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**VIRTUAL TEAMWORK IN A BUSINESS SCHOOL MASTER'S PROGRAM:
DO TEAM CHARTERS HAVE AN IMPACT?**

by

SAMUEL KYUNGJIN CHUNG

**A dissertation submitted in partial fulfillment
of the requirements for the degree of**

**Doctor of Philosophy
University of San Diego**

January 2013

Dissertation Committee

**Robert Donmoyer, Ph.D.
Fred J. Galloway, Ed.D.
Robin McCoy, Ph.D.**

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ABSTRACT

A *virtual team* is an organizationally and/or geographically distributed group whose members use synchronous and asynchronous technologies to work collaboratively. A *team charter* is a document that describes how group members intend to behave and interact while working collaboratively. Team charters have been used to facilitate virtual teamwork.

This study, which took place in a graduate-level business program at a private university in California, was designed to fill the gap in the literature about team charter usage by virtual teams consisting of business students. The students were required to create a team charter in the first semester of the program and were encouraged to create them in subsequent semesters.

The following research questions guided this study:

1. What, if anything, do business students, grouped into virtual teams for the first time, report to be challenging about virtual teamwork?
2. How do business students, grouped into virtual teams for the first time, describe the process involved in creating their team charter, when required to?
3. How do business students who have collaborated in virtual teams for at least a semester assess the impact, if any, that team charters have on virtual teamwork?

To address the research questions, 81 students in the business program were surveyed; twelve students, two professors, and two administrators were interviewed.

Multiple regression analysis was used to analyze survey data; content analysis procedures were used to analyze interview data.

Among other things, the findings suggest that team charters helped students identify shared goals and increase team-member accountability. Team charters also helped students manage conflict and operate more effectively. However, team charters typically require substantial time and effort to create, and many students did not opt to develop charters once they were only encouraged and not required to do so.

The study was delimited to a single master's program, so the findings have limited generalizability, if *generalizability* is defined in a traditional way. However, the study provides ideas that can be used heuristically in other contexts, especially contexts in which professors and administrators are considering ways to improve virtual teamwork.

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TABLE OF CONTENTS

ACKNOWLEDGMENTS	vi
TABLE OF CONTENTS.....	viii
LIST OF TABLES.....	xvi
LIST OF FIGURES	xix
1. OVERVIEW OF THE STUDY	1
Background	1
Problem Statement	8
Purpose of the Study	8
Definitions and Research Questions	9
2. A REVIEW OF THE LITERATURE.....	10
Chapter Introduction	10
A Summary of Three Virtual Team Literature Reviews.....	11
Workplace-Based Virtual Teams	13
How Workplace-Based Virtual Teams and Student Virtual Teams Differ.	14
Business Student Virtual Teams	15
Challenges of Business Student Virtual Teamwork.....	16
Socio-Emotional Processes	16
Trust	16
Cohesion.....	19
Task Processes.....	22
Communication	22

Coordination.....	25
Participation	28
Summary of the Challenges of Business Student Virtual Teamwork	30
Team Charters for Student Face-to-Face Teams.....	35
Team Charters for Workplace-Based Face-to-Face Teams	42
Team Charters for Workplace-Based Virtual Teams.....	45
Chapter Summary.....	47
3. RESEARCH DESIGN AND METHODOLOGY.....	49
Chapter Introduction	49
Study Site and Study Participants	49
Rationale for Selection of the Study Site	52
The MSIBL 102 Team Charter Assignment	53
MSIBL Virtual Teamwork.....	54
My Involvement with MSIBL.....	55
Data Collection Methodology and Participant Selection	56
Two Rounds of Interviews with the First-Semester Student	
Participants.....	56
MSIBL Student Survey	58
Interviews with the MSIBL Administrators.....	61
Interviews with the Professors of MSIBL 102.....	61
Data Analysis	62
Interviews with the First-Semester Student Participants.....	62
MSIBL Student Survey	62

Limitations and Delimitations of the Study	63
Significance of the Study	65
Chapter Summary	68
4. STUDY FINDINGS	69
Chapter Introduction	69
How Virtual Teamwork and Team Charters Became a Part of the MSIBL Program	70
MISBL Virtual Teamwork	70
MISBL Team Charters	71
Summary	74
Background Information about the 81 Student Survey Participants	74
Background Information about the 12 First-Semester Student Interview Participants	75
Demographic Characteristics of the Student Interview Participants	76
Characteristics of the First-Semester Student Teams	77
The Roles of the Team Leaders and Project Leaders	79
The Challenges of Student Virtual Teamwork	81
Student Survey Participants	81
MSIBL Administrators	83
Professors of MSIBL 102	86
Student Interview Participants	87
Summary	90
The Team Charter Creation Process	90

Team A	90
Team B	91
Team C	92
Team D	93
Summary of the Team Charter Creation Process	94
Impact of Team Charters According to the MSIBL Administrators and the Professors of MSIBL 102.....	96
MSIBL Administrators.....	96
Professors of MSIBL 102.....	98
Summary	100
Impact of Team Charters According to the Student Interview Participants	101
Team Charter Usage: Team A.....	102
Impact of Team Charters and the Team Charter Creation Process: Team A	103
Critiques of Team Charters or the Team Charter Assignment: Team A	105
Plans for Future Team Charter Usage: Team A	106
Team Charter Usage: Team B	107
Impact of Team Charters and the Team Charter Creation Process: Team B	107
Critiques of Team Charters or the Team Charter Assignment: Team B	108

Plans for Future Team Charter Usage: Team B	108
Team Charter Usage: Team C	110
Impact of Team Charters and the Team Charter Creation Process:	
Team C	110
Critiques of Team Charters or the Team Charter Assignment:	
Team C	111
Plans for Future Team Charter Usage: Team C	111
Team Charter Usage: Team D.....	112
Impact of Team Charters and the Team Charter Creation Process:	
Team D.....	114
Critiques of Team Charters and the Team Charter Assignment:	
Team D.....	115
Plans for Future Team Charter Usage: Team D	116
Summary of the Impact of Team Charters According to the Student	
Interview Participants.....	117
Team Charter Usage.....	117
Team Charter Impact.....	118
Team Charter Critiques	121
Team Charter Future Usage	121
Summary	122
The Impact of Team Charters According to the Student Survey Participants	
.....	123

Perceived Worthwhileness of Team Charters According to the Student	
Survey Participants.....	129
Initial Multiple Regression Analysis Results	133
Hierarchical Stepwise Multiple Regression Analysis Results	134
Least-Squares Regression Line	138
Summary	139
Chapter Summary	141
5. DISCUSSION OF STUDY FINDINGS AND CONCLUSIONS.....	142
Chapter Introduction	142
Purpose of the Study	142
Research Design and Methodology.....	143
Interviews with the First-Semester Student Participants.....	144
MSIBL Student Survey	144
Interviews with the MSIBL Administrators and Two MSIBL	
Professors	145
Key Study Findings.....	145
Research Question One	145
Research Question Two	146
Research Question Three	147
Interpretation of the Study Findings.....	152
Implications of the Study Findings	155
Implications for Business Professors	155
Implications for Business School Administrators.....	158

Suggestions for Future Research.....	159
Concluding Remarks	160
REFERENCES	162
APPENDIX.....	168
A. MSIBL 102 Team Charter Assignment Instructions.....	168
B. MSIBL 102 Exemplary Team Charter	173
C. First E-mail Sent to First-Semester Students to Identify Willing Interview Participants	188
D. Second E-mail Sent to First-Semester Students to Identify Willing Interview Participants	190
E. Research Consent Form for First-Semester Student Interview Participants ...	192
F. Interview Guide One for First-Semester Student Interview Participants.....	196
G. Interview Guide Two for First-Semester Student Interview Participants	199
H. In-Class Announcement to Identify Willing Participants for the Paper-Based Survey.....	202
I. E-mail Sent to Identify Willing Participants for the Online Survey	204
J. Research Consent Form for Student Survey Participants	206
K. Survey Questions for Student Survey Participants	210
L. Survey Results Collected from Student Survey Participants	216
M. Research Consent Form for the Interviews with the Director and Assistant Director.....	235
N. Interview Guide for the Director	239
O. Interview Guide for the Assistant Director	241

P. Research Consent Form for the Interviews with the Professors of MSIBL 102	
.....	244
Q. Interview Guide for the Professors of MSIBL 102.....	248

LIST OF TABLES

1. Select Demographics Characteristics of the 81 Student Survey Participants and the Population of 89 Students Enrolled in MSIBL at the Time of the Study....	75
2. Select Demographic Characteristics of the 12 First-Semester Student Interview Participants and the 20 First-Semester Students Enrolled in MSIBL at the Time of the Study	77
3. Characteristics of the First-Semester Teams.....	78
4. Student Interview Participants' Team Membership and Team Leader Roles...	80
5. Responses to Four Student Survey Questions about Virtual Teamwork	82
6. Virtual Teamwork-Related Challenges Experienced by the Four First-Semester Student Teams	88
7. Virtual Teamwork-Related Challenges Experienced by the Majority of First-Semester Student Teams	89
8. First-Semester Student Team Charter Creation Process According to the Student Interview Participants	95
9. Impact of Team Charters According to the MSIBL Administrators and the Professors of MSIBL 102.....	101
10. Summary of Team Charter Usage, Impact, Critiques, and Future Usage: Team A	107
11. Summary of Team Charter Usage, Impact, Critiques, and Future Usage: Team B	109

12. Summary of Team Charter Usage, Impact, Critiques, and Future Usage:	
Team C	112
13. Summary of Team Charter Usage, Impact, Critiques, and Future Usage:	
Team D	117
14. Summary of Team Charter Usage According to the Student Interview	
Participants	118
15. Summary of Team Charter Impact According to the Student Interview	
Participants	119
16. Summary of Team Charter Impact, Re-Ordered by Team Charter Assignment	
Section	120
17. Summary of Team Charter Critiques According to the Student Interview	
Participants	121
18. Summary of Team Charter Future Usage According to the Student Interview	
Participants	122
19. The 17 Student Survey Questions About the Perceived Impact of Team	
Charters on Virtual Teamwork	125
20. The Five Team Charter Impact Survey Questions That Received the Highest	
Percentage of Agree or Strongly Agree Responses	127
21. The Five Team Charter Impact Survey Questions That Received the Lowest	
Percentage of Agree or Strongly Agree Responses	128
22. Demographic Category of Independent Variables	130
23. Teamwork Category of Independent Variables	131
24. TC-Impact Category of Independent Variables	132

25. Stage 1 Hierarchical Stepwise Multiple Regression Analysis Results	135
26. Stage 3 Hierarchical Stepwise Multiple Regression Analysis Results	137

LIST OF FIGURES

1. Percentage of students enrolled in three types of AACSB-accredited MBA programs offered in the United States during academic years 2007-2008 through 2010-2011 3
2. A list of the types of challenges that business students might experience while engaging in virtual teamwork.....31

CHAPTER ONE

OVERVIEW OF THE STUDY

Background

Many universities in the United States now offer degree programs that are delivered entirely through distance learning technologies like learning management systems and phone-, video-, and Web-based conferencing systems, which make it possible for students to receive instruