005). Richman-Hirsch (2001) speculated that goal-setting and self-management interventions would influence maintenance and
generalization of trained skills in different ways. Results showed that goal-setting activated more
generalization behaviors and led to more transfer than was the case for self-management. She
also highlighted the moderating role of a supportive work environment as regards the
effectiveness of these two strategies. Brown (2005) disclosed that trainees who set proximal
goals together with distal goals attained higher transfer outcomes than those that only set distal
goals.

Among the three broad categories of transfer factors, training design is the one that
required more quantitative studies to accumulate preliminary or case-based findings. Burke and
Hutchins (2007) concluded that more empirical evidence is needed to support highly promoted
active learning methods. Russ-Eft (2002) advocated for additional examination of some
strategies such as feedback, relapse prevention, and goal setting in the organizational training
setting, and using other combinations of interventions because some interventions may only
exhibit positive results in laboratory settings or with particularly chosen topics. Identical
elements are intended to be used to facilitate training transfer in this study.

Team Outcomes

Training and team learning are two main themes in this research; therefore, it is
appropriate to consider training and team learning outcomes as outcome variables. Accordingly,
the first section describes intent to apply team learning principles as a training transfer outcome.
The subsequent section reviews team project performance as an outcome variable in team
learning studies. The last section discusses team processes that may be changed because of team
learning that occurs during the workshop.

Intent to apply team learning principles. Although training transfer has been defined as
the application of learned skills and knowledge to job settings, it is a process of application
rather than an outcome of application (Kim, 2004). Furthermore, Foxon (1993) proposed a five-
stage transfer process model, starting with transfer intention. He stressed that trainees would not achieve a high extent of transfer on the job if they had demonstrated a low degree of transfer intention. There are relatively few studies investigating transfer intention and its influence on transfer process (Foxon, 1993). Al-Eisa et al. (2009) added that almost all transfer theoretical models embraced an encompassing standpoint of transfer, and attended less to the factors affecting each stage of transfer process. As a result, little is known regarding the way and extent to which individual and organizational variables contribute to transfer intention and how transfer intention affects transfer success.

Foxon (1993) characterized transfer intention as the end-point for a learner’s inspiration to apply learned knowledge and skills in the workplace. It is a proxy outcome variable that seizes trainees’ intent to transfer learned knowledge or skills to their jobs (Hutchins, Nimon, Bates, & Holton, 2013). Focusing on transfer intention, known in this research as intent to apply team learning principles, would help one understand variables that contribute to transfer intention as the initial phase of training transfer. Transfer intention also is a viable option when various factors in a training environment make it impossible to collect transfer behavioral data, as in the case of Mullin et al. (1998), in which a diverse sample with various geographic locations and specialization made it impossible to measure standardized transfer behaviors. Also, as in the case of this research, when students may not have an opportunity to transfer learned skills immediately after the workshop, they may later think of applying learned skills in other groups or settings.

Ajzen’s (1991) theory of planned behavior (TPB) explained the prominence of intentions as the determinants of specific human behaviors. He proposed that intention as an immediate antecedent provides a dispositional prediction of behaviors or actions. There are three factors that
predict intention: attitudes toward behavior, subjective norms, and perceived behavioral control. Attitudes toward a certain behavior refer to a person’s positive or negative assessment regarding the behavior. Subjective norms reflect a person’s perceived social support or opposition with regard to performing certain behaviors. Perceived behavioral control refers to a person’s discernment with respect to ease or difficulty of performing a particular behavior (Ajzen, 1991). In most cases, trainees would hold beliefs about transfer behaviors and decide the degree to which, before a training period ended, they would apply to the workplace learned skills or knowledge. The intention is reinforced by dispositional traits and attitudes regarding the assessment of training content, behavioral outcomes, expected consequences, and either social support or opposition the trainees might receive when they return to work (Hutchins et al., 2013). Krueger (2000) introduced an intentions model and commented that individual and contextual variables impacted behaviors, with behavioral intention functioning as a mediator. This may help explain why there are mixed results for the same trainee characteristics and work environment variables because trainees’ transfer intentions have brought about different transfer outcomes.

As Al-Eisa et al. (2009) observed, transfer intention is often confused with motivation to transfer, which refers to trainees’ desire to use learned skills on the job (Noe, 1986). Ajzen (1991) argued that individuals’ intentions predict their motivation to become involved in a desired behavior and indicate the extent to which individuals would like to perform a particular behavior. Hence, transfer intention is regarded as an endpoint of the motivational process, including motivation to transfer. Al-Eisa et al. (2009) concurred that transfer intention represented a commitment to initiate transfer, whereas motivation to transfer indicated an aspiration to initiate transfer. Motivation to transfer and transfer intention are two distinct constructs with different measures, but they are closely pertinent and can be impacted by the same individual and
situational variables (Al-Eisa et al., 2009). Comparatively, transfer intention signifies a stronger
predilection toward applying learned skills or knowledge to the workplace than is the case with
motivation to transfer (Hutchins et al., 2013).

Baldwin and Magjuka (1991) found three conditions that contribute to transfer intention:
when trainees receive course information before training, when they acknowledge their
accountability to their supervisors, and when they perceive training as mandatory. In their study
investigating motivational and contextual variables on training effectiveness, Mullins et al. (1998)
reported that climate perceptions and self-efficacy were related to the intent to apply trained
skills and networking behaviors during training. No interaction effects were observed.

There are other factors that may affect transfer intentions. Machin and Fogarty (2003)
demonstrated that post-training self-efficacy and transfer-enhancing activities predicted transfer
intentions. They later found that pre-training self-efficacy predicted pre-training motivation with
and without controlling positive and negative affectivity, while only negative affectivity affected
transfer implementation intentions. Al-Eisa et al.’s (2009) empirical study demonstrated that
supervisor support and motivation to learn affected transfer intention. Meanwhile, motivation to
learn partially mediated the relationship between transfer intention and supervisor support and
self-efficacy. As noted earlier, despite the significance of transfer intention to transfer outcomes,
there remains limited research on this variable and its antecedents. More attention should be paid
to transfer intention, shown in this research as intent to apply team learning principles and its
determinants.

**Team project performance.** Performance has multifaceted dimensions, and its ratings
differ across stakeholders (Tsui, 1984). It has been suggested that multiple dimensions of
performance as well as team-member and managerial ratings of performance should be included
in the research on this subject (Ancona & Caldwell, 1992b). Researchers have described team performance in terms of effectiveness and efficiency (Hoegl & Gemuenden, 2001; Horwitz, 2005; Madhavan & Grover, 1998). Performance effectiveness strives to produce precisely the intended result; performance efficiency denotes producing the desired result in a cost-effective way (Robbins & Butler, 1998).

There are many team studies, including various team performance indicators, as outcome variables; however, below we only discuss studies that include team learning behaviors or activities as process variables. Research has established a positive relationship between team learning, effectiveness, and innovation. Edmondson (1999) maintained a positive relationship between team learning behaviors and team performance, which was represented by team effectiveness, including items with respect to meeting customer expectations, level of quality, and level of accomplishment. De Dreu (2007) also outlined a positive relationship between team learning and team effectiveness. This relationship was measured by task performance and effectiveness when presented with unexpected events. There seems to be a positive association between team learning and innovation. Innovation is the intended adoption and application of new ideas, processes, procedures or products in order to enhance team performance (Anderson & West, 1998). Edmondson, Bohmer, and Pisano (2001) demonstrated that the team learning process affected the implementation of innovation technology in hospitals. Drach-Zahavy and Somech (2001) discovered that the team interaction process, especially team learning, mediated the relationship between team heterogeneity and team innovation. In their studies on team learning in new product development teams, Akgün, Lynn, and Reilly (2002) and Akgün, Lynn, and Yilmaz (2006) affirmed that team learning fostered product success and enhanced team performance. Team learning appears to lead to a better understanding of an entire task, which
would enable team members to participate in problem solving, strategic thinking, and innovation (Dunphy & Bryant, 1996).

Relationships have been found between team learning and team performance that demonstrate effectiveness and efficiency. Van Woerkom and Croon (2009) investigated the association between team learning activities and team performance, including effectiveness, efficiency, and innovation as team performance measures. Effectiveness signifies the extent to which teams meet the expectation of outcome quality (i.e., outcome attainment) (Hoegl & Gemuenden, 2001), whereas efficiency denotes the ratio or comparison of input to output (Ostroff & Schmitt, 1993). Van Woerkom and Croon (2009) discovered different foci on performance that took place among team members and managers. Team effectiveness, efficiency, and innovativeness were emphasized by team members who were affected by information processing, whereas effectiveness and efficiency were highlighted by managers who were influenced by information storage and retrieval.

Employing the quality of reports as an indicator of performance in a classroom setting has been proved feasible. In his study of examining the relationship between team learning activities, diversity, and outcomes (i.e., perceived as the amount learned as a team and team performance), Van Offenbeek (2001) described team performance as the quality of a report as evaluated by judges and teachers. In his study, “quality” denotes satisfying pre-set standards, which in some studies constitutes salient performance criteria. Results proved that storing and retrieving, along with diverging interpretations, positively predicted team performance. This study also considered the quality of a group’s report as a team project performance indicator. Students groups were asked to submit a case study report on cross-cultural communication. The
researcher evaluated the reports based upon pre-set performance criteria and asked for consent from the instructors.

**Team processes.** Researchers have applied different processes in their team studies. In their study of the effect of team diversity on team outcomes, Horwitz and Horwitz (2007) paid close attention to decision making, creativity/innovation, and problem solving. Mohammed and Angell (2004), in another team diversity study, proposed leadership, coordination, and communication as team processes. Still another team diversity study, Schippers et al. (2003) only listed reflexivity as a team process. Apart from team diversity research, studies on team learning and relevant variables have adopted different approaches to the idea of team processes. Mathieu et al. (2000), in their study investigating the influence of shared mental models on team process and team performance, followed Klimoski and Mohammed (1994), by making use of incorporated strategy formation and coordination, communication, and cooperation as three dimensions of the team process. Drach-Zahavy and Somech (2001) integrated motivation, learning, information exchange, and negotiation as a team interaction process that is the key to success with respect to innovation. This research selects information exchange, communication, and team viability as team processes because these are more pertinent to interaction among team members.

Team viability is further discussed below because it is the only affective outcome that constitutes team processes in this research. Team viability represents the psychological output of a team, which is similar to the concept of membership continuity. It is not seen in the above team diversity and team learning studies, but it can be found in some studies on team effectiveness and team learning. Most of these studies combine team performance and team viability or interpersonal relations as team effectiveness representing team outcomes.
Affective outcomes reflect soft aspects of team effectiveness. In their review of team effectiveness from 1997 to 2007, Mathieu, Maynard, Rapp, and Gilson (2008) upheld the notion that members’ affective reactions and viability outcomes should not be neglected in a review of team outcomes. They revealed that team viability as a popular outcome measure received criticism in relation to its self-reported nature and construct confusion. Some researchers have tried to use supervisor ratings, but the issue of insufficient discriminate validity from team performance is still of great concern (Mathieu et al., 2008).

There are several team learning studies that have incorporated team viability as one of the outcome variables. Van den Bossche et al. (2006) followed Hackman’s (1989) perspective and defined team effectiveness as performance, viability, and learning. Their findings indicated that team belief and team learning behaviors helped with the formation of mutually shared cognition, which later contributed to a higher level of team effectiveness. Van den Bossche et al. (2011) adopted the multidimensional concept of team effectiveness and included team performance, team viability, and team learning as outcome measures in their team learning and shared cognition study. The mediator role of a shared mental model between team learning and team effectiveness was not supported in this study, and the authors suggested testing other mental models as mediators. Boon, Raes, Kyndt, and Dochy (2013) applied the team learning beliefs and behaviors (TLB&B) model proposed by Van den Bossche et al. (2006) to be used for a specific population (police and firefighter teams) and reached a similar finding, namely, that team learning mediated the relationship between team interpersonal beliefs and team effectiveness. They measured team effectiveness through team performance, viability, and team learning, which comprise the same criteria that were used by Van den Bossche et al. (2006). Ortega, Sánchez-Manzanares, Gil, and Rico (2010) pointed out that team learning mediated the
relationship between interpersonal context and team effectiveness as measured by team performance, satisfaction, and team viability in virtual project teams. The relationship between team viability and team performance has been validated by studies.

The meaning of the quality of interpersonal relations is similar to what is known as team viability. The quality of interpersonal relations refers to the extent to which team members believe that their capacity to work together is improved or sustained, and, the extent to which team members are willing to remain connected as part of a team (Edmondson, 1999). Zellmer-Bruhn and Gibson (2006) reported that team learning predicted task performance, as well as the quality of interpersonal relations. Andres and Shipps (2010) investigated team learning in technology-mediated distributed teams, and argued that team learning resulted in a higher level of productivity and an improved perception of the quality of interaction. Some researchers have viewed team viability as a sense of belonging, which is similar to the concept of social cohesion, whereas some researchers have treated team viability as team membership stability. Mathieu et al. (2008) also observed that team viability had become a generic term encompassing various affects or attitudinal measures. For example, in their meta-analysis, Balkundi and Harrison (2006) integrated satisfaction, team climate, commitment, and group cohesion as components of team viability. Team viability cares not only about members’ level of satisfaction, but also their willingness to continue to work as a unit (Sundstrom, De Meuse, & Futrell, 1990). This research accepted the definition of Sundstrom et al. (1990), which assumes that team viability takes account of team members’ level of satisfaction, involvement, and disposition for the purpose of continuing in the future to work as a team.
Based on the discussion presented up to this point in this chapter, a conceptual team learning research framework is proposed on the next page, one that includes student characteristics, team learning principles, and team outcomes.
Figure 1 Conceptual Framework of This Study

Student Characteristics
- Learning Self-efficacy
- Career Planning
- Motivation to learn

Team Learning Principles
- Boundary Spanning
- Reflection
- Experimentation

Team Outcomes
- Intent to Apply Team Learning Principles
- Team Project Performance
- Team Processes
Chapter 3: Methods

This chapter includes eight sections that concern the design and execution of the research in this study. The first two sections define the type of research that will be conducted and the research setting where the study will be held. The following section explains how participants will be selected for this research. The fourth section describes training design. The fifth section introduces instruments used in this research. The sixth section provides operational definitions of variables and their measures. The last two sections address data collection and the data analysis process.

Research Type

Mixed method was employed in this research because quantitative data in conjunction with qualitative data would provide a better picture of relationships among student characteristics, team learning principles, and team outcomes. According to Greene, Caracclli and Graham (1989), mixed method designs refer to studies that contain at least one quantitative method for collecting numbers and at least one qualitative method for collecting text. They also identified five purposes or rationales of mixed methodological studies: (a) triangulation, (b) complementarity, (c) development, (d) initiation, and (e) expansion. Creswell and Clark (2010) believed that triangulation, which seeks convergence of results from quantitative and qualitative methods studying the same phenomenon, is the most common and well-known mixed method approach. Comparing and contrasting quantitative and qualitative results, or confirming or extending such results, is the purpose of triangulation design, which is the mixed method design used in this research.

Correlational research was the main quantitative method used in this research; it is an associational method that strives for clarifying relationships among variables. Explanatory and prediction studies are fundamental types of correlational research. More complex correlational
techniques include multiple regression, discriminant function analysis, factor analysis, path analysis, and structural modeling. The purpose of correlational research is to understand important phenomena by investigating relationships among variables or predicting likely outcomes (Fraenkel, Wallen, & Hyun, 2012). In addition to the existence of these relationships, the strength of these relationships is also pertinent to correlational research (Ary, Jacobs, & Razavieh, 2010). No manipulation of variables exists in correlational research (Fraenkel et al., 2012). Although training that utilizes the team learning strategy is an HRD intervention in this study, less attention has been paid to differentiate how trainees receive this intervention, with all three team learning principles employed in the early stage of research. More attention has been geared toward the proposed new intervention, the team learning strategy. Because the effect of the team learning strategy has not been validated in any research, this research focused on employing a quantitative correlational research design to investigate relationships among student characteristics, team learning principles, and team outcomes in sampled teams. Specifically, among the three team learning principles, which one is more relevant to team outcome variables?

Among the five listed questions below, correlational research is appropriate for answering the first three questions.

1. What is the relationship between student characteristics and team outcomes?
2. What is the relationship between team learning principles and team outcomes?
3. What are the relationships among student characteristics, team learning principles, and team outcomes?
4. Were students aware that the workshop setting used the team learning strategy?
5. What is the likelihood of intent to apply team learning principles in the future?
Additionally, qualitative data were gathered through semi-structured interviews for the purpose of clarifying students’ answers to questions, and to reveal their perceptions that might have taken place during the workshop. Strengths of qualitative interviews such as semi-structured interviews include allowing topics to surface during conversation, paying attention to interviewees’ explanations and perspectives, and gathering a deeper and detailed understanding of factors relating to a topic (Morgan, 2013). Semi-structured interviews help delve deeper into connections among student characteristics, team learning principles, and team outcomes.

**Research Setting**

The one and only criterion for selecting research participants is business-related majors for undergraduate students. Undergraduate students who major in business with career goals of becoming future managers are our target research subjects. Setting a career goal to become a future manager is likely to increase a participant’s desire to recognize and transfer the learned team learning principles and cross-cultural communication skills to future job roles. A compulsory communication and presentation skills course for students in a business college at a private university in Taiwan had been identified as one research setting. Another research setting centered on an international business English conversation class for students majoring in international business at a public university in Taiwan. The other research setting involved an Organizational Development (OD) course for business administration students at a private university in Taiwan. Selecting business courses for research settings is common in organizational research, particularly for instances in which students exhibit similar behavior patterns in teams and will soon become employees in organizations.

Cross-cultural communication skills had been identified as the target workshop. There were two sessions held on solving cross-cultural communication problems, and each session lasted two hours, for a total of four hours. Cross-cultural communication skills are open skills,
which require trainees to apply learned principles and skills to different situations. Meanwhile, reflection, boundary spanning, and experimentation as team learning principles in use are also open skills that do not ask for definite courses of action. In the course design, the researcher incorporated activities and methods that may facilitate reflection, boundary spanning and experimentation.

**Research Participants**

Participants in this research were students whose majors are business-related; these students may have possible career goals of attaining managerial positions. Students in the business college at the private university are required to take the business communication and presentation skills course in their first year. There were 40 students divided into eight groups in the morning section and 35 students divided into seven groups in the afternoon section, for a total of 75 students. The researcher had contacted the course instructor by email and phone to explain the purpose and design of the research. All students who registered for the course were assumed to be participants, who understood that they could choose to withdraw from the research during any research phase. Moreover, the course instructor had assured students that their final grades were not impacted by whether or not they participated in the research. The course instructor and the researcher recruited students during a class session held before the target workshop on cross-cultural communication and provided details on the purpose, design, and process of the study. The confidentiality of students’ personal information was carefully protected by the researcher.

Students in the international business department at the public university are required to take business English classes. There were 30 students enrolled in the international business English conversation class. Students in business administration at the private university are required to take an organizational development (OD) class during their second year. There were
86 students registered for the course. The total number of students was 191 for the three targeted samples. As was the case with the first sample, the researcher had contacted the course instructor at the second and third universities by email and phone to explain the purpose and design of the research. Students might drop out of the research in any phase without any penalty or consequence with regard to their grades or academic standing. Their confidentiality was carefully protected by the researcher during the research period.

The researcher, who used to work as a trainer and training designer in a multinational company, designed the course content, incorporated components from team learning principles, and discussed this information with the instructors. The researcher played the role of a trainer in conducting the workshops, with assistance from the course instructor in each research setting. A survey containing three variables of student characteristics, including learning self-efficacy, career planning, and motivation to learn, was distributed before the workshop, whereas team learning principles, team processes, and participants’ intent to apply team learning principles were evaluated after students completed the workshop.

Semi-structured interviews were carried out after the workshops. The researcher recruited interviewees for semi-structured interviews in class sessions before and during the workshops, and successfully recruited thirteen student interviewees from among the three research settings. All interviews were conducted face-to-face. After confirming with interviewees, the researcher audiotaped and took notes to ensure conversations had been accurately recorded. Each interview lasted from 20 to 40 minutes.

**Training Design**

As described in Chapter Two, the training design of the four-hour workshop made use of team learning principles as the overall instructional strategy, among which boundary spanning, reflection, and experimentation had been incorporated into training activities. Students were
encouraged to ruminate on team processes involved in scenarios and cases, move beyond team boundaries to acquire information and resources, and contemplate alternatives and consequences during training activities. The three team learning elements and their corresponding strategies were applied to all case studies in the workshop.

The sessions began with a scenario that included a typical problem found in the workplace. This scenario not only introduced the problem-oriented learning process in the workshop, but also served the role of later presenting culture and more complex problem scenarios with regard to cross-cultural communication. There were three sections included in the solving cross-culture communication problems workshop: culture, cross-cultural communication problems (CCPs), and the CCP communication process. The culture section introduced definitions of culture and its role on team processes. The CCPs section defined problems and their three indicators while explaining consequences. Students must identify CCPs with provided definitions and indicators. The CCP communication process section described five phases to help solve CCPs. A case example was reviewed to help students learn each phase of the CCP communication process. Students were required to analyze other similar problems by applying team learning principles acquired during training activities.

A large section of the workshop centered on the five phases of the CCP communication process discussed above, during which students needed to apply each step to analyze an actual cross-cultural problem using Hofstede’s and Hall’s cultural dimensions. At the end of the sessions, students were required to analyze a similar case, following the same steps to complete a final group case study report. Different scenarios across each phase had been employed to require students to think as managers who would encounter similar situations in the workplace. The concept of identical elements had therefore been applied.
**Instrumentation**

Most items in the surveys are drawn from relevant literature; some were revised in line with the research context, that is, for students in business schools. For example, items with respect to motivation to learn were revised to reflect the motivation of students in courses rather than workers on the job. Before the workshop, information on learning self-efficacy, career planning, and motivation to learn was gathered by the researcher by using survey items. After the sessions, a survey on team learning principles, team processes, and intent to apply team learning principles was distributed to students to check their awareness of the principles and to perhaps note any change in team processes, as well as students’ possible inclination toward transferring the learned principles and skills to future job roles. Additionally, semi-structured interviews were conducted to further explore students’ transfer issues or perceptions with respect to differences in team processes after they completed the workshop designed with team learning principles as a focus. An interview protocol had been developed to assist in the implementation of semi-structured interviews. In particular, questions about team processes revolved around differences in terms of information exchange, communication, and viability, the last of which pertains to continuing to work as a team. Team case study reports were evaluated by the researcher using pre-determined criteria. Later, the instructors granted their consent to grades for student groups because it is difficult for course instructors who are not experts on training content to grade students’ reports, even with pre-established grading criteria.

**Operational Definitions of Variable**

There were nine variables operationalized in this research. The first group of variables was composed of student characteristics, which include learning self-efficacy, career planning, and motivation to learn. The second group consisted of three team learning principles, namely,
boundary spanning, reflection, and experimentation. The last group involved three team outcome variables: intent to apply team learning principles, team project performance, and team processes.

**Learning self-efficacy.** Self-efficacy is a commonly found trainee characteristic in transfer of training studies. In the context of classroom learning, as in this study, learning self-efficacy refers to a student’s judgment with respect to whether he/she is able to successfully learn and apply learned knowledge and skills taught in courses. Most training transfer studies have highlighted general self-efficacy in their research design, and only a few have paid special attention to learning self-efficacy.

Guthrie and Schwoerer (1994) measured learning self-efficacy with six items and obtained a Cronbach’s alpha of 0.82. Chiaburu et al. (2010) adopted eight items from Noe and Wilk (1993) with a Cronbach’s alpha of 0.84. In this study, Guthrie and Schwoerer’s (1994) six items were used for measuring learning self-efficacy because it is more appropriate for the learning context used in this research.

**Career planning.** Career planning was operationally defined as the extent to which a student is involved in outlining a career plan to achieve career goals. Some researchers have utilized the career thinking and planning subscale in Greenhaus’ career salience scale, while others have benefited from the career planning scale developed by Gould (1979). Of the two, Gould’s scale is more often used in training studies. Several researchers have deleted the last item in Gould’s career planning scale because it is pertinent to managerial careers, which may not be applicable to their research subjects. Cronbach’s alpha values for Gould’s six items in some studies have been 0.80 and above (Martineau, 1995; Noe & Schmitt, 1986). In this research, the seventh item was more than appropriate for the research purpose, and was retained for measuring students’ intent to work toward becoming managers at some future date.
Motivation to learn. Motivation to learn reflects a trainee’s aspiration to learn training content (Noe, 1986). In this study, it describes students’ desire to learn and engage in acquiring relevant knowledge and skills. Seventeen items, originating from Noe and Wilk (1993), were further reduced to seven items by Tharenou (2001) after applying a principal components factor analysis. Cronbach’s alphas were 0.82 and 0.81 for two time points in Tharenou’s study.

Boundary spanning. As one of the team learning principles embedded in the training design, boundary spanning was operationally defined as encouraging students to move beyond team boundaries to gain access to information and resources from internal and external stakeholders. In this study, boundary spanning was measured by examining whether students were cognizant of their boundary spanning behaviors during training activities. This approach is different from most other studies that have investigated team boundary spanning in research and development (R&D) or new product development teams in organizations. Four items that evaluate boundary spanning behaviors were selected and adapted from previous research (Ancona & Caldwell, 1992a; Marrone, 2004; Marrone et al., 2007). No Cronbach’s alpha value for the same set of items is available.

Reflection. Reflection as a team learning principle helps students ruminate on methods and processes in use. It was operationally defined as a process by which students review team processes and practices to propose improvements. This research chose and modified three items from the five reflexivity items from De Dreu (2007), in which the second and fifth item were deleted because students may not have existing working methods to complete their tasks and may not have encountered change during the workshop. The Cronbach alpha for De Dreu’s five items was 0.79. Additionally, one item concerning information exchange was selected from Schippers et al. (2007) to make the concept more complete. It is worth noting that most
reflexivity measures used in studies are actually assessing reflection in that they do not necessarily include the concept of criticism or change to reflect the nature of reflexivity.

**Experimentation.** Experiment as used here is not an experimental process as defined by science. It refers to whether students consider alternative methods for completing goals during the workshop. Specifically, it emphasizes a mindset for exploring alternative options and assessing their possible consequences. Business model experimentation is a new concept, and it is difficult to find an existing survey. The only available one is from research done by Gibson and Vermeulen (2003), but the three items they presented did not seem to be appropriate for the classroom setting pertaining to this research. Four items were developed to describe the experimental process used by teams, based upon the concept of experimentation.

**Intent to apply team learning principles.** In the present context, applying team learning principles denotes the extended application of conditions and relevant team learning behaviors absorbed during training. Intent to apply team learning principles in this research reflects a student’s inclination to use acquired team learning principles in terms of boundary spanning, reflection, and experimentation in the context of their current and future roles. Three items were derived from Clemenz (2001), which were modified slightly in light of the work of Neo and Schmitt (1986). These items were further revised due to differences among workers in organizations and students in classes. A Cronbach’s alpha of 0.91 was reported in Clemenz’s study.

**Team project performance.** Team performance can be defined as the extent to which a team is able to attain its predetermined time, cost, and quality objectives (Schrader & Göepfert, 1996). Researchers have applied various performance indicators to measure accomplishments of a team. In this study, team project performance focuses on the evaluation of the quality of final
case study reports in terms of feasibility, practicality, completeness, and logical organization. Semi-structured interviews were conducted to help review team performance. Performance criteria for evaluating final case study reports are listed in Table 10 on page 77.

**Team processes.** In addition to the evaluation of final case study reports, this research also pays attention to the improvement of team processes as evidenced by the workshop on cross-cultural communication, which uses the team learning strategy. Team processes in this research refer to changes in team functions in view of information exchange, communication, or viability. Team processes were evaluated through the use of survey items and semi-structured interviews. Four items regarding exchanging information were revised from Drach-Zahavy and Somech (2001), with a reliability (alpha) level of .79. Three communication items with a Cronbach’s alpha of .89 were selected from Gibson and Vermeulen (2003), whose research focuses on team learning, which is more pertinent in this context than communication items taken from Mathieu et al. (2000) and Mohammed and Angell (2004). After reviewing items of team viability used in different studies, five items from Tekleab, Quigley, and Tesluk (2009) were chosen for evaluating team viability because they are comparatively inclusive and easy to understand. The Cronbach’s alpha reliability coefficient for these five items is .89. Interviews helped clarify whether team processes had been improved, along with the use of the team learning strategy during the workshop.

**Data Collection Procedure**

A three-phase research design was employed in this research to explore relationships among student characteristics, team learning principles, and team outcomes in the cross-cultural communication workshop held at three universities in Taiwan. In the first phase, team learning principles and training transfer strategy were designed into the workshop on cross-cultural communication. In the second phase, students attended sessions that were designed to employ
the team learning strategy. The second phase involved surveys and interviews. Before the workshop, students received a survey concerning their personal characteristics. After the workshop, students were asked to assess their awareness concerning team learning principles and changes in team processes, as well as their intent to apply team learning principles in a future workplace. In addition to their acknowledgement of team learning principles, it is hoped that students displayed their desire to apply team learning principles. Semi-structured interviews were implemented following surveys. In the third phase, the researcher evaluated final case study reports and later obtained consent from the course instructors. The procedure of this research is summarized in Table 1 on the next page.
### Table 1

**Research Procedure**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Procedure</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I:</td>
<td>• Designed the workshop with the team learning principles and training transfer strategy</td>
<td>• Training slides and notes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Trainee handbook</td>
</tr>
<tr>
<td>Phase II:</td>
<td>• Conducted a pre-learning survey on student characteristics</td>
<td>• Survey results</td>
</tr>
<tr>
<td></td>
<td>• Conducted a post-learning survey on team outcome variables</td>
<td>• Interview transcripts</td>
</tr>
<tr>
<td></td>
<td>• Conducted semi-structured interviews</td>
<td></td>
</tr>
<tr>
<td>Phase III:</td>
<td>• Evaluated team final case study reports</td>
<td>• Team final case study report grades</td>
</tr>
<tr>
<td>Team Performance</td>
<td>• Descriptive statistics</td>
<td>• Quantitative results</td>
</tr>
<tr>
<td></td>
<td>• Quantitative correlation and regression analysis</td>
<td>• Qualitative results</td>
</tr>
<tr>
<td></td>
<td>• Qualitative analysis</td>
<td></td>
</tr>
<tr>
<td>Data Analysis</td>
<td>• Presentation and integration of findings</td>
<td>• Discussion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Implications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Future research</td>
</tr>
<tr>
<td>Integration of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative and Qualitative Data</td>
<td>• Presentative and integration of findings</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Data Analysis**

Collected survey data from this study were analyzed by applying SPSS quantitative software. First of all, demographics from students were analyzed and presented by frequencies and percentages. Secondly, correlation quantitative analysis was used to examine the first three research questions previously listed. Correlation analysis helped clarify the pair-wise relationship among variables. Regression analysis was utilized to check the relationship among variables. Last, qualitative analysis helped investigate potential connections among student characteristics, team learning principles, and team outcomes. Exploration of transfer issues is also of importance in this research. Research questions and accompanying instruments are summarized in Table 2 below.
<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Sources</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the relationship between student characteristics and team outcomes?</td>
<td>Learning Self-Efficacy</td>
<td>Six items</td>
</tr>
<tr>
<td></td>
<td>Career Planning</td>
<td>Six items</td>
</tr>
<tr>
<td></td>
<td>Motivation to learn</td>
<td>Seven items</td>
</tr>
<tr>
<td></td>
<td>Intent to Apply Team Learning Principles</td>
<td>Nine items</td>
</tr>
<tr>
<td></td>
<td>Team Processes</td>
<td>Twelve items</td>
</tr>
<tr>
<td>2. What is the relationship between team learning principles and team outcomes?</td>
<td>Boundary Spanning</td>
<td>Four items</td>
</tr>
<tr>
<td></td>
<td>Reflection</td>
<td>Four items</td>
</tr>
<tr>
<td></td>
<td>Experimentation</td>
<td>Four items</td>
</tr>
<tr>
<td></td>
<td>Intent to Apply Team Learning Principles</td>
<td>Nine items</td>
</tr>
<tr>
<td></td>
<td>Team Project Performance</td>
<td>Grades</td>
</tr>
<tr>
<td></td>
<td>Team Processes</td>
<td>Twelve items</td>
</tr>
<tr>
<td>3. What are the relationships among student characteristics, team learning principles, and team outcomes?</td>
<td>Learning Self-Efficacy</td>
<td>Six items</td>
</tr>
<tr>
<td></td>
<td>Career Planning</td>
<td>Six items</td>
</tr>
<tr>
<td></td>
<td>Motivation to learn</td>
<td>Seven items</td>
</tr>
<tr>
<td></td>
<td>Boundary Spanning</td>
<td>Four items</td>
</tr>
<tr>
<td></td>
<td>Reflection</td>
<td>Four items</td>
</tr>
<tr>
<td></td>
<td>Experimentation</td>
<td>Four items</td>
</tr>
<tr>
<td></td>
<td>Intent to Apply Team Learning Principles</td>
<td>Nine items</td>
</tr>
<tr>
<td></td>
<td>Team Project Performance</td>
<td>Grades</td>
</tr>
<tr>
<td></td>
<td>Team Processes</td>
<td>Twelve items</td>
</tr>
<tr>
<td>4. Were students aware that the workshop setting used the team learning strategy?</td>
<td>Boundary Spanning</td>
<td>Four items</td>
</tr>
<tr>
<td></td>
<td>Reflection</td>
<td>Four items</td>
</tr>
<tr>
<td></td>
<td>Experimentation</td>
<td>Four items</td>
</tr>
<tr>
<td></td>
<td>Interview Protocol</td>
<td>Interview Questions</td>
</tr>
<tr>
<td>5. What is the likelihood of intent to apply team learning principles in the future?</td>
<td>Interview Protocol</td>
<td>Interview Questions</td>
</tr>
</tbody>
</table>
Table 3

*Measure for Learning Self-Efficacy*

<table>
<thead>
<tr>
<th>Learning Self-Efficacy (six items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am confident that I can succeed in courses.</td>
</tr>
<tr>
<td>2. I do well in courses.</td>
</tr>
<tr>
<td>3. I am able to learn information and skills in courses.</td>
</tr>
<tr>
<td>4. I am able to apply skills used in courses.</td>
</tr>
<tr>
<td>5. I am able to apply what I have learned in courses.</td>
</tr>
<tr>
<td>6. I am sure I will be able to overcome obstacles in future jobs that may hinder my use of new knowledge and skills.</td>
</tr>
</tbody>
</table>

Table 4

*Measure for Career Planning*

<table>
<thead>
<tr>
<th>Career Planning (seven items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have not yet really decided what my career objectives should be (reverse).</td>
</tr>
<tr>
<td>2. I have a plan for my career.</td>
</tr>
<tr>
<td>3. I have a strategy for achieving my career goals.</td>
</tr>
<tr>
<td>4. I know what I need to do to reach my career goals.</td>
</tr>
<tr>
<td>5. My career objectives are not clear (reverse).</td>
</tr>
<tr>
<td>6. I change my career objectives frequently (reverse).</td>
</tr>
<tr>
<td>7. I have decided to make management a career.</td>
</tr>
</tbody>
</table>
Table 5

*Measure for Motivation to Learn*

<table>
<thead>
<tr>
<th>Motivation to Learn (seven items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I try to learn as much as I can from courses.</td>
</tr>
<tr>
<td>2. I tend to learn more from courses than other students.</td>
</tr>
<tr>
<td>3. I am usually motivated to learn skills emphasized in courses.</td>
</tr>
<tr>
<td>4. I would like to improve my skills.</td>
</tr>
<tr>
<td>5. I am willing to exert an effort in courses to improve skills.</td>
</tr>
<tr>
<td>6. Taking courses is not a high priority for me (reverse).</td>
</tr>
<tr>
<td>7. I am willing to invest effort into improving my skills and competencies.</td>
</tr>
</tbody>
</table>

Table 6

*Measure for Boundary Spanning*

<table>
<thead>
<tr>
<th>Boundary Spanning (four items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the workshop, to what extent did:</td>
</tr>
<tr>
<td>1. my team reach out to individuals outside of my team that can provide relevant expertise or ideas?</td>
</tr>
<tr>
<td>2. my team collect information from outsiders that benefits our project?</td>
</tr>
<tr>
<td>3. my team acquire information for the team?</td>
</tr>
<tr>
<td>4. my team review our team ideas with outsiders?</td>
</tr>
</tbody>
</table>
Table 7

**Measure for Reflection**

<table>
<thead>
<tr>
<th>Reflection (four items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the workshop, to what extent did:</td>
</tr>
<tr>
<td>1. my team review its objectives?</td>
</tr>
<tr>
<td>2. my team discuss whether our team is working together efficiently?</td>
</tr>
<tr>
<td>3. my team evaluate the results of team actions?</td>
</tr>
<tr>
<td>4. my team discuss how well we exchange information?</td>
</tr>
</tbody>
</table>

Table 8

**Measure for Experimentation**

<table>
<thead>
<tr>
<th>Experimentation (four items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the workshop, to what extent did:</td>
</tr>
<tr>
<td>1. my team take time to figure out ways to improve our performance?</td>
</tr>
<tr>
<td>2. my team evaluate the impact of team actions?</td>
</tr>
<tr>
<td>3. my team review the consequences of our ideas?</td>
</tr>
<tr>
<td>4. my team think of different scenarios?</td>
</tr>
</tbody>
</table>

### Table 9

**Measure for Intent to Apply Team Learning Principles**

<table>
<thead>
<tr>
<th>Intent to Apply Team Learning Principles (nine items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Searching for information outside of my team I practiced during the workshop will be useful to me.</td>
</tr>
<tr>
<td>2. I plan to use searching for information outside of my team I practiced during the workshop in my current role as a team member.</td>
</tr>
<tr>
<td>3. I plan to use searching for information outside of my team I practiced during the workshop in my future job role as a manager.</td>
</tr>
<tr>
<td>4. Reflecting on team processes I practiced during the workshop will be useful to me.</td>
</tr>
<tr>
<td>5. I plan to use reflecting on team processes I practiced during the workshop in my current role as a team member.</td>
</tr>
<tr>
<td>6. I plan to use reflecting on team processes I practiced during the workshop in my future job role as a manager.</td>
</tr>
<tr>
<td>7. Considering alternatives and their consequences I practiced during the workshop will be useful to me.</td>
</tr>
<tr>
<td>8. I plan to use considering alternatives and their consequences I practiced during the workshop in my current role as a team member.</td>
</tr>
<tr>
<td>9. I plan to use considering alternatives and their consequences I practiced during the workshop in my future job role as a manager.</td>
</tr>
</tbody>
</table>
Table 10

*Measure for Team Project Performance*

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>The final solution has followed the cross-cultural communication process.</td>
<td>15</td>
</tr>
<tr>
<td>Cross-cultural communication problems have been clearly identified.</td>
<td>10</td>
</tr>
<tr>
<td>The final solution is feasible.</td>
<td>15</td>
</tr>
<tr>
<td>The final solution has placed all cultural elements into consideration.</td>
<td>10</td>
</tr>
<tr>
<td>The final solution has been analyzed with Hofstede and Hall’s model.</td>
<td>10</td>
</tr>
<tr>
<td>The final solution has provided practical and plausible suggestions.</td>
<td>15</td>
</tr>
<tr>
<td>Alternative solutions have been discussed in the final case study report.</td>
<td>15</td>
</tr>
<tr>
<td>The final case study report is logically structured.</td>
<td>10</td>
</tr>
</tbody>
</table>
Table 11

*Measure for Team Processes*

<table>
<thead>
<tr>
<th>Team Processes (twelve items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My team shared information within the team and did not keep information to itself (information exchange).</td>
</tr>
<tr>
<td>2. My team informed other members about different issues (information exchange).</td>
</tr>
<tr>
<td>3. My team tried to exchange information and knowledge (information exchange).</td>
</tr>
<tr>
<td>4. My teammates always looked for different interpretations or perspectives to a problem (information exchange).</td>
</tr>
<tr>
<td>5. There is open communication within this team (communication).</td>
</tr>
<tr>
<td>6. Everyone has an opportunity to express his/her opinions (communication).</td>
</tr>
<tr>
<td>7. Team members maintained a high level of idea exchange (communication).</td>
</tr>
<tr>
<td>8. My team should not have continued to function as a team (team viability).</td>
</tr>
<tr>
<td>9. My team was not capable of working together as a unit (team viability).</td>
</tr>
<tr>
<td>10. My team probably should never work together in the future (team viability).</td>
</tr>
<tr>
<td>11. If I had the opportunity, I would have switched teams (team viability).</td>
</tr>
<tr>
<td>12. I would be happy to work with my team members on other projects in the future (team viability).</td>
</tr>
</tbody>
</table>
Chapter 4: Results

This chapter is composed of four sections. The first section describes the demographic characteristics of the respondents. The second section presents the results of the descriptive statistics, including the mean and standard deviation of each variable. The third section presents the intercorrelation table listing the variables and internal consistency reliability coefficients of the instrument. The last section addresses the five research questions that were proposed in Chapter One.

Demographic Characteristics

Demographic information was collected from undergraduate students who attended two-session cross-cultural communication workshops conducted at the three universities between May and June 2017. Invitations were sent out by three cooperating instructors to 191 students who registered for the three identified courses. Initial surveys were administered to 191 students at the end of the first session, and 160 responses were received. The same number of surveys was distributed at the end of the second session, resulting in a total of 148 responses. The response rates were 83.77% and 77.49% for each administration of the instrument. Twelve responses were eliminated because respondents filled out only one survey rather than two. The final number of valid responses totaled 148, including the first and second surveys from the same students. The response rates for Feng Chia University were much lower than for the other two institutions because the sessions occurred near the end of the semester, at a time in which students were overwhelmed by other deadlines and commitments, and hence did not pay full attention to the workshop. A summary of the final response rates is shown in Table 12.
Table 12

Summary of Survey Responses

<table>
<thead>
<tr>
<th>University</th>
<th>Registered Students</th>
<th>Survey</th>
<th>Number of Responses</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chang Gung University</td>
<td>75</td>
<td>Survey 1</td>
<td>74</td>
<td>98.67%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Survey 2</td>
<td>73</td>
<td>97.33%</td>
</tr>
<tr>
<td>National Taipei</td>
<td>30</td>
<td>Survey 1</td>
<td>27</td>
<td>90.00%</td>
</tr>
<tr>
<td>University of Business</td>
<td></td>
<td>Survey 2</td>
<td>26</td>
<td>86.67%</td>
</tr>
<tr>
<td>Feng Chia University</td>
<td>86</td>
<td>Survey 1</td>
<td>59</td>
<td>68.60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Survey 2</td>
<td>49</td>
<td>56.98%</td>
</tr>
<tr>
<td>Total</td>
<td>191</td>
<td>Survey 1</td>
<td>160</td>
<td>83.77%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Survey 2</td>
<td>148</td>
<td>77.49%</td>
</tr>
</tbody>
</table>

Table 13 shows the frequencies and the percentages of respondents by gender, age, major, grade, extra-curricular activities, and work. Note that the data on age was missing for one student. More female than male students participated. The majority of students were in their sophomore years, at the ages of 20 or 21. Most respondents were business students majoring in Business Administration, International Business, Industrial Design, or Information Management. Less than half of students, 40.54%, took part in extra-curricular activities during the semester. Only 23.6% of students were working part-time jobs, whereas 76.4% were not working outside of class.
Table 13

Demographic Characteristics of Responses (n=148)

<table>
<thead>
<tr>
<th>Categories</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>55</td>
<td>37.2</td>
</tr>
<tr>
<td>Female</td>
<td>93</td>
<td>62.8</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>10</td>
<td>6.8</td>
</tr>
<tr>
<td>20</td>
<td>54</td>
<td>36.5</td>
</tr>
<tr>
<td>21</td>
<td>47</td>
<td>31.8</td>
</tr>
<tr>
<td>22</td>
<td>25</td>
<td>16.9</td>
</tr>
<tr>
<td>23</td>
<td>10</td>
<td>6.8</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Major</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial and Business Management</td>
<td>14</td>
<td>9.5</td>
</tr>
<tr>
<td>Health Care Management</td>
<td>11</td>
<td>7.4</td>
</tr>
<tr>
<td>Information Management</td>
<td>20</td>
<td>13.5</td>
</tr>
<tr>
<td>Industrial Design</td>
<td>25</td>
<td>16.9</td>
</tr>
<tr>
<td>International Business</td>
<td>26</td>
<td>17.6</td>
</tr>
<tr>
<td>Business Administration</td>
<td>46</td>
<td>31.1</td>
</tr>
<tr>
<td>Marketing Management</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>2.7</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>43</td>
<td>29.1</td>
</tr>
<tr>
<td>Sophomore</td>
<td>67</td>
<td>45.3</td>
</tr>
<tr>
<td>Junior</td>
<td>31</td>
<td>20.9</td>
</tr>
<tr>
<td>Senior</td>
<td>7</td>
<td>4.7</td>
</tr>
<tr>
<td>Extra-curricular activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>60</td>
<td>40.5</td>
</tr>
<tr>
<td>No</td>
<td>88</td>
<td>59.5</td>
</tr>
<tr>
<td>Work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Part-time)</td>
<td>35</td>
<td>23.6</td>
</tr>
<tr>
<td>Yes (Full-time)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No</td>
<td>113</td>
<td>76.4</td>
</tr>
</tbody>
</table>

Interviews were employed to investigate students’ ideas and opinions concerning the workshop and their team processes. The purpose of the semi-structured interviews was to help verify or extend results from the quantitative data. Thirteen students at the three universities provided responses to research questions in relation to their characteristics, observations of their
team processes, awareness of the use of the team learning strategy, and their likelihood to apply team learning principles in the future. The demographic backgrounds of the student interviewees are summarized in Table 14.

Table 14

Interviewees’ Background Information (n=13)

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Gender</th>
<th>Grade</th>
<th>Major</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Female</td>
<td>Sophomore</td>
<td>Industrial and Business Management</td>
<td>Chang Gung University</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>Sophomore</td>
<td>Industrial and Business Management</td>
<td>Chang Gung University</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>Freshman</td>
<td>Healthcare Management</td>
<td>Chang Gung University</td>
</tr>
<tr>
<td>4</td>
<td>Female</td>
<td>Sophomore</td>
<td>Healthcare Management</td>
<td>Chang Gung University</td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>Senior</td>
<td>Electronic Engineering</td>
<td>Chang Gung University</td>
</tr>
<tr>
<td>6</td>
<td>Male</td>
<td>Senior</td>
<td>Electronic Engineering</td>
<td>Chang Gung University</td>
</tr>
<tr>
<td>7</td>
<td>Female</td>
<td>Junior</td>
<td>International Business</td>
<td>National Taipei University of Business</td>
</tr>
<tr>
<td>8</td>
<td>Female</td>
<td>Junior</td>
<td>International Business</td>
<td>National Taipei University of Business</td>
</tr>
<tr>
<td>9</td>
<td>Male</td>
<td>Sophomore</td>
<td>Business Administration</td>
<td>Feng Chia University</td>
</tr>
<tr>
<td>10</td>
<td>Female</td>
<td>Sophomore</td>
<td>Business Administration</td>
<td>Feng Chia University</td>
</tr>
<tr>
<td>11</td>
<td>Female</td>
<td>Sophomore</td>
<td>Business Administration</td>
<td>Feng Chia University</td>
</tr>
<tr>
<td>12</td>
<td>Female</td>
<td>Sophomore</td>
<td>Business Administration</td>
<td>Feng Chia University</td>
</tr>
<tr>
<td>13</td>
<td>Male</td>
<td>Sophomore</td>
<td>Business Administration</td>
<td>Feng Chia University</td>
</tr>
</tbody>
</table>

Descriptive Statistics

Table 15 presents the descriptive statistics of the study. The independent variables, including learning self-efficacy, career planning, motivation to learn, and team learning principles, were measured on a five-point Likert-type scale. Similarly, the dependent variables, including team processes and intent to apply team learning principles, were measured on a seven-point Likert-type scale. Among the three student characteristics, the mean of career planning was comparatively lower than the means of the other two student characteristics.
Meanwhile, reflection and experimentation scored slightly higher than boundary spanning. The mean score of intent to apply team learning principles was higher than that of team processes.

Table 15

*Number of Items, Means, and Standard Deviations of all Constructs and Variables*

<table>
<thead>
<tr>
<th>Construct/Variable</th>
<th>Number of Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Survey One</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Self-Efficacy</td>
<td>6</td>
<td>3.697</td>
<td>1.527</td>
</tr>
<tr>
<td>Career Planning</td>
<td>7</td>
<td>3.109</td>
<td>0.947</td>
</tr>
<tr>
<td>Motivation to Learn</td>
<td>7</td>
<td>3.676</td>
<td>1.156</td>
</tr>
<tr>
<td><strong>Survey Two</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Learning Principles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boundary Spanning</td>
<td>4</td>
<td>3.743</td>
<td>1.490</td>
</tr>
<tr>
<td>Reflection</td>
<td>4</td>
<td>3.853</td>
<td>1.512</td>
</tr>
<tr>
<td>Experimentation</td>
<td>4</td>
<td>3.843</td>
<td>1.475</td>
</tr>
<tr>
<td><strong>Team Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Processes</td>
<td>12</td>
<td>4.542</td>
<td>2.180</td>
</tr>
<tr>
<td>Intent to Apply Team Learning Principles</td>
<td>9</td>
<td>5.331</td>
<td>3.379</td>
</tr>
<tr>
<td><strong>Team Performance</strong></td>
<td>1</td>
<td>85.92</td>
<td>3.741</td>
</tr>
</tbody>
</table>

**Correlation Analysis and Reliability**

Table 16 shows the results of the pairwise correlation analysis for the variables of the research. Pearson product-moment correlation coefficients are listed in the table; the signs of the coefficients denote the directions of the relationship; the values of the coefficients signify the strength of the relationship. Cohen (1988) provided a general guideline on determining the strength of the correlation: correlations with absolute values less than 0.3 are considered weak, between 0.3 and 0.5 moderate, and greater than 0.5 strong. Reflection, boundary spanning, and experimentation showed a strong degree of correlation with intent to apply team learning.
principles and team processes, but not with team project performance. Team project performance was the only variable that was not related to any other variables in the research.

Table 16

*Pearson Correlation Coefficients*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learning Self-efficacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Career Planning</td>
<td>.342**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Motivation to Learn</td>
<td>.592**</td>
<td>.313**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Reflection</td>
<td>.308**</td>
<td>.097</td>
<td>.199*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Boundary Spanning</td>
<td>.207*</td>
<td>.092</td>
<td>.128</td>
<td>.817**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Experimentation</td>
<td>.292**</td>
<td>.070</td>
<td>.209*</td>
<td>.855**</td>
<td>.857**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Intent to Apply Team Learning Principles</td>
<td>.204*</td>
<td>.150</td>
<td>.309**</td>
<td>.665**</td>
<td>.655**</td>
<td>.663**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Team Project Performance</td>
<td>.098</td>
<td>.056</td>
<td>.120</td>
<td>.025</td>
<td>-.038</td>
<td>-.008</td>
<td>.010</td>
<td></td>
</tr>
<tr>
<td>9. Team Processes</td>
<td>.279**</td>
<td>.176*</td>
<td>.309**</td>
<td>.734**</td>
<td>.643**</td>
<td>.672**</td>
<td>.731**</td>
<td>.161</td>
</tr>
</tbody>
</table>

*p < .05, two tailed. ** p < .01, two tailed.*

Reliability refers to the consistency of test scores and responses provided by respondents. Internal consistency reliability focuses on whether individual questions or subsets of questions fit together and measure the same concepts (Huck, 2012). Cronbach’s alpha is a widely accepted measure of internal consistency. The required level of reliability varies depending on the extent to which a researcher will make use of the results. The need for accurate measurement increases along with the significance of the consequences of decisions and interpretation (Ary, Jacobs, Sorensen & Razavieh, 2010). In general, internal consistency coefficients between .70 and .90 are considered acceptable for most instruments, and a coefficient of .90 suggests a highly reliable instrument (McMillan & Schumacher, 2001).

Reliability analysis was conducted for all survey items. Among the seven items in career planning, Item Seven, “I have decided to make management a career,” was suggested for modification or deletion because its value in the Corrected Item-Total Correlation column in the Item Total Statistics Table in SPSS was .188, which, being less than .3, indicates a poorly discriminating item. It implies that an item that correlated weakly to other items may not
constitute a useful component for a consolidated rating scale (Morgan, Leech, Gloeckner, & Barrett, 2012). Additionally, SPSS results showed that the Cronbach’s alpha would increase from .799 to .829 if Item Seven is removed.

Table 17

*Internal Consistency Reliability Coefficients for Instruments in this Research*

<table>
<thead>
<tr>
<th>Construct/Variable</th>
<th>Number of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Survey One</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Self-Efficacy</td>
<td>6</td>
<td>.902</td>
</tr>
<tr>
<td>Career Planning</td>
<td>7</td>
<td>.799</td>
</tr>
<tr>
<td>Motivation to Learn</td>
<td>7</td>
<td>.809</td>
</tr>
<tr>
<td><strong>Survey Two</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Learning Principles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boundary Spanning</td>
<td>4</td>
<td>.891</td>
</tr>
<tr>
<td>Reflection</td>
<td>4</td>
<td>.940</td>
</tr>
<tr>
<td>Experimentation</td>
<td>4</td>
<td>.929</td>
</tr>
<tr>
<td><strong>Team Outcomes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Exchange</td>
<td>4</td>
<td>.918</td>
</tr>
<tr>
<td>Communication</td>
<td>3</td>
<td>.909</td>
</tr>
<tr>
<td>Team Viability</td>
<td>5</td>
<td>.872</td>
</tr>
<tr>
<td>Intent to Apply Team Learning Principles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boundary Spanning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td>3</td>
<td>.956</td>
</tr>
<tr>
<td>Experimentation</td>
<td>3</td>
<td>.968</td>
</tr>
<tr>
<td><strong>Questions Proposed by the Study</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Question 1. What is the relationship between student characteristics and team outcomes?** Correlation and regression analyses were conducted to answer this question. Table 16 shows that learning self-efficacy and motivation to learn is positively correlated with intent to apply team learning principles and team processes, but not with team project performance.
Tables 18 and 19 present that motivation to learn is a reliable measure for predicting intent to apply team learning principles and team processes.

Pearson correlations were calculated to assess the relationship between student characteristics and team outcomes. Table 16 indicates correlations between any pairs of variables. Learning self-efficacy was positively correlated with intent to apply team learning principles ($\gamma = .204, p < .05$) and team processes ($\gamma = .279, p < .01$). There was no association between learning self-efficacy and team project performance. Career planning was positively associated with team processes ($\gamma = .176, p < .05$). Specifically, among the three team processes of interest, information exchange, communication, and team viability, career planning was connected solely to team viability ($\gamma = .199, p < .05$). Motivation to learn was positively related to intent to apply team learning principles ($\gamma = .309, p < .01$) and team processes ($\gamma = .309, p < .01$). There was no correlation between motivation to learn and team project performance. In brief, the relationships between learning self-efficacy, career planning, motivation to learn, intent to apply team learning principles, and team processes were mostly weak, with correlation coefficients ($\gamma$) less than .3. In particular, motivation to learn demonstrated a moderate correlation with intent to apply team learning principles and team processes, with a correlation coefficient ($\gamma$) equal to .309.

Forward multiple linear regression analysis was conducted to investigate how well learning self-efficacy, career planning, and motivation to learn predict intent to apply team learning principles as team outcomes. This technique helps generate a model that contains most, if not all, significant predictors for dependent variables, by virtue of adding the variable that has the smallest $p$ value and repeating it until all variables that are added have obtained a $p$ value that is equal to or less than .05 (Morgan et al., 2012). The final model in Table 18 includes solely
motivation to learn as the predictor, which represents 9.5% of the variance in intent to apply team learning principles ($F(1,143)=16.178, p < .001$, adjusted $R^2 = .095$). The same procedure was conducted to investigate how well learning self-efficacy, career planning, and motivation to learn predict team processes. As shown in Table 19, motivation to learn is the single predictor of team processes and can explain 8.3% of the variance in team processes ($F(1,143)=13.949, p < .001$, adjusted $R^2 = .083$).

Thus, in terms of the research question, there was a relationship between student characteristics and team outcomes. The results of correlation and regression analyses indicated that learning self-efficacy and motivation to learn were positively weakly to, at most, moderately correlated with intent to apply team learning principles and team processes. However, no correlation has been found between student characteristics and team project performance. Motivation to learn was the one student characteristic that predicted 9.5% of the variance in intent to apply team learning principles and 8.3% of the variance in team processes.

Table 18

Summary of Forward Linear Regression Analysis for Motivation to Learn Predicting Intent to Apply Team Learning Principles (n=148)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>SE $B$</th>
<th>Beta</th>
<th>$t$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>25.269</td>
<td>5.671</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation to learn</td>
<td>.885</td>
<td>.220</td>
<td>.319</td>
<td>4.022</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: $R^2 = .102; F(1,143)=16.178, p < .001$. 

Table 19

Summary of Forward Linear Regression Analysis for Motivation to Learn Predicting Team Processes (n=148)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>42.972</td>
<td>6.400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation to learn</td>
<td>.927</td>
<td>.248</td>
<td>.298</td>
<td>3.735</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: $R^2 = .098$; $F(1,143)=13.949, p < .001$.

**Question 2. What is the relationship between team learning principles and team outcomes?** Similarly, correlation and regression analyses were conducted to answer this question.

Table 16 shows that reflection, boundary spanning, and experimentation are positively correlated with intent to apply team learning principles and team processes, but not team project performance. Table 20 shows that reflection together with boundary spanning predict intent to apply team learning principles. Table 21 indicates that reflection predict team processes.

Pearson correlations were calculated to assess the relationship between team learning principles and team outcomes. Correlations between variables are presented in Table 16. Results indicated that reflection was positively correlated with intent to apply team learning principles ($\gamma = .665, p < .01$) and team processes ($\gamma = .734, p < .01$). There was no association between reflection and team project performance. Boundary spanning was associated with intent to apply team learning principles ($\gamma = .655, p < .01$) and team processes ($\gamma = .643, p < .01$). Likewise, experimentation had an association with intent to apply team learning principles ($\gamma = .663, p < .01$) and team processes ($\gamma = .672, p < .01$). Neither boundary spanning nor experimentation was correlated with team project performance.

Forward multiple linear regression analysis was conducted to investigate how well reflection, boundary spanning, and experimentation predict intent to apply team learning principles and team processes as team outcomes. The standardized coefficients and significance
values for all models are displayed in Table 20. The model that included reflection along with boundary spanning predicted the most variance in intent to apply team learning principles, \( F(2,141)=66.143, p < .001 \), adjusted \( R^2 = .477 \). This indicates that 47.7% of the variance in intent to apply team learning principles was explained by this model. Moreover, as shown in Table 21, reflection is the sole predictor of team processes, accounting for 53.9% of the variance in team processes \( (F(1,142)=168.459, p < .001, \text{ adjusted } R^2 = .539) \).

Thus, in terms of the research question, there was a relationship between team learning principles and team outcomes. The results showed that reflection, boundary spanning, and experimentation were strongly positively correlated with intent to apply team learning principles and team processes, with all correlation coefficients \( \gamma \) larger than .5, but no correlation has been found between team learning principles and team project performance. Furthermore, reflection predicted 53.9% of the variance in team processes, whereas reflection in conjunction with boundary spanning predicted 47.7% of the variance in intent to apply team learning principles. Compared to student characteristics in Question 1, team learning principles showed a stronger relationship with team outcome variables.

Table 20

*Summary of Forward Multiple Linear Regression Analysis for Reflection and Boundary Spanning Predicting Intent to Apply Team Learning Principles (n=148)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>( R^2 )</th>
<th>( \Delta R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>13.783</td>
<td>3.272</td>
<td>.208</td>
<td>.668**</td>
<td>.447</td>
</tr>
<tr>
<td>Reflection</td>
<td>2.231</td>
<td>.208</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Model 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>10.778</td>
<td>3.307</td>
<td>.350</td>
<td>.394**</td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td>1.317</td>
<td>.350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boundary Spanning</td>
<td>1.143</td>
<td>.357</td>
<td>.335*</td>
<td>.484</td>
<td>.037</td>
</tr>
</tbody>
</table>

\*p < .05; **p < .001.\*
Table 21

*Summary of Forward Linear Regression Analysis for Reflection Predicting Team Processes (n=148)*

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>24.413</td>
<td>3.332</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td>2.754</td>
<td>.212</td>
<td>.737</td>
<td>12.979</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: $R^2 = .543$; $F(1,142)=168.459$, $p < .001$.

**Question 3. What are the relationships among student characteristics, team learning principles, and team outcomes?** This question was addressed using survey responses and interview data. The pairwise correlations between student characteristics and team outcomes as well as team learning principles and team outcomes were discussed in Questions 1 and 2 in the previous sections. Table 16 suggests that the three student characteristics are moderately to strongly correlated to one another and mostly weakly correlated to the three team learning principles. Meanwhile, the three team learning principles are strongly positively correlated with one another. Table 22 shows that reflection, boundary spanning, and motivation to learn predict intent to apply team learning principles. Table 23 indicates that reflection and motivation to learn predict team processes.

Interview responses provided additional information regarding students’ characteristics and team outcomes. Most interviewees have not established clear career goals. Respondent 1 stated, “I have thought about it, but I have not confirmed yet.” And Respondent 10 said, “Now, I do not have a specific plan.” Six out of the thirteen interviewees believed that they can learn better than their classmates, and some of them admitted that it depends on subjects. Respondent 8 stated, “I think I am better than them in terms of grades, but I may be a bit weak in application.” Respondent 11 noted, “I am better in writing reports rather than studying for exams.”
Additionally, most students who have observed the differences in team processes were satisfied with their team performance and would like to stay with the same groups.

As described in the previous sections, correlations between variables are displayed in Table 16. There was a weak correlation between learning self-efficacy and boundary spanning ($\gamma = .207, p < .05$) and experimentation ($\gamma = .292, p < .01$); a moderate correlation between learning self-efficacy and career planning ($\gamma = .342, p < .01$) and reflection ($\gamma = .308, p < .01$); and a strong correlation between learning self-efficacy and motivation to learn ($\gamma = .592, p < .01$). There was a moderate correlation between career planning and motivation to learn ($\gamma = .313, p < .01$). No significant correlation was uncovered between career planning and team learning principles. There was a weak correlation between motivation to learn and reflection ($\gamma = .199, p < .05$) and experimentation ($\gamma = .209, p < .05$). Reflection, boundary spanning, and experimentation were all strongly positively correlated, with correlation coefficients ranging from .817 to .857 ($p < .01$).

Similar to the procedure carried out regarding the previous two questions, forward multiple linear regression analyses were applied to help identify significant predictors of team outcome variables. Table 22 displays the beta weights and significance values for the three models. Model 2, with reflection and boundary spanning, predicted 47.2% of the variance in intent to apply team learning principles ($F(2,138)=63.636, p < .001$, adjusted $R^2=.472$). Moreover, adding motivation to learn to the previous model predicted 50.6% of the variance in intent to apply team learning principles ($F(3,137)=48.888, p < .001$, adjusted $R^2=.506$). On the other hand, as shown in Table 23, the combination of motivation to learn and reflection have an adjusted $R^2$ of .560, meaning that 56% of the variance in team processes can be predicted from these two variables ($F(2,138)=89.915, p < .001$, adjusted $R^2=.560$).
Table 22

Summary of Forward Multiple Linear Regression Analysis for Reflection, Boundary Spanning, and Motivation to Learn Predicting Intent to Apply Team Learning Principles (n=148)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>R²</th>
<th>Δ R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>13.913</td>
<td>3.315</td>
<td>.212</td>
<td>.665**</td>
<td>.442</td>
</tr>
<tr>
<td>Reflection</td>
<td>2.221</td>
<td>.212</td>
<td>.665**</td>
<td>.442</td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>10.921</td>
<td>3.347</td>
<td>.355</td>
<td>.389**</td>
<td>.480</td>
</tr>
<tr>
<td>Reflection</td>
<td>1.299</td>
<td>.355</td>
<td>.389**</td>
<td>.480</td>
<td></td>
</tr>
<tr>
<td>Boundary Spanning</td>
<td>1.149</td>
<td>.362</td>
<td>.338*</td>
<td>.403</td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.246</td>
<td>4.948</td>
<td>.169*</td>
<td>.517</td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td>1.112</td>
<td>.349</td>
<td>.333*</td>
<td>.517</td>
<td></td>
</tr>
<tr>
<td>Boundary Spanning</td>
<td>1.219</td>
<td>.351</td>
<td>.358*</td>
<td>.517</td>
<td></td>
</tr>
<tr>
<td>Motivation to Learn</td>
<td>.547</td>
<td>.168</td>
<td>.197*</td>
<td>.037</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05; **p < .001.

Table 23

Summary of Forward Multiple Linear Regression Analysis for Reflection and Motivation to Learn Predicting Team Processes (n=148)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>R²</th>
<th>Δ R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>24.476</td>
<td>3.380</td>
<td>.734**</td>
<td>.538</td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td>2.749</td>
<td>.216</td>
<td>.734**</td>
<td>.538</td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>12.961</td>
<td>5.100</td>
<td>.700**</td>
<td>.566</td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td>2.622</td>
<td>.214</td>
<td>.700**</td>
<td>.566</td>
<td></td>
</tr>
<tr>
<td>Motivation to Learn</td>
<td>.526</td>
<td>.178</td>
<td>.169*</td>
<td>.028</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05; **p < .001.

Interview questions concerning students’ career goals and self-efficacy were asked to help learn more about their particular characteristics. Students were also asked to recall
differences in team performance and team processes with regard to information exchange, communication, and team viability. In addition, students were asked if they have observed other differences between their previous and current groups.

**What are your career goals?** Except for two interviewees, most of the interviewees have not established clear career goals. Respondent 5 wants to work as an engineer after graduation, and Respondent 13 would like to work in the Human Resource department. Three interviewees have not spent time thinking about their career goals, and eight respondents described industries within which they prefer to work. Moreover, when asked if they have considered working as a manager sometime in the future, all of the interviewees responded that it is natural to end up working as a manager when an individual follows a career path. Sample statements regarding students’ career goals are listed below.

I have thought about it, but I have not confirmed yet. (Respondent 1)

Um, I would prefer to engage in service industry so that I can talk to others. (Respondent 2)

I would like to engage in healthcare management profession. It would be great if I could develop healthcare policies in government relevant agencies. (Respondent 3)

I have different ones. I would like to work in a foreign company, especially a Japanese one because I am learning Japanese now. Yes, or work as a ground crew, tour escort, or tour guide. (Respondent 7)

Career goals? Now, I do not have a specific plan. (Respondent 10)

I only want to work in a big company, but not a small one. (Respondent 11)

I am now choosing between two goals: one is insurance and the other is the construction industry. (Respondent 12)
Do you believe that you can learn better than your classmates in the courses? Why?

Can you give me an example? When asked if they believe that they can learn better than their peers in the courses, six of the thirteen students gave positive responses. Among the positive answers, some noted that it depends: they can learn better in some subjects, but not in other subjects. The remainder either did not believe they could learn better or believed there was not much difference among them. Sample responses to this question are shown below.

Depending on which subjects: I could learn better in subjects such as Economics and Accounting, but I am not good at Calculus. (Respondent 1)

I probably learned better in some courses. For example, Calculus, Statistics, and something alike. Comparatively, subjects that test logical thinking would be easier for me. (Respondent 3)

I did pretty well in Circuitry and Electronics, but I got a low grade in Programming. I am not good at it at all. (Respondent 6)

I think I am better than them in terms of grades, but I may be a bit weak in application. (Respondent 8)

I am better in writing reports rather than studying for exams. In other words, I think in terms of studying, I may not do so well in courses that may have tests, but I have more thoughts than my classmates when writing reports. (Respondent 11)

Are you satisfied with the performance of your team? What can be done to improve your team performance? Students were asked to review their team performance and suggest ways to improve their team performance in the workshop. Only one interview respondent was not satisfied with her team performance, namely, because other team members were doing homework for other courses. Most respondents were either okay or satisfied with their team
performance, hoping that their team members would actively participate in discussions and express their ideas. Representative responses with suggestions are described as follows:

Satisfied. Probably, if everyone reads more materials, and speaks out more. If all of us express our own opinions and then discuss together. (Respondent 1)

Okay. Because I think our team composition is kind of unique. Because we looked for most of our team members by ourselves, and our team seems to be the one with people who cannot find a team in the beginning. We actually do not know one another well. Normally I would encourage everyone to bravely speak out their feelings or difficulties. Sometimes people feel embarrassed to speak out because they do not know one another well. Therefore, it causes some difficulties in cooperation or in promoting cooperation. We need to express our thoughts. (Respondent 4)

Um, fairly satisfied. There is a team member who is more egocentric. He would deny our opinions first and then express his own opinions. I think it is not good, and there is no need to totally turn down everyone’s thoughts. Well, I think it will strangle communication. I would tell him not to keep denying others’ thoughts so that everyone can express his/her thinking. If you keep refuting others, some people may be too shy to speak out. (Respondent 9)

How did the information exchange process differ from the previous groups you had before? Depending on groups they refer to, students explained whether it is either better, not different, or worse in terms of the efficiency of information and idea exchanges. Some interviewees paid attention to differences between in- and after-class discussions. Some interviewees noticed that the ways in which groups were established may affect how those
groups interacted or exchanged information. The following statements are sample responses to the question.

The number of my workshop team members, five people, is fewer than the number of my Management group, over ten people. Therefore, there will be more opinions from the latter group if you would like to exchange opinions. It then takes longer to adjust to one another to discuss a decision. I think the workshop team for this course is better because we looked for our own team members. In light of being more efficient, I think this workshop team which is faster to reach a consensus through discussions is more efficient, whereas it might take longer for the other one which has too many people to discuss.

(Respondent 1)

I think the difference lies in the ways of dividing teams. Because we select our team members who we know well, we would be braver to express our opinions, and more willing to listen to one another. Our Management group was assigned by the instructor, and we did not get along so well because we did not know one another well.

(Respondent 2)

Differences? The degree of directness in communication is varied because of different levels of acquaintance among us. We knew one another well in my previous group, and we tended to communicate more directly. Because we do not know one another well now, we tend to communicate indirectly so that we would not hurt other people. Besides, there were more personal interactions in addition to dealing with options or activities in my previous team. There is little in common now, probably because of our different majors or years. (Respondent 4)
My previous team consisted of male students who were not very talkative. I am taking Social Psychology this semester, and my group is composed of male and female students from different majors. They are better in throwing out their opinions, and have different thoughts. (Respondent 5)

I think the difference lies in your immediate reactions. We divided and were given questions directly on the spot in the workshop. But for my general team discussions, we first received a question and then we all looked for materials at home by ourselves. Therefore, we had homework of looking for materials. More efficient? I think there are pros and cons. It could facilitate brainstorming among us if we discuss in classes directly, whereas you would have more time to search for information on the Internet if you bring reports home for discussion. (Respondent 7)

I think the degree of speaking out varies. In my workshop team, if we encourage everyone to express their thoughts and ideas, people would sit there and then no one would like to say a word. When I was with senior male students, they spoke out if they had some thoughts, and discussions were more extensive. (Respondent 10)

**How did the communication process differ from the previous groups you were a part of before?** Interviewees recognized the differences among Line, Facebook, face-to-face, in-class, and after-class communication. They also were asked to compare the efficiency of these different approaches. The impact of varying team composition on communication was specified by Respondent 5. The subsequent statements are responses given by some interviewees.

It took longer for my Management team to communicate. Compared to the Management team, it takes less time for my workshop team. Yes, we had face-to-face communication. We had little discussion during the classes, and we mostly communicated through Line
after the classes. In order to write our report, we utilized a Line group. Everyone then took charge of different sections and was responsible for submitting them to Line. We read and then summarized the report together at last. (Respondent 1)

Because the instructor of Management gave us longer time, sometimes we might become less efficient given longer time available. As for today’s class, we have shorter time, and we may be more efficient. (Respondent 2)

Um, my previous groups communicated through software such as Line groups, or face to face. Because we met regularly, it was easy for us to communicate. We are now mainly utilizing software because of our different majors or grades. (Respondent 4)

Communication efficiency is pretty good. We are able to find the viewpoint that one another can accept quickly. I am talking about my team in this workshop. Although we have different opinions, we accept one another. Previously, there were different voices in different groups after several discussions. It turned out that there might be one party that could not accept other people's opinions, and then you could tell obviously from his/her tones or facial expressions that he/she was in a difficult situation. (Respondent 8)

I think our workshop group is more efficient, and we all are actively participating in discussions, whereas there were some people who were more passive and did not get involved in our freshman year. He just did his own thing next to us (Respondent 9)

We all use Line. I should say that if we communicated face-to-face, there might be more conflicts. (Respondent 10)

**Have you observed any other differences in your current team? How do they differ from your previous teams?** Respondents described other differences they had observed between their previous and current teams. Three interviewees were aware that their team members were
more or less serious about the workshop. Two re-emphasized the importance of various methods of communication. Below are explicit differences given by interviewees.

Um, there is one difference: we do not have male students in our workshop team. We happened to have male students in our Management team. Male students seem to have unique opinions, which are different from ours. I think the difference lies in whether an instructor assigns groups or we divide into groups by ourselves. If an instructor assigns groups, we may not know someone well. Then some people may not express their opinions, and thus sometimes it turns out that only one classmate expresses his/her own feelings. In this class, because we know one another well and choose people for our group by ourselves, there tends to be more group participation. (Respondent 2)

I think, for my previous team, team members comparatively have a decent attitude toward courses, but my workshop team probably does not care about this issue. (Respondent 3).

The way we assign tasks. Actually, what I often do is to list tasks and let everyone choose by themselves. Previously because we knew one another better, sometimes probably we assigned tasks semi-voluntarily. That is, "Then you will in charge of something that you are good at or you are normally do." However, now basically we do not know one another well in our team, so it is more like volunteering. There are many tasks, and people voluntarily select several ones by themselves. (Respondent 4)

Um, the difference lies in that, basically, we do not have face-to-face communication, and we discuss via the Internet. (Respondent 6)
Probably the topic is relatively easy for the workshop, therefore, it is less stressful for everyone to discuss. Then previously if we discussed, mostly because of our report, it was comparatively easier for us to have conflicts. (Respondent 8)

I think my workshop team is more devoted. (Respondent 9)

With senior male students, they respected everyone’s opinions, and they would like to know everyone’s thoughts. However, there is only one person in command of our workshop team. We have to do what he thinks. Therefore, it turns out that many times if you have ideas, those ideas will not be accepted. (Respondent 10)

Because as a team of eight, there are too many people. Two of them are senior male students from other majors. We basically gave them the simplest sections, or we would tell them our conclusion directly after discussions and asked them to complete this part. (Respondent 11)

Other differences? I think the real difference lies in face-to-face communication. We are able to come up with something through immediate discussions. (Respondent 12)

I think it is the attitude: the extent to which we devoted time to the course. (Respondent 13)

*To what extent would you like to work with the same group? What factors may keep you in the group? What may prevent you from staying with the same group?* To answer this question, interviewees were asked to choose among five responses: extremely unlikely, unlikely, neutral, likely, or extremely likely. Seven of the thirteen interviewees would like to work with the same groups and gave a variety of reasons for staying in those groups. Only one interviewee, Respondent 10, did not want to work with the same group. Four student interviewees held a
neutral attitude about staying with the group. Responses from representative interviewees are shown below.

Likely. Everyone is very responsible. We complete assigned tasks and then discuss together. There is no classmate who does nothing. (Respondent 1)

Extremely Likely. Because we know one another well and then work very efficiently. (Respondent 2)

Likely. Because after all, we have gotten along with one another for nearly one semester. In fact, it takes time for a group to work in harmony. Then now we basically are almost done with adjustments. Next, based upon our mutual understanding, we can improve profoundly and solve the aforementioned problem. (Respondent 3)

I think it is not bad. Likely. Because I think it is not bad if it could facilitate the exchange of ideas among us..., we can hear more about everyone’s thoughts. (Respondent 7)

Neutral. Because after all, we have gotten along for not too long. Well, we do not know what would happen. It’s more like ‘neutral’ but lean toward ’likely’. (Respondent 8)

Likely. Because I feel less stressful working with them; we have more tacit understanding and know everyone’s thoughts. (Respondent 9)

Unlikely. I feel it is very tiring, because everyone does the same things over and over again, and there is no way to show your strength. They have been thinking that we all should do the sections we are good at, but there is no way to train our other abilities. (Respondent 10)

Well, Likely. Because my team members are very responsible; we will work together on our senior independent study in the future. Everyone has some thoughts and is awesome. (Respondent 11)
Between “neutral” and “likely”. I would, a bit, like to do so because my team members are very proactive. However, they all have their own thoughts, which sometimes may conflict with mine. (Respondent 12)

Likely. Because they are more devoted. After working with them, it’s not bad. I know them better. (Respondent 13)

Thus, in terms of the research question, there were relationships among student characteristics, team learning principles, and team outcomes. The results from survey responses showed that there were weak to moderate positive correlations between student characteristics and team learning principles. Moreover, there were strong correlations between any two given team learning principles. The combination of reflection, boundary spanning, and motivation to learn predicted 50.6% of the variance in intent to apply team learning principles, whereas the combination of reflection and motivation to learn explained 56% of the variance in team processes. It seems that reflection and motivation to learn are the main predictors of the variance in intent to apply team learning principles and team processes.

Interview data from the thirteen students provided additional information concerning students’ characteristics and team outcomes. Most students described industries they would like to work in, but they have not established clear career goals. Six of the thirteen interviewees believed that they could learn better than their classmates, and some of them recognized that learning self-efficacy is contingent on courses. Students noticed differences between instructor-assigned and self-established teams, in-class and after-class discussions, and face-to-face and online communication. Additionally, seven interviewees were satisfied with their team performance and would like to remain in the same groups because they know one another well, and their team members are either proactive, responsive, or have right attitudes.
**Question 4. Were students aware that the workshop setting used the team learning strategy?** This question can be answered directly by checking interview data and perhaps indirectly by checking quantitative data. Only one interviewee recalled boundary spanning as the team learning strategy used in the workshop. Respondent 6 stated, “I know that you need to look for other resources as evidence.” Other behaviors recalled by students include communication, group discussions, and creative thinking. Respondent 3 recalled, “Um, having group discussions and then writing the poster.” Respondent 11 noted, “I think communication is definitely one of them. The ways we define and understand questions are different, and we need to figure out the questions together. Something like creative thinking; that is, the ability to think proactively and then solve problems.” An additional question on course differences helped students recollect what they had been asked to do. More interactions, group discussions, and a more facilitative instructor were differences identified by interviewees. Respondent 1 mentioned, “There are more interactions with the instructor and then with students.” Respondent 3 added, “It emphasizes more on interactions among students.” Moreover, Respondent 12 noted, “We are having group discussions all the time, and the instructor is more like a facilitator.” Survey responses on team learning principles provided additional information regarding students’ observations of their team behaviors. Most students noticed that during the workshop their teams demonstrated boundary spanning, reflection, and experimentation.

Interview questions were asked to help students recall behaviors they had practiced. Students were first asked to describe the team learning behaviors they had directly practiced. Next, students were asked to depict differences between their previous courses and the workshop, in hopes that they may notice the unique instructional strategy employed in the workshop.
Can you describe behaviors you have practiced during training activities? Only Respondent 6 recalled boundary spanning as the behavior they practiced during the workshop. Other respondents might pay more attention to response to questions in the case studies, and listed behaviors such as communication, searching for definitions of culture, writing the poster, group discussions, and creative thinking as behaviors they practiced in the workshop. The majority of the interviewees either described course content that had nothing to do with the team learning principles or gave up recalling relevant behaviors. Various responses to the question are listed as follows.

Practiced communication? I cannot think of anything specific. (Respondent 1)

Searching for definitions of culture? It seems that I cannot think of anything specific. (Respondent 2)

Um, having group discussions and then writing the poster. (Respondent 3)

I have a little impression. I know that you need to look for other resources as evidence. (Respondent 6)

I think it is more facilitative? (Respondent 8)

Three behaviors? Something like communication? (Respondent 9)

I can tell you directly: I really have no idea. (Respondent 10)

I think communication is definitely one of them. The ways we define and understand questions are different, and we need to figure out the questions together. Something like creative thinking; that is, the ability to think proactively and then solve problems. (Respondent 11)

How did the workshop differ from courses you previously had? This question was asked to help learn about other differences students may have observed during the workshop. Students
may not have noticed behaviors they had practiced, but they might have been able to describe actions their teams took so that they could answer questions in the case studies. Several interviewees observed that there were more group discussions and interactions in the workshop. One interviewee noticed the facilitating role of the instructor, and another noticed the different set of questions that had been asked. Some differences that students observed are described below.

This class is livelier. There are more interactions with the instructor and then with students. There are more interactions in the class. (Respondent 1)

There are more group discussions. Write down our discussion content on a big piece of paper. It is more open. It gives us more imagery space. The instructor allows us to have more thoughts. (Respondent 2)

It emphasizes more on interactions among students. Let students understand the course content by communicating with the instructor and learning by doing. (Respondent 3)

We have more chances to stand in the front of the class and express our opinions. There are more discussion activities. (Respondent 4)

This workshop emphasizes what is among people. It looks like you have to keep talking. Then you have to interact with people around you, probably something like that. (Respondent 6)

You not only keep receiving messages; instead, you can think and give feedback to other people. Other differences? We have many opportunities to discuss. (Respondent 8)

There are more interactions. It is more close to the reality. I think it is more effective than those theories. (Respondent 9)
Writing a poster. Wrote down our current thoughts, but we did not do so in other courses. (Respondent 10)

It is more interactive compared to general courses. Then we need to fill out a lot of blanks in the materials given by the instructor. The materials are not full of descriptions. (Respondent 11)

It is quite different. We are having group discussions all the time, and the instructor is more like a facilitator. (Respondent 12)

The questions we think are different. There are few courses that will give you a question to search for something wrong, look for some issues, and then think of ways to improve them. There are fewer questions of this kind. (Respondent 13)

Although quantitative data did not answer this question directly, participants did provide a dissimilar perspective that may help understand their thinking. In the second survey, students were asked to select the most appropriate responses, in accordance with their observations of behaviors of their teams. All items included in team learning principles were scaled on five-point Likert scales, with one meaning *strongly disagree* and five meaning *strongly agree*. The mean and variance of each item is presented in Table 24. The means of reflection, boundary spanning, and experimentation were all above three, which denotes that more students choose ‘agree’ and ‘strongly agree’ than ‘disagree’ or ‘strongly disagree’. The negative values of skewness also indicated that the data were skewed left, meaning that the left tail was longer and most of the distribution fell to the right. It showed that students somehow had observed that their teams exhibited boundary spanning to move beyond team boundaries to acquire information and resources, reflection to review objectives and processes, and experimentation to think of alternatives and their consequences during the workshop.
Table 24

*Means, Standard Deviations, and Skewness of all Items in Team Learning Strategy*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>S.D.</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boundary Spanning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My team reaches out to individuals outside of my team that can provide relevant expertise or ideas.</td>
<td>3.79</td>
<td>.890</td>
<td>-.630</td>
</tr>
<tr>
<td>My team collects information from outsiders that benefits our project.</td>
<td>3.61</td>
<td>.821</td>
<td>-.525</td>
</tr>
<tr>
<td>My team acquires information for the team.</td>
<td>4.04</td>
<td>.807</td>
<td>-1.176</td>
</tr>
<tr>
<td>My team reviews our team ideas with outsiders.</td>
<td>3.66</td>
<td>.863</td>
<td>-.428</td>
</tr>
<tr>
<td><strong>Reflection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My team reviews its objectives.</td>
<td>3.75</td>
<td>.824</td>
<td>-.689</td>
</tr>
<tr>
<td>My team discusses whether our team is working together efficiently.</td>
<td>3.90</td>
<td>.823</td>
<td>-.998</td>
</tr>
<tr>
<td>My team evaluates the results of team actions.</td>
<td>3.86</td>
<td>.819</td>
<td>-.790</td>
</tr>
<tr>
<td>My team discusses how well we exchange information?</td>
<td>3.89</td>
<td>.818</td>
<td>-.857</td>
</tr>
<tr>
<td><strong>Experimentation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My team takes time to figure out ways to improve our performance.</td>
<td>3.80</td>
<td>.808</td>
<td>-.791</td>
</tr>
<tr>
<td>My team evaluates the impact of team actions.</td>
<td>3.81</td>
<td>.805</td>
<td>-.757</td>
</tr>
<tr>
<td>My team reviews the consequences of our ideas.</td>
<td>3.82</td>
<td>.794</td>
<td>-.740</td>
</tr>
<tr>
<td>My team thinks of different scenarios.</td>
<td>3.93</td>
<td>.837</td>
<td>-.498</td>
</tr>
</tbody>
</table>

Thus, the responses from the interviews showed that most student interviewees were not aware that the workshop setting used the team learning strategy, and only one student recalled the use of boundary spanning in the workshop. Other behaviors students noticed include communication, group discussions, and creative thinking. Although most students were not aware of the use of the team learning strategy, some of them perceived the different questions and the role of the instructor, more interactions and opportunities to express thoughts, which may be in relation to the use of the team learning strategy in the workshop. Additional information was obtained from survey responses, which suggested that most students had observed that during the workshop their team exhibited boundary spanning, reflection, and experimentation.
Question 5. What is the likelihood of intent to apply team learning principles in the future? As can be seen in Table 15, on the seven-point Likert scale the mean for all items on intent to apply team learning principles is above four, indicating that more respondents chose ‘somewhat agree’, ‘agree’ and ‘strongly agree’ over ‘somewhat disagree’, ‘disagree’ and ‘strongly disagree’. Put differently, more students revealed their intention to apply team learning principles in their future. This question also can be answered by checking the interview data. Most interviewees replied that in the future they would try to apply reflection along with boundary spanning, or all the team learning principles presented to them. Respondent 12 stated, “I would definitely use boundary spanning because after all, my thoughts seem to be limited; I need different thoughts from various views of other people. I may use reflection as well.” Meanwhile, Respondent 11 explained, “I think I have been using the three behaviors since before. Well, different things require different tools. I may not use all the three at the same time.” Individuals, the group, and their/its supervisors/instructors are the main factors that may facilitate or hinder the application of the three team learning principles. Respondent 6 explained, “Your team probably needs to be more able to accept cooperation. It may not work for someone who is an individualist; he/she would think, ‘Why I need to do so?’ They think what he/she says is correct. It probably also has something to do with your supervisor. He/she would let you just go ahead and do it freely.” Respondent 8 noted, “I think if an individual is too lazy or is not able to think, and he/she is not able to reflect on himself/herself, he/she definitely will not do these things. If someone is very proactive, and would like to know how to become better or improve the team, he/she probably would apply the behaviors.”

Initially, a question concerning the use of the team learning principles in the future was asked. Next, a similar question concerning the use of the three principles on improving course
performance was asked. Lastly, depending on the responses given, follow-up questions were posed to explore factors that may affect the transfer of the behaviors.

**Would you try to use boundary spanning, reflection, and experimentation in the future?**

**In which ways?** Although only one respondent noticed that boundary spanning is the team learning behavior they practiced during the workshop, all interviewees expressed their intention to apply the team learning principles in the future. Some students will use all three behaviors in their future jobs, and some will use reflection and/or boundary spanning. Respondent 11 and 13 disclosed that they may choose among the three behaviors, depending on situations, rather than use them all at once. The following statements are sample responses from the interviewees.

Yes. For instance, before our discussions we need to think of content for discussions and desired goals, or back-up plans so that the discussion process will be smoother instead of getting stuck. (Respondent 1)

I would. Boundary spanning and reflection. (Respondent 2)

Probably if a front-end discussion does not go well, and there is a need for everyone to reflect. (Respondent 3)

Definitely. I will. I must. Boundary spanning or the third one, experimentation. In the future, I may have to solve problems in engineering. Solving a problem is to think of many alternatives. Boundary spanning probably is to look for resources. To read many dissertations or what has been done by others before. To watch and then catch its main characteristics is how research should be done. (Respondent 5)

Yes. I think the three behaviors are not bad. I think chances are that we will encounter something afterward: either anything among you, your colleagues, or bosses, or even
when we do our independent study in the future, we all can discuss them with our team members. (Respondent 7)

Yes. It should be searching for internal and external resources first. Reflect on the occurrence of problems and then learn from others’ experience. (Respondent 8)

Yes. Reflection. Experimentation looks like it is more difficult to use. (Respondent 9)

Yes. I think reflection and boundary spanning would be more applicable. Speaking of reflection, sometimes there is no specific goal coming out all the time during group discussions, and all our thoughts are scattered. (Respondent 10)

Yes. I think I have been using the three behaviors since before. Well, different things require different tools. I may not use all the three at the same time. (Respondent 11)

Yes. I would definitely use boundary spanning because after all, my thoughts seem to be limited; I need different thoughts from various views of other people. I may use reflection as well. (Respondent 12)

All three. I would first reflect on when we are having issues, and then I would look for an alternative and influence it may bring. I will see if there is a chance to apply boundary. Boundary depends; for each question, you may not find materials for your reference. (Respondent 13)

Would you try to use boundary spanning, reflection, and experimentation to improve your course performance? Given that most respondents explained in detail the ways they would like to use the three team learning principles in the future, some of them simply replied that they would use the three behaviors to improve their course performance by applying the behaviors in similar ways. Only Respondent 4 was not sure if he would use the three behaviors in his future course groups, and Respondent 7 would only use reflection. All the other respondents expressed
their willingness to apply these three behaviors to improve their course performance. Sample responses from our interviewees are listed below.

Yes. Because the instructor in Management keeps mentioning the importance of planning ahead; you have to set up goals so that you will not feel meaningless during a process. Having a goal is easier for you to pursue. (Respondent 1)

I think I should use experimentation, not sure about reflection, but I would not use boundary spanning. Because I think boundary spanning is the concept that you will think of it when encountering special cases. In general, you would feel like that the cooperation goes on well because no special cases occur. You would think of looking for assistance only if special cases occur. (Respondent 4)

If we have complete absorbed, they definitely could, specifically reflection. I think reflection is important. (Respondent 7)

**What factors do you think would help you apply the team learning principles in the future?** Respondents 1 and 9 stated that they will be able to apply the three team learning principles because there will be no objection within their teams with regard to implementing new behaviors. Respondents 7 and 10 believed that situations help decide whether one would use the three behaviors or not. Such a decision would be contingent upon a given situation. Team factors seem to be the most important influence that may help one apply team learning behaviors. Statements regarding enabling factors are described in the following sentences.

Your team probably needs to be more able to accept cooperation. It may not work for someone who is an individualist; he/she would think, ‘Why I need to do so?’ They think what he/she says is correct. It probably also has something to do with your supervisor. He/she would let you just go ahead and do it freely. (Respondent 6)
Such as when encountering difficulties? (Respondent 7)

I think if an individual is too lazy or is not able to think, and he/she is not able to reflect on himself/herself, he/she definitely will not do these things. If someone is very proactive, and would like to know how to become better or improve the team, he/she probably would apply the behaviors. (Respondent 8)

It should be if we run into something, and then we will use the behaviors. (Respondent 10)

Topics assigned by instructors. (Respondent 11)

I think an instructor is a bit like a supervisor. Sometimes he would give us some suggestions. For instance, when we did poorly in our report last time, then he said that we need to make some improvements and then we reflect on whether we should...

(Respondent 12)

Team factors. Because team members would affect one another. For example, if your team members are more devoted, you would think that you cannot be lazy and have to be the same as them. These could be the factors. It is out of questions that others may affect you, and you would affect others as well. (Respondent 13)

**What factors do you think would stop you from applying the team learning principles in the future?** As mentioned earlier, most respondents would try to use the three team learning principles in the future and spend more time considering factors that may facilitate applying these behaviors. Nonetheless, there are other respondents that described factors that may hinder the application of team learning principles. Group, supervisor, or individual factors are issues that may hinder such an application. Some inhibiting factors that may prevent interviewees from applying the team learning principles are specified below.

Probably if there are no good interactions in teams. (Respondent 2)
As for work, if the upper level has tighter control over relevant performance, it is probably not many ways or no way to integrate well. As for courses, the time for relevant course discussions could be a limit. (Respondent 3)

If there is no consensus in a team, and team members are not very proactive. Or when the team searches for alternatives, but it is not very effective. Team members may be less confident to use these behaviors, or less willing to cooperate. (Respondent 4)

Not willing to do so. Because I think the three behaviors are the ways to solve problems. Yeah, normally if they do not use the three ones, that is because of no willingness. It is rather time-consuming. For instance, maybe they would like to go online and search in Google to look for answers directly. They are too lazy to think. (Respondent 5)

A person who is more of an individualist would think his/her thoughts are correct, so he/she would be less intent to use these. Some supervisors would prefer his/her thoughts to be followed, and he/she only needs you to carry out the thing. (Respondent 6)

Thus, survey results and the responses from the interviews showed that most interviewees agreed that in the future they would try to apply reflection together with boundary spanning, or all three team learning principles. A team that had no positive interaction, no consensus, or that might be less willing to cooperate would prevent students from applying these three principles. A more dominant supervisor might also prevent the application of the team learning principles. On the other hand, a more cooperative team, composed of more serious team members or more proactive individuals, could help students apply the team learning principles. A supportive supervisor who would give subordinates more latitude to take actions on their own also would also be beneficial.
Chapter 5: Summary, Discussion, Implications, and Conclusion

This chapter consists of four sections. The first section presents a summary of the results. The second section provides a discussion of the results. The third section discusses implications of the study. The final section provides a conclusion of the study.

Summary of the Results

The following points summarize the results of the study.

- There was a relationship between student characteristics and team outcomes. Learning self-efficacy and motivation to learn had a weak to moderately positive relationship with intent to apply team learning principles and team processes, but no relationship has been found between student characteristics and team project performance. Motivation to learn was the one student characteristic that predicted the variance in intent to apply team learning principles and team processes.

- There was a relationship between team learning principles and team outcomes. Reflection, boundary spanning, and experimentation had a strong positive relationship with intent to apply team learning principles and team processes, but no relationship has been found between team learning principles and team project performance. Furthermore, reflection predicted the variance in team processes, whereas reflection in conjunction with boundary spanning predicted the variance in intent to apply team learning principles. Compared to student characteristics in Question 1, team learning principles had stronger relationships with team outcome variables.

- There were relationships among student characteristics, team learning principles, and team outcomes. There was a mostly weak to moderately positive relationship between
student characteristics and team learning principles. Moreover, there was a strong relationship between any two of the three team learning principles. The combination of reflection, boundary spanning, and motivation to learn predicted the variance in intent to apply team learning principles, whereas the combination of reflection and motivation to learn predicted the variance in team processes. Reflection and motivation to learn were the main predictors of the variance in intent to apply team learning principles and team processes.

- Interview data from the thirteen student participants provided additional information concerning students’ characteristics and team outcomes. Most students described industries they would like to work in, but they have not established clear career goals. Six interviewees believed that they can learn better than their classmates, and some of them recognized that learning self-efficacy is contingent on subjects. Students noticed differences between instructor-assigned and self-established teams, in-class and after-class discussions, and face-to-face and online communication. Additionally, seven interviewees were satisfied with their team performance and would like to remain with the same groups because they know one another well, and their team members are either proactive, responsive, or have a positive attitude.

- Most interviewees were not aware that the workshop setting used the team learning strategy, and only one student recalled the use of boundary spanning in the workshop. Other behaviors students noticed include communication, group discussions, and creative thinking. Although most students were not aware of the use of the team learning strategy, some of them perceived different questions, the role of the instructor, more interaction, or opportunities to express thoughts, which might be
related to the use of the team learning strategy in the workshop. Additional information was obtained from survey responses, which suggests that during the workshops most students had observed that their teams exhibited boundary spanning, reflection, and experimentation.

- Most interviewees replied that in the future they would try to apply reflection together with boundary spanning, or all three of the team learning principles. A team that lacks positive interaction, finds no consensus, or proves less willing to cooperate would act to prevent students from applying these three principles. A more dominant supervisor might also restrain the application of these team learning principles. On the other hand, a more cooperative team with more serious team members or more proactive individuals would help students apply the three team learning principles. A supportive supervisor who would give subordinates more latitude to take actions also would help.

**Discussion**

This discussion section will address four major points about the results of the study: 1) Reflection, boundary spanning, and motivation to learn seem to predict intent to apply team learning principles. 2) Reflection and motivation to learn seem to predict team processes. 3) Team project performance seems not to be related to student characteristics and team learning principles. 4) Using team learning as the instructional strategy may facilitate team learning behaviors.

**Reflection, boundary spanning, and motivation to learn seem to predict intent to apply team learning principles.** As discussed in Chapter Two, reflection and its relevant concepts, critical reflection and reflexivity, may have an impact on team learning. Researchers have argued that team learning is a cyclical process of reflection and action (Argyris & Schön,
Kim et al. (2011) reported that group reflection was critical for team project learning in a web 2.0 environment. Additionally, researchers have confirmed that boundary spanning, that is, communication with external parties, is associated with team learning and perceived team effectiveness (Edmondson, 2002b; Hirst & Mann, 2004). Marrone (2010) claimed that general information search as one of the boundary spanning behaviors is relevant as regards shared understanding, team learning, and innovation. Regression analyses showed that reflection alone predicted 44.3% of the variance in intent to apply team learning principles, and reflection, in combination with boundary spanning, predicted 47.7% of the variance in intent to apply team learning principles. Moreover, most interviewees expressed that they would try to use reflection and/or boundary spanning in the future, but two students noted that boundary spanning is contingent upon given situations. That is, they indicated that they might not use it in all situations. Reflection seems to play a more important role than boundary spanning in predicting intent to apply team learning principles.

Foxon (1993) claimed that motivation to learn affected post-training intention to transfer. Colquitt et al. (2000) and Chiaburu and Marinova (2005) acknowledged that motivation was related to training transfer. Al-Eisa et al. (2009) reported that motivation to learn directly affected transfer intention and acted to mediate the relationship between transfer intention and self-efficacy. Motivation to learn was the only student characteristic that predicted 9.5% of the variance in intent to apply team learning principles. Compared to reflection and boundary spanning, it has a smaller correlation coefficient and predicts less variance of intent to apply team learning principles.

Mixed findings have been reported between training self-efficacy, known as learning self-efficacy in this study, and transfer. Trainees who have high confidence in their abilities are
more likely to search for training opportunities, overcome obstacles, and learn training content (Al-Eisa et al., 2009; Chiaburu et al., 2010). Several scholars have reported a positive influence of self-efficacy on transfer performance (Burke & Hutchins, 2007; Colquitt, et al., 2000; Ford et al., 1998). However, Axtell et al. (1997) found that self-efficacy was not correlated with transfer. The authors suggested that high initial transfer, autonomy, or motivation played more important roles in surmounting obstacles to transfer. Moreover, self-efficacy was related to motivation. The researchers suspected that self-efficacy may affect transfer through motivation. Among the thirteen interviewees, six students believed that they could learn better than their peers in courses, and some of them specified the subjects in which they could perform better, as well as those they could not. Scores on learning self-efficacy may hinge on whether students were referring more to courses they are good at or not at the time they were filling out the surveys, as opposed to their overall evaluation of their ability to perform successfully while in training. The imprecise assessment of their learning self-efficacy may contribute to the less important role of learning self-efficacy in affecting intent to apply team learning principles.

There are a limited number of training transfer studies that include career variables (Colquitt et al., 2000). Noe and Schmitt (1986) proposed that individuals who engage in career planning may have a better understanding of themselves, which may bring about a high level of motivation to learn in training programs. Noe (1986) claimed a positive association existed between career planning and behavioral change, resulting from training. Noe and Schmitt (1986) concluded that career planning is an antecedent of learning and behavior change. This study assumes that if students acknowledge the importance of cross-cultural communication skills to their future careers as managers, they may pay more attention to training content and have higher transfer intention. Nonetheless, the mean of career planning is comparatively lower than that of
learning self-efficacy and motivation to learn, as seen in Table 15. The table shows that students may not engage much in career planning and may not think much about their future careers as managers at their current stage of life. As revealed in the interviews, most student interviewees have not established clear career goals. This explains why career planning did not impact intent to apply team learning principles, as proposed in this study.

Experimentation is a relatively novel concept in the business field, and the relationship between experimentation and team learning needs to be further clarified. Sadler-Smith et al. (2000) postulated that experimentation, which connects new ideas and creative outcomes, ought to be a part of collective learning to facilitate learning. They suggested that organizations should develop experimental skills to test new or alternative ways of working together. Several researchers have proposed experimentation as an element of team learning (Edmondson, 1999; Gibson & Vermeulen, 2003; Watkins & Marsick, 1993), but none of them has attempted to verify the relationship between experimentation and team learning. Table 16 shows that there is a strong positive correlation between experimentation and intent to apply team learning principles, but unlike reflection and boundary spanning, experimentation does not construct the model that predict intent to apply team learning principles, as seen in Table 22. Except for two students who agreed to use all three team learning behaviors, most interviewees stated that they would apply reflection and/or boundary spanning in the future. Only one student, majoring in Electrical Engineering, and who seemed to have been exposed to the concept of experimentation, clearly stated how he would like to apply experimentation in the future, whereas there was one student who expressed the impression that in applying experimentation in the future would be difficult. Experimentation may become more imperative in team learning in the future if the concept of business experimentation gains more understanding and attention over time.
Reflection and motivation to learn seem to predict team processes. Van den Bossche et al. (2006) insisted that team learning behaviors contribute to the formation of a mutually shared cognition, which would in turn increase team effectiveness as defined by performance, viability, and learning. This study proposes that learning collectively as a team may facilitate changes in team processes, as represented by information exchange, communication, and team viability. Learning is a permanent change of behavior that is likely to be attained by changes in team processes. In team learning literature, reflection has been discussed in conjunction with action/adaption (Argyris & Schön, 1978; Edmondson, 1999; 2002a; Gibson & Vermeulen, 2003; Kasl et al., 1997, Wiedow & Konradt, 2010). Team members reflect upon their objectives and processes, and adapt to changes. It is believed that reflection may lead to changes in team processes if a team has been actively seeking improvement actions upon adaptation. Gurtner et al. (2007) examined the effect of two reflexivity interventions on group processes. Results showed that reflexivity increased communication as a process.

As discussed in the previous section, learning self-efficacy and career planning had small effects on intent to apply team learning principles because of their inaccurate or low scores—the same explanation could be applied to team processes. There are no studies that investigate the relationship between motivation to learn and team processes. It is assumed that if trainees have a higher level of inspiration and persistence, they may be able to learn and master the changed behaviors. In this study, cross-cultural communication is the topic of the workshop, and team learning principles are embedded as the instructional strategy. Trainees are expected to practice reflection, boundary spanning, and experimentation during the workshops. It is suspected that reflection and boundary spanning would affect the ways team exchange information and how they communicate. Additionally, as discussed in the previous section, boundary spanning is
contingent upon situations, and experimentation is too new for students to master it. Therefore, these two team learning principles do not influence team processes as expected.

Table 16 shows a strong positive correlation between reflection and team processes and a weak positive correlation between motivation to learn and team processes. Moreover, as shown in the regression analyses, reflection and motivation to learn predicted 56% of the variance in team processes, whereas reflection alone predicted 53.5% of the variance in team processes. Reflection, rather than motivation to learn, is a more crucial factor in contributing to change in team processes.

**Team project performance seems not to be related to student characteristics and team learning principles.** There are no studies examining the direct relationship between motivation to learn and team performance, or between career planning and team performance. There are some studies that have investigated the relationship between self-efficacy and performance. Vancouver and Kendall (2006) argued that self-efficacy was positively related to exam performance at the between-person level, but negatively related to motivation at the within-person level because individuals who believe they have sufficiently prepared for a challenge may decide to reduce their motivation to prepare for or maintain a satisfactory effort toward a given task. Judge et al. (2007) reported that self-efficacy predicted work-related performance in low complexity jobs or tasks rather than that for medium or high complexity jobs or tasks. To complete their final projects, students had to apply cross-cultural communication skills that they learned during the workshops. They were taking part in a medium or high complexity group assignment that may not have been directly related to self-efficacy. As a result, no relationship was found between learning self-efficacy and team project performance.
Researchers have confirmed a positive relationship between team learning behaviors/activities and performance (Edmondson, 1999; Van Offenbeek, 2001; Van Woerkom & Croon, 2009); however, elements of team learning behaviors/activities vary across studies, and none of them has included all three of the team learning principles addressed in this study. Edmondson (1999) reported a positive relationship between team performance and team learning behaviors, defined as a continuous process of reflection and action, including but not limited to, reflecting on results and experimenting. Widmer et al. (2009) argued that team reflexivity, consisting of reflection, planning, and action/adaption, is relevant to team innovation, effectiveness, and creativity. Hirst and Mann (2004) proposed a five-factor model of team communication. Results showed that team reflexivity was associated with project team performance, whereas leadership boundary spanning rather than team boundary spanning related to project performance. In brief, each team learning principle may relate to different team performance dimensions, such as customer expectations, quality, effectiveness, and innovation. It is suspected that it may take a while for a team that is engaged in team learning behaviors to improve performance. Meanwhile, it also takes time to practice and master either team learning principles or cross-cultural communication skills. Therefore, it is difficult, immediately after the two-session workshop has taken place, to find a positive relationship between team learning principles and team project performance.

Except for student characteristics and team learning principles, there may be other factors that would affect team performance. Two interviewees implicitly discussed the influence of a shared mental model on team performance. Respondent One mentioned that her workshop team worked better than her management team in that they knew one another well. Respondent Seven said that they selected their own team members who they knew well and because of this their
team members were more willing to express their ideas and listen to one another. One essential element of team learning is to form a so-called shared mental model, that is, a shared understanding of team processes and practice, which may in turn improve team performance.

As discussed in the previous section, the relationship between student characteristics and team learning principles may require a certain period of time to take effect. Meanwhile, other team factors may play roles in affecting team performance. Thus, more consideration should be given to various factors that may affect team performance in studies that focuses on team learning.

Using team learning as the instructional strategy may facilitate team learning behaviors. As shown in Table 24, the means of all boundary spanning, reflection, and experimentation items are above three, which signifies that most students had observed the team learning principles during the workshops. It could be that teams practiced and exhibited these behaviors while responding to questions in case studies, as proposed. All questions in the case studies in the workshops were designed to help teams reflect upon objectives and processes, search for external information and resources, and consider alternatives and their consequences. Semi-structured interviews also indicated that all student interviewees revealed their intention in the future to apply some or all of the three team learning principles. The higher means of the team learning principles in this study also could be caused by social desirability. Students tend to select responses that portray their teams as the ones that are actively engaged in boundary spanning, reflection, and experimentation, even though their teams may not demonstrate these behaviors in actuality. It also could be an issue related to time frame; that is, it could be that some students were referring to their team practice, since the teams were established or at the beginning of the semester rather than during the workshops, as specified in the survey items.
Instead of directly giving instruction on team learning, this study tried to incorporate team learning into the instructional strategy to help teams acquire team learning principles indirectly by responding to questions taken from case studies. Results showed that there was an association between the team learning principles and intent to apply team learning principles. It is likely that students would apply team learning principles in the future. In other words, other than giving direct instruction, we could facilitate team learning by framing questions concerning reflection, boundary spanning, and experimentation in a logical order in cases studies in training sessions which can be conducted in group formats such as training on problem solving, conflict management, leadership development program, or other soft skill forms of training. It is possible to leverage an instructional strategy as a means to foster learning collectively as a team and transfer of training.

In training transfer literature, training design can be classified into pre-training factors, training content, and post-training factors. Some factors in training design can be carried out independently, and some work best with other factors to try to maximize training transfer. Using team learning as an instructional strategy, referred to in this study as team learning strategy, is a training transfer design that can either be implemented alone or used together with other training design factors, such as advance organizers, identical elements, varied practice, and goal setting. It is also a factor that can be reinforced continuously during training, as opposed to some transfer design factors that last a short time or just one time, without much effect. Reflection and boundary spanning can be employed to assist teams in reviewing factors that might hinder training transfer and learning originating from external parties. Little attention has been devoted to using an integrated instructional strategy to facilitate training transfer. TBL and team learning
strategy seem to be the approaches that can be regarded as integrated training designs that may facilitate transfer of training.

TBL is an instructional strategy that has attracted much attention in higher and medical education. It relies more on an instructor’s role in forming small groups, giving challenging assignments, and providing immediate feedback. Studies in TBL have proved that TBL improves individual accountability and teamwork (Hunt et al., 2003), engagement (Tai & Koh, 2008; Haidet et al., 2004), positive attitudes/feedback (Haberyan, 2007; Hernandez, 2002; Zgheib et al., 2010), preference for TBL (Haberyan, 2007; Tai & Koh, 2008), course performance (Zgheib et al., 2010), and application of course information (Haberyan, 2007). Most of the aforementioned studies applied TBL in courses on conceptual knowledge and achieved affective and cognitive outcomes. Only one study found that TBL to be effective in applying course information (Haberyan, 2007). However, course information in this study involved Industrial/Organizational (I/O) Psychology concepts, and applying course information represented applying I/O Psychology concepts. TBL seems to help achieve affective and cognitive outcomes rather than skill-based outcomes.

This study represents an initial effort to try to adopt team learning as an instructional strategy by embedding the identified team learning principles to improve transfer intention, team processes, and team performance. Although no relationship has been discovered between team learning principles and team project performance, there have been some associations made between team learning principles and transfer intention, as well as team learning principles and team processes. Instead of placing much emphasis on an instructor’s role as TBL, this study underscores boundary spanning, reflection, and experimentation to encourage active interaction within and outside of teams. Meanwhile, in addition to attaining affective and cognitive
outcomes, this study has attempted to achieve skill-based outcomes, by which students would like to practice and apply their learned team learning behaviors to future jobs. On the whole, a training design such as instructional strategy can play a more active, integrated, and continuous role in facilitating training transfer other than a wide range of pre-training factors, such as attentional advice, advance organizers, and pre-practice; training content such as identical elements, general principles, and stimulus variability; and post-training factors such as self-management and goal setting.

**Implications of the Study**

This section will explore five implications of the study: 1) incorporate reflection to improve team learning and team processes, 2) incorporate boundary spanning to improve team learning, 3) increase motivation to learn to improve training transfer and team processes, 4) give teams more time to integrate other team learning behaviors, depending on the development and needs of teams, and 5) propose a revised conceptual framework for future research.

**Incorporate reflection to improve team learning and team processes.** As discussed in Chapter Two, using team learning as an instructional strategy can be achieved in numerous ways. Other than structuring questions logically to help a team reflect on objectives and processes, there are other interventions that may help team practice reflection. Team reflection journals (Daudelin, 1997), reflexivity interventions (Gurtner et al., 2007), and briefing-debriefing sessions (Vashdi, Bamberger, Erez, & Weiss-Meilik, 2007) are feasible interventions that have been proved to facilitate reflection. Due to time limitations, this study only asked teams to reflect on objectives and processes; organizations may include more reflection behaviors in training or team processes, such as examining methods used and assessing task effectiveness and information exchange.
It is also possible to integrate several reflection behaviors with team reflection journals, reflexivity interventions, and briefing-debriefing sessions. Reflection is the only team learning behavior that can improve both intent to apply team learning principles and team processes. If organizations have limited time and resources, incorporating reflection behaviors into one or more interventions might be the most effective way to improve team learning and team processes.

**Incorporate boundary spanning to improve team learning.** Likewise, boundary spanning interventions can be expand to incorporate boundary spanning behaviors other than searching for external information and resources practiced in this study. Ancona and Caldwell (1992a) introduced four boundary spanning activities: ambassador, task coordinator, scout, and guard activities. Adler, Black, and Loveland (2003) designed a course on boundary spanning and complex system skills, which they believed could easily be modified as a training workshop for organizations. Marrone (2010) categorized boundary spanning actions into representation, coordination of task performance, and general information search.

Searching for external information and resources in this study is similar to scout activity and general information search. There are other above-mentioned boundary spanning activities that organizations may include in their training or team practice. Another method that organizations may use to increase boundary spanning behaviors is to assign boundary spanners or encourage boundary spanning leadership to actively participate in boundary spanning behaviors to improve team learning.

**Increase motivation to learn to improve training transfer and team processes.** Studies have asserted that motivation to learn affects employees’ willingness to attend training sessions (Noe & Wilk, 1993; Tharenou, 2001) and their effort to learn and complete training (Chuang et al., 2005; Hick & Klimoski, 1987; Tracey et al., 2001). Grossman and Salas (2011)
emphasized that it is necessary to keep trainees motivated through the training process for transfer to occur. Motivation to learn not only improved team learning behaviors in this study, but also may enhance the transfer of other learned behaviors and skills.

Noe (1986) believed that career and job attitudes affected motivation to learn. Noe and Schmitt (1986) found that highly job-involved employees seem to be more motivated to learn new skills. Meanwhile, they argued that highly job-involved trainees are increasingly engaging in career planning activities. In this study, although there was no relationship found between career planning and team learning, there was a relationship observed between career planning and motivation to learn. Organizations can host career workshops or assign senior workers to help employees explore career paths and prerequisite skills. These workshops may encourage career exploratory behaviors and enhance employees’ readiness for training so as to increase motivation to learn. With increased motivation, employees are likely to transfer training content and adapt to change team processes.

**Give teams more time to absorb training and integrate other team learning behaviors depending on the development and needs of teams.** In this study, four core team learning elements were identified and only three of them were placed into the design of the instructional strategy. Organizations can also include speaking up in training or team practice, but it may take longer to establish a sense of psychological safety so that employees can freely express their ideas and thoughts. In addition, only one student recalled the team learning strategy that was used in the workshops. It could be that teams are too busy with completing assigned tasks to respond to questions in case studies. This research recommends that giving teams a longer period of time to practice these behaviors and including advance organizers might help reduce employees’ cognitive loading so that they could follow a logical sequence in practicing
these behaviors on a more consistent basis and thereby learn more effectively. The ultimate goal is to help teams internalize these behaviors as a part of their team practice/routine so that they can employ these skills on every occasion to help their teams learn and perform better.

If teams are still new to the concept of team learning, teams can put reflection and boundary spanning into practice since in this study these are factors that were identified as effective. If teams are versed in reflection and boundary spanning, as adopted in the workshops, their members can spend more time on practicing other reflection or boundary spanning behaviors, or they can identify and practice other team learning behaviors that they assume to be as effective, such as sharing, collaboration, framing, reframing, integrating perspectives, construction, co-construction, and constructive conflict. All of the aforementioned behaviors may play significant roles in team learning as the four elements identified in Chapter Two. Furthermore, organizations may think of integrating some behaviors they believe essential into reflection and boundary spanning interventions to improve team learning. It is also worth noting that training may not be the only way to improve team learning. Organizations may leverage organizational development or career development interventions to improve learning of team.

**Propose a revised conceptual framework for future research.** According to the above discussion and its implications, a revised conceptual framework for future research is summarized in Figure 2. Student characteristics will be modified as learner characteristics in that research subjects will be employees in a business setting rather than students in a classroom setting. Accordingly, transfer intention, known as intent to apply team learning principles in this study, will be replaced by training transfer because it is feasible to assess employees’ transfer of acquired behaviors. Under learner characteristics, motivation to learn and career planning will be retained. Motivation to learn is proven to predict team processes and transfer intention in this
research, though on a relatively small scale. It is believed that there is an association between career planning and motivation to learn (Noe, 1986). Thus, it is practicable to make use of career exploratory activities to enhance motivation to learn. The influence of career planning should be more noticeable for employees than for students who are still exploring their careers. Depending upon the focus of future research, it is possible to apply either reflection or boundary spanning, both of which have, in this study, proved to be effective in improving team processes and transfer of training.

**Learner Characteristics**
- Motivation to learn
- Career Planning

**Team Learning Principles**
- Reflection
- Boundary Spanning

**Team Outcomes**
- Training Transfer
- Team Processes

*Figure 2 A Revised Conceptual Framework for Future Research*

**Conclusion**

Because of accessibility, this study was carried out at the three target universities with cross-cultural communication workshops with business students as trainees. The primary assumption is that the instructional strategy may have implications for learning and training transfer. An instructional strategy that emphasizes team learning should be strongly considered in training that involves teams. It not only supports learning as a team, but also helps improve transfer intention and team processes. Methodology is something that can be learned in addition to training content.
As an initial effort to explore the role of team learning principles as an indirect way to improve training transfer, team processes, and team performance, much can be done to enhance the design of the current study. First of all, conducting the study in a business setting may be preferable to the current school setting. Employees should acknowledge the importance of cross-cultural communication skills for their potential future careers as managers than students who may not think of exploring possible careers at the current stage. Instead of evaluating transfer intention for future jobs, it is possible to assess training transfer for employees in their current jobs. The connection between career planning and training transfer should be stronger. In the meantime, teams play a more significant role in the business world than in the classroom. The other possible setting worth considering is an online setting in which trainees may still work as a team to practice team learning principles. This approach will help to assess whether team learning will work effectively in a virtual environment, given that presently there are increasing numbers of virtual teams.

Second, it is necessary to conduct an experimental study to help clarify causality and evaluate which intervention may work best. This study has shown that reflection and boundary spanning seem to be more relevant to team learning and team processes. However, only one reflection and one boundary spanning behavior were practiced in the study. To encompass a broader spectrum of behaviors in each team learning element, repeating these behaviors within a longer time frame and assessing the effect of each element would help decide upon the most effective intervention that could enhance team learning and team processes.

Third, a longitudinal study is required to verify the relationship between team learning and team performance. In the current study, no relationship has been found between team learning principles and team performance. It is necessary to design a long-run study so that teams
can become conversant with team learning behaviors and internalize them as team practice to improve team performance. In the current study, the instructor did not mention anything about team learning during the workshop. It is possible to remind trainees of the use of team learning in spoken and written forms so that they can acknowledge the use of the strategy, pay more attention to the behaviors, and learn more collectively. In addition, there is a need to evaluate team performance using different indicators from various sources to help check the possible effect of team learning on team performance.

Fourth, there is a need to examine the mediating effect of motivation to learn. Based upon the previous discussion, the mediating role of motivation to learn between learning self-efficacy and team outcome variables, as well as career planning and team outcome variables, have been recognized in some studies. It is worth investigating the mediating role of motivation to learn in a team learning study. A larger sample size is required in future studies to help verify this potential relationship.

There is much to learn about team learning, and more practical studies are desired to help organizations reap the benefits of team learning in light of team performance, change, and innovation. This study is an initial effort to use team learning as an intervention to facilitate transfer, team processes, and team performance. Except for the five practical implications for HRD and four possible improvements on research design, much can be done in the future to help realize the benefits of team learning in research and practice.
References


Thorndike, E. L., & Woodworth, R. S. (1901). The influence of improvement in one mental function upon the efficiency of other functions: III. Functions involving attention, observation and discrimination. *Psychological Review, 8*(6), 553-564.


Appendix A: Pre-learning Survey

Thank you for agreeing to participate in my research. Please check if you have completed the two sections of this survey: background information and student characteristics, including learning self-efficacy, career planning, and motivation to learn.

Thank you!

Mei-Tzu Maggie Huang

---------------------------------------------------------
---------------------------------------------------------

Please write a four-digit pin as your personal identity.

[ ] [ ] [ ] [ ]

Background Information

What is your gender?

☐ Male ☐ Female

What is your age?

☐ Under 18 ☐ 18-19 ☐ 20-21 ☐ 22-24 ☐ 25 and above

What is your major?

☐ Industrial and Business Management ☐ Healthcare Management ☐ Information Management ☐ Industrial Design ☐ International Business ☐ other (please specify)__________

What grade are you currently in?

☐ Freshman ☐ Sophomore ☐ Junior ☐ Senior ☐ others (please specify)__________

Are you involved in any extra-curricular activities now? ☐ Yes ☐ No

Are you currently working? ☐ Yes-Part Time ☐ Yes-Full Time ☐ No
**Student Characteristics**

*Please indicate the extent to which you agree with the following statements.*

### Learning Self-efficacy

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree/disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am confident that I can succeed in courses.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. I do well in courses.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. I am able to learn information and skills in courses.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. I am able to apply skills used in courses.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. I am able to apply what I have learned in courses.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. I am sure I will be able to overcome obstacles in future jobs that may hinder my use of new knowledge and skills.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

### Career Planning

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree/disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have <strong>not</strong> yet really decided what my career objectives should be.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. I have a plan for my career.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. I have a strategy for achieving my career goals.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. I know what I need to do to reach my career goals.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. My career objectives are <strong>not</strong> clear.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. I change my career objectives frequently.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. I have decided to make management a career.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Motivation to learn

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree/disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I try to learn as much as I can from courses.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. I tend to learn more from courses than other students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. I am usually motivated to learn skills emphasized in courses.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. I would like to improve my skills.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. I am willing to exert an effort in courses to improve skills.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. Taking courses is not a high priority for me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. I am willing to invest effort into improving my skills and competencies.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Appendix B: Post-learning Survey

Thank you for agreeing to participate in my research. Please make sure you have completed all five sections in the survey: boundary spanning, reflection, experimentation, team processes, and intent to apply team learning principles.

Thank you!

Mei-Tzu Maggie Huang

Please write the four-digit pin you use for the pre-learning survey.

Please indicate the extent to which you agree with the following statements.

**Boundary Spanning**

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree/disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>During the workshop, to what extent did:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. my team reach out to individuals outside of my team that can provide relevant expertise or ideas?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. my team collect information from outsiders that benefits our project?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. my team acquire information for the team?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. my team review our team ideas with outsiders?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reflection

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree/disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the workshop, to what extent did:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. my team review its objectives?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. my team discuss whether our team is working together efficiently?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. my team evaluate the results of team actions?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. my team discuss how well we exchange information?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Experimentation

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree/disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the workshop, to what extent did:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. my team take time to figure out ways to improve our performance?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. my team evaluate the impact of team actions?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. my team review the consequences of our ideas?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. my team think of different scenarios?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree with the following statements.

**Team Processes**

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree/disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My team shared information within the team and did not keep information to itself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My team informed other members about different issues.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. My team tried to exchange information and knowledge.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. My teammates always looked for different interpretations or perspectives to a problem.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. There is open communication within this team.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Everyone has an opportunity to express his/her opinions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Team members maintained a high level of idea exchange.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. My team should not have continued to function as a team.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. My team was not capable of working together as a unit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. My team probably should never work together in the future</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. If I had the opportunity, I would have switched teams.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I would be happy to work with my team members on other projects in the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree with the following statements.

### Intent to Apply Team Learning Principles

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree/disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Searching for information outside of my team I practiced during the workshop will be useful to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I plan to use searching for information outside of my team I practiced during the workshop in my current role as a team member.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. I plan to use searching for information outside of my team I practiced during the workshop in my future job role as a manager.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Reflection on team processes I practiced during the workshop will be useful to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I plan to use reflecting on team processes I practiced during the workshop in my current role as a team member.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. I plan to use reflecting on team processes I practiced during the workshop in my future job role as a manager.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. Considering alternatives and their consequences I practiced during the class session will be useful to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I plan to use considering alternatives and their consequences I practiced during the workshop in my current role as a team member.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9. I plan to use considering alternatives and their consequences I practiced during the workshop in my future job role as a manager.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Appendix C: Semi-structured Interview Protocol

Script prior to interview

Welcome, and thank you for your participation today. My name is Mei-Tzu Maggie Huang, and I am a Ph.D. student majoring in HRD at University of Illinois at Urban-Champaign. Thank you for completing the surveys, and this follow-up interview will take about 30 to 60 minutes, and will include questions regarding your intent to apply team learning principles, awareness of the use of the team learning strategy, and your perceptions regarding the change in team processes. Your responses will remain confidential and will be used to develop a better understanding of the relationship among student characteristics, team learning principles, and team outcomes, especially the transfer intention of students in a course using the team learning instructional strategy.

[Review aspects of consent form and show the form]

At this time I would like to remind you of your written consent to participate in this study. I am the investigator, specifying your participation in the research project. You have signed and dated each copy, certifying that we have agreed to continue this interview. You will receive one copy and I will keep the other under lock and key, separate from your reported responses. Thank you.

[Ask for permission to record the interview]

I would like to have your permission to tape-record this interview, so I may accurately document the information you convey. ___Yes ___No

   If yes: Thank you! If at any time during the interview you wish to discontinue the use of the recorder or the interview itself, please feel free to let me know.

   If no: Thank you for letting me know. I will only take notes of our conversation.

[Check any questions before the interview]

Do you have any questions or concerns before we begin? [Discuss questions]

Then with your permission we will begin the interview. Please reflect back on your workshop experience and provide some examples or real cases for explaining your thoughts and opinions.
[Ask for students’ four-digit pin]

May I have your four-digit pin for your personal identity?

[ ] [ ] [ ] [ ]

Research Question 3: What are the relationships among student characteristics, team learning principles, and team outcomes?

[Questions on student characteristics]

Show the student survey items for training self-efficacy, career planning, and motivation to learn. Check items that score low, and ask relevant questions.

What is your major? Major in ___________. (Warm-up question)

Why you select ___________ as your major? (Warm-up question)

Have you communicated with people from other cultures? (Warm-up question)

☐ Yes ☐ No

If Yes, Please describe the scenario (who, where, when, how, and why)

What are your career goals? Have you thought of working as a manager in the future? (Career planning)

What business courses have you taken? Have these courses prepared you as a future manager? (Career planning)

Do you believe that you can learn better than your classmates in the courses? Why? Can you give me an example? (Learning self-efficacy)

What you would like to learn from the cross-cultural communication workshop? (Motivation to learn)

[Questions on team outcomes]

Show the student survey items for team processes and the case study report rubric.

Are you satisfied with the performance of your team? What can be done to improve your team performance? (Team performance)
How did the information exchange process differ from the previous groups you had before? (Team processes)

How did the communication process differ from the previous groups you were a part of before? (Team processes)

What other team process differences have you observed? How do they differ from your previous team processes? (Team processes)

Have you observed any other differences in your current team? How do they differ from your previous teams? (Team processes)

To what extent would you like to work with the same groups? (Team processes) (Circle response)

<table>
<thead>
<tr>
<th></th>
<th>Extremely Unlikely</th>
<th>Unlikely</th>
<th>Neutral</th>
<th>Likely</th>
<th>Extremely Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What factors may keep you in the group?

What factors may prevent you from staying with the same group?

Research Question 4: Were students aware that the workshop used the team learning strategy?

Please think of the workshop on cross-cultural communication for the last two weeks.

Can you describe behaviors they have practiced during training activities? (Circle responses after listening to students’ answers.)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Boundary spanning:</td>
<td>searching for information outside of my team</td>
</tr>
<tr>
<td>Reflection:</td>
<td>reflecting on team processes</td>
</tr>
<tr>
<td>Experimentation:</td>
<td>considering alternatives and their consequences</td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>
How did the workshop differ from courses and workshops you previously had?

Training content:

Training activities:

Other:

Research Question 5: What is the likelihood of the intent to apply team learning principles in the future?

Show the student survey items for boundary spanning, reflection, and experimentation.

Would you try to use boundary spanning, reflection, and experimentation in the future? (Describe the behaviors)

☐ Yes  ☐ No

In which ways?

Would you try to use boundary spanning, reflection, and experimentation to improve your course performance?  ☐ Yes  ☐ No

What factors do you think would help you apply the team learning principles (i.e., boundary spanning, reflection, and experimentation) in the future?

What factors do you think would stop you from applying the team learning principles (i.e., boundary spanning, reflection, and experimentation) in the future?

Script after interview

Thank you for your participation in the interview. The interview is done. Do you have any other comments or advice? My email is mhuang17@illinois.edu. (Give the participants my business card.) There is a possibility that I may contact you if there is a need for me to clarify information and ask additional questions: Is that okay? Thank you again for your time and effort for helping me complete my research.
Appendix D: Script for Face-to-Face Recruitment

Instructor’s debriefing to students

I will have one of my friends who is a doctoral student in University of Illinois at Urbana-Champaign help conduct a workshop on solving cross-cultural communication problems. She will also take this opportunity to collect her research data during the sessions. Her research topic is, “The relationships among student characteristics, use of team learning principles in a workshop setting, and the likelihood of intent to use team learning principles as a future manager among undergraduate students in Taiwan.” She will embed team learning principles into the sessions to help you learn cross-cultural communication skills.

You will attend the class session as other sessions I teach but you can decide whether you would like to help her complete her research by filling out surveys and participating in interviews or not. Your participation in her research will be completely voluntary. You may choose not to participate. If you choose to participate you may subsequently withdraw from the study at any time without penalty or consequences of any kind. If you choose not to participate, that will not affect your grades or your relationship with me or school.

Researcher’s script before the training sessions

Business Communication and Presentation Skills/International Business English Conversation Students

Greetings! My name is Mei-Tzu Huang. I am a Ph.D. student majoring in Human Resource Development (HRD) in the Department of Education Policy, Organization & Leadership at University of Illinois at Urbana-Champaign, Champaign, Illinois, U.S.A. I would like to invite you to take part in my dissertation research, which is titled, “The relationships among student characteristics, use of team learning principles in a workshop setting, and the likelihood of intent to use team learning principles as a future manager among undergraduate students in Taiwan.” This study is under the supervision of Dr. Ronald Jacobs, Professor in the Department of Education Policy, Organization and Leadership. I am talking to you now because you were enrolled in the Business Communication and Presentation Skills/International Business English Conversation class, held in the Spring semester of 2017.

As part of the research activities, I invite you to complete a survey related to you and your experiences for the workshop on solving cross-cultural communication problems designed with
the team learning instructional strategy. The questionnaire will be administered face-to-face and should take you approximately 15 to 20 minutes to complete. Your perspectives and insights will contribute in valuable ways to my work. But, clearly, your participation in this research is wholly voluntary. You may choose not to participate. If you choose to participate, you may subsequently withdraw from the study at any time without penalty or consequences of any kind. If you choose not to participate, that will not affect your grade or your relationship with the instructor or school. The data gathered through this survey will be kept fully anonymous.

Prior to the beginning of the survey, you will be presented with a consent form which provides more details about this study. If you have any questions, please do not hesitate to contact me by email at: mhuang17@illinois.edu, or course instructor Dr. Lin, Yi-Chun Jane by email at: Lin.hrd@ntnu.edu.tw (02)7734-1841/Daniel Steve Villarreal by email at: interpreterman@aol.com. You may also contact my advisor, Dr. Ronald Jacobs by email at: rljacobs@illinois.edu. Many thanks for your cooperation and assistance!
Appendix E: Recruitment Email for Interview

Dear Business Communication and Presentation Skills/TOEIC English/International Business English Conversation/English Listening Students:

Greetings! My name is Mei-Tzu Huang. I am a Ph.D. student majoring in Human Resource Development (HRD) in the Department of Education Policy, Organization & Leadership at University of Illinois at Urbana-Champaign, Champaign, Illinois, U.S.A. I would like to invite you to take part in a dissertation research project titled, “The relationships among student characteristics, use of team learning principles in a workshop setting, and the likelihood of intent to use team learning principles as a future manager among undergraduate students in Taiwan.” This study is under the supervision of Dr. Ronald Jacobs, Professor in the Department of Education Policy, Organization and Leadership. I am contacting you because you were enrolled in the Business Communication and Presentation Skills/International Business English Conversation class in the Spring semester of 2017. **In this email, I’d like to invite you to participate in an interview.**

I would like to talk to you about your experience with and perspectives on the workshop on solving cross-cultural communication problems, which was designed using the team learning instructional strategy. This interview should take approximately 30 to 60 minutes and can be scheduled at a time that is most convenient to you. I want to assure you that the data collected through this interview study will be kept fully confidential and your choice about participation will not in any way affect your grade in the course. Your perspectives and insights will contribute in valuable ways to my work. But, clearly, your participation in this research is wholly voluntary. You may choose not to participate. If you choose to participate you may subsequently withdraw from the study at any time without penalty or consequences of any kind. If you choose not to participate, that will not affect your grade or your relationship with the instructor or school.

If you choose to participate, you will be asked to read and sign a written consent form prior to the start of the interview. I have attached that consent form here, as it provides more details about the research, its purpose, and your role in the process.

If you are willing to participate in this interview study, please respond to this email with a list of preferred meeting times during 05/15/2017 to 06/16/2017. If you have any questions, please do not hesitate to contact me by email at: mhuang17@illinois.edu or course instructor Dr. Lin, Yi-Chun Jane by email at: Lin.hrd@ntnu.edu.tw/Daniel Steve Villarreal by email at: interpreterman@aol.com, You may also contact my advisor, Dr. Ronald Jacobs by email at: rljacobs@illinois.edu. Many thanks for your cooperation and assistance!

Sincerely,

Mei-Tzu Huang
Appendix F: Consent Form for Survey

Date

Dear Business Communication and Presentation Skills/TOEIC English/International Business English Conversation/English Listening Student:

Next to this consent form is a survey related to my dissertation research, titled, “The relationships among student characteristics, the use of team learning principles in a course on solving cross-cultural communication problems, and the likelihood of using team learning principles as a future manager among undergraduate students in Taiwan.” This survey is part of a research being conducted by me under the supervision of my adviser, Dr. Ronald Jacobs at the University of Illinois at Urbana-Champaign. The purpose of the study is to investigate the relationships among student characteristics, team learning principles, and team outcomes, with a particular focus on intent to apply team learning principles for future managers after they have received the cross-cultural communication workshop that use the team learning strategy.

The questionnaire addresses your experiences with and perspectives on the workshop on solving cross-cultural communication problems. Your thoughtful and honest responses are important to the quality of the research I am conducting. The survey is to be completed anonymously. I am requesting some demographic information, but not enough to identify individual respondents. And as part of my analysis, I will tabulate all responses and share only aggregate results with the dissertation committee members and other interested audiences.

I expect the survey to take about 15 to 20 minutes, and I anticipate no risk to participating in this survey other than what might be experienced in normal life. In particular, your choice about responding to this questionnaire will not in any way affect your grade in the course, your relationship with the course instructor or school, or your academic standing. I hope you will offer your thoughts and insights, as they will contribute in valuable ways to my work. But, clearly your participation in this research is wholly voluntary.

Faculty, staff, students, and others with permission or authority to see your study information will maintain its confidentiality to the extent permitted and required by laws and university policies. The names or personal identifiers of participants will not be published or presented.

Lessons learned from the research may be offered in scholarly articles, with no identifying information. If you have any questions, you may contact me by email at: mhuang17@illinois.edu (217) 530-7210 or
course instructor Dr. Lin, Yi-Chun Jane by email at: Lin.hrd@ntnu.edu.tw (02)7734-1841/Daniel Steve Villarreal by email at: interpreterman@aol.com. You may also contact my advisor, Dr. Ronald Jacobs by email at: rljacobs@illinois.edu. If you believe you have not been treated according to the descriptions included in this form, or if you have any questions about your rights as a research subject, including questions, concerns, complaints, or to offer input, you may call the Office for the Protection of Research Subjects (OPRS) at 217-333-2670 or e-mail OPRS at irb@illinois.edu.

To consent to participate in this research, please turn to next page and proceed with the survey. You may make a copy of this survey to keep for your records.

Many thanks for your cooperation and assistance!

Sincerely,

Mei-Tzu Maggie Huang

I give my consent to participate in this survey.

Print Name: ___________________________ Date: ___________________________

Your Signature: _______________________
Appendix G: Consent Form for Interview

Date

Dear Business Communication and Presentation Skills/International Business English Conversation Student:

Thank you for agreeing to participate in my dissertation research, titled, “The relationships among student characteristics, use of team learning principles in a workshop setting, and the likelihood of intent to use team learning principles as a future manager among undergraduate students in Taiwan,” at the University of Illinois at Urbana-Champaign, and for agreeing to share your experiences and views with us in an interview. This research is being conducted by me under the supervision of my adviser, Dr. Ronald Jacobs at the University of Illinois at Urbana-Champaign. The purpose of the study is to investigate the relationships among student characteristics, team learning principles, and team outcomes, with a particular focus on intent to apply team learning principles for future managers after they have received the cross-cultural communication workshop that use the team learning strategy.

In our interview, I would like to talk with you about your experiences with and perspectives on the workshop on solving cross-cultural communication problems, which was designed with the team learning instructional strategy. With your permission, I would like to audiotape the interview. I will use the audiotape only to make sure that I have a complete and accurate record of our conversation. All data will be stored in a locked office, and none of the information and perceptions you share in the interview will be made available to anyone outside the research team. Moreover, I will only report group-level, aggregate data in my report. I will not report any information that could be traced back to or identified with an individual respondent in the research. So, I hope you will rest assured that I will completely protect the confidentiality of your thoughts and experiences with the workshop on solving cross-cultural communication problems, which was designed with the team learning instructional strategy.

I expect the interview to take 30 to 60 minutes, and I anticipate no risks to participating in this interview other than what might be experienced in normal life. In particular, your choice about participation in this interview will not in any way affect your grade in the course, your relationship with the course instructor or school, or your academic standing. Your perspectives and insights will contribute in valuable ways to my work. But, clearly, your participation in this research is wholly voluntary.
Faculty, staff, students, and others with permission or authority to see your study information will maintain its confidentiality to the extent permitted and required by laws and university policies. The names or personal identifiers of participants will not be published or presented.

Lessons learned from the research may be offered in scholarly articles, with no identifying information. If you have any questions, you may contact me by email at: mhuang17@illinois.edu (217) 530-7210 or course instructor Dr. Lin, Yi-Chun Jane by email at: Lin.hrd@ntnu.edu.tw (02)7734-1841/Daniel Steve Villarreal by email at: interpreterman@aol.com. You may also contact my advisor, Dr. Ronald Jacobs by email at: rjacobs@illinois.edu. If you believe you have not been treated according to the descriptions included in this form, or if you have any questions about your rights as a research subject, including questions, concerns, complaints, or to offer input, you may call the Office for the Protection of Research Subjects (OPRS) at 217-333-2670 or e-mail OPRS at irb@illinois.edu.

Many thanks for your cooperation and assistance!

Mei-Tzu Maggie Huang

I give my consent to participate in this interview.

Print Name: _________________________________  Date: _________________________

Your Signature: ____________________________
Appendix H: Training Slides

Slide 1

SOLVING CROSS-CULTURAL COMMUNICATION PROBLEMS

Mei-Tzu Maggie Huang
University of Illinois at Urbana-Champaign

Slide 2

Course Description

This workshop will introduce how to solve cross-cultural communication problems, an issue of increasing importance in global companies.
Prerequisites

Before starting this workshop, you’d better learned/understood the following two topics:

- Nonverbal communication
- Workplace etiquette

Also, in the future, you should have a desire to become an effective manager in a global setting.

Rationale for the Workshop

As a future manager, you will have many challenges. One critical challenge is how to communicate effectively when there is a diverse workforce present.

Being able to communicate – and solve cross-cultural communication problems – with many different people has become a critical management skill.

Intercultural Communication Adventure with Little Pilot (0'00-1'12")
Objectives

By the end of this workshop, you will be able to:

A. Describe what is culture
B. Describe what is a cross-cultural communication problem
C. Describe the steps of cross-cultural communication process
D. Apply cross-cultural communication process to generate solutions to problems

Agenda

<table>
<thead>
<tr>
<th>Session 1</th>
<th>Session 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic</strong></td>
<td><strong>Topic</strong></td>
</tr>
<tr>
<td>• Introduction</td>
<td>• Review of Session 1</td>
</tr>
<tr>
<td>• Culture</td>
<td>• CCP Communication Process</td>
</tr>
<tr>
<td>• Cross-cultural Communication Problems (CCP)</td>
<td>• Step 2 (Cont.)</td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td><strong>Activity</strong></td>
</tr>
<tr>
<td>• Discussion</td>
<td>• Step 3-Identify potential solutions</td>
</tr>
<tr>
<td>• What is Culture</td>
<td>• Team Reflection</td>
</tr>
<tr>
<td>• Identify CCP</td>
<td>• Review Content</td>
</tr>
<tr>
<td><strong>Topic</strong></td>
<td><strong>Topic</strong></td>
</tr>
<tr>
<td>• CCP Communication Process</td>
<td>• CCP Communication Process</td>
</tr>
<tr>
<td>• Step 1-Identify indicators</td>
<td>• Step 4-Select one solution</td>
</tr>
<tr>
<td>• Step 2-Describe cultural dimensions</td>
<td>• Step 5-Reflect on the effectiveness</td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td><strong>Activity</strong></td>
</tr>
<tr>
<td>• Matching</td>
<td>• Case Study</td>
</tr>
<tr>
<td>• Jigsaw</td>
<td>• Case Study</td>
</tr>
<tr>
<td>• Case Study</td>
<td>• CCP Communication Process</td>
</tr>
</tbody>
</table>
Consider the following scenario:
Jim is an American who has been managing a IT team in Shanghai and working closely with the Chinese team leader, Bolin, to develop a new program.

In a recent review, Jim discovers that he made a mistake and notices that Bolin corrected his error. He wonders why Bolin did not bring it to his attention so that he could avoid delays and keep from making the same mistake in the future.

### Discussion

1. Reflect on their team processes/practices.
2. What would you do if you were Jim?
3. Can you think of any information and resources inside or outside the company that may help solve the issue?

## Introduction

Consider the following scenario:
Jim is an American who has been managing a IT team in Shanghai and working closely with the Chinese team leader, Bolin, to develop a new program.

In a recent review, Jim discovers that he made a mistake and notices that Bolin corrected his error. He wonders why Bolin did not bring it to his attention so that he could avoid delays and keep from making the same mistake in the future.
In the previous scenario, culture plays an important role in communication.

**What is Culture**

1. Look for external information and resources (e.g., dictionaries, websites, textbooks, handouts, or someone you know) for a definition of culture.

2. Reflect on the role of culture on team processes.

3. If culture has been ignored in communication, what would be some possible consequences?

**Definitions of Culture**

- Culture: learned and shared human patterns or models for living; day-to-day living patterns. These patterns and models pervade all aspects of human social interaction. Culture is mankind’s primary adaptive mechanism (Damen, 1987, p. 367)

- Culture is the collective programming of the mind which distinguishes the members of one category of people from another.” (Hofstede, 1984, p. 51)
Definitions of Culture

- Culture is the shared knowledge and schemes created by a set of people for perceiving, interpreting, expressing, and responding to the social realities around them (Lederach, 1995, p. 9).
- Culture has been defined in a number of ways, but most simply, as the learned and shared behavior of a community of interacting human beings (Useem & Useem, 1963, p. 169).

Cross-Cultural Communication

Why didn’t he shake my hand? What now? Should I give him my card? She’s a bit close!
A Cross-cultural communication problem (CCP) is the gap between actual and desired understanding and behaviors, stemming from the verbal and non-verbal exchange between people with diverse cultural backgrounds, which results in misunderstandings or misinterpretations.

1. It involves the verbal and non-verbal exchange of people from different cultures.
2. Different cultures influence the perceptions and behaviors of people.
3. Different perceptions and behaviors may cause misunderstandings or misinterpretations.
Slide 15

Cross-cultural Communication Problem (CCP)

It involves the verbal and non-verbal exchange of people from different cultures

- Jim (American Culture): Independence, equality, risk-taking
- Bolin (Chinese Culture): Hierarchy, harmony, face, relationship (Guānxi), Mianzi

Slide 16

Cross-cultural Communication Problem (CCP)

Different cultures influence the perceptions and behaviors of people

- Jim (America Culture) => May challenge the authority
- Bolin (Chinese Culture) => Respect for the authority and hierarchy
Cross-cultural Communication Problem (CCP)

Different perceptions and behaviors may cause misunderstandings or misinterpretations

- Jim (America Culture) => May challenge authority => Point out a supervisor’s mistakes directly
- Bolin (Chinese Culture) => Respect for authority and hierarchy => Do not talk over a supervisor’s mistakes

Identify CCP

Promotion

Mayank has been working as an Information Officer at a foreign consulate in New Delhi for several years. His German boss, Alfred, wants to reward Mayank for his hard work and offers him a promotion and pay raise to become an Information Clerk. Mayank politely declines the offer, leaving Alfred confused.
Daisuke is out of the office

Daisuke has just joined the Hiroshima office of a New York-based multinational company. As part of his training he will be spending three months in the U.S., but has already been assigned to a team with members in New York, Peking and Bangalore. Sarah, the New York-based project manager, has scheduled a teleconference meeting for Tuesday. Daisuke will be traveling to Tokyo to get his U.S. visa during the time in which the meeting takes place.

Misunderstandings, offence, conflicts, communication breakdowns, or broken business deals may occur if there is a cross-cultural communication problem.

- An American oil rig supervisor in Indonesia shouted at an employee to take a boat to shore
- U.S. and British negotiators found themselves at a standstill when the American company proposed that they “table” particular key points
- When Pepsico advertised Pepsi in Taiwan with the ad “Come Alive With Pepsi” they had no idea that it would be translated into Chinese as “Pepsi brings your ancestors back from the dead”
Cross-cultural Communication Problem (CCP)

A Cross-cultural communication problem (CCP) is the gap between actual and desired understanding and behaviors, stemming from the verbal and non-verbal exchange between people with diverse cultural backgrounds, which results in misunderstandings or misinterpretations.

1. It involves the verbal and non-verbal exchange of people from different cultures.
2. Different cultures influence the perceptions and behaviors of people.
3. Different perceptions and behaviors may cause misunderstandings or misinterpretations.

CCP Communication Process

1. Identify the indicators of the CCP situation
2. Describe the cultural dimensions that match with the indicators
3. Identify potential solutions to the problem
4. Select one solution that best fits the problem situation
5. Reflect on the likely effectiveness of the solution
An American is presenting his proposal to a Japanese company. He thinks he does a good job in securing the deal, but his potential customers in the Japanese company do not think so.

### Reflection
1. Reflect on the communication process.
2. Reflect on all possible communication styles and select a better way of communication.

### Searching
3. What internal and external information and resources can the American look for?

### If...then
4. What else should the American pay attention to if one had an opportunity to present the proposal again?

---

**Identify the indicators of the CCP situation**

**Cross-cultural Communication Problem (CCP)**
- It involves the verbal and non-verbal exchange of people from different cultures.
- Different cultures influence the perceptions and behaviors of people.
- Different perceptions and behaviors may cause misunderstandings or misinterpretations.

**Indicators of CCP**

<table>
<thead>
<tr>
<th>Cross-Cultural Communication Problems (CCP) occur because</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Differences in culture:</td>
</tr>
<tr>
<td>Culture A: American Culture</td>
</tr>
<tr>
<td>Main Characteristics: Independence, equality, risk-taking</td>
</tr>
<tr>
<td>Culture B: Japanese Culture</td>
</tr>
<tr>
<td>Main Characteristics: Respect for authority/tradition, group harmony, and face-saving</td>
</tr>
<tr>
<td>2. Perception differences: Meaning of title (business cards); short- or long-term relationship (building a relationship first)</td>
</tr>
<tr>
<td>3. Behavior differences: Greeting; exchanging business cards; nodding ≠ “yes”; no questions ≠ “good job”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Culture</th>
<th>Cross-cultural Communication Problems (CCP)</th>
<th>CCP Communication Process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Step 1: Identify the indicators</td>
</tr>
</tbody>
</table>
Describe the cultural dimensions that match with the indicators

<table>
<thead>
<tr>
<th>Geert Hofstede</th>
<th>Edward Hall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualism vs. Collectivism</td>
<td>Low vs. High Context</td>
</tr>
<tr>
<td>Low vs. High Power Distance</td>
<td>Monochronic vs. Polychronic Time</td>
</tr>
<tr>
<td>Low vs. High Uncertainty Avoidance</td>
<td>Center of Power vs. Center of Community</td>
</tr>
<tr>
<td>Masculinity vs. Femininity</td>
<td></td>
</tr>
<tr>
<td>Short- vs. Long-Term Orientation</td>
<td></td>
</tr>
</tbody>
</table>

Culture | Cross-cultural Communication Problems (CCP) | CCP Communication Process
Step 2: Describe dimensions

---

Hofstede's Cultural Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualism vs. Collectivism</td>
<td>The degree to which a culture relies on and has allegiance to the self or the group</td>
</tr>
<tr>
<td>Low vs. High Power Distance</td>
<td>The extent to which a culture tolerates inequality in power distribution</td>
</tr>
<tr>
<td>Low vs. High Uncertainty Avoidance</td>
<td>The degree to which a culture avoids or tolerates uncertainty</td>
</tr>
<tr>
<td>Masculinity vs. Femininity</td>
<td>The degree to which a culture values “masculine” or “feminine” behaviors</td>
</tr>
<tr>
<td>Short- vs. Long-Term Orientation</td>
<td>The extent to which a culture prefers to plan for long-term or short-term results</td>
</tr>
</tbody>
</table>

Video: Cultural Dimensions - Hofstede (0'00"-4'16")
1. Work in pairs.
2. Match statements in the handbook to cultural dimensions.
   - Individualism / Collectivism
   - Low/High Power Distance
   - Low/High Uncertainty Avoidance
   - Masculinity/Femininity
   - Short-term/Long-term Orientation

---

Apply Hofstede's Cultural Dimensions

- Individualism
- Low Power Distance
- High Uncertainty Avoidance
- Masculinity
- Short-term Orientation
- Collectivism
- High Power Distance
- Low Uncertainty Avoidance
- Femininity
- Long-term Orientation

Communication Styles
Negotiation/Conflicts
Other

Cross-cultural Communication Problems (CCP)
CCP Communication Process
Step 2: Describe dimensions
Jigsaw (Group Expert)

- Decide your group expert on each dimension
- Go to your expert group to discuss your dimension
  1. Go through the two-page dimension description; select correct answers and underline key words.
  2. Summarize typical behaviors for those score high and low in that dimension.
  3. Fill out the summary table.

Culture | Cross-cultural Communication Problems (CCP) | CCP Communication Process

Step 2: Describe dimensions

Case Study: Project Meeting

Imagine that you have been recently assigned to be a project manager for a branch in a country where the team members have different cultural values than yourself.

1. Reflect on the impact of cultural dimensions on the processes/practices of your team.
2. What internal (i.e., inside the company) and external (i.e., outside the company) information and resources may help you?
3. What would you do as a newly assigned manager in your first meeting? What other cultural differences may influence communication?
Cultural Dimensions and Communication

<table>
<thead>
<tr>
<th>Cultural Values</th>
<th>Communication Styles</th>
<th>Negotiation/Conflicts</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collectivism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Power Distance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Power Distance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Uncertainty Avoidance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Uncertainty Avoidance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masculinity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Femininity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-Term Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-Term Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Culture | Cross-cultural Communication Problems (CCP) | CCP Communication Process

Agenda

<table>
<thead>
<tr>
<th>32</th>
<th>Session 1</th>
<th>Session 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1hr</td>
<td>Topic</td>
<td>Topic</td>
</tr>
<tr>
<td></td>
<td>• Introduction</td>
<td>• Review of Session 1</td>
</tr>
<tr>
<td></td>
<td>• Culture</td>
<td>• CCP Communication Process</td>
</tr>
<tr>
<td></td>
<td>• Cross-cultural Communication Problems (CCP)</td>
<td>• Step 2 (Cont.)</td>
</tr>
<tr>
<td></td>
<td>• Discussion</td>
<td>• Step 3-Identify potential solutions</td>
</tr>
<tr>
<td></td>
<td>• What is Culture</td>
<td>• Team Reflection</td>
</tr>
<tr>
<td></td>
<td>• Identify CCP</td>
<td>• Review Content</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Case Study</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1hr</td>
<td>Activity</td>
<td>Activity</td>
</tr>
<tr>
<td></td>
<td>• CCP Communication Process</td>
<td>• CCP Communication Process</td>
</tr>
<tr>
<td></td>
<td>• Step 1-Identify indicators</td>
<td>• Step 4-Select one solution</td>
</tr>
<tr>
<td></td>
<td>• Step 2-Describe cultural dimensions</td>
<td>• Step 5-Reflect on the effectiveness</td>
</tr>
<tr>
<td></td>
<td>• Matching</td>
<td>• Case Study</td>
</tr>
<tr>
<td></td>
<td>• Jigsaw</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Case Study</td>
<td></td>
</tr>
</tbody>
</table>
Team Reflection

1. Write team objectives.
2. Has your team made the best use of your internal (i.e., inside the class) and external (i.e., outside the class) information and resources during training activities? What can be done better?
3. How well has your team exchanged information internally and externally? What other methods can you try?
4. Has your team worked efficiently? What team processes/practices can be improved?

Duration: 10 mins

Review of Session One

- Culture
- Cross-cultural communication problem (CCP)
- Hofstede’s culture dimensions
A Cross-cultural communication problem (CCP) is the gap between actual and desired understanding and behaviors, stemming from the verbal and non-verbal exchange between people with diverse cultural backgrounds, which results in misunderstandings or misinterpretations.
Hall's Cultural Dimensions

<table>
<thead>
<tr>
<th>Cultural Dimension</th>
<th>Scale Anchors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Context:</strong> the extent to which the context of a message is as important as the message itself</td>
<td></td>
</tr>
<tr>
<td>Low context: direct and frank communication; message itself conveys its own meaning</td>
<td></td>
</tr>
<tr>
<td>High context: much of the meaning in communication is conveyed indirectly through the context surrounding a message</td>
<td></td>
</tr>
<tr>
<td><strong>Time:</strong> the extent to which people approach one task at a time or multiple tasks simultaneously</td>
<td></td>
</tr>
<tr>
<td>Monochronic: sequential attention to individual goals; separation of work and personal life; precise concept of time</td>
<td></td>
</tr>
<tr>
<td>Polychronic: simultaneous attention to multiple goals; integration of work and personal life; relative concept of time</td>
<td></td>
</tr>
<tr>
<td><strong>Space:</strong> the extent to which people are comfortable sharing space with others</td>
<td></td>
</tr>
<tr>
<td>Center of power: territorial; need for clearly delineated personal space between themselves and others</td>
<td></td>
</tr>
<tr>
<td>Center of community: communal comfort about sharing personal space with others</td>
<td></td>
</tr>
</tbody>
</table>

Video: High-Context and Low-Context Culture (0'10"-1'24")
Slide 39

**Apply Hall's Cultural Dimensions**

- **Low Context**
  - Monochronic
  - Center of Power

- **High Context**
  - Polychronic
  - Center of Community

**Communication Styles**

- **Negotiation/Conflicts**

**Step 2: Describe dimensions**

**Cultural Dimensions and Communication**

<table>
<thead>
<tr>
<th>Cultural Dimension</th>
<th>Communication styles</th>
<th>Negotiation/Conflicts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Context</strong></td>
<td>Direct style, Overt message content, Written documents</td>
<td>People attack the issue directly; if others do not agree they will openly state it because conflict is not personal except for the person who raised the issue</td>
</tr>
<tr>
<td><strong>High Context</strong></td>
<td>Indirect style, Nonverbal cue, Silence, Oral agreements</td>
<td>People dance around the issue. They avoid confrontation. They see conflict as personal, and disagreement can be assigned to different aspects of such conflicts</td>
</tr>
<tr>
<td><strong>Monochronic</strong></td>
<td></td>
<td>Approach issues sequentially and negotiate in a highly organized fashion</td>
</tr>
<tr>
<td><strong>Polychronic</strong></td>
<td></td>
<td>Approach issues simultaneously and use frequent interruptions</td>
</tr>
</tbody>
</table>

**Culture**

**Cross-cultural Communication Problems (CCP)**

**CCP Communication Process Step 2: Describe dimensions**
Imagine that you are a trainer who would like to give a sales presentation in a high or a low context country:

1. Reflect on the impact of cultural dimensions on presentation process/practice.
2. What internal (i.e., inside the company) and external (i.e., outside the company) information and resources can you search for?
3. If you were a trainer who would give a sales presentation in (country name), then what you would pay the most attention to?

Case Study: Sales Presentation

- Collectivistic society
- A borderline hierarchical society
- One of the most uncertainty avoiding countries on earth
- One of the most Masculine societies in the world
- Long Term Orientation oriented societies

Japan

Culture | Cross-cultural Communication Problems (CCP) | CCP Communication Process
---|---|---
Japan | United States | Step 2: Describe dimensions
**Slide 43**

<table>
<thead>
<tr>
<th>I-C</th>
<th>Individualism</th>
<th>Collectivism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Collectivistic society: putting harmony of group above the expression of individual opinions and people have a strong sense of shame for losing face</td>
<td></td>
</tr>
<tr>
<td><strong>Communication Styles</strong></td>
<td>High context, indirect/co-operative with ingroup</td>
<td></td>
</tr>
<tr>
<td><strong>Negotiation/Conflicts</strong></td>
<td>Develop a relationship; Mutual face-saving; Patience and mindful observation</td>
<td></td>
</tr>
<tr>
<td><strong>Power Distance</strong></td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

**Slide 44**

<table>
<thead>
<tr>
<th>Uncertainty Avoidance</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Japanese learned to prepare themselves for any uncertain situation and for every other aspects of society</td>
<td></td>
</tr>
<tr>
<td><strong>Communication Styles</strong></td>
<td>Expressive</td>
<td></td>
</tr>
<tr>
<td><strong>Negotiation/Conflicts</strong></td>
<td>Conflict is negative</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Bureaucratic rules and procedures, use of seniority in career advancement</td>
<td></td>
</tr>
<tr>
<td><strong>M-F</strong></td>
<td>Femininity</td>
<td>Masculinity</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Severe competition between groups</td>
<td></td>
</tr>
<tr>
<td><strong>Communication Styles</strong></td>
<td>Assertive; competitive</td>
<td></td>
</tr>
<tr>
<td><strong>Negotiation/Conflicts</strong></td>
<td>Confrontational procedures</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Emphasize achievement=&gt; Accomplishment</td>
<td></td>
</tr>
</tbody>
</table>

**Culture**

- Cross-cultural Communication Problems (CCP)
- CCP Communication Process
Step 2: Describe dimensions
Slide 45

Describe the cultural dimensions that match with the indicators

<table>
<thead>
<tr>
<th>Time Orientation</th>
<th>Short-term</th>
<th>Long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication Styles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiation/Conflicts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Culture | Cross-cultural Communication Problems (CCP) | CCP Communication Process

Step 2: Describe dimensions

Slide 46

Describe the cultural dimensions that match with the indicators

<table>
<thead>
<tr>
<th>Context</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>The context in which the message is conveyed—that is, the social cues surrounding the message—is often as important as the message itself</td>
<td></td>
</tr>
<tr>
<td>Communication Styles</td>
<td>Indirect style; nonverbal cue; silence; oral agreements</td>
<td></td>
</tr>
<tr>
<td>Negotiation/Conflicts</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Time</td>
<td>Monochronic</td>
</tr>
<tr>
<td>Description</td>
<td>Communication Styles</td>
<td>Nap</td>
</tr>
<tr>
<td>Negotiation/Conflicts</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Culture | Cross-cultural Communication Problems (CCP) | CCP Communication Process

Step 2: Describe dimensions
### Cultural Dimensions

<table>
<thead>
<tr>
<th>Cultural Dimensions</th>
<th>Communication</th>
<th>Negotiation/Conflicts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualism</td>
<td>Collectivism</td>
<td>The context surrounding the message is important; Indirect communication; High use of nonverbal cue; Comfortable with silence; Importance of oral agreements</td>
</tr>
<tr>
<td>Low power distance</td>
<td>High power distance</td>
<td>View conflicts as negative; Develop a relationship; Mutual face-saving; Process issues simultaneously and using frequent interruptions</td>
</tr>
<tr>
<td>Low uncertainty avoidance</td>
<td>High uncertainty avoidance</td>
<td></td>
</tr>
<tr>
<td>Masculinity</td>
<td>Femininity</td>
<td></td>
</tr>
<tr>
<td>Low context</td>
<td>High context</td>
<td></td>
</tr>
<tr>
<td>Monochronic</td>
<td>Polychronic</td>
<td></td>
</tr>
</tbody>
</table>

### Non-verbal Communication

<table>
<thead>
<tr>
<th>Non-verbal</th>
<th>Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facial Expressions</td>
<td>• Smile and nodding are courtesy</td>
</tr>
<tr>
<td></td>
<td>• Frowning while someone is speaking is interpreted as a sign of disagreement</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Japanese feel uncomfortable with direct eye contact, and they want to avoid it</td>
</tr>
<tr>
<td>Space Distance</td>
<td>Noncontact cultures. Touching is unwelcome when speaking to a Japanese</td>
</tr>
<tr>
<td>Other</td>
<td>Gestures are not an important communication tool in Japanese culture</td>
</tr>
</tbody>
</table>

---

**Global Affairs Canada/Country Insight/Cultural Information - Japan**

**Commisceo Global/Country Guides/Japan Guide**

**IOR Global Services/Country Guides/Japan Guide**

**CCP Communication Process**

**Step 3: Identify solutions**
Select one solution that best fits the problem situation

Reflect on the communication process.

Goal-Process-Results

Reflect on all possible communication styles and select a better way of communication.

Focus on indirect and formal communication, non-verbal cues, and context

What internal (i.e., inside the company) and external (i.e., outside the company) information and resources can the American look for?

He may check if there are employees in his company who understand Japanese culture or who have worked with Japanese companies. He may also check culture guides online.

What else should the American pay attention to if one had a chance to present the proposal again? Please think of alternatives and consequences.

1. Learn business etiquette in Japan

Business Etiquette and Other

1. Learn business etiquette in Japan

Criteria

Identify OTHER FACTORS that may affect communication

Other factors: personal relationship and trust, business etiquette and protocol

Check the IMPACT of the final solution

Impact: Two Japanesees may communicate better with the American and value the effort he has made

Check the CONSEQUENCES of the final solution

Consequences:

1. It may help set up a correct expectation in the future
2. It may help start a long-term relationship and trust
Slide 51

**Criteria**

**Check its FLEXIBILITY**

Flexibility:
- It is a feasible solution because the American will change his perceptions and behaviors without much cost, and do a better job in preparing for the business meeting.

**Check if there are other ALTERNATIVES** (if...then)

Other alternatives:
- Ask other people to help build a relationship; start from building trust in the beginning and expect it may take time.

---

Slide 52

**CCP Communication Process**

1. **Identify the indicators of the CCP situation**
2. **Describe the cultural dimensions that match with the indicators**
3. **Identify potential solutions to the problem**
4. **Select one solution that best fits the problem situation**
5. **Reflect on the likely effectiveness of the solution**
A Chinese company is having a meeting with an American company that will help sell their teas in the U.S. Americans are rushing out to try to sign a contract, but their Chinese partners want to take time to make it work first.

**Reflection**
1. Reflect on the communication process.
2. Reflect on all possible communication styles and select a better way of communication.

**Searching**
3. What internal (i.e., inside their company) and external (i.e., outside their company) information and resources can the Americans look for?

**If...then**
4. What else should the American company pay attention to in a future meeting?

**Evaluation Criteria for Case Study**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>The final solution has followed the cross-cultural communication process</td>
<td>15</td>
</tr>
<tr>
<td>Cross-cultural communication problems have been clearly identified</td>
<td>10</td>
</tr>
<tr>
<td>The final solution is feasible</td>
<td>15</td>
</tr>
<tr>
<td>The final solution has placed all cultural elements into consideration</td>
<td>10</td>
</tr>
<tr>
<td>The final solution has been analyzed with Hofstede and Hall’s model</td>
<td>10</td>
</tr>
<tr>
<td>The final solution has provided practical and plausible suggestions</td>
<td>15</td>
</tr>
<tr>
<td>Alternative solutions have been discussed in the final case study report</td>
<td>15</td>
</tr>
<tr>
<td>The final case study report is logically structured</td>
<td>10</td>
</tr>
</tbody>
</table>
Appendix I: Interview Data

ID: Respondent 1
Date: May 08, 2017

R: Researcher I: Interviewee

R: What are your future career goals? What occupations would you like to do after graduation? Have you thought about it?

I: I have thought about it, but I have not confirmed yet.

R: Okay, have you thought of several options that you would like to do?

I: Yes. I have thought of working as a flight attendant.

R: Flight attendant, and any others?

I: And do the same job as my father does. He now works in semiconductor trading.

R: Procurement?

I: It should not be considered as procurement. He is selling used machines.

R: Hmm, so he is an equipment supplier. I do not know if it is correct. Or how should I describe it?

I: He buys and then sells goods to other people.

R: Okay, so what he does is to buy and then sell goods. Since you are studying business administration, have you thought of working as a manager in the future?

I: Manager. Sure, but it is impossible to work as a manager right after joining a company.

R: Yes, of course, this is a long-run career goal. In fact, people change career goals over time.

R: What business courses have you taken now? Which year are you in?

I: Freshman year.

R: Freshman. What business courses do you take?
I: Management. Required courses such as Accounting, Calculus, and Economics.

R: Accounting, Calculus, and Economics. Do you think that these courses may prepare you as a future manager?

I: Accounting and Economics may help more or less, but I do not think Calculus may help.

R: What about Management?

I: I think Management may help, but probably actual operation is different from what we read on the textbook.

R: Well. Accounting, Economics, and Calculus are required courses. You may not use Calculus later; probably you may use mathematical logics from Calculus at most.

R: Compared to your classmates, do you think that can you learn better than them in terms of course performance?

I: What do you mean?

R: In general, shouldn’t you take courses with your classmates? Do you think that you can learn better than your classmates?

I: In terms of grades or…?

R: What you have learned and grades. Whether you have learned much or not, and your grades.

I: Depending on which subjects: I could learn better in subjects such as Economics and Accounting, but I am not good at Calculus.

R: So you think it depends on subjects.
R: You have attended classes this and last week, that is, the workshop I taught. What would you like to learn from the classes? Although now classes are over, what do you want to learn from within?

I: Mainly cross-cultural communication: different understanding and ways of conversation in each country, or their customs.

R: You work as a team. Everyone has been assigned to a team. Are you satisfied with the performance of your team? Your overall team performance in the classes.

I: Satisfied.

R: Although you are satisfied, are there any ways to improve your team performance?

I: Improvement?

R: If there is room for improvement, what do you think can be done to improve your team performance?

I: I do not know what to say.

R: There are many ways out there. Although you are satisfied with your team performance, you can always perform better. What do you think can be done to help your team perform better?

I: Probably if everyone reads more materials, and speaks out more. If all of us express our own opinions and then discuss together.

R: Do you have any group discussions or something alike in your other courses? For example, your previous courses such as Management, Calculus, and Accounting.

I: Management class does.
R: You might exchange information or opinions with one another in your workshop team. Any differences from your previous teams?

I: The number of my workshop team members, five people, is fewer than the number of my Management team, over ten people. Therefore, there will be more opinions from the latter group if you would like to exchange opinions. It then takes longer to adjust to one another to discuss a decision.

R: Between these two groups, which group do you think perform better?

I: I think the workshop team for this course is better because we looked for our own team members.

R: I think it is quite diversified with people from different majors.

I: That should be because we did not have enough people, we had to add people from other majors.

R: So you looked for people by yourselves.

I: Yes. These are people we know well, probably those you get along well with. But as for Management class, it was randomly assigned by the instructor. It was possible that you may meet someone you do not know well.

R: So you think the workshop team is better.

I: Um.

R: So comparing these two teams, in terms of information exchange, which one has a great deal of information exchange, and then which one is more efficient?

I: In light of being more efficient, I think this workshop team which is faster to reach a consensus through discussions is more efficient, whereas it might take longer for the other one which has too many people to discuss.
R: But comparatively, you mentioned that it has more diversified opinions.
I: Yes. Because everyone has different thoughts.

R: Well. Now do you think that there are any differences in communication process between the workshop team and your previous teams? Does your team prefer written or oral communication? Which communication process takes longer, or are there any other differences in communication?
I: It took longer for my Management team to communicate. Compared to the Management team, it takes less time for my workshop team.

R: Do you use the same communication methods? Face-to-face communication in Management?
I: Yes, we had face-to-face communication. We had little discussion during the classes, and we mostly communicated through Line after the classes. In order to write our report, we utilized a Line group. Everyone then took charge of different sections and was responsible for submitting them to Line. We read and then summarized the report together at last.

R: You did not meet even when you were summarizing the report.
I: Neither when we were summarizing the report. We would divide tasks. After we all agreed the way of making the report, and then there would be one person in charge of making a presentation.

R: What about the workshop team?
I: We have more in-class discussions.

R: But you have not started to write your assignment.
I: Not yet.

R: You will not know if you would use Line or others.
I: Probably.
R: Do you think there are other differences between your workshop team and the previous teams? Except for the parts of communication and efficiency we just discussed.

I: In terms of scheduling a meeting to talk face-to-face, it is easy for the workshop team because there are fewer people to schedule, and it is easier to set up a time to meet. But it was hard for the Management team to find a time that worked for over ten people because there were too many people. Using Internet to communicate would be more convenient.

R: Okay, any other differences? Except for communication in a team, are there any other differences between these two teams? Except for communication, what about decision-making? Are there any differences when you would like to make a decision?

I: Any differences?

R: In addition to what you just described in terms of easier or more difficult to make an appointment. Then one may take more time to communicate and mainly use Internet communication. One has more people with diversified opinions, and then one has less people and is more efficient. Any other differences?

I: That’s almost all. These are the differences.

R: Well. Now it’s time for you to decide whether you would like to work with the same group again or not. Are you extremely unlikely, unlikely, neutral, likely, or extremely likely to work with the same group? If you would like to work with them again, this group.

I: Likely.

R: Okay, You can think of the five options. Are you extremely unlikely, unlikely, neutral, likely, or extremely likely?

I: Under the situation that I may have other options.
R: That is to say that if you would like to work with the workshop team. It does not matter if there are other teams or not, only think of this team. Do you still want to work with them?

I: Um, I would like to.

R: So what are the reasons for working with the same group? Keep working with them?

I: Everyone is very responsible. We complete assigned tasks and then discuss together. There is no classmate who does nothing.

R: Okay, that is important.

R: Now please recall the classes we had for the past two weeks, can you describe what behaviors we practiced? When you were discussing, we would ask you to practice certain behaviors. Can you think of anything specific?

I: Practiced communication.

R: For instance, we did a case of an American and two Japanese. What did the first question ask? Can you recall?

I: I cannot think of anything specific.

R: That’s okay. There were the second and third questions. We asked you to look for something. Did you remember what to look for?

I: Differences in culture?

R: It does not matter, and you can talk anything you can think of. In the course material, there are several questions asked. The first question asked you to understand something about the American team. Then the third or second question asked you to search for something, can you recall?

I: (No response.)
R: It’s fine. I should emphasize more in the class if you cannot remember.

R: Well. Except for thinking of cultural differences in the first step. Then can you think of any differences between this class and your previous classes, such as Management, Calculus, and Accounting?

I: Differences? What do you mean?

R: Differences in course activities or content, what do you think these are?

I: This class is livelier. There are more interactions with the instructor and then with students. There are more interactions in the class. There are group discussions, and then we need to write on posters. This is not the case in Calculus. We sit there in the Calculus class, and then the instructor talks for three hours. There is no interaction at all.

R: Because normally this kind of class is more conceptual, whereas our class is more interpersonal so that it can be designed to include more interactions. However, there are instructors who have lectures for this kind of class and include no interaction at all.

R: So you think it is more active, more interactive, more interactions in teams, and then?

I: I guess that’s all.

R: In fact, when you were responding to case study questions, I always referred to a term, “reflection”: can you recall that? Reflection is to think about the objectives, processes, and outcomes of the team. Then we also practiced “boundary spanning”: that is to ask you to search for internal and external resources. For instance, I mentioned that the American should ask if there are people in the same company who had been dispatched to work in Japan, or have experience working with Japanese. This asked you to look for internal and external information and resources. Then the third one, we asked you to think of some alternatives. For example, in
one case, we had better ask a senior worker to accompany the junior American for a presentation, or we should focus more on work etiquette. These are examples of considering alternatives.

R: Do you think of whether you would like to use these behaviors in the future, or in your group discussions? To think of objectives, processes, and outcomes of your team or teams in the case studies, then to search for internal and external resources, or to think whether there are any alternatives. Do you think about whether you would consider using these three behaviors in your group discussions in the future?
I: Yes.

R: What can you do to apply these behaviors?
I: For instance, before our discussions we need to think of content for discussions and desired goals, or back-up plans so that the discussion process will be smoother instead of getting stuck.
R: In fact, we would hope that you can not only learn cross-cultural communication, but also bring these three behaviors to your future groups after the classes. We would hope that students not only think of one answer, but think of alternatives. Then put objectives, processes, and outcomes into consideration every time when you discuss anything. Try to look for any resources that are helpful, not limited to people in the case studies, or even yourselves. If you are not sure about the questions, or if you know who are more professional, you all can look for internal and external resources or information.
R: Do you think that you would use these to improve your course performance, or in your course teams? For example, in your Management class, there might be a classmate to ask you to think of
alternatives, objectives in the case studies or in your own team, and to look for resources that may help you. Do you think about whether you would try to do so in your future class groups?

I: Yes. Because the instructor in Management keeps mentioning the importance of planning ahead; you have to set up goals so that you will not feel meaningless during a process. Having a goal is easier for you to pursue.

R: If you would like to use these behaviors in the future, what factors may help you apply these behaviors in the future? What factors may prevent you from using these behaviors?

I: What factors?

R: What factors may facilitate you to use these behaviors successfully? Then what factors may stop you from using these behaviors? Please think about these factors. Which factors help you use these behaviors in your team? What factors prevent you from using these in your team?

Think of your workshop team. You can think of attitudes of your team members, any other things, or characteristics of your team? You may think from these aspects.

I: I think it is hard to think.

R: For instance, if you are now going to use these behaviors in your team in the Management class. Do you think that you can successfully introduce these behaviors and tell your team members that you are going to use these behaviors?

I: I think so.

R: You think they should listen to you.

I: I could propose these behaviors and discuss with my team members. If they think these are acceptable, and then it works; if they think these are not acceptable, and we could see if there are alternatives.
R: So you think whether they agree or not may affect whether you could use these behaviors or not?

I: Yes. If they do not agree, but I insist on using them, it may cause disharmony in our team.

R: Yes, and then? Can you think that there are other factors that may help you use these behaviors and what may stop you from using these behaviors?

R: For example, if your workshop team had learned these behaviors, do you think that they would agree or not whether you would like to use these behaviors in the future? I am not talking about case studies in the class; it might be your final report. You are going to write a report about a country. Do you think that you can tell them that you should use these behaviors to think about your team objectives, think of alternatives, and search for internal and external resources? Do you think you can successfully use these behaviors?

I: I think we could use them successfully because normally my team members do not have any opinions.

R: And because they all learned these behaviors, they think these are useful. It may be more convenient for you to communicate because everyone attended the same class.

I: Yes. We all had the same class.
ID: Respondent 2
Date: May 08, 2017

R: Researcher I: Interviewee

R: What would you like to do in the future? Your career goals? Have you thought about it?
I: Um, I would prefer to engage in service industry so that I can talk to others.

R: Have you thought of working as a manager in the future? Since you are studying in Business Administration now.
I: I sure hope so, if I could.

R: Okay. What business courses have you taken? Have you taken any business course in your freshman year?
I: We only took Management.

R: Except for Management, any others? Which semester are you in?
I: This is my second semester.

R: Have you taken any other business courses last semester?
I: No. We took Calculus and Economics. So are these also considered as business courses?

R: These are fundamental business courses. If you would like to count them as business courses, they might as well be. Do you think that these courses will prepare you as a future manager?
I: I think Economics and Management might be more helpful, but I am really not sure about if Calculus might be helpful.

R: You do not know about Calculus, and what about Accounting?
I: I think Accounting is probably all right because I did not learn it well.
R: Are you taking courses with your classmates now? In addition to this business communication class, do you have other courses? In general, do you think that you can learn better than your classmates in general courses?

I: General courses?

R: Courses that you have taken such as Management, Calculus, and Accounting. Do you think that you can perform better than others in the courses? Compared to other students?

I: In terms of grades?

R: Grades and whether you learn more things or not. What do you think?

I: I think I probably do not.

R: Why do you think you do not learn more than other people?

I: Because I am a social science major; I think Calculus is so difficult. Accounting is something new, but I neither learn it well. I did okay in my Economics.

R: So you think you learned better than others in Economics, but probably not so well in Calculus and Accounting.

R: You had a three or four-hour class on cross-cultural communication. When you heard the title, “Solving Cross-Cultural Communication Problems,” what did you expect to learn?

I: Communicate with people from other countries. Or probably know their habits or taboos better while traveling abroad.

R: Habits or taboos. It looks like your final report might cover these; thus, you would like to learn these.

R: You now work as a team. Are you satisfied with your team performance?
I: I am pretty satisfied.

R: Okay, you are pretty satisfied, but there always will be room for improvement. Do you think that there are ways to improve your team performance?

I: What ways? It might be that everyone needs to help write things more actively because we often have our team leader write everything.

R: So you think it would be better if everyone is involved in more actively.

I: Yeah, everyone is busy discussing and probably the team leader takes more responsibility.

R: So everyone participates in the discussion; no one would like to write.

R: In your workshop team, you exchange opinions and information with one another in discussions. Did you work as a team in your previous Management, Accounting, and Calculus classes?

I: We worked as a team in the Management class.

R: Compared to your Management team, do you think that there are any differences in terms of information and opinion exchange?

I: I think the difference lies in the ways of dividing teams. Because we selected our team members who we know well, we would be braver to express our opinions, and more willing to listen to one another. Our Management group was assigned by the instructor, and we did not get along so well because we did not know one another well.

R: So the Management team was assigned by the instructor, and there was not much information or idea exchange.

I: In terms of content, I think there is not much difference.
R: Do you think that there are any differences between your workshop team and the Management team in terms of communication methods and processes? For instance, whether the communication method is written or online? Length of time in communication, and efficiency of communication? These are possible differences that may be considered. What differences do you see?

I: Because the instructor of Management gave us longer time, sometimes we might become less efficient given longer time available. As for today’s class, we have shorter time, and we may be more efficient.

R: Any differences in communication methods? Do you have more face-to-face, telephone, or Line communication in the Management class?

I: Face-to-face, mostly in classes or at most after classes. We all get together to discuss.

R: So you think there is no difference in communication methods.

I: Yeah.

R: Any other differences in communication?

I: Maybe not.

R: We just discussed opinion exchange and communication methods. Do you think that there are other differences between the workshop team and the Management team?

I: Um, there is one difference: we do not have male students in our workshop team. We happened to have male students in our Management team. Male students seem to have unique opinions, which are different from ours.
R: Okay, and anything else? Except for gender difference, there are many processes in a team, including decision-making. Do you think that there are any differences with regard to group decision-making in the Management and workshop teams?

I: Which aspects? What aspects of decision-making?

R: For example, the time spent on decision-making, or the ways of making decisions. Whether is it participative, direct, or any other ways? Are there differences in decision-making? For instance, are there differences in the two teams in terms of the time taken to have a meeting or the ways to divide tasks?

I: I think the difference lies in whether an instructor assigns groups or we divide into groups by ourselves. If an instructor assigns groups, we may not know someone well. Then some people may not express their opinions, and thus sometimes it turns out that only one classmate expresses his/her own feelings. In this class, because we know one another well and choose people for our group by ourselves, there tends to be more group participation.

R: So compared to the Management team, the difference lies in the fact that the Management team was assigned by the instructor, and people did not know each other well and did not express their opinions; then the workshop team was formed by yourselves, and your team has higher level of participation and is better in terms of efficiency.

R: Do you ever want to work with the workshop team, the team in this class, again? There are five options: extremely likely, likely, neutral, unlikely, or extremely unlikely. The same team in the workshop, in this communication class.

I: Extremely likely.

R: Well. Why do you think you still want to work with them as a team?
I: Because we know one another well and then work very efficiently.

R: Therefore, you still want to work with them.

R: We had a class this and last week. We actually practiced team learning behaviors when you were doing activities. Please recall when we were discussing the Japanese case. We discussed a little bit the last week and more this week. I asked you to do something in the first and second question. Do you still remember what to put into consideration? In the Japanese case, we said there is something that you should consider. And then in the third question, we said that you should search for and utilize something. Lastly, when you were considering the solution, what should you do? Think of it. It’s more difficult. You may have a hard time recalling because we went through training content very fast. Think about the case of the Japanese: what do we ask in the first and second questions?

I: When we read the written materials, or watched the video.

R: Questions we asked. First, you should think of the American team: What should he and his supervisor pay attention to? It is a more difficult question, and I will give you one more minute to think. For example, when you discussed culture in the activity, I said that you have to search for something.

I: Searching for definitions of culture?

R: Then I gave some examples; for instance, what should you do when you search for definitions of culture? I cannot give you too many details. And when you were thinking about solutions, except for the right solution, what else should you consider?

R: It’s okay. This is not a test. It is fine if you cannot think of anything specific.

I: It seems that I cannot think of anything specific.
R: Well, the first one is reflection. Do you remember it, reflection? When we asked questions in the American case, I said that you needed to think of the objectives, results, and processes of the American team. This is so-called reflection. Then we said that you need to search internal and external information and resources. For instances, in the question of culture, you were asked to search for internal and external websites, ask someone else, look for it in dictionaries or in the handbook. Searching for internal and external resources is so-called boundary spanning. You will make a better decision if you search for internal and external resources to receive more input for your team. The third one is “Experimentation.” You have to consider alternatives. For example, in the Japanese case, we said that we might look for someone at a higher level to help build a relationship, and then you may consider work etiquette. Maybe I should emphasize these in the classes.

R: What are the differences between the workshop and your previous courses such as Management, Calculus, and Accounting in terms of training content and activities?

I: There are more group discussions.

R: And then?

I: Write down our discussion content on a big piece of paper.

R: Write down discussion results on posters.

R: And then?

I: It is more open.

R: Open? What do you mean?

I: It gives us more imagery space.
R: You mean that there are no definite answers; hence, it provides more imagery space? Or the instructor encourages different points of views? What do you mean by “open”?

I: The instructor allows us to have more thoughts.

R: And then?

I: I think that’s all.

R: I just described the three behaviors: You have to think of objectives, results, and processes; you have to think of alternatives; and you have to try to search for internal and external resources. Do you think that you would like to use these behaviors in the future? Will you try to use these behaviors?

I: What aspects are you referring to?

R: For instance, in your future group discussions or in your future jobs, do you think that you would use these behaviors?

I: I would.

R: In which ways?

I: Boundary spanning and reflection.

R: You think you may use boundary spanning and reflection.

R: Will you use these to improve your course performance? Will you use these behaviors in group discussions? Or will you try to use boundary spanning, reflection, and experimentation when you write a report?

I: I will.
R: You just mentioned that you would like to use boundary spanning and reflection. What factors may help you use these behaviors in the future? What factors may restrict you?

R: If you will use them in your future teams and in your future jobs, in terms of team, work, or class, what factors do you think may allow you to use these behaviors? Then what factors may prevent you from using these behaviors? You may think from the perspective of these aspects.

I: So I have to think of examples.

R: Just think of factors. You may use examples from your classes if you think you may use them in your future classes. Or you may use them in your future jobs. What factors do you think may help you use these behaviors in your future jobs or future classes? What factors may stop you from using these behaviors?

I: If in my field, when I have no way to know a thing, I may need to use boundary spanning. Boundary spanning can help me understand things in other fields, or when we discuss our report.

R: In the future, do you think that there are any factors that would present obstacles or hinder you from using these behaviors, when you say to your team, “Let’s search for internal and external resources,” or “Let’s consider team objectives, processes, and results.”

I: Probably if there are no good interactions in teams.

R: So you think if there are no good interactions in teams, you may not be able to use reflection or boundary spanning.

R: Um, please think of it again. In what circumstances, you would be able to apply team boundary spanning or reflection, and you could suggest to your team that they use these behaviors? In which situation, might it help you use them in the future?

I: Which situation?
R: For example, if you are in a class, what kind of teams or jobs would be easier for you when you propose that you would like to use these behaviors or you would use them?

I: I have no clue.

R: It’s okay. At least you thought of something. Do you have other questions that you would like to ask?

I: I don’t.
ID: Respondent 3
Date: May 08, 2017

R: Researcher I: Interviewee

R: What are your career goals? Have you ever thought about what you would like to do in the future?

I: I would like to engage in healthcare management profession. It would be great if I could develop healthcare policies in government relevant agencies.

R: Have you thought of working as a manager in the future?

I: People in government agencies should be managers, aren't they?

R: At least it is a competent authority, but you could be a specialist and then be promoted as a manager.

I: Yes.

R: So you think you want to be a manager in the future.

I: Yes.

R: What business courses have you taken since you have been here for a year?

I: So far only Healthcare Management.

R: Only Healthcare Management.

R: Do you have a course titled, “Healthcare Management,” or do you have other courses?

Students in Industrial Management have taken Management, Accounting, and Calculus. We are talking about courses you are taking now.

I: Calculus.

R: Have you taken Management?

I: I have not taken Management so far, but I should take it in my second year.
R: You have not taken Management. Did you just mention that you took Healthcare Management in your first year?

I: Healthcare Management represents “Introduction to Healthcare Management.”

R: Anything else? Other business courses? How many courses have you taken in one year?

I: What about Public Health?

R: It is kind of tricky. Public Health, Introduction to Healthcare Management, and Calculus. What else?

I: Accounting and Statistics.

R: You have to learn Statistics. Well. Healthcare Management majors may have to learn Accounting and Statistics.

R: Do you think that these courses can prepare you as a future manager?

I: I think all these courses have supporting effects.

R: Having supporting effects, including Calculus, Statistics, and Accounting.

I: Yes. Because these courses train your thinking; in fact, a manager also needs careful thinking models such as Calculus.

R: I called it “mathematical logic.” Although it is difficult to learn mathematic computation, it will train your mathematical logic.

I: Yes.

R: You took the following courses: Calculus, Healthcare Management, Public Health, Accounting, and Statistics. Do you think that you learn better than your classmates in the courses?

I: I probably learned better in some courses.

R: Such as?
I: For example, Calculus, Statistics, and something alike. Comparatively, subjects that test logical thinking would be easier for me.

R: What about other courses such as Healthcare Management and Public Health?

I: These are the ones that you have to integrate the subjects with relevant background knowledge. I did not know much when I just came and entered this university last year. Therefore, the situation was not very ideal in the beginning, but I caught up later.

R: You attended my workshop this and last week. Although you have had the classes, what would you like to learn when you hear the title, “Cross-Cultural Communication Workshop”? What would you like to learn when you see the course title, the title of the workshop?

I: I think I would like to know more about multi-cultures and fundamental realities of each country.

R: And then?

I: Then if it is feasible, for one or two countries, introduce the formation of their cultures.

R: Which country are you interested in?

I: Japan.

R: If it were a course for one semester, I would have a chance to do so. It is difficult for a two-week workshop to do so.

R: Now I would like to ask you about teams. Do you work as a team in other courses?

I: Yes, I do.

R: In what courses do you work as a team?

I: In all courses.

R: Um, not in Calculus.
I: We do not work as a team in Calculus, neither in Statistics.

R: Do you work as a team in Accounting?

I: Yes, we do.

R: But the Accounting team may be different from other teams. Do you work as a team in Introduction to Healthcare Management and Public Health?

I: We work as a team in Introduction to Healthcare Management, and then probably not in Public Health.

R: Well, now I would like to ask you about your team in this workshop. Later, I may ask you to compare to your previous teams.

R: Do you think that you are satisfied with the performance of your workshop team?

I: I think overall it is okay, but I hope that everyone could devote more attention to teamwork.

R: Well, in fact, you have already answered my second question.

R: The second question asks what you think can be done to improve the performance of your team. Do you think that there are other ways to improve the performance of your workshop team? Except for asking everyone to pay more attention.

I: Um, I think because we might not put enough emphasis on relevant disciplines, we may encourage everyone and then deepen our understanding of the discipline.

R: Not care much: this is a required course, isn’t it? Does it account for few credits, or is it easy to pass?

I: It is easy to pass.

R: So you think that we do not put enough emphasis on it, and you hope to encourage everyone to value this course.
R: In the classes, you had some discussions through exchanging information with your classmates. Then, in your Introduction to Healthcare Management course, you also had group discussions and information exchange. Do you think that there are any differences between your previous team and the workshop team in terms of information and opinion exchange in your teams?

I: I think basically the information exchange process is almost the same, but in integrating, I think the previous group did a better job integrating team members’ opinions.

R: So the previous one did better on integrating opinions.

I: Yes.

R: Why? Do you use different methods? Different ways?

I: There are people in the previous team who are good at summarizing and can integrate our opinions.

R: I know those are the ones who are expert at integrating opinions.

I: Yes.

R: There is not such an expert in this current group, right?

I: Right.

R: Are there any differences in the communication process, such as your communication methods, time spent on communication, or other differences in communication between this workshop team and your previous team, the team in the Healthcare Management?

I: We took turns to speak, but people will speak out if they have the spark of thinking.

R: So you do not have an order of speaking, and you just talk when you feel like it.
I: Yes.

R: And then?

I: That’s it. It might be the biggest difference.

R: Is your communication method face-to-face? Or you probably prefer to use emails or Line?

I: Both are face-to-face.

R: So there is no difference in communication methods: what about efficiency?

I: I think in terms of efficiency, the previous team comparatively has higher level of efficiency, but both teams have room to improve.

R: The previous one is higher, but both have room to improve.

R: In addition to communication methods and information exchange, do you think that there are other differences between the workshop team and your previous teams?

I: It might be our attitude toward the class.

R: What are the differences?

I: I think, for my previous team, team members comparatively have a decent attitude toward courses, but my workshop team probably does not care about this issue.

R: So your previous team values the course, but the workshop team does not do so.

R: Do you ever want to work with the workshop team again? There are five options: extremely likely, likely, neutral, unlikely, or extremely unlikely. Which one would you like to choose?

I: Four, likely.

R: Four, likely. Why do you think you still want to work with them as a team?
I: Because after all, we have gotten along with one another for nearly one semester. In fact, it takes time for a group to work in harmony. Then now we basically are almost done with adjustments. Next, based upon our mutual understanding, we can improve profoundly and solve the aforementioned problem.

R: The next question I would like to ask you is to recall classes we had this week and last week. We actually practiced team learning behaviors in the classes. Do you remember what we practiced?

I: Um, having group discussions and then writing the poster.

R: Please recall the Japanese and American case.

I: The business presentation case.

R: Yes, proposal meeting.

I: The video we watched today.

R: Yes. The video or the video after that. We watched the video and analyzed a case about an American and a Japanese. It is a case about an Indian American who had a proposal meeting. Do you remember that we used a specific term when we asked the first and second questions? What should we pay attention to when we discussed the team that consisted of the American and his boss? Think about it. It is difficult to think; let’s see if you can remember. The first and second questions, I said an English word and then its Chinese equivalent. Then you were asked to think of three things for the team. Well, this is the first behavior. The third question, I asked you to think whether you need to search for and make use of something. Can you recall? Then the fourth question, we said that you might have many solutions, and then you have to think of one solution. Except for this one solution, what else should you do?
I: Understand others and their acceptable ways.

R: It does matter. You can talk freely. Have you thought of anything in the case?

I: Understand acceptable ways of other people and then relevant cultural backgrounds.

R: In fact, we practiced three behaviors. In the first and second questions, you were asked to think of the team’s objectives, processes, and outcomes. Can you call? You were asked to think about the American team’s objectives. Whether the American only wanted to get the proposal approved or he would like to build a long-term relationship. Then, did the American communicate with his boss effectively? And what are their desired goals? This is the first behavior. Then the third and fourth questions asked you to search for internal and external information. For example, in one particular case we said that the American may check whether there are people in the same company who had been dispatched to work in Japan, or he may look for some cultural guides on the Internet. These are internal and external types of information or resources that may help them. Then, the third behavior is about considering other alternatives and their consequences in addition to the solution we could think of. So there are specific terms for the three behaviors. You may have some impression about reflection. You may recall reflection because I have included the English term in the Chinese question. The other two are experimentation and boundary spanning, which you may not have any impression of. There are the three team learning behaviors that you may use to help your team learn as a team.

R: What are the differences between this workshop and your previous courses?

I: I think the instructor is more energetic.

R: Any difference in terms of training content and activities?
I: It emphasizes more on interactions among students. Let students understand the course content by communicating with the instructor and learning by doing.

R: Anything else? Are there any other differences from your other courses?

I: It is livelier.

R: I just described the three behaviors; these three behaviors are team learning behaviors. Do you think that you may use these behaviors in your jobs in the future, or in your future group discussions? Will you use these behaviors?

I: I will.

R: Have you thought about how you should use these behaviors?

I: First of all, I would like to confirm our goals, and then enhance efficiency and strengthen communication with my team members.

R: Well, you will have some courses in the future, and some group discussions. Do you think that you will use these methods? These are what I mentioned earlier: think about your team’s objectives, processes, and results; then try to search for internal and external resources; and lastly, try to think whether there are alternatives. Do you think that you would try to use these behaviors in future courses?

I: I would.

R: Okay, The following two questions are more difficult, and I always let students read the questions. You said that you will use these behaviors. Have you thought about in the future what factors may help you apply these behaviors? Or what factors may prevent you from using these behaviors?
I: Work or study.

R: In your future courses or in your future jobs, what factors do you think might apply?

I: As for work, if the upper level has tighter control over relevant performance, it is probably not many ways or no way to integrate well. As for courses, the time for relevant course discussions could be a limit.

R: Yes, you may not have time to undertake these behaviors.

I: Yes.

R: Are there factors that may facilitate you to use these behaviors?

I: Because team is a group, and then everyone has different strengths in a group. Through understanding everyone’s strengths, different people have different strengths, and then divide different tasks accordingly.

R: You think this may help your future teams run smoothly.

I: Yes.

R: Do you think that there are factors that may help you if you would like to use reflection, team boundary spanning, or experimentation?

I: Probably if a front-end discussion does not go well, and there is a need for everyone to reflect.

R: Good.

I: Through looking for the third party, and then examine the current effect.

R: And then?

I: Experimentation is to prepare two to three different thoughts, and then look for a design, and conduct the experiments. As a result, we can find an acceptable solution for all team members and audience.

R: Well, that’s the end of our interview.
ID: Respondent 4
Date: May 08, 2017

R: Researcher I: Interviewee

R: What are your future career goals?
I: Actually, I have not planned it yet carefully. I should go for further study.

R: Is this your ultimate goal after finishing a master’s degree?
I: Are you talking about employment?
R: Um, employment.
I: Future career direction?
R: What kind of job would you like to do?
I: Not very specific yet. It depends on the nature of the job.
R: What kind of industry would you like to enter?
I: Industry? I just want either a stable enterprise or company.
R: So you have not selected an industry. For instance, will students who major in Healthcare Management enter the healthcare industry? Or if you do not care, you can enter an enterprise or something else.
I: Probably I will look for enterprises or some organizations like hospitals.
R: Probably this kind of entity.
I: Yes, it’s close to my interest.
R: Have you ever thought of working as a manager in the future?
I: If there is a chance, definitely.
R: As a sophomore, you should take more business courses. What business courses have you taken?
I: Actually not too many. Because of our curriculum, not many, in fact.

R: Can you tell me what business courses have you taken?

I: Something like Information Management and Introduction to Healthcare Management. These are general required courses.

R: Have you taken Management?

I: It is not included in our curriculum. It is not a required course.

R: Have you taken any other business courses?

I: Not right now. No, I haven’t.

R: Healthcare Management and Information Management.

I: Yes. There were some business courses. But because of my course schedule, I have not taken these.

R: Do you think that Healthcare Management and Information Management may prepare you as a future manager?

I: I think because of our curriculum, these courses are more like introductory ones. Therefore, there is actually no in-depth introduction. If we really want to use them, we may need to study more in depth.

I: Because Healthcare Management or Hospital Management introduces tasks of each unit briefly.

R: Oh.

I: Well, you roughly understand what it is doing, but there is no way to understand details in each business unit.

R: You have taken Management or other courses: do you think that you can learn better than your classmates in the courses?
I: What do you mean?
R: For instance, you get a better grade, or you learn more. Do you think so?
I: But I think I do not learn more than them. It depends, mainly depends on your enthusiasm.
R: What about this class? In the class of business communication and presentation, do you think that you learn better than other people?
I: Do you mean my classmates who also took the course?
R: Compared to classmates who also took the course, do you think that you learn better than them?
I: I am not sure. Well.

R: You had this class this and last week. When you heard that you were going to attend a “Solving Cross-Cultural Communication Problems” class, what did you expect to learn?
I: What to learn? I mainly would like to know living habits among different cultures, communication, expression characteristics or differences, or country taboos. That is, what you are afraid to touch.
R: There is one person who also mentioned this: any other ideas?
I: That’s all about it. Or communication skills? But I think it is okay.

R: Do you work as a team in your Healthcare Management and Information Management?
I: We all work as teams. We had a small team project. Probably this kind of concept.
R: Are you satisfied with the performance of your communication skill class team?
I: Okay. Because I think our team composition is kind of unique.
R: Unique composition: what do you mean?
I: Because we looked for most of our team members by ourselves, our team seems to be the one with people who cannot find a team in the beginning. We actually do not know one another well.

R: You do not know one another well. Well, you think performance is okay. Do you think about what can be done to improve the performance of your workshop team?

I: More communication.

R: More communication, and then?

I: Normally I would encourage everyone to bravely speak out their feelings or difficulties. Sometimes people feel embarrassed to speak out because they do not know one another well. Therefore, it causes some difficulties in cooperation or in promoting cooperation. We need to express our thoughts.

R: So are you the team leader?

I: I am not; I do not want to be the team leader, so I ask my junior to be the team leader.

R: But you still encourage everyone.

R: You have some information and opinion exchange with one another in your workshop team. Your previous teams had information and opinion exchange. Do you think that there are differences between this workshop team and your previous teams?

I: Differences? The degree of directness in communication is varied because of different levels of acquaintance among us. We knew one another well in my previous group, and we tended to communicate more directly. Because we do not know one another well now, we tend to communicate indirectly so that we would not hurt other people. Besides, there were more personal interactions in addition to dealing with options or activities in my previous team. There is little in common now, probably because of our different majors or years.
R: That’s mainly because your team is more…
I: Yes, we are all in different ages and majors.
R: You have much less interaction.
I: So we do not have common topics, comparatively. But we would go directly to the points and have much less other interaction.
R: That is, you communicate more directly.
I: Yes, kind of.

R: Are there any differences in terms of communication process and methods between your workshop team and your previous teams?
I: I think there is not much difference. Because every team has someone who takes control of the communication flow; in fact, each team may not have much difference. Probably because I am the one who initiates conversations, I will lead the communication. Thus there is no difference to me.
R: So no differences in communication process: what about communication methods? Did you also use face-to-face communication in your previous teams?
I: Um, my previous groups communicated through software such as Line groups, or face to face. Because we met regularly, it was easy for us to communicate. We are now mainly utilizing software because of our different majors or grades.
R: Software means Line.
I: Yes.
R: So you have much less face-to-face communication.
I: Um, normally face-to-face communication in classes, or before classes. If we have assignments to discuss, we may schedule another time to meet together.

R: Except for information and opinion exchange, and communication, do you think that there are any differences between your workshop team and your previous teams?

I: Differences?

R: Something like group decision-making and communication.

I: The way we assign tasks.

R: What are the differences?

I: Actually, what I often do is to list tasks and let everyone choose by themselves. Previously because we knew one another better, sometimes probably we assigned tasks semi-voluntarily. That is, "Then you will in charge of something that you are good at or you are normally do." However, now basically we do not know one another well in our team, so it is more like volunteering. There are many tasks, and people voluntarily select several ones by themselves.

R: By doing this, will there be anyone not having a task?

I: It’s okay. Because I would take priority according to their willingness, everyone will be different by taking this method. What you would like to do the most, and what you would like to do the least, you will have something to do.

R: So they agreed to take this method.

I: They were not against it, so I think it is okay.
R: It is a very unique approach. Now I would like to ask you: to what extent would you like to work with this group again? There are five options: extremely unlikely, unlikely, neutral, likely, or extremely likely.
I: With the workshop team?
R: Um.
I: Neutral.
R: Why do you select “neutral”?
I: Although we might have group discussions in the classes, I do not feel like we got to know one another well. I need more time to observe, and I need to think more about it.
R: Do not know each other well.
I: Because I think discussions in the classes may be different from doing a project or writing a report.
R: So you think you need to observe more.
I: Yes, I need to observe more. I need more observation.

R: Now please recall classes this and last week. Except for cross-cultural communication, we also let you practice team learning behaviors. Can you recall team learning behaviors?
I: I am not sure about their definitions.
R: Well, I will give you some clues. In fact, when we were discussing the American and the Japanese, in our first and second questions, we actually used one word to describe that you must think about three things in a team. This is one behavior. In the third question, we said that you need to search for and use something, this is the second behavior. In the third behavior, in
addition to the solution, what else do you need to do? You can check if you remember them or not.

I: I kind of forget. It’s a bit difficult.

R: Then when we asked you to search for definitions in terms of culture, we said that you should search for and use something.

I: Search for and use something.

R: Then when we were discussing the American and the Japanese case, the Indian American, we said that he and his boss worked as a team. In this team, what should you pay attention to when we discuss the case?

I: Culture differences, perception, and behaviors?

R: It does not matter, and you can say whatever comes to your mind, and then?

I: I don’t know. That’s all. Because of cultural differences.

R: You practiced reflection. I said that you have to think about your team objectives, processes, and results. This is the first one. Then in the third question, I asked you to search for and use internal and external resources. For example, in the Japanese case, we said that you might check if there are people who had been dispatched to work in Japan, and if there are some cultural guides on the Internet.

I: Um.

R: Then experimentation means that you have to think of alternatives and consequences. Because there is one question that asks you to think of alternatives in addition to the solution. For example, I have mentioned that if you should ask a senior worker to accompany the American, the result may be better. You may think of building a long-term relationship. So these are three team learning behaviors.
I: Um.

R: Maybe because you did not practice enough.

I: No. Definitions are rather vague.

R: Because I cannot refer to this term directly in the classes, I can only let you practice these behaviors.

I: So we might know that these things had been talked about when you described them, but…

R: Do you think that there are any differences between this workshop, your previous courses, or others?

I: Are you referring to these two classes and my other previous courses?

R: Yes. For example, Introduction to Healthcare Management, Public Health, and Information Management. Their training content, activities, or others.

I: Of course, training contents are different because courses were set up for different purposes in the beginning. Thus contents and models are not quite the same.

R: Models?

I: Although our other courses are also business courses, they prefer lectures in which an instructor talks and students listen, and reports are done by discussions after classes. They do not have group interaction and discussions during classes.

R: So you think training activities are different in this class.

I: Um, the ways of giving lessons.

R: What are the differences in terms of the ways of giving lessons?

I: We have more chances to stand in the front of the class and express our opinions.

R: And then?
I: There are more discussion activities.

R: I just described the three behaviors: reflection, boundary spanning, and experimentation. Do you think that you would try to use them in your future jobs, in your future classes, or future group discussions?

I: I should use them in my future jobs, but I am not sure if I will use them in my future groups.

R: Why are you not sure whether you will use them in your future groups?

I: Because now we have similar cultural backgrounds, it is less likely to have special cases that we need to use them. Probably we are different because of the impacts of our family backgrounds. If we encounter the special cases, we should be able to use them; if we do not encounter the special cases, we are less likely to do these things specifically.

R: You mentioned that you may not use the three behaviors in your group discussions, but you may consider using the three behaviors in your future jobs.

I: It depends on our partner; if there are different cultural backgrounds on our team, we may use these behaviors because there is a huge difference in our thoughts. Because we have a slight difference among us in our workshop team in general, we may not have a chance to use them.

R: So you think you may not want to use boundary spanning, reflection, and experimentation if there is a slight difference in your team?

I: I think I should use experimentation, not sure about reflection, but I would not use boundary spanning.

R: You think you are less likely to look for resources or information outside of your team?

I: Because I think boundary spanning is the concept that you will think of it when encountering special cases.
R: It is kind of unique. Encountering special cases?
I: In general, you would feel like that the cooperation goes on well because no special cases occur. You would think of looking for assistance only if special cases occur.
R: But sometimes boundary spanning suggests that you can search for internal and external expert opinions or external websites.
I: You mean looking for information. Because we were well-behaved during the class, we did not use cell phones specifically, our discussion scope would probably be narrower, we may only discuss and summarize based upon materials at hand or written materials, and we are less likely to conduct other searches.
R: You think you may use experimentation because you consider alternatives. What about reflection and boundary spanning? In terms of boundary spanning, you would like to use external resources when you encounter special cases. What about reflection? Do you think that your chances of using reflection will be high or not?
I: I kind of forgot what reflection is.
R: Reflection refers to your team objectives, processes, and results.
I: Um, we will use this, but maybe in the beginning, because I think each team assembled has its objectives and things to carry out. This is what we must do.
R: Will you use these behaviors to improve your course performance? Use them in your course discussion group?
I: I think these behaviors have an imperceptible influence. You may actually have used them, but you may not notice that you’ve been using something within the three behaviors. If there is not much difference, they are not so obvious to be noticed.
R: What factors do you think may help you use these behaviors in the future, and then what factors may prevent you from using these behaviors?

I: Will help me to use these behaviors. Factors that should help me are when I encounter special cases or I feel that there is a huge difference in terms of thinking or conceptual ideas among us.

R: Then you think you will use these behaviors when there is a huge difference, or you will not use them.

I: When there is a huge difference in thoughts, the probability of using these behaviors is more frequent or bigger. Or when the team or group has a very specific goal, you would like to make it better with some proactive behaviors. These behaviors are obviously useful.

R: Are there any factors that you think may prevent you from using these three behaviors?

I: If there is no consensus in a team, and team members are not very proactive. Or when the team searches for alternatives, but it is not very effective. Team members may be less confident to use these behaviors, or less willing to cooperate.

R: Well, this is the end of our formal interview, and I will turn off the recorder.
ID: Respondent 5
Date: May 08, 2017

R: Researcher I: Interviewee

R: What are your career goals?
I: Career goals for now?
R: Um, they may change over time. What are your current career goals?
I: What I would like to do in the future?
R: Yes. What would you like to do in the future?
I: Probably I will work as an engineer in the future.
R: Engineer, have you thought of working as a manager in the future?
I: Manager. I think so. I cannot work in R&D for my whole life, and I want to utilize my communication skills in the future to do my work.
R: Have you taken any business courses?
I: No. What about general education courses I took before?
R: What kind of general education courses?
I: Then I have not. I took Technology Law and Social Psychology.
R: Social Psychology.
I: Yes.
R: So you have not taken any business courses?
I: No.
R: Have you taken Accounting, Statistics, Economics, and Calculus?
I: I took Calculus in my freshman year.
R: Calculus in your case does not count as a business course. Well, what about Introduction to Management?

I: Middle school Calculus, does it count?

R: No.

R: Introduction to Management, Information Management, and what else? You probably have not taken any other business courses.

I: No.

R: You are an Electrical Engineering student. Overall, compared to your classmates in Electrical Engineering courses, do you think…?

I: Other classmates? Who?

R: Electrical Engineering classmates with whom you took courses together. Do you think that you perform better than them in the courses?

I: Better. Definitely. I am the tenth of the class.

R: The tenth of the class. You know your ranking.

I: You will know what place you are in the class if you print out a transcript.

R: Is it the ranking for the last semester?

I: For four years.

R: For four years, do you know it?

I: Yes. For three and a half years.

R: But you have not graduated.

I: I am about to graduate.

R: You are about to graduate, so you know your overall ranking.
R: Before the class, Dr. Lin mentioned that you were going to have this cross-cultural class, what would you like to learn from this class at that time?

I: What would I like to learn?

R: Have you thought of what you would like to learn?

I: Understand different ethnic customs in each country. No. I should put it this way: people in each country have different habits, as you mentioned in the class. When I was in Australia, I found that people from South Americans were not on time. Something of this sort. And then Japanese are more on time and more polite. I also found that when communicating with people from different countries, and sometime they cannot speak English well because of their poor English, I might not understand them. But I might know that they were different from us from their behaviors. This should be cross-cultural communication. Sometimes if they do not understand us or if we say something, they would feel… or if he/she says something, and vice versa. Every country is different.

R: So you would like to understand different communication methods in each country, or anything else?

I: Different communication methods in each country.
R: And then?

I: And ethnic consciousness in each country. Well, national ethnic consciousness would result in everyone’s different thoughts.

R: But ethnic consciousness could be a course for a semester. It is more difficult. Now you work as a team in this class.

I: Team, what do you mean?

R: Your team.

I: Oh, my team.

R: Are you satisfied with your workshop team performance?

I: Satisfied.

R: Do you think that there are ways to improve your workshop team performance? Although you are satisfied, but it is not perfect. Anything that can be improved?

I: I think everyone could throw out more opinions.

R: Thoughts?

I: Yes.

R: There is some information or opinion exchange in your workshop team discussions. Did you work as a team in your previous courses?

I: What kind of courses?

R: Other courses. Do you work as a team in Electrical Engineering?

I: A few courses.

R: What about general education courses? Do you work as a team?
I: Definitely do in general education courses.

R: Teams in your general education courses. Think of your recent team: your previous general education course team and this cross-cultural communication workshop team, or your team for Dr. Lin’s course. Are there any differences between your information and opinion exchange?

I: My previous team consisted of male students who were not very talkative. I am taking Social Psychology this semester, and my group is composed of male and female students from different majors. They are better in throwing out their opinions, and have different thoughts. Yes. Because we did not form our teams by ourselves: the instructor assigned teams.

R: Teams in your Social Psychology course.

I: Yes.

R: The instructor assigned teams.

I: The instructor assigned teams based upon your gender and college differences, so you will find that there are students from different colleges in a team. Students from different colleges and genders have different thoughts. For instance, there are different thoughts between students in management and in engineering college. Our engineering college students would like to solve the problem directly, but management college students might think of…, I have no idea what they think. That is…

R: Logic is different.

I: Logic is a bit different.

R: So you mentioned that there are more male students on your workshop team. All male students on your workshop team.

I: All male students.

R: Oh, you looked for your own team members.
I: We looked for our own team members.

R: So you think your team members are less talkative, and may not be…

I: May not have opinions.

R: Do not have opinions.

I: Yes.

R: Do you think that there any differences between your workshop team and your Social Psychology team in terms of communication methods and processes?

I: I think the communication method in Social Psychology is more friendly, and then some of them are more warmhearted.

R: What about your workshop team?

R: All male students. All male students are the same.

R: What’s wrong with all male students?

I: That it is: do not want to spend too much effort.

R: Are there any other differences between your Social Psychology and workshop team?

I: Any differences?

R: Communication, decision-making, and group discussions: are there any other differences?

I: Because it is mainly I, the next interviewee, and the other one, all of us who major in Electrical Engineering, are discussing.

R: Oh, all three Electrical Engineering students were discussing.

I: Yes, and then…

R: What are the majors of the other two students?
I: I do not know which majors they are in.

R: You do not know one another well.

I: Something like Information Management? We could not find them at that time, and just could not find the two.

R: So the other two students did not talk.

I: They talked, but not much, just talked a bit. Then they…

R: Do your three Electrical Engineering majors know one another well?

I: Quite well. We know one another very well.

R: Have you been classmates for three or four years?

I: Three or four years.

R: So you three know one another well, and communicate better.

I: We three were discussing. That’s it.

R: What about Social Psychology?

I: Even if I do not talk in Social Psychology class, they discuss.

R: Ah, different majors. Well.

I: Yes. Then there are female students. Female students are comparatively more proactive.

R: Females are more proactive.

I: In general, females are normally more proactive.

R: They are better-behaved.

I: Female students are more well-behaved and proactive. Male students do not want to spend too much effort.
R: Okay, now you could decide whether you would like to work with the other four male students in a team or not. You can choose extremely unlikely, unlikely, neutral, likely, or extremely likely.

I: Neutral.

R: Why do you select “neutral”? Why don’t you select “extremely likely” nor “extremely unlikely”?

I: Life has to be going on. That’s it.

R: You already formed a team. That is your destiny.

I: Yes, because you have to adjust to different environments. I have had worse teams.

R: So you think it is acceptable.

I: It is acceptable. I have had a team with the other five Electrical Engineering majors. And then all the five were gone after the first class break, and only I stayed in the class for discussion.

R: Please recall class this and last week. We practiced several team learning behaviors during team activities. Can you remember anything specific?

I: Team learning behaviors.

R: Yes. For example, in the first question, we discussed the American and Japanese company. We had the first and second questions, and we said that we have to pay attention to something in a team. There are three elements in a team that you need to pay attention to while discussing.

I: I would like to check our training handbook.

R: You cannot check the handbook, please try to recall.


R: Elements of culture definitions or what?
I: Definitions of culture. And then, in the beginning…, what had been taught last week?

R: Do you remember that when we were discussing the American and the Japanese case, in the first question, we asked you to…

I: What problems do they have? And the second question asked us how to improve, and then I forget the third one.

R: Well, in the third question, you were asked to search for and use something.

I: Search for and use something?

R: Um, search for and use something. Then the last question asked you to do something in addition to the solutions you had thought of. It is kind of difficult: maybe because you have shorter time, you do not have much time to practice these behaviors.

I: I really need to check the training handbook.

R: I do not have the handbook at hand. Well, I can tell you these behaviors. Do you want to try again? If not, I will tell you.

I: Search for and use something. I really need to check the handbook.

R: I mentioned that you should try to look for people who had been dispatched to work in Japan or check whether there are any cultural guides that may help you. Well.

I: Ah. It seems that you had.

R: Okay, it’s fine. It is not a test. Let me tell you. The first behavior we mentioned is reflection.

I: Yes.

R: It means that you have to consider the objectives of the American team: they might want to get the proposal approved. Then, see whether there are any issues in their communication process, and the results they hope to attain. So the first behavior you practiced is reflection. We said that you have to search for internal and external information and resources. This is what I
just described, to look for people who had been dispatched to work in Japan or people who had worked with this Japanese company. So this is boundary spanning. We did not show the behaviors directly, but you did practice these behaviors. The third one asked you to think of alternatives in addition to searching for solutions. Well, in fact, when you write your final report you also have to think of alternatives. These are the three team learning behaviors. We will check these later.

R: Do you think that there are any differences between this workshop and your previous courses in terms of course content and activities?

I: Oh, you mean the classes this and last week?

R: Yes, these two weeks.

I: Any differences from other courses?

R: Um.

I: Compared to courses in Electrical Engineering?

R: You can compare them to courses in Electrical Engineering or Social Psychology.

I: Compared to courses in Electrical Engineering? A typical course in Electrical Engineering would be instructors go through slides, and then you sit in the classroom. Students who study hard would take notes, and those who do not study hard would play with cell phones. Then you read books and have tests.

R: Okay, you have tests for all courses.

I: Yes. Mid-term exam, final exam, tests, and assignments such as doing computations, or calculating circuit values, and something like mathematics. Basically you have to do well in mathematics in Electrical Engineering. That’s what I think. So courses in Electrical Engineering
are similar to courses in your high school, reading books and having tests in most courses in your freshman and sophomore year. There are more selective courses in your junior and senior year. Excepts for the more difficult courses with exams, some are experiment courses in which instructors teach some theories in the first two classes, and you conduct experiments in the third class. This is basically what we have in courses.

R: Compared to this class.

I: Differences from this class are..., you mean differences from this class.

R: Differences. This class does not have exams. You have exams, and you have a mid-term exam.

I: That is different. We have multiple choice and true-false questions.

R: Any differences? Among this two-week workshop, your Electrical Engineering courses, and Social Psychology.

I: This two-week workshop is similar to Social Psychology. Social Psychology would give you an example, and it might be an example from Psychology, and then you have to think of other examples or which category it belongs to. Basically, these classes are similar to Social Psychology in which the instructor will talk a lot about slides. I do not pay much attention to Social Psychology because I am not really interested in what the instructor discussed in the class. It will give you some information, and then you do some analyses. There are some class activities, group discussions, or others. There are more group discussions to analyze what the previous example is about. All social science classes should be alike. I guess they all are…

R: Not really. Some courses are still in lectures. Not all courses have more discussions. It depends on how instructors design courses.

I: We discuss in the Social Psychology class. The third class is basically classroom discussions, or the instructor will give you an example, and then you have to discuss which category in
Psychology it belongs to. Or give you something from Psychology, and you have to think of an example. The class was taught by an instructor from Counseling and Wellness Services division in the Office of Student Affairs. He has more questions and answers in classes. You will get extra points if you raise your hand. He will talk about terminology, and you have to raise your hand and give examples. Well, it is quite different. We have more discussions in the two-week workshop, and discuss what category it belongs to.

R: Well. So there are more discussions.

I: Classes in Electrical Engineering are very similar to lectures.

R: Lectures, reading books, and then having tests.

I: Basically the same ways.

R: And then experiment.

I: Experiment projects.

R: We discussed the three team learning behaviors. Reflection is to think of objectives, processes, and results. Boundary spanning is meant to use internal and external resources. Then experimentation is for thinking of alternatives. Do you think that you would try to use these behaviors in your future jobs, or in your future classes?

I: Future classes?

R: Um, future classes, group discussions, or future work.

I: Definitely. I will. I must.

R: Have you thought about how you would like to use these three behaviors?

I: Boundary spanning or the third one.
R: Experimentation.
I: Experimentation, yes.
R: You think you will use them.
I: Yes. In the future, I may have to solve problems in engineering. Solving a problem is to think of many alternatives.
R: Yes. In order to solve problems, you may have to think of many alternatives. What about boundary spanning?
I: Boundary spanning probably is to look for resources. To read many dissertations or what has been done by others before. To watch and then catch its main characteristics is how research should be done.
R: Do you ever think of using these behaviors in the future when you have class discussions? In your future classes, you may have group discussions: will you use these methods? That is, to remind your team members that you are going to discuss this problem and say, “Let’s think of objectives and processes of the case study team,” “Let’s think whether we can look for internal and external resources,” and “Let’s think of alternatives.”
I: I will. I certainly will do that.

R: For the last two questions, I will let students read the questions because they are more difficult. In the future, if you would like to use these three behaviors, what factors do you think may help you use these behaviors? What factors may prevent you from using these three behaviors? Please think of work or class teams: what factors may help you use these three behaviors?
I: Factors.
R: You can think of factors in teams, external factors, class factors, or individual factors.
I: Can you give me an example? It is very difficult to think.

R: For example, someone mentioned that if team members do not know one another well, and they do not learn these three methods, these may prevent you from using the three behaviors because they think, ‘Why bother to use the three methods that are time-consuming?’ Something likes these. So you can think whether you would like to use the three behaviors: what factors may prevent you from using them? You may not be able to tell them, “Let’s reflect,” “Let’s look for internal and external resources,” or “Let’s search for alternatives.” In what circumstances do you think it is difficult to use the three behaviors?

I: More difficult. I will answer this question first: it is difficult to use these three behaviors.

R: For example, you are now going to a new team. You suggest they use these behaviors, but they do not listen to you. What do you think? What factors may prevent them from using these behaviors?

I: It should be that he does not want to listen to you.

R: Does not listen to you. They are not willing to listen to you.

I: Not willing to do so. Because I think the three behaviors are the ways to solve problems. Yeah, normally if they do not use the three ones, that is because of no willingness. Wow, it is difficult to think.

R: That’s okay. So they do not want to listen to you, and have no willingness to use the methods.

I: Probably something like plants that have no willingness. Well.

R: They may think it is rather time-consuming.

I: It is rather time-consuming. For instance, maybe they would like to go online and search in Google to look for answers directly. They are too lazy to think.

R: Too lazy to think.
I: Yes. Many people are of this kind. They are too lazy to think and will search online. They will not think about the reasons or alternatives, or..., in fact, looking for answers is a kind of boundary spanning.

R: Well, under what circumstances, do you think your team members would be willing to use the three behaviors when you tell them, “Let’s reflect on processes and results,” “Let’s think of alternatives”, and “Let’s search for internal and external resources.”

I: This might be…

R: I will give you 30 more seconds. This is not a test, and it is fine if you cannot think of anything specific. Now you are going to join a team. You ask them to think of objectives, processes, and results of your team, and then they are very willing to use the three behaviors. Why? What kind of a team it is?

I: Because I think the three behaviors are very systematic, like many other things. For example, I think the three methods are very systematic, like writing programs: after you are done with this method, and then there is a triangle; if it does not work then you go back. The three behaviors are very systematic methods. So these are very systematic methods that can be used to solve some issues or create something.

R: Well. Basically, we are done with the interview.
ID: Respondent 6
Date: May 08, 2017

R: Researcher I: Interviewee

R: What are your career goals after graduation? Now you plan to go on to further study, but after graduation, what is your future plan?

I: Because I am now learning semi-conductor. My first goal is to go to the Taiwan Semiconductor Manufacturing Company (TSMC). Well, but TSMC is not my career goal, I will…

R: So work as an engineer? Is working as an engineer your career goal?

I: It is not my career goal to work as an engineer. In fact, I am learning stocks and finance. I am studying them.

R: You are kind of unique. Finance, so you plan to…?

I: I want to work in Venture Capital.

R: Oh. Venture Capital. There are very few people studying and working in Venture Capital.

I: But now I have no ideas how exactly my plan should go.

R: Have you tried to understand the industry? How to get into it?

I: Not yet. I am studying macroeconomics, and then future directions. I am studying the concept.

R: It is very unique. Except for Venture Capital, have you thought of working as a manager?

I: What kind of manager?

R: Do you want to work as a manager after working as an engineer at TSMC? Or Venture Capital, do you want to work as a manager?

I: Yes. I would like to work as a manager, but I think TSMC cannot make me very rich.

R: Okay, what do you think about TSMC?
I: I think TSMC may help me to have some funds in the beginning, but then it depends on what I want to do next.

R: Have you taken any business courses?

I: Only this course.

R: Only this one. Have you take any financial courses in Venture Capital?

I: No.

R: Do you think that this course may prepare you as a future manager?

I: No.

R: Why?

I: That’s not enough. Because actually my father is a manager who worked in the nearby Chailease resources trading company (Chailease International Leasing Co., Ltd).

R: Chailease resources trading company. China Trust affiliated company.

I: Yes. Sometime he talks about it during our conversations. I know that management is not only what you learned from the textbook, but also your network. These are also important.

R: Something outside of the textbook is also important.

I: Yes.

R: In this class, not only this class, your general Electrical Engineering courses, do you think that you can perform better than your classmates in the courses?

I: I am good at something like mathematics.

R: Better in mathematics?

I: Yes. I did pretty well in Circuitry and Electronics, but I got a low grade in Programming. I am not good at it at all.
R: So you think you did pretty well in Mathematics and Electronics that you are good at, but not so well in Circuitry.
I: I did well in Circuitry, but not in Programming.
R: What kind of programing?
I: I am not good at C and other programming languages.

R: Okay, you attended this cross-cultural communication workshop. When you heard that you were going to attend classes on cross-cultural communication…, what did you like to learn?
I: I would like to learn taboos in other cultures so that I can avoid breaking down the taboos.
R: Do you have a specific country that you would like to learn more about?
I: U.S.A.

R: Do you work as a team in your other courses?
I: Not really, we only work as a team to make a report. Yes.
R: Are you satisfied with the team performance of your workshop team?
I: Satisfied.
R: Satisfied. Although you are satisfied, it is not perfect. Do you think that there are ways to improve the performance of the team, your workshop team?
I: Um, improvement. We should be more proactive, now people throw out their thoughts when they have them, but we still are not very proactive.
R: Not proactive enough? You team members are not proactive.
I: Yes.
R: You have some information or opinion exchange in your workshop team. Do you think that there are any differences from your other teams? You may have to find another team that you recently joined in. Do you have other teams that you may compare it to, that is, this workshop team, in terms of information exchange and opinion exchange?

I: I am taking Natural Ecology Literature this semester.

R: Natural Ecology Literature? A general education course?

I: Yes. A general education course. Your team has to present a report in front of the class.

R: Present your report in front of the class.

I: Yes. But it is not our turn yet because we have two groups presenting each week.

R: Any differences in terms of information and opinion exchange?

I: Well. Basically we do not discuss in classes, but we discuss when we would like to make a report.

R: No discussions in the classes.

I: Yes.

R: Do you think that there are any differences in communication process between your workshop and your Natural Ecology Literature course?

I: Um, there are.

R: What kind of differences?

I: Because we basically use Internet in Natural Ecology Literature course, that is…

R: Line?

I: We use Facebook. We have a Facebook group, and you upload your files.

R: Is this a request from the instructor?
I: Yes.

R: Because there are not many courses that use Facebook.

I: No. This is not a request by the instructor, but we just…

R: You use Facebook.

I: Yes. We use Facebook.

R: Why not use Line?

I: Yes. Because of files.

R: Files may not work well in Line, so you may not use face-to-face communication.

I: No.

R: Okay, there are differences. Anything else? Communication methods? Processes?

I: That’s it, basically.

R: In addition to communication method and information exchange, are there any other differences between your workshop team and the Natural Ecology Literature team?

I: Um, the difference lies in that, basically, we do not have face-to-face communication, and we discuss via the Internet.

R: You meet in the classes.

I: We meet in the classes, but the instructor is teaching. So we do not really have face-to-face communication.

R: No face-to-face communication, but this workshop has. And then?

I: That should be what I have for now.
R: Okay, now to what extent would you like to work with this workshop team, your communication class team? Extremely likely, likely, neutral, unlikely, or extremely unlikely?

I: Neutral.

R: Neutral. You have the same answer as your classmate. Why do you select “neutral”? Why not “extremely likely” or “extremely unlikely”?

I: Because we do not have female students.

R: No female students.

I: Yes.

R: No female students, so you think…

I: It’s okay.

R: Okay? Now your team is fine, and you are not “extremely unlikely” or “extremely likely” to work with the same team.

I: Yes.

R: Any other reasons besides no female students?

I: No.

R: No. Any differences without female students?

I: There are differences.

R: What are the differences?

I: Difference lies in that there are all male students in Electrical Engineering, but a few female students.

R: Okay. So you only hope to have female students, not matter what kinds of females.

I: Yes. Any female students are fine.
R: Well, now back to our workshop. When you attended the workshop, in addition to cross-cultural communication, you also learned team learning behaviors. There are actually three team learning behaviors, and you practiced them during the classes. Can you recall?

I: Team learning behaviors?

R: I can give you some clues. For example, when we were discussing the American and Japanese case, you were asked to think of three things in the first and second question. And then in the third question, you were asked to search for and use something. In the fourth question, you were asked to think of something in addition to the solutions. Please recall.

I: I have a little impression.

R: A little impression. Think about it. It may take time.

I: I know that you need to look for other resources as evidence.

R: Finally there is one person who can recall it because many people cannot remember them. So you have to search for and use other resources.

I: Yes.

R: Anything else?

R: Come on. You already recalled one behavior, and there are two left.

I: Oh, this is the one of the three.

R: This is one behavior: searching for internal and external resources.

I: What is the question?

R: The question is: You practiced some behaviors in the classes, and you recall one behavior to search for internal and external resources. There are two other behaviors. One is related to three things in a team, and the other one asks you do something when you are looking for solutions. Can you remember?
I: Solutions?
R: Solutions. Except for the solutions you came out with, what else should you do? It’s okay, and I will give you one or two minutes. It’s okay if you cannot recall all of them. Because it might be that the time is too short to recall. But you had recalled one behavior. I am happy that at least one among the six students remembers. As least one of the six recalls one behavior. Think about it. For example, when we gave definitions of culture, we mentioned something that you should do. You had found the answer for this question: to search for and use other resources. There are other behaviors.
I: Are there others?
R: There is one specific term to refer to the front-end, middle, and back-end of a team. It’s okay if you cannot recall. I will tell you. What should you do in addition to the solution you came out with?
I: I have to communicate.
R: Communicate, and then?
I: Then carry out?
R: Carry out, okay.
R: And then, just think about it. Anything else?
I: Think of a solution, and then to communicate and carry it out.
R: Here is the answer. We actually practiced one behavior, reflection. Do you remember reflection?
I: I do.
R: Reflection asks you to think of objectives, processes, and results. For example, we mentioned that the objective of the American team is to get the proposal approved. Are there any issues in
its communication process? Then what results are they pursuing? We discussed short-term and long-term results. Then there is one behavior that you recall: boundary spanning. You have to search for and use internal and external resources because they can help your team learn. The third one is experimentation, and you have to think of alternatives. We actually think of solutions, but the solutions may not be the best. Normally you would hope that in addition to the solutions, you also think of alternatives and their consequences. These are the three team learning behaviors.

R: It’s really good that you can recall one behavior. Thank you very much. Do you think that there are any differences between this workshop and your previous courses in terms of course content or activities?
I: Because our electrical engineering course is to learn something in the classes.
R: Those are lectures, and we call them lectures.
I: Yes, this workshop emphasizes what is among people. It looks like you have to keep talking. Then…. yeah.
R: And then?
I: Then you have to interact with people around you, probably something like that.

R: We just mentioned the three behaviors: you have to think of objectives, processes, and results; you have to cross your team field to get in touch with internal and external resources; and then you have to think of alternatives. Do you think that you will use these behaviors in your future jobs or in classes?
I: I will use them.
R: Then how would you like to use them? Which ways?

I: Um. I think the key point is communication. Because I know for my future work, anyway, ability is second, and the most important thing is communication and it can help you earn money.

R: You mean network.

I: Yes, network.

R: Do you think that network is related to the three methods?

I: The first is to look for external resources.

R: You think this could be used when you try to build a network?

I: Yes.

R: And then?

R: This is so far the most important one. Because we are in classes, no matter we are having mid-term or final exam; actually many times we need to look for external resources. To listen to the instructor, to have classes is one thing, but you will have questions, and you have to ask other people.

R: We just now discussed your future jobs: do you think that you will use the three things in the classes in the future? These are boundary spanning, reflection, and experimentation. Maybe in your future group discussions or future group reports?

I: I will.

R: Now these are two difficult questions. I would like to know what factors you think may help you use the behaviors, and what factors may prevent you from using the behaviors? Please think about them.

I: Well, help me to use. Factors? What kind of factors?
R: You can think of environmental, team, and external factors. Factors of this kind. Factors of the team or environment factors?

I: Um.

R: Yes, or individual factors. What factors do you think may help you use the three behaviors in the future?

I: To use team learning behaviors in the future.

R: Or imagine that you are going to join a new team and you are going to discuss them now. What kind of a team do you think would feel happy to use the three behaviors when you tell your team members that we are going to use reflection, boundary spanning, and experimentation? What kind of a team or an environment do you think may ignore you and think these behaviors are not useful when you tell them that we are going to use reflection, boundary spanning, and experimentation?

I: Oh.

R: So think of what kind of situations or factors may help you use team learning behaviors, and then what kind of situations or factors may prevent you from using them?

I: Oh. What kind of factors may help?

R: Team or situational factors?

I: I think people. That’s right. Yes.

R: People? What kind of people or…?

I: Your team probably needs to be more able to accept cooperation. It may not work for someone who is an individualist; he/she would think, ‘Why I need to do so?’ They think what he/she says is correct.

R: Well, what factors do you think may prevent you from using these behaviors?
I: Prevent?

R: Yes. When you tell the team that we should use reflection, experimentation, and boundary spanning. They may think, ‘Why do we have to spend time using the behaviors, we should discuss directly.’

I: A person who is more of an individualist would think his/her thoughts are correct, so he/she would be less intent to use these.

R: So you think if there are people in a team who think his/her thoughts are rather correct, he/she may not want to use the three behaviors?

I: Yes.

R: Well, and then? Do you think about what factors may help you use the behaviors in the future? What factors may help you?

I: What factors?

R: So you think what helps you is a person in a team who is more likely to accept new ideas or thoughts, he/she would like to adopt the behaviors.

I: Yes.

R: On the contrary, if this is a person who is an individualist and he/she prefers to think he/she is right, and he/she may not want to use the methods. Anything else?

I: It probably also has something to do with your supervisor.

R: Something related to supervisors. What do you think?

I: Some supervisors would prefer his/her thoughts to be followed, and he/she only needs you to carry out the thing.

R: Okay, so do you think the supervisor who would like his/her subordinates to carry out his/her thoughts would prefer to use, or would prefer not to use team learning behaviors?
I: Prefer not to use.

R: Well, okay. This is the second factor. Is there anything else? Is there anything that the supervisor may do to help you use these behaviors?

I: Freedom.

R: More freedom.

I: He/she would let you just go ahead and do it freely.

R: A laissez-faire supervisor.

I: Yes.

R: Well, okay, the interview ends.
ID: Respondent 7
Date: May 23, 2017
R: Researcher I: Interviewee
R: Okay, what are your future career goals?
I: I have different ones. I would like to work in a foreign company, especially a Japanese one because I am learning Japanese now. Yes, or work as a ground crew, tour escort, or tour guide.
R: What kind of jobs in a foreign or Japanese company?
I: It would be great if I can work in foreign trade to communicate with others because I like to interact with people.
R: What about a ground crew?
I: A ground crew, I would like to work in what seems to be called "marine service."
R: So it is not the ground crew for an airline company.
I: It is the one in an airline company, but I am not quite sure. I remember that there are four categories of ground crews. I would like to help customers to check whether they would like to have window or aisle seats.
R: Yes. It is.
I: Is it called marine service or…?
R: Ticket business.
I: It seems to be ticket business.
R: Marine service and I thought it is about a ship. Then what is a tour guide?
I: A tour guide is the one who takes the group abroad.
I: Tour escort and tour guide.
R: Take the group abroad. Or bring the group to Taiwan and show them around.
I: A tour escort takes a group abroad and a tour guide brings a group to visit domestic destinations. I would like to get the tour escort license first, and then the tour guide license.

R: I did not know there is a difference. In fact, in your case you have to get the license for a tour escort.

I: Yes. Both a tour escort and a tour guide need to get license.

R: Have you thought of working as a manager in the future?

I: You mean a manager in a company.

R: Yes. Any kinds. For instance, a manager of tour escorts or ground crews.

I: I have not thought of that.

R: You have not thought of it.

I: Um.

R: What about long-term career goals? In the long-run, what will you think of?

I: In the long-run?

R: Work as a manager. Or do you think you would take less responsibility if you are not a manager?

I: If I have the ability and qualification, it would be better to work in a higher level position.

R: Well. What business courses have you taken?

I: Business courses?

R: Management courses. You are now in your junior year.

I: Um.

R: You started from the freshman year or junior year as a transfer student.

I: I started from the junior year.

R: So you are quite new in this school. How many business courses have you taken?
I: Business courses. Let me think. Because we took more financial management courses regarding financing. Financial Management, and then Economy, and International Trade Practice. Then we took International Business in Management.

R: Introduction to International Business.

I: Yes.

R: Okay, do you think that this course may prepare you as a future manager?

I: You mean?

R: These business courses.

I: What we just mentioned. A future manager?

R: International Business and International Trade Practice.

I: In fact, not much help. Well, because textbooks describe practical content, for instance, FOB (Free on Board) in International Trade Practice. They tell you relevant questions about shipping, but they do not describe how to do it. It merely gives you a definition of a terminology.

R: There is more knowledge, but no skills.

I: Yes.

R: Compared to your classmates, do you think that you can learn better than them in the courses?

I: No.

R: Why don’t you think so?

I: I think I probably prefer to go out. I personally believe what the school taught is limited, and I participate more in external activities.

R: So you think you are better than them in terms of practical operation.

I: Yes, I am better in practical operation.
R: What about theories in courses?

I: I am not so good at theories, but I still will make sure that all courses will pass. I will take control of them, but I prefer to join external activities.

R: We had courses on cross-cultural communication this and last week. When you heard the title, what did you like to learn at that time?

I: What would I like to choose?

R: What would you like to learn?

I: What would I like to learn?

R: When you heard that we were going to have a cross-cultural communication workshop, what did you think you would like to learn from the workshop?

I: Communication. When I heard “cross-culture” I thought it should be interaction and learning experience between countries.

R: And then? Do you think about what you would like to learn from the classes?

I: I think I would like to learn something about culture because I think Taiwan has a limited scope, especially in the news you may see…

R: Yes. It is very local.

I: Yes. The news reports something that is very local, and then something seems to be okay. Well.

R: So what parts of culture would you like to learn?

I: I would like to learn culture differences, that are the differences between cultures.

R: To compare cultures of two countries.

I: It may not be two countries, and it could be multiple countries. I especially like to investigate cultures of Taiwan and other countries.
R: What kinds of differences?
I: Such as economy, culture, and then politics. Yes, I am interested in the cross-strait economy.
R: In your previous courses, do you have group discussions?
I: No.
R: You do not have group discussions with your team?
I: Seldom, we all are….No, only when we had the workshop.
R: During the workshop?
I: Um.

R: Do you think that you are satisfied with your team performance in the workshop?
I: I think we did pretty well.
R: Do you think that there are ways to improve your team performance?
I: Performance, I think we need more time. In terms of time, we had short discussions. For instance, when we were discussing masculinity and femininity, although one of our instructors had taught us before, everyone has different learning status and different standards. Some students did not know what masculinity and femininity are, and then our team members had to discuss together. Therefore, we must let everyone know the meanings first, and we had to spend time describing the concepts. After we finished our descriptions, and the discussion time was almost over, we had to move to the next issue.
R: So you think having longer discussion time would be better.
I: Yes. Longer time or give more explanations on terminologies during the classes. For example, ‘What is masculinity?’ By doing this, other peers can understand the meaning of terminologies better. Then we could control the time we spend on discussions.
R: So if your team members acquired the fundamental knowledge, you may have a better sense while discussing.

I: It will go more smoothly.

R: Do you think that there are any differences between your team in the workshop and your previous teams in terms of information and opinion exchange?

I: My previous teams?

R: Teams in your other courses.

I: I almost have no teams in my other courses. We attended our other courses separately, and then instructors asked us to hand in reports. We divided teams, and wrote reports together. We did not work much as a team.

R: For your teams in your other courses, you make a final report without meeting together to discuss.

I: We discussed together.

R: What are the differences between your other teams and the workshop team?

I: I think the difference lies in your immediate reactions. We divided and were given questions directly on the spot in the workshop. But for my general team discussions, we first received a question and then we all looked for materials at home by ourselves. Therefore, we had homework of looking for materials.

R: Which way do you think is more efficient?

I: More efficient? I think there are pros and cons. It could facilitate brainstorming among us if we discuss in classes directly, whereas you would have more time to search for information on the Internet if you bring reports home for discussion.
R: In terms of communication, do you think that there are any differences between communication in the workshop and your other courses?

I: Communication in my other courses. I think everyone needs to express his/her opinions.

R: You mean in the workshop.

I: It does not matter if we are in the workshop or make other reports. Everyone needs to express their views. We could only know everyone’s thoughts if everyone speaks out.

R: Do you think that there are any differences between the two teams?

I: Differences in communication.

R: Any differences between your work shop team and your other teams in terms of communication methods, approaches, or efficiency?

I: I think it depends on people.

R: Please recall whether there are any differences between your communication with your workshop team members and your communication with other teams.

I: Let me think. Here in the workshop, we had someone who was in charge of writing, and she wrote down our opinions and ideas directly. In our other courses, we discussed together, and then we wrote down answers together. I think it probably because we did not have enough time, so we had to… Because of limited time, someone had to write down answers while we were discussing. If not, the next question would show up.

R: So the person was in charge of summarizing answers, or she merely wrote them down.

I: Yes. She wrote them down first, and then if we had time, we would summarize answers together.

R: So in your other teams, it might be you all who write down answers together.
I: Because we had more time, plenty of time.

R: Which one is more efficient?

I: More efficient? I think my team in the workshop is more efficient, but the other one is better in terms of completeness.

R: Do you think that there are any other differences between your workshop team and your other teams? Any differences?

I: Let me think. I think the difference lies in thoughts. We normally look for a group of friends who we know well to form a team. Friends you have known for a long time, and you have good relationships. Then in the workshop, you worked as a team with people who sat nearby. Thus, we thought differently when communicating.

R: Would you have more tacit understanding if you know one another well in your other teams?

I: I should say that we work together because we are similar in personality, and sometimes our thoughts are almost the same. But in the workshop, I realized that there are good ideas from some people. Why I did not think of it. It can improve idea exchange among us.

R: Now I will let you decide if you would like to work with the same group, your group in the workshop, your tentative group. To what extent would you like to work with the group?

I: I think it is not bad. Likely.

R: Why do you think you would likely to work with them?

I: Because I think it is not bad if it could facilitate the exchange of ideas among us..., we can hear more about everyone’s thoughts. Will we have workshops in the future?

R: Um, there should be no more.
I: No more workshops.

R: Well. Do you have other courses that are similar to the workshop and give you more team activities during classes? Please recall class this and last Thursday: can you remember what behaviors you practiced during group discussions?

I: Behaviors?

R: I told you that you had to do something in the first question, and you had to do something in the second question. Can you recall?

I: I remember that there was a section of ppt (PowerPoint) slides that I was very impressed with. Each country has different cultures: for example, the way you hold business cards in Japan. I was pretty impressed with that section.

R: So it is in the video.

I: Yes, it is in the video.

R: During group discussions, we actually let you practice team learning behaviors. You were asked to think of something at the front-end in a team, and something in the middle, and then something at the back-end. Then the second or third question asked you to search for something.

I: I remember that we had been assigned countries.

R: Yes.

I: Countries assigned.

R: Um, then in the third question, we asked you to imagine that you are the main characters in a case study. What would you like to do? This kind of question. Can you recall? It’s okay. Think about it. Do you remember which discussion impressed you the most?
I: Discussion that impressed me the most was the first day of the workshop. I was asked to read an article. I was most impressed by that on the first day.

R: Do you remember questions we asked at that time?

I: We were asked to check whether this was efficient or not efficient? In the short-term it was efficient because you corrected the issues immediately, but in the long-run the other party might not know that he kept making mistakes, and then we needed to spend time helping him correct the issues, or to tell him. I think we could remind him in the beginning, because in the short-run, it was good, but in the long-run we would have to spend more time talking about the mistakes.

R: And then? Can you recall anything specific?

I: I would have to think about it. Let me think. One is Jim’s case, one is about exchanging business cards, masculinity and femininity, and countries.

R: Let me tell you. Actually you practiced these team learning behaviors in each question. For example, in the case of Jim and Bolin, I asked you to think of the objectives of the project team that was trying to develop a program. What are their objectives? The answer is to develop a new program. Then its communication process and their desired results. I also asked you to search for internal or external resources or information to help their team to solve the problem. Then the third question is about “if and then,” we asked if you were Jim, “what would you like to do?” We asked you to think of alternatives and consequences. In fact, the three behaviors are the ones that we hope you may use to reflect on your team processes, to search for internal and external resources, and then to look for alternatives in any group discussions. These are the ones that we hope that you can practice.
R: Do you think about whether there are any differences between this workshop and your previous courses, or other workshops?

I: I think it is not bad. After our discussions, you would ask someone to answer the questions. We could understand others' thoughts and my thoughts, that is, differences we had from other people.

R: Do you think that there are any differences in terms of content or activities?

I: I think activities are pretty good. We had activities with ppt slides, and then we brainstormed together.

R: What about content?

I: More specific content could be provided, such as giving explanations of some terminologies.

R: If you give me a semester, I can teach this topic for one semester because it is a semester course in some schools.

I: We only had four short classes.

R: I just now mentioned the three team learning behaviors: one is to think of your objectives, processes, and results; another is to search for internal and external resources; and the other is to think of alternatives. Do you think that you would like to use the behaviors in the future?

I: I would.

R: How would you like to use them?

I: I think the three behaviors are not bad. I think chances are that we will encounter something afterward: either anything among you, your colleagues, or bosses, or even when we do our independent study in the future, we all can discuss them with our team members.
R: So you think you may use them in your future discussions.
I: Yes.
R: Do you think that they could improve your course performance?
I: Course performance? If we have complete absorbed, they definitely could, specifically reflection.
R: You think reflection may help.
I: I think reflection is important.

R: You said that you would like to use the three behaviors in the future. What organizational, team, or individual factors do you think may help you use the behaviors?
I: What ‘factors’? What do you mean by “factors”?
R: For example, people, events, or things in organizations: is there anything that may help you use the methods? Or team, people, events, or things in a team: do you think that there is anything in the future that may help you use the behaviors?
I: You mean something that is similar to group discussions.
R: Do you think that there are any factors that may help you use the three behaviors?
I: You mean what kinds of things would you use the three factors for?
R: No. What factors may help you use the behaviors in the future?
I: Such as when encountering difficulties?
R: It’s okay. You can think and talk freely.
I: I think when I encounter difficulties or when other people encounter difficulties. From the point of view of a bystander, you can tell him how he can do it.
R: And then? Anything in a team?
I: The team can carry out reflection.

R: So you think the team may help you reflect.

I: Yes.

R: Well, can you think of anything else? I would like to know if I need to clarify the interview content: can I contact you?

I: Sure. You can.

R: I may use email or others.

I: No problem.

R: Well, thank you.
ID: Respondent 8
Date: May 23, 2017

R: Researcher I: Interviewee

R: What would you like to do in the future? Your career goals?
I: I do not know yet.

R: Have you thought a bit about them?
I: Should be a foreign company.

R: A foreign company: what kind of company?
I: I have never thought of this question.

R: A foreign company may have administration and trade.
I: I would like to do a job that I could keep in touch with people. But my personality may not be suitable because I am an introvert.

R: It can be trained slowly. I used to be an introvert, and later I joined students’ clubs, and then I worked as an HR. Working as an HR would train you to keep in touch with people.
I: I have thought of working as an HR.

R: You have thought of it?
I: Yes.

R: Have you thought of working as a manager in the future?
I: Yes.

R: What business courses have you taken? You are transferred students, and what business courses have you taken now?
I: You mean here at this university.

R: What business courses have you taken?

R: Do you think that these courses may prepare you as a future manager?

I: Um.

R: Compared to your classmates, in general, do you think that you can learn better than them in general courses?

I: Better than them in terms of application?

R: In general, both, either application or grades.

I: I think I am better than them in terms of grades, but I may be a bit weak in application.

R: Then why do you think you are a bit weaker in application?

I: I am not so good at applying theories to practical operations.

R: When you heard that you were going to have a cross-cultural communication workshop, when you heard the title, what did you like to learn?

I: What would I like to learn?

R: When you heard of the title, what content would you think of? By merely listening to the title.

I: To understand cultures of different countries. Then when you meet different people, what kinds of conflicts you may encounter and then how you would like to solve them.

R: So these are the ones that you would like to learn. In the workshop we had this, and last Thursday you worked as a team: tentatively, do you think that you are satisfied with the team performance or not?

I: Fairly satisfied.
R: Anything that you think can be improved?

I: Probably not much time for us to discuss. It turned out that we did not discuss. There was one person looking for answers, and we all wrote answers together. So it is fairly satisfied, but if we could discuss together, I would be very satisfied.

R: So you think it would be better if you have more time, and have more people discuss together.

I: Yes.

R: I would still ask about the workshop team. Are there any differences between this team and your previous teams in terms of information and opinion exchange?

I: I did not attend the class and joined the group discussions in the first week.

R: You went to China.

I: Yes. I discussed much less. Then in the last discussion, we had learned about the content before, so it is easy to discuss.

R: Okay. Do you think that there are any similarities or differences from your other teams in terms of opinion exchange?

I: I think everyone’s thoughts are quite open, and would be willing to provide some of their ideas.

R: Will your other teams do the same? Your previous teams?

I: My previous teams in fact would do the same.

R: All teams would do the same. So there are not many differences. You have good information exchange, and everyone would provide their thoughts. Okay, what about communication? Are there any differences between your team in the workshop, and your previous teams in terms of communication methods or efficiency?
I: Communication efficiency is pretty good. We are able to find the viewpoint that one another can accept quickly. I am talking about my team in this workshop. Although we have different opinions, we accept one another. Previously, there were different voices in different groups after several discussions. It turned out that there might be one party that could not accept other people's opinions, and then you could tell obviously from his/her tones or facial expressions that he/she was in a difficult situation.

R: So your team in the workshop had more consensus; there is no one who cannot accept the thoughts of your team.

I: Um, well, yes.

R: Are there any other differences between your team in the workshop and your other teams?

I: Probably the topic is relatively easy for the workshop, therefore, it is less stressful for everyone to discuss. Then previously if we discussed, mostly because of our report, it was comparatively easier for us to have conflicts.

R: You had some pressure.

I: Yes, some pressure.

R: Pressure may bring some conflicts. I would like to ask you to select to what extent you would like to work with your team in the workshop again. Extremely unlikely, unlikely, neutral, likely, or extremely likely?

I: Neutral.

R: Why do you select “neutral”? 
I: Because after all, we have gotten along for not too long. Well, we do not know what would happen. It’s more like ‘neutral’ but lean toward ‘likely’.

R: So it’s between ‘neutral’ and ‘likely’. Now you may need to take extra mental energy. Please recall the class in the last week. Do you remember questions we asked during group discussions? You should have the case of two Japanese and an American, and the last American case. Do you remember the ways the questions were asked? The ways the questions were asked would help you practice some team learning behaviors. Do you remember these behaviors, or do you remember how the questions were asked? Please recall.
I: I think it is more facilitative?
R: The first question asked if you could think of the team’s input, processes, output, corresponding to its objectives, processes, and results. This is the first question. Then the second question asked you if you would like to search for internal or external information and resources. And then the third one is a hypothetical question that asked “if and then”: if there are some situations, what you should do? Do you have any impression?
I: I have a bit of an impression. The last hypothetical question impressed me the most.
R: Yes, this one is the most difficult to remember. Something unique in the workshop is that in addition to learning cross-cultural communication, I had embedded team learning methods in the workshop. So if you pay careful attention to questions, you would notice that you were asked to do reflection first. This is what I just said to think of: objectives, processes, and results of a team for anything and in any group discussions. For example, in the case of the Americans, what are their team objectives? It might be get the proposal approved. The second question asked you to search for internal and external resources. Because sometimes there are some resources available
that may help you. For example, in the case of the American, he can ask if there are people who had worked with Japanese or people who had been dispatched to work in Japan. These are all good resources. The third question is to think of alternatives. To many teams, they only think of one solution. But if you really would like to have learning in a team, you actually have to think of many alternatives. When you think of alternatives, your team is learning. You will consider pros and cons for each alternative, and other things. So these are the three team learning behaviors: you are expected to reflect on, to search for internal and external resources, and to think of “if and then.”

R: Do you think that there are any other differences between this workshop and your previous courses, your general courses?
I: You not only keep receiving messages; instead, you can think and give feedback to other people.
R: So this workshop let you think and then give feedback. These are training contents. Do you think that there are any differences in training activities? Do you mostly have the same training activities?
I: Um, but not many steps as a facilitative one.
R: Do you think that there are any other differences?
I: Other differences? We have many opportunities to discuss.

R: Many discussions. Well, we just described the three behaviors: do you think that you would try to use the three behaviors in the future?
I: Um.
R: How would you like to apply the three behaviors?
I: Which ways?
R: Um, if you would like to use them.
I: I have no ideas.
R: In what circumstances would you like to use the three behaviors?
I: In what circumstances? It should be when we encounter difficulties.
R: Do you think that you would like to use all of them, or which one is more helpful for you?
I: Reflection. Reflect on oneself. Then to learn from others’ experience. To think what I should do if the same situations happened.
R: You mean the second method: to search for internal and external resources. Or you mean the first one to reflect on the overall objectives, processes, and results of the team. Which one is closer to the one you just described?
I: It is more close to the second one.
R: To reflect on your objectives, processes, and results, or to search for internal and external resources?
I: It should be searching for internal and external resources first.
R: Because searching for internal and external resources is more like what we said to learn from experience. Because others’ experience can be shared. Reflection is to reflect on our team, our objectives, and processes.
I: Reflect on the occurrence of problems and then learn from others' experience.
R: So you think these two are more useful.
I: Um.
R: So you think if you encounter difficulties, in the future you may… Encountering difficulties refers to when your team or you as an individual encounters difficulties, you would think of using the three behaviors.

I: Um.

R: Do you think that you would try to use the three behaviors to improve your course performance?

I: Um.

R: Now this question, I would show the student this question every time. Let me read the question. You said that you would like to use the behaviors, and then I would like to ask you to think: if you would like to use the behaviors, what organizational, team, and individual factors may help you use the behaviors? You can think of people, events, and things in organizations. Then what people, events, and things in an organization could help you use the behaviors. Please think of them.

I: I think everyone can help.

R: You mean everyone can help you.

I: Because everyone has different thoughts. I should say that everything that happened in each moment could let you recall the things you have done, or the impact of the team due to your contribution. Everything you did in a team or everyone you meet will help you. Then you can think if you were they, would you do the same or differently? I think you can learn from everyone.

R: Okay, but you are talking more about general learning. Now we would like to ask if you would like to use the three behaviors: to search for internal and external information, to reflect
on a team’s objectives, processes, and results, and to think of some alternatives. If you would like to use the behaviors, what organizational, individual, and team factors may help you use the behaviors?

I: I think, what about writing a log everyday?

R: It would help, a working log. Maybe you think… If you write a working log, it may help you.

I: I think my colleague is also very important.

R: So you think your team member may use them or encourage you to use them. It may help.

R: Any other factors? Individual, team, and organizational factors.

I: I think if an individual is too lazy or is not able to think, and he/she is not able to reflect on himself/herself, he/she definitely will not do these things. If someone is very proactive, and would like to know how to become better or improve the team, he/she probably would apply the behaviors.

R: So, his motivation.

I: Yes, his motivation.

R: This is the last question: I would like to ask, if I have questions in the future, if something is not clear, something wrong with the recording, or something else, can I contact you?

I: Sure, you can.

ID: Respondent 9

Date: May 31, 2017

R: Researcher I: Interviewee

R: What are your career goals? Your current career goals?

I: Run family business.
R: Take over your family business. Then you have to understand China’s cultures. Have you thought of working as a manager in the future?

I: Um, if there is a chance, I hope to work as a manager.

R: What business courses have you taken? You are now in your sophomore year.


R: Do you think that these courses may prepare you as a future manager?

I: I think Managerial Psychology may.

R: What about General Management?

I: It is too theoretical.

R: Oh, too theoretical. Then compared to your classmates, do you think that you can learn better than them? In general, in general courses.

I: General courses. It should be no difference.

R: No difference, why?

I: Let me think. Because actually I am not really interested in courses. Because I prefer to work on practical operations. I work in the family business every summer vacation.

R: So you like practical operations better, and you think you are not interested in courses. You just passed the courses.

I: Not exactly, I probably ranked at the top of the class.

R: At the top. That means that you should learn better than others.

I: I am doing fine.
R: You are too humble. We had the workshop for this and last class. When you heard “Cross-Cultural Communication Workshop,” what did you like to learn?

I: Because I may go to China in the future, I would like to have the chance to learn ways to interact with Mainland Chinese.

R: So you think you would like to learn ways to interact with Mainland Chinese in the workshop?

I: Yes.

R: And then? If you learn cross-cultural communication, what else would you like to learn?

I: Because I may do business with other countries. It is better to learn as many as I can.

R: Well. Did you work as a team for the last two weeks?

I: Yes.

R: Are you satisfied with your team performance?

I: Um, fairly satisfied.

R: Do you think that there is anything that can be improved?

I: There is a team member who is more egocentric. He would deny our opinions first and then express his own opinions. I think it is not good, and there is no need to totally turn down everyone’s thoughts. Well, I think it will strangle communication.

R: Do you think how you can improve the team’s performance?

I: I would tell him not to keep denying others’ thoughts so that everyone can express his/her thoughts. If you keep refuting others, some people may be too shy to speak out.

R: Yes. Do you work as a team in your other courses?

I: Yes.
R: Do you think that there are any differences between your workshop team and your previous teams in terms of information and opinion exchange?

I: You mean this workshop team?

R: Yes.

I: The difference lies in the team member.

R: The difference lies in one…

I: Because he joined the team later.

R: It sounds like a devil’s advocate, an opponent in an organization.

I: Yes.

R: So there is one person who has objections.

R: Except for this person, are there any differences in terms of your discussions and information exchange?

I: Well, because my other team has fixed team members.

R: All teams have fixed team members.

I: We look for team members by ourselves, so we tend to form several sub-groups.

R: Okay, there is no difference because of the same team members.

I: In the beginning, we split into different groups in our freshman year. Then later as we become seniors, we would…

R: I was with one of the junior students from the same university in a group when I was in graduate school. We had better tacit understanding, but had less stimulation.
R: Do you think that there are any differences between your previous teams and your teams in your freshman year, or between this workshop team and your previous teams in terms of communication methods and efficiency?

I: I think our workshop group is more efficient, and we all are actively participating in discussions, whereas there were some people who were more passive and did not get involved in our freshman year. He just did his own thing next to us.

R: Any other differences from your previous teams?

I: I think my workshop team is more devoted.

R: More devoted. To what extent would you like to work with this team again: extremely unlikely, unlikely, neutral, likely, or extremely likely?

I: Likely.

R: Why “likely”?

I: Because I feel less stressful working with them; we have more tacit understanding and know everyone’s thoughts.

R: We actually practiced three behaviors in each group discussion. Can you recall the three behaviors?

I: Three behaviors?

R: Well, the first behavior asked you to think of something in a team. The second behavior asked you to do something internally and externally. The second question asked you to think something
internally and externally. Then the third one asked you to think of other solutions. Please recall. Can you remember them?

I: Let me think.

R: Please spend one minute to think. Do you remember them?

I: I would like to check the training handbook.

R: You cannot check. It’s okay if you cannot think of anything specific. It is not a test. We would like to see if students can remember these behaviors. Please spend 30 more seconds. I have told you that there are input, processes, and output, and then you have to think of something. It’s okay if you cannot recall.

I: Something like communication?

R: We would ask you to recall what you had experienced in your team in the first behavior. Do you remember the case of Bolin and Jim? Please recall their objectives, processes, and desired results. This is reflection. Reflection, in fact, is a behavior that is easy to use. In your group discussions, you should keep remembering to reflect on the team’s objectives, results, and processes. Then we asked you to think whether there are any internal or external resources that you may use. This behavior is boundary spanning. It means that you have to cross boundaries to think whether there are any internal and external resources that you may use. The third one is to think of alternatives. In fact, we did not practice this behavior much because you normally only think of one solution. But in fact, in many group discussions, in team learning behaviors, you are encouraged to think of some alternatives. Not only alternatives, but also their consequences. So the three behaviors are the ones you actually practiced. But maybe because we had a short time for the workshop, you did not practice them much.
R: Are there any differences between this workshop and your previous courses?
I: There are more interactions.
R: And then? In terms of content or activities?
I: It is more close to the reality.
R: And then?
I: I think it is more effective than those theories.
R: It is not so theoretical, right?
I: Right.
R: It is more practical. Any other differences?
I: That’s all.

R: Well, we just now described the three behaviors. You have to remember to reflect on objectives, processes, and results. You have to cross organizational boundaries to search for resources. You have to think of alternatives. Do you think that you would like to try to use the three behaviors in your future teams or in your future jobs?
I: I would.

R: How would you like to use them? Have you thought of it?
I: Reflection.
R: You think you may use reflection, and then?
I: Experimentation looks like it is more difficult to use.
R: Well, in fact, experimentation is a trend in management, especially in marketing. Experimentation is a concept from science and engineering. Now there is business
experimentation, and it suggests that you conduct some experiments on a small scale. Although it is not as rigorous as in science and engineering, it may help you understand…

I: Market.

R: Yes. We would understand how the experiment works on a small scale. There is a book on business experimentation, but in fact, it is discussed more in science and engineering. Well, would you try to use the behaviors to improve your course performance, such as using them in your group discussions?

I: I would.

R: Next is the last question. You mentioned that you would use the behaviors. Please think of your organization, your department since you are a student, your team, and you as an individual. What factors may help you use the behaviors?

I: Can you ask the question again?

R: You may read the question.

I: Now my team could help me understand more about an organization. Then I can try to use some experiments. Then when I work during the summer vacation, I can observe my office because it is also an organization.

R: So you think you can try them in your teams.

I: Yes.

R: Do you think that your workshop team would accept these methods? Behaviors?

I: I think they will because our team members are peaceful and easy-going.

R: They are easy-going and could accept the new methods.

I: Yes.
R: And then? An individual? Do you think that there is an individual…?

I: The individual factor is about performance in learning; we can apply them to our courses.

R: It is more difficult to think of organizational factors. I think the organization for you is a department or your students’ association.

I: Yes. Or our students’ clubs.

R: Clubs. So you think you may use them in clubs. Which clubs?

I: I do not join any clubs now. I played handball in my freshman year, and I played baseball in my senior high school.

R: Will you use reflection for a sport team?

I: I think so.

R: You mean reflection after the games.

I: Because we would meet together after the games to discuss what we did not do well and what we should reflect on our team sports.

R: Oh, so you think you may use them in team sports.

I: And some people have bad relationships, but you are on the same team. So it is important to coordinate.

R: Well, we talked faster than my normal interviews.

I: Did I speak much less?

R: It’s okay. Probably because I am afraid that you do not have enough time to go to your next meeting. But I have acquired all the information. If I found that I may want to learn more, could I contact you? Did you write down your email?

I: Yes. But I would like to add your Line account. Because I am the class representative, I have the surveys that I need to give to you.
R: Add your Line account. If you have any questions, I will contact you via Line or other tools.
ID: Respondent 10

Date: May 31, 2017

R: Researcher I: Interviewee

R: What are your future career goals?
I: Career goals? Now, I do not have a specific plan.

R: You can have several career goals: can you list them out?
I: Originally I plan to study politics after graduating from Business Administration, and then work as a diplomat.

R: And then?
I: But now it is more practical to work in a bank.

R: Why would you like to work in a bank?
I: In fact, my parents think it is more stable.

R: So now you change your mind, and you want to work in a bank.
I: Now there are two options to choose from.

R: Okay, have you thought of working as a manager in the future?
I: Manager? Yes.

R: Because you major in business administration.
I: Yes.

R: What business courses have you taken?
I: Business courses?

R: You are in your sophomore year. What business courses have you taken?
I: I don’t know whether Human Resource Management, Marketing, and Quality Control count or not?
R: In fact, the previous interviewee did not mention these courses: did you take different courses?
I: Human Resources Management and Marketing are required courses. He must forget.
R: He forgot. Human Resources Management, Marketing, Quality Control, and what else?
I: Let me think. Small and Medium Business Management.
R: And Small and Medium Business Management? Is it an elective course?
I: Yes. This semester. Quality Control and Small and Medium Business Management are elective courses.
R: Do you think that these courses may prepare you as a future manager?
I: I think more or less. I can also use them in my daily life.
R: Which one do you think is more relevant?
I: It should be Small and Medium Business Management.

R: In general, compared to your classmates, do you think that you can learn better than them in the courses?
I: No.
R: Why?
R: Because I think I probably am not a very…, I do okay when writing a report, but in terms of studying for exams, I don’t know why I did not study well since I was in high school.
R: So you think you would suffer from having exams.
I: Um, sort of.
R: So do you have lower scores for courses? Your grades?
I: I got quite low grades when I entered the program, now it is okay. Now I am above the average.
R: We had the cross-cultural communication workshop this and last week. When you heard the title, did you think of what you would like to learn at that time? What course content would you expect?

I: Course content I expected. In fact, when I first saw the title, I was a bit confused. Why did the instructor suddenly have this arrangement?

R: Yes, because it seems that it does not match well with other course topics. But in fact, it has more to do with teams.

I: What would I like to learn?

R: When you saw the title, what did you think the content would be?

R: I thought that it would teach us language.

R: So you think there was something to do with speaking a language, and then?

I: Then it might teach us the meanings of different gestures in other countries.

R: And then?

I: That’s all I can think of.

R: There were many group discussions this and last week. Are you satisfied with your team performance?

I: I am not satisfied.

R: Why?

I: Because my team members were doing their own things in the classes. We all took Case Studies in Human Resource Management. They all were discussing a human resource management case last week. Then this week, they were busy with the surveys because we plan to conduct them.
R: So there were only one or two people paying attention to the class in your team.

I: I totally gave up at that time.

R: Then do you think that there are ways to improve your team performance?

I: I think this can only be stopped by the instructor. If a student tries to stop them, they will have a quarrel with one another.

R: I did not realize it. I only found that there seemed to be one or two groups that were not discussing.

I: We would be one of the groups.

R: So you think that the instructor can step in?

I: Yes. I think the instructor can. If it were us who tried to stop them, maybe he/she would think that since you do not have the assignment, you would say so.

R: Oh.

I: It seemed like that they did not want to participate in activities and did their own things.

R: So they were doing final reports for other courses.

R: Do you think that there are any differences between this workshop team and your previous teams in terms of opinion exchange? (Although your workshop team might not discuss this in the classes.)

I: Do you think that there are any differences because I have been with this team since I entered college?

R: You were with them in your freshman year. The previous interviewee said that you may choose your team members in your first year.

I: Yes, we selected our own team members, and then…
R: You stayed with this team since your freshman year, right?
I: Um, I will be a junior student soon. Then we will have a one-year senior independent study, and I will not work with the same team.
R: Have you started the independent study yet?
I: Not yet.
R: So you will not know how well the team works. Okay, so you have been with the same team.
I: I have been with the same team. No change at all. I think it has something to do with our atmosphere because our class has formed several subgroups. It is obvious that there are several existing subgroups. Then we do not feel like working with other people to have a new team.
R: Do you work in other teams? In your clubs or other places?
I: No.
R: Not at all. So you have been in the same team from the very beginning?
I: Yes.
R: How many people in your team?
I: We have seven people in our team.
R: Are there people in and out?
I: Seven or eight people in our team. Now we had people in and out of the team in our third year. If there were several of our team members who took the same courses, we normally would stay together.
R: So you think you do not have other teams that you may compare to regarding communication. You have no other teams to compare to?
I: Yes.
R: It’s very special. I suggest that you may change teams in the future.
I: But I think no one would like to change teams. Because when we were in our freshman year, we had a freshman project in which teams were assigned by our department. I do not know if it only happened in our team; we realized that in fact working with people with different nationalities, everyone was undisciplined and thought it was boring to do the project.

R: So that counts as another team.

I: Yes.

R: The communication process in that team was worse than your team in the workshop. So you did not have team consensus. Team members were undisciplined.

I: Everyone was not so passionate.

R: What team are you talking about?

I: Freshman project team.

R: Oh. Freshman project.

I: That reminds me of another team. We worked with senior male students from the Department of Information Engineering and Computer Science when I took the Information Network course in the second semester of my freshman year.

R: Then you can compare that team to your team in the workshop. Do you think there are any differences in terms of information exchange?

I: I think the degree of speaking out varies. In my workshop team, if we encourage everyone to express their thoughts and ideas, people would sit there and then no one would like to say a word. When I was with senior male students, they spoke out if they had some thoughts, and discussions were more extensive.
R: Then how are you going to complete your team report? Do you have any reports for the course?
I: You mean the Organizational Behavior course?
R: Yes.
I: We have.
R: How would you complete your report if no one would like to say a word?
I: We would divide the tasks directly and then do our own sections, and then combine all the sections together.

R: So what is your communication process? Do you divide tasks?
I: Communication process?
R: In terms of communication efficiency and methods. For example, face-to-face communication, or Line.
I: We all use Line.
R: Probably you may use Line more for your workshop team.
I: I should say that if we communicate face-to-face, there might be more conflicts.
R: Did you have more face-to-face communication with senior male students from Information Engineering and Computer Science?
I: Yes, face-to-face.

R: Any other differences between your workshop team and your previous team with senior male students from Information Engineering and Computer Science?
I: With senior male students, they respected everyone’s opinions, and they would like to know everyone’s thoughts. However, there is only one person in command of our workshop team. We have to do what he thinks. Therefore, it turns out that many times if you have ideas, those ideas will not be accepted.

R: Are you the team that sat in the back of the classroom?

I: Yes. You asked me about Germany at that time.

R: Well, I wondered why you didn’t discuss or write anything. You were discussing other assignments as you mentioned.

I: Yes.

R: To what extent would you like to work with the same groups again? There are five levels: extremely unlikely, unlikely, neutral, likely, or extremely likely

I: Unlikely.

R: Why?

I: I feel it is very tiring, because everyone does the same things over and over again, and there is no way to show your strength. They have been thinking that we all should do the sections we are good at, but there is no way to train our other abilities.

R: Oh, so you have fixed assigned tasks in your team.

I: Yes.

R: There are pros and cons. Division of labor focuses on what you are good at, but you will not know the whole process.
R: Now I would like to give you one minute to recall. Don’t we have case studies? Actually in case studies, you practiced team learning behaviors. In the first question, we asked you to think of three things in each team. Then in the second question, I said that you should search for something. Then in the third question, we asked you to think of something in addition to the solutions. Can you recall the three questions? This is not a test, and I just want to know if you notice that we actually let you practice these behaviors. Please take one minute to think.

I: I can tell you directly: I really have no idea.

R: It’s okay. I cannot be too specific, so I do not describe them very clearly. If you cannot remember them, it is fine. Please think about it. I reminded you that you need to think of something when each team was discussing. Please take ten more seconds to recall, and it is fine if you cannot think of anything specific. I am wondering maybe you just remember it at certain time points. Sometimes it happens: you would remember a specific situation. I should think of another way to do it because most students cannot remember them.

R: Let me describe the three behaviors, and you will remember them next time. The first one is reflection. There are many definitions of reflection. From my perspective, I think the simplest reflection is to think of objectives, processes, and results of a team. Do you remember input, processes, and output as I described them in the class? In your future group discussions, please remember to think of your team’s objectives, then review your communication process, whether there is a problem in your division of labor. Then the third one is to think of desired results. So this is reflection, a quite well-known team learning behavior.

I: Um.

R: The other team learning behavior encourages you to look for internal and external resources, whether there is someone or a website that may help you. This is boundary spanning. Put simply,
you have to search internal and external resources and information. The third one is a new concept; we asked you not only think of solutions, but also alternatives. For each alternative, you have to think of possible consequences. This may help your team if the first solution does not work, you may have the second or third solution that you can use. So this is a very good team learning behavior. All the three behaviors can help a team learn better and achieve higher performance. So the first one, reflection, asked you to reflect on your objectives, processes, and results, and then the second one asked you to cross boundaries to search for internal and external resources. The third one asked you to experiment to think of alternatives and their consequences. Actually we practiced these behaviors in the workshop. For instance, in the case of Bolin, we asked you to think about whether the team works effectively. This is reflection. We asked you to check whether there are people who had been dispatched to work in Japan or if they had cross-cultural communication workshops, or other resources in the American company. This is boundary spanning. Then the third one asked if you were Jim, the supervisor, what would you do? So we practiced the behaviors in each case study. It might be that the questions were asked in different ways, and you were not aware of the three behaviors.

R: Do you think that there are any differences between this workshop and your previous courses?
I: You mean comparing to…
R: Your other courses in business administration.
I: We were given a topic directly in the workshop, I think a few other courses would do so.
R: You mean other courses have a variety of topics.
I: Yes.
R: What else? For example, training activities or content?
I: Can I say something in common?

R: Sure. Something in common.

I: They both asked us to brainstorm. And then differences?

R: In terms of training activities, content, or others?

I: Others? Compared to other courses, I think the difference lies in that this course has a low level of participation because we do not have an exam.

R: So maybe it is not so good.

I: Everyone thinks there are no exams anyway, so we do not have to pay much attention, and many people are doing other things.

R: And then? What about activities? Any differences from your other courses?

I: Didn’t we write something? We wrote down our opinions, but we did not do so in other courses.

R: You mean writing posters or others?

I: Writing a poster. Wrote down our current thoughts, but we did not do so in other courses.

R: Don’t you have these discussions in other courses? Or you do not have to write something down in other courses?

I: The freshman project I just mentioned also had discussions, but my other courses did not do so.

R: They were all lectures.

I: In the Human Resource Management course, the instructor assigned each team a chapter, and your team was done after presenting the chapter. Then the course was over. Then in the Marketing course, the instructor in fact did not spend much time on teaching, and he only taught us SWOT, STP, and PST. After that, he gave us information about three competitions held
nearby during the semester, and then we were asked to choose a topic. After we were done with the topic, then we participated in one of the competitions.

R: So what were you doing in the classes?
I: We did not do anything.
R: As least, did you have a textbook, or an exam?
I: No.
R: No exams in courses such as Marketing?
I: We only had reports. Then the instructor of Marketing asked us to take the DBSA (Digital Business Strategy Analyst) exam, but I did not do so.
R: It is kind of special.
I: Really? Very special?
R: I know many schools have exams, at least the ones I had had workshops; all of them have exams or reports.
I: We always seem to have reports.
R: There are some advantages to reports. If the instructor assigns good topics, students in fact have to apply all they have learned from textbooks. In fact, I also asked you to learn first and then apply. I focus on application.

R: Do you think that you would try to use the three behaviors I just described, reflection, boundary spanning, and experiment, in the future?
I: I would.

R: Do you think about how you may use them?
I: Can you give me examples of using them?

R: A student would choose to use one behavior, and then he described the aspects or things he may use. The previous interviewee said he would like to use reflection because he thinks reflection is good to use. So among the three behaviors. Do you think you will use all of them or do you think maybe two are more useful, and then which aspects you will use.

I: I think reflection and boundary spanning would be more applicable. Speaking of reflection, sometimes there is no specific goal coming out all the time during group discussions, and all our thoughts are scattered.

R: So you think reflection may help a team stay focused?

I: Yes. Then in terms of boundary spanning, you will receive more information, not being limited by the scope.

R: Yes, it is a pretty good behavior in a specific time. Do you think that you would like to use the behaviors to improve your course performance? Because some courses asked you to write reports.

I: I would.

R: Now the question is kind of difficult and I will show you the question. You said that you may use the behaviors, so we would like to ask you to think of any organizational, team, or individual factors that may help you use the behaviors. As a student, your organization is the Department of Business Administration.

I: Factors?

R: Let me give you an example. After we had a course, you can apply what you have learned; this is so-called “transfer.” Have you learned transfer before?
I: Yes.

R: Because you said that you may consider using the behaviors, we would like to know what factors may help you use them?

I: Factors? Let me think.

R: These factors could be people, events, things, attitudes, or motivation? It could be anything.

I: It should be if we run into something, and then we will use the behaviors.

R: Yes. So it could be if you encounter similar situations, you may use them.

R: Well, and then? Your team? Do you think that there are any factors in your team that may help you use, or prevent you from using them?

I: I think they will hinder me from using them. It’s more like an obstacle.

R: Oh, why?

I: It should be that I personally do not like to argue with other people.

R: You do not like to have conflicts and argue with other people.

I: Yes. I do not like conflicts. But there should be one person in a team who is more dominating, and then everyone would follow his/her opinions. Then maybe because of this, it turns out that we all have no thoughts, or even if we have ones, we are afraid to express them.

R: So, do you think that this person would affect you to use the behaviors?

I: I think so.

R: So in fact there is a key person who may affect whether you would use the behaviors or not.

I: Um.

R: Well, it is possible. There was a student who mentioned that if there is no one in a team who has learned the behaviors, it is possible that no one knows these are useful behaviors, and they
may not want to use the behaviors. It ends up that they may not use them. Thus, in fact, the atmosphere of a team to accept these things or not is important.

R: But for you, in fact, whether the key person will use the behaviors or not is very important.

I: Yes.

R: If he happens to have this course and he also feels the behaviors are not bad. He may ask you all to use them.

I: Um.

R: Good. Thank you.
ID: Respondent 11

Date: May 31, 2017

R: Researcher  I: Interviewee

R: What are your career goals? Do you have career goals?
I: I only think that I would like to be an exchange student in Japan in my senior year. This is my goal in university.

R: In addition to the Japanese exchange program, what are your long-term goals?
I: I only want to work in a big company, but not a small one.

R: You know that many large companies do not hire new graduates, thus you may have to go to a small company first. You need to get mentally prepared.
I: I want to look for an internship in my junior year.

R: Is it easy to find an internship? I am not sure if it is easy for an undergraduate student to find an internship.
I: In fact, it is quite easy. You still need to submit your resume and then go through interviews.

R: Then you need to prepare in advance.
I: Yes.

R: Have you ever thought of working as a manager?
I: Um.

R: Do you ever want to work in a Japanese company?
I: If I learn Japanese well, then I can go to a Japanese company. This gives me one more opportunity.

R: What business courses have you taken?
I: Management, Marketing, and what else? Management is a required course.
R: And then?
I: Any other courses? Maybe not. Have I?
R: Anything else, such as Quality Control?
I: Oh, I have not taken Quality Control, and I plan to take it next semester.
R: You also took Human Resource Management and Small and Medium Business Management.
R: What else? Managerial Psychology?
I: Is Managerial Psychology a required course? No, it is not. It is a selective course in my major.
R: Any other business courses? You only took Marketing, Management, and Human Resource Management.
I: Um.
R: Do you think these courses may prepare you as a future manager?
I: I think Human Resource Management is quite helpful.
I: Because we are now taking case studies in Human Resource Management, the instructor gives us Harvard Business Review and then asks us to do case analyses. Then he also asks us to look for current issues. Our topic is about internship, and another topic is about the “one fixed day off and one flexible rest day” policy. I think they are helpful for us to understand current trends.
R: It is quite practical. The topics are pretty good.
I: Yes. I think a case study is more useful than general courses.
R: So there is a course on case studies, or Human Resource Management is taught with the case study method.
I: Human Resource Management was a required course last semester. We have to take two case study courses to complete our graduation requirements. Then in this semester, we have a case study course on Human Resource Management and also on Marketing.

R: So in addition to taking Human Resource Management, you also have to take a relevant course that is a case study on Human Resource Management.


R: This is quite good.

I: Um, you can make your own choices.

R: In general, do you think that you can learn better than your classmates in terms of course performance?

I: I am better in writing reports rather than studying for exams. In other words, I think in terms of preparing for exams, I may not do so well in courses that may have tests, but I have more thoughts than my classmates when writing reports.

R: So you think you perform better in courses with reports.

I: Yes.

R: Then we had the workshop this and last week. When you heard that you were going to have a cross-cultural communication workshop, what came to your mind? What did you like to learn when you saw the title?
I: Cross-cultural? It should be, what should I say? We may not understand other cultures. What is their original cultural appearance?

R: So when you saw the title, you thought we may not understand other cultures.

I: Yes, we probably can only discuss them according to our existing cognition.

R: When you saw the title, “Cross-Cultural Communication Workshop,” what do you think you would like to learn?

I: When I read the handbook, and the handbook describes the mental status of people in other areas. I think this could be a reference, and you may know how Indian people work.

R: Now you work as a team in this class. Are you satisfied with your team performance?

I: It’s okay.

R: It’s okay. What do you think can be improved?

I: You mean our team?

R: Improve your team performance.

I: There are only few of us who speak out. In other words, the ones who have thoughts are limited. Only a few of us have thoughts, and other people would just follow us.

R: So do you think how you can improve it?

I: How to improve? I think our solution is to assign each person several questions just like last week. We were asked to find answers for each situation. Then we checked together to see if there were other thoughts.

R: Okay, so you divided the tasks.

I: Yes, we can only apply division of labor.
R: Now there is information or opinion exchanges in your workshop team. Are there any differences between this workshop team and your other teams in terms of information or opinions exchanged? Have you taken other courses in which you have to work as a team? Any differences from your previous teams in terms of information and idea exchange?

I: My previous teams and my workshop team? In fact, my team members are almost the same.

R: The same as the previous interviewee, you have almost the same team members for all courses. Is there a team that is different? The previous interviewee thought of working in a team with senior male students from Information Engineering and Computer Science.

I: Oh, that one.

R: Are you with the same team?

I: That is also our required course.

R: So, do you work in other teams? What about the information exchange between that team and this workshop team?

I: But I think I had a bad experience with that team.

R: Well, you had an awful experience.

I: Yes. What I experienced was bad.

R: Then do you have other teams that may compare to this workshop team? Other courses, clubs, or extracurricular activities?

I: Let me think.

R: Do you have the same team members for all other courses?

I: I do have teams with different team members.

R: Let’s find a team that made you impressed.

R: What about differences between your team in Human Resource Management and this workshop team in terms of information exchange?

I: I would say that this team is different from several other teams. Because we also have a final report for this Organizational Behavior course, the way we do is different from what we did previously.

R: Do you think that there are any differences in information exchange?

I: Um, because we spent time deciding what topic we would like to do, it took us a lot of time to communicate. Our team made the final report too complicated. It is us that made it this way, thus we looked for a lot of academic materials. It had been… I think my team members are amazing.

R: So in fact you looked for a lot of different information.

I: Yes. We had a lot of different thoughts when we were discussing.

R: Other teams did not do so.

I: Other previous teams? Previously, the instructor gave a specific goal, and the topics were very specific. But we did not get any directions from the instructor of Organizational Behaviors; we can only assume what it should be and decide our own direction.

R: Are there any differences in communication methods and processes? For instance, whether the communication method is face-to-face or Line? What about your workshop team and your previous team in terms of your communication efficiency?

I: It takes more time. I think the quality of our report is better and we are still very efficient.

R: Do you think that there are any other differences between this workshop team and other teams?
I: Because as a team of eight, there are too many people. Two of them are senior male students from other majors. We basically gave them the simplest sections, or we would tell them our conclusion directly after discussions and asked them to complete this part.

R: This is the difference from other teams. Do you have a more efficient division of labor?
I: For example, we directly assigned them the beginning and the last section of our Organizational Behaviors final report: that is the introduction of the company. The middle sections of questions, discussion, academic parts, and suggestions were shared by the other six of us.

R: To what extent would you like to work with this workshop team again? You have five options: extremely unlikely, unlikely, neutral, likely, or extremely likely.
I: Um, likely.
R: Why?
I: Because my team members are very responsible; we will work together on our senior independent study in the future. Everyone has some thoughts and is awesome.

R: Now please take on minute to recall. Your team actually practiced three team learning behaviors during group discussions. You can think of the case of Bolin and Jim. In the first question, we asked you to consider three things in a team. Then in the second question, we asked you to search for something. Then in the third question, we asked to think of a scenario. Can you recall if you were aware of the three behaviors?
I: Were they written on a paper? The first time we wrote.
R: In the first discussion, you actually practiced three team learning behaviors, but you may not notice. So now please try to recall if you found something special that you were practicing during your group discussions. I will give you one minute. It is difficult to recall, but please try your best to do so. Think of cases you had discussed, including culture, the case of Bolin, and the case of a project manager. In fact, the ways questions were asked were similar in the three cases because they all meant to help you practice the three behaviors.

I: Let me think. What kinds of behaviors?

R: Your team was asked to do something. I cannot be too specific to lead your thinking.

I: I think communication is definitely one of them. The ways we define and understand questions are different, and we need to figure out the questions together.

R: And then? What behaviors do you think you practiced?

I: Something like creative thinking; that is, the ability to think proactively and then solve problems.

R: In fact, I asked you to reflect on something in the beginning. It is so-called reflection. Reflection is quite useful. Actually either an individual or a team can reflect. Reflection in a team means that you have to think of objectives, processes, and results of a team. For example, in the case of Bolin, I asked you to think whether they were efficient or not. This helped you to check whether their process is efficient. This is reflection. The second behavior asked you to search for internal and external information or resources. For example, if there are people who had been dispatched to work in Japan or if there are cultural guides that you may refer to. This is so-called boundary spanning. A team has boundaries, and you have to cross boundaries to look for internal and external information and resources. The third one is experimentation. It means that you have to think of alternatives. Many times you have a final solution, but sometimes the solution may
not work; therefore, you have to think of alternatives and their consequences. This is so-called experimentation. The three behaviors are related to team learning. If an organization can use the behaviors more often, teams would learn better, and then performance would be better.

R: Do you think that there are any differences between this workshop and your previous courses?
I: Brainstorming.
R: You think there is more brainstorming, and then? Any differences in terms of content or activities?
I: It is more interactive compared to general courses. Then we need to fill out a lot of blanks in the materials given by the instructor. The materials are not full of descriptions.
R: There are more blanks that you have to fill out after discussions.
I: Yes.
R: And then?
I: Then we were forced to take time to discuss questions. What should I say? Sometimes we play with cell phones in other courses, but not in this workshop. We have to discuss and present in front of the class.
R: So this workshop asks you to discuss.
I: Right. It forces you to discuss.
R: And then?
I: The content is not quite the same.
R: Any examples?
I: I’ve never heard of cross-culture communication and the five dimensions of Hofstede.
R: The three behaviors I just described: to reflect on objectives, processes, results; to search for internal and external resources; and then to think of alternatives. Do you think that you would try to use them in the future?
I: I would.

R: Do you think how you would use them?
I: You mean my reports for the class.
R: In the classes or on your jobs.
I: How would I use them?
R: Because there are three behaviors, will you use all of them or only the ones that are easy to use?
I: I think I have been using the three behaviors since before.
R: But you may not be aware of it.
I: Well, different things require different tools. I may not use all the three at the same time.
R: Okay. It looks like that you may use different behaviors in different situations.
I: I may think of alternatives if it is my own planning, just like in the case of being an exchange student in Japan, I would come up with alternatives. Then I may reflect on what I did once in a while. What had I learned in my freshman year.
R: Do you think that you would use the behaviors to improve your course performance, in your group discussions, or individual reports?
I: Um, I would.
R: Now the following question is a bit difficult and I will let you read the question. Because you just mentioned that you may use the behaviors, please recall if there are any organizational, team, and individual factors that may help you use the three behaviors in the future? For instance, you may use the three behaviors if your supervisors encourage you to use them on the jobs; you may use them if you are going to do a similar case. These are examples on jobs. You are a student, your organization is the department of Business Administration, your team is the team for this workshop, and yourself. What factors do you think may help you use the three behaviors?

I: Factors? Do you want me to list specific ones?

R: It could be people, events, things, attitude, or motivation. These are possible factors. So what factors do you think may help you use the behaviors?

I: Topics assigned by instructors.

R: So if instructors assign similar projects to you?

I: Um, then we would use them.

R: And then?

I: In terms of individual factors, if there are things that I do not know, I may use boundary spanning to search for additional information.

R: Anything else?

I: If team members do not work well, for example, there are conflicts between us. It may let me use reflection to think if there is an issue among us, or if I am too…

R: Our interview is almost over. May I contact you if I would like to ask some in-depth questions?

I: Sure, you may.
ID: Respondent 12
Date: June 1, 2017

R: Researcher I: Interviewee

R: What are your current career goals?
I: I am now choosing between two goals: one is insurance and the other is the construction industry.

R: Construction. It’s very special.
I: Because I am currently working as a part-time student worker in a construction company, only one day a week.

R: So what kind of work would you like to do in an insurance company?
I: Yesterday I asked my cousin who is currently working as a salesman in an insurance company regarding licenses and other things.

R: So you think you are interested in the job.
I: Yes, I just asked for more information.

R: Well. It is good to understand more about jobs, and in fact, it is how people do. Then what kind of work would you like to do in a construction company?
I: Office staff.

R: What does an office worker do in a construction company?
I: It’s not an office worker that I am really interested in. Because our company sells houses, I am currently working in the selling department. Then I think I may like to know more about what an office worker does.

R: Okay, have you thought of working as a manager?
I: Sure, I certainly have thought of it.
R: What business courses have you taken?
R: Do you think that these courses may prepare you as a future manager? Do you think that these courses are helpful?
I: I do.
R: So what do you mean?
I: Because I am the one who would feel nervous when presenting: in fact, I used to be a pretty shy and introverted person. Then even when I watched other people presenting, I was kind of … because I think students in Business Administration are very brave to express their feelings, I think I was changed a bit.
R: So it is not the course content, but your department helped you become braver to speak out.
I: Yes.
R: What about the courses?
I: Courses would also help. Some course knowledge would make a difference after you absorbed it.

R: In general, do you think that you perform better than your classmates in the courses?
I: I do not think so.
R: Why?
I: I think I am the kind of person who would more stick to something I am interested in, and then I would not work so hard on something I am not interested in. But I observed that my classmates work hard on every aspect. For example, I am more interested in Human Resource Management,
and I would spend more time on it. But my classmates study hard in both Human Resources Management and Marketing.

R: So you would be more devoted in something you are interested in.

I: I would like to learn more about it.

R: Do you think that you learn better than them on subjects that you are interested in?

I: I think so.

R: We had the cross-cultural communication workshop yesterday and last week. When you heard that you were going to attend the workshop, what did you like to learn by merely hearing the title?

I: By merely hearing the title, in the beginning, I thought I would be able to get to know different cultures, but then…

R: You thought you would be able to get to know different cultures, and then?

I: This was my initial thought.

R: So in the beginning you thought you got a chance to get to know different cultures.

I: I thought I would be able to understand characteristics and features of different cultures.

R: There were some group discussions in classes this and last week: are you satisfied with your team performance?

I: Satisfied.

R: Although you are satisfied with the performance, do you think that there are ways to improve your performance in the classes?

I: I think the discussions the instructor designed are at the right moment because my team performed…
R: Are you satisfied with your overall group discussions and results from the discussions?

Although you are satisfied, there will always be room for improvement. Do you think how it can be improved if you would like to do so?

I: How to improve?

R: If you really think it is good, there is no need to improve.

I: Yes.

R: In the classes, you had lots of time to exchange your thoughts and opinions. Do you think that there are any differences between your workshop team and your previous teams in terms of thought and opinion exchange?

I: Opinion exchange? I think there were more heated discussions in the workshop.

R: You think there were more heated discussions yesterday, and then?

I: My team members were more likely to express their opinions.

R: Are there any differences from your previous teams in terms of the communication process?

“Communication process” refers to your communication methods, or efficiency. Any differences from your other teams?

I: Communication methods? Because I am taking a case study on Human Resource Management and Marketing Management, we exchange opinions in case study courses. Because we sometimes use Line to contact with one another, sometimes it is difficult for us to express our ideas very clearly.

R: So which course or other courses?
I: Well, sometimes if we would like to discuss Human Resource Management or the Marketing Management case, then we would use Line. You may be asked to add something, but you do not know what, exactly, to add. There is no discussion process. Well, he/she just asks you to add something, but you cannot ask what you would like me to add by face-to-face inquiries.

R: What about efficiency? Is it almost the same?

I: In terms of efficiency, in fact, other courses are more efficient because we apply division of labor.

R: Um, tasks are divided.

I: Yes. We would discuss in the beginning, and then divide tasks.

R: How many discussions do you have?

I: About two to three discussions.

R: Then you reach a consensus.

I: Yes. After we figure out what we probably should do in the cases, then we would divide tasks. It may be faster.

R: In terms of division of labor, is everyone always assigned the same tasks, or does everyone voluntarily take some tasks?

I: We draw lots.

R: So you may get different tasks each time by drawing lots.

I: Yes.

R: That’s not bad. Everyone gets to learn different skills.

R: Do you think that there are any other differences between your team in the workshop and other teams?
I: Other differences? I think the real difference lies in face-to-face communication. We are able to come up with something through immediate discussions.

R: Don't you have a final report?

I: We have a final report.

R: Do you have to work together with your team?

I: Yes.

R: Have you started to write the report?

I: We are done.

R: So did you have time to discuss face to face, or did you use Line?

I: We had time to discuss face to face.

R: Now I would like to ask you: to what extent would you like to work again with this group in the Organizational Behavior course? Extremely unlikely, unlikely, neutral, likely, or extremely likely?

I: Between “neutral” and “likely”.

R: Why? Why is it between “neutral” and “likely”?

I: I would, a bit, like to do so because my team members are very proactive. However, they all have their own thoughts, which sometimes may conflict with mine.

R: Will it take longer for you to think of a plan?

I: Yes, in my other courses but not in this course.

R: Now please take one minute to recall your classes yesterday and last week. We actually practiced some behaviors that you might not notice. But in fact in each group discussion, you
practiced team learning behaviors. In the first question of each case, I asked you to think of three things in a team. In the second question, I asked you to search for something. In the third question, I asked you to make an assumption. Now please think of the case of the American and Chinese, the time when you discussed culture, or the last case, when I asked you to imagine that you were a project manager that will present in different countries. Please recall what you had done and what behaviors you practiced, or something else that comes to your mind. Please think of skills or behaviors that you practiced during discussions.

R: Let me tell you these behaviors. In fact, in the first question of each case, I asked you to reflect. It is so-called reflection. Reflection means that your team has to think of your objectives, processes, and results. For instance, I asked you to think about the ultimate goal of the American and Chinese team: whether they would like to develop a program, and then what about their efficiency? The desired result was to communicate and complete the project smoothly. Actually, it reflected on the team in the case study. In fact, you should always reflect on your team objectives, desired results, and processes during group discussions, such as whether your communication process goes well? Or whether your division of labor works well? This reminds you that if your team would like to learn, to perform better, to operate more efficiently, then you always have to think of your objectives, results, and processes. This is the first team learning behavior.

R: Then the second behavior is boundary spanning. It means that you have to cross your organizational boundaries to search for internal and external resources. For instance, you may ask relevant people. Some groups may ask people outside of the team. For example, your case report may ask you to visit experienced people, something like this. It is to cross boundaries to search for information or resources.
R: The third behavior is not often seen. It is so-called experimentation. I asked you to think of alternatives and their consequences. Sometimes you only think of a solution: basically, we would recommend thinking about more than one solution. Because sometimes the final solution may not work, you should always have back-up plans. Thus, this behavior asks you to think of alternatives. In fact, I ask you to assume who you are and then what would happen. But it is a pity that we did not have much time left when we discussed the question, and students often only think of one solution without alternatives. This is the third behavior.

R: Do you think that there are any differences between this workshop and your previous courses in terms of course content and activities?

I: It is quite different. We are having group discussions all the time, and the instructor is more like a facilitator.

R: And then?

I: It is the most special one.

R: The three behaviors I just described: you have to reflect on objectives, results, and processes; you have to cross boundaries to search for resources and information; and then you have to think of alternatives and consequences. Do you think that you would consider using them in the future?

I: Yes. I would.

R: How would you like to use them? Have you thought of how you are going to use them? Then will you use all three of them?
I: I would definitely use boundary spanning because after all, my thoughts seem to be limited; I need different thoughts from various views of other people.

R: So you think you may use this more often, and then?

I: I may use reflection as well.

R: You think you may use reflection in a team.

I: Yes.

R: I also would like to ask whether you would like to use the three behaviors I just described to try to improve your course performance? To use them in your group reports or discussions?

I: I would.

R: Then this is the last question: I always show it to students because it is more complicated. Because you answered that you may use the three behaviors, I would like to ask you to think about what factors, including organizational, team, and individual factors, that you think may help you use the behaviors in the future?

I: To help me? I think an instructor is a bit like a supervisor.

R: So what do you mean?

I: Sometimes he would give us some suggestions. For instance, when we did poorly in our report last time, then he said that we need to make some improvements and then we reflect on whether we should... At that time, our tasks were not divided evenly. Although everyone did one section, but there is one section that had more content, such as introduction of the case. So in the following report, we divided the introduction of the case, and then put it together with analyses or problems. So that we ask the one who was in charge of the next section to present it.

R: So, it was because the instructor told you something, right?
I: Yes. He said that we were not familiar with the case, and I found that I could not finish my presentation because the section was too much for me.

R: So in fact your instructor helps you reflect.

I: Yes.

R: It’s pretty good, and then?

I: In terms of boundary spanning, you would ask other people. I asked someone for one of my case studies. I work in a construction company, and I asked how I should apply and what I should do. Then he told me some methods. Then I realized that I could use it and think this way.

R: There are some people that may help you.

I: Yes.

R: Okay, anything else?

I: That’s all.

R: The interview is over. Do you have any suggestions or comments?

I: No.
ID: Respondent 13
Date: June 1, 2017

R: Researcher I: Interviewee

R: What are your future career goals?

I: Career Goal?

I: Go back to Macau to find a job.

R: To find a job in Macau...any specific jobs?

I: I would prefer to work in a human resource management department.

R: Have you thought of working as a manager in the future?

I: If I could, I do hope so.

R: You are now in your sophomore year: what business courses have you taken?

I: Management Science and Small and Medium Business Management.

R: You took the selective courses.

I: Um, yes.

R: Management Science, and then?

I: And Management.

R: Anything else?

I: Does Organizational Behavior count?

R: It also counts as a business course.

I: That’s all.

R: Do you think that these courses may prepare you as a future manager?

I: Yes, they may.

R: They are helpful somehow. Which one do you think is more helpful?
I: Management.
R: And then?
R: The most useful is Management, and then what’s the next one?
I: Organizational Behaviors.

R: In general, do you think that you perform better than your classmates in the courses?
I: We are almost the same.
R: Why do you think you are almost the same?
I: Because none of us perform particularly well.
R: Is everyone almost the same?
I: Well, in terms of performance, we did not do much.
R: You mean no one outperforms others particularly.
I: There are some people who outperform, but most people are around the average.
R: You mean except for some special ones, most people are almost the same.
I: Yes.

R: We had the cross-cultural communication workshop yesterday and last Thursday. When you heard the title, what did you think you may learn at that time? Any thoughts when you saw the title?
I: Um, it should be skills and methods for people from different cultures to communicate.
R: And then?
I: Nothing else.
R: Are you satisfied with your team performance?
I: Not bad, I am satisfied.

R: Satisfied, but not perfect. Do you think that there are ways to improve your team performance?
I: To enforce communication. Now our communication still cannot be expressed completely.

R: What do you mean by “completely”?
I: We do not exactly express our thoughts to every team member.

R: So you think some people may reserve their opinions?
I: Um.

R: Do you think they reserve their opinions because they do not want to argue with others or they do not have time?
I: Maybe they are not very devoted.

R: You had some opinion exchange during your group discussions in the classes. Do you work as a team in other courses?
I: I do.

R: Do you think that there are any differences between the workshop team and your previous teams in terms of information and idea exchange?
I: This team is better than my other teams.

R: Is this workshop team better?
I: This team is better in that everyone works harder than my team members in other courses.

R: You mean actually your workshop team members are better than your other teams in other courses?
I: Yes.
R: Comparing your workshop team to your other teams, what about the communication process, including your communication methods…whether you use face-to-face or electronic communication, and then your communication efficiency?

I: My team is definitely better than other teams, and much better, I think so.

R: What about communication methods and efficiency?

I: Pretty good.

R: How do you normally communicate?

I: You mean our workshop team?

R: Yes. Your team in Organizational Behavior.

I: In our Organizational Behavior team, we would divide our tasks, and then everyone is in charge of one section. Then we would give our other team members the completed sections to let them review our works. So if there are any questions, our team members would bring them up.

R: Okay, you would meet in the beginning, divide tasks, and then meet together at last, or you communicate electronically.

I: We keep meeting after dividing tasks.

R: Oh, you keep meeting regularly all the time.

I: Although we divide tasks, we also work together.

R: So you have regular group meetings all the time.

I: Yes.

R: That’s great, but it takes much time.

I: It’s all right.
R: In addition to information exchange and communication, do you think that there are any other differences between your team in Organizational Behavior and your other teams?

I: I think it is the attitude.

R: Attitude? What kind of attitude?

I: The extent to which we devoted time to the course.

R: Compared to teams in other courses, is this team more devoted?

I: Yes.

R: That’s great. You are in a good team.

I: This team is not bad.

R: Now please choose to what extent you would like to work again with this team: extremely unlikely, unlikely, neutral, likely, or extremely likely?

I: 4: Likely.

R: Why do you choose “likely”?

I: Because they are more devoted.

R: It is because they are more devoted.

I: After working with them, it’s not bad.

R: Any other factors?

I: I know them better.

R: Oh, you know them better. Do you work in a team with them only for this course, or in other courses?

I: In other courses as well; I sometimes work with them in a team.

R: With the same people, or some members are different?
I: Not all the same people.

R: So in fact you may be more familiar with some of them?

I: Yes.

R: The theme of the workshop is cross-cultural communication, but actually it has the other theme, team learning. I actually embedded team learning into the course design. You were asked to practice team learning behaviors in each discussion. Therefore, now I would like you to recall for one minute: Do you remember something, the three things, I asked you to think of in the case of Jim and Bolin, in the discussion of culture, and in the case of imagining that you were a project manager? Then normally, in the second or third question, I would ask you to search for something. Then in the third question, I asked you to make an assumption. So now I will give you one minute to check whether you could recall.

I: I do not remember.

R: Think about it for at least thirty seconds.

I: All right…

R: Please recall the course. Or do you think that your team was practicing something during discussions? Or some behaviors that made you impressed the most while discussing the questions?

I: Something that impressed me the most.

R: Any behaviors or skills that you think we were using?

I: I think it is quite normal.

R: It is alright that you have no awareness. Does it suggest that I design the classes successfully or unsuccessfully?
I: It is quite normal, the same as my normal discussions.

R: Is it almost the same as your other normal course discussions?

I: Almost.

R: Not many differences?

R: Now let me describe the three behaviors to see if you may think that these are different.

Actually, you practiced three behaviors. In the first behavior, I asked you to reflect on the first question. It is so-called reflection. In team learning, reflection refers to thinking of objectives, results, and the processes of a team. These are what I described as input, processes, and output. Every time when you have group discussions or meetings, you all have to think about what the teams’ goals are? Such as submitting the report on time, and everyone works proactively to reach the goals. Process refers to the communication process of your team, whether the way you divide tasks is efficient or not, and whether there are things that can be improved. This is process. The third one is about your results, whether you have set up goals regarding the results you would like to attain, such as everyone passes the course and gets high scores. We actually asked if you think the American and Chinese team is efficient or not in the case of Bolin. Thus, we, in fact, asked you to reflect on other teams in the case study in terms of the efficiency of the teams.

R: Then the second behavior is so-called boundary spanning. Every team has boundaries. In fact, we asked you to search for internal or external resources or information that may help you. As in the case of Bolin, we described that if there is someone who had worked with Chinese or had been dispatched to work in China, he/she would provide some useful information. Then in the last case of a project manager, I mentioned that you may find some online cultural guides that may introduce the cultures of a country. This information and these resources can help your team work better and learn better.
R: Then the third one is so-called experimentation. Experimentation asks you to think of alternatives. For example, in the case of Jim, I asked, if you were Jim, what would you do? Are there any other alternatives? In addition to the alternatives, you also have to think of their consequences. Thus for any teams, if you would like the team to learn and perform better, you always need to have a final solution. Besides the final solution, you also have to think of alternatives in different situations. These are the three team learning behaviors: reflection, boundary spanning, and experimentation. I am giving you a brief review.

R: Do you think that there are any differences between classes yesterday and last Thursday? Any differences between classes for the past two weeks and your other courses in terms of content and activities?

I: The questions we think are different.

R: What are the differences?

I: There are few courses that will give you a question to search for something wrong, look for some issues, and then think of ways to improve them. There are fewer questions of this kind.

R: And then?

I: That’s almost all I have.

R: We just now described the three behaviors: to reflect on objectives, results, and processes, and then to search for internal and external resources, and to think of alternatives and consequences. Do you think that you would consider using the three behaviors in the future?

I: I would.

R: Okay, will you use all three behaviors or…?
I: All three.

R: All three. Do you think about how you would use them? Please think of it.
I: How I am going to use them? I would first reflect on when we are having issues, and then I would look for an alternative and influence it may bring.
R: Then what about boundary spanning?
I: I will see if there is a chance to apply boundary.
R: So you think you would prefer to use reflection and experimentation?
I: Boundary depends; for each question, you may not find materials for your reference.
R: Because you have group discussions in many courses, will you use the three methods to improve your course performance?
I: I will.

R: Next is the last question, and I will let students read the question. Among your organization, your other teams in other courses, and yourself in terms of your attitude and motivation, we would like to know which factors may help you use the three behaviors I mentioned above.
I: This question is similar to the previous questions.
I: What factors? All have some influence, right?
R: Which factors would probably be more obvious?
I: Team.
R: What kinds of factors?
I: Team factors. Because team members would affect one another.
R: Okay, what do you mean by “affect”?
I: Probably attitude.
R: Which attitude?
I: For example, if your team members are more devoted, you would think that you cannot be lazy and have to be the same as them.
R: So if your team members are more devoted, you probably would be more likely to use the behaviors.
I: Yes.
R: Okay, and then?
I: Individual factors…what do you mean?
R: Individual factors normally refer to your attitude or motivation.
I: These could be the factors. It is out of questions that others may affect you, and you would affect others as well.
R: So you think you may affect others to use the behaviors. Okay, and anything else?
I: That’s all.
R: In fact, there is one team factor: if all your team members had attended the classes, it may be easier for you to ask them to use the three behaviors. You can tell them that you actually practiced the behaviors, and then you can keep using the behaviors in your group reports to try to see if the behaviors would help you make better reports.
I: Well. We can use the three behaviors in all places.
R: Yes. In fact, you can also use the three behaviors in individual learning. Individuals can do reflection as well. So if you sometimes want to improve your learning ability, you can use the three team learning behaviors. You may try to use them in your course reports or individual learning.
R: Okay. I will stop the recording. If I have any sections that I cannot hear clearly, or something else, can I contact you?

I: Yes, you may contact me.

R: It depends. Your Chinese is pretty good, but you may be slow in listening.

I: Yes.

R: Maybe that was because I talked too fast. Therefore, I tried to conduct the interview in both Chinese and English.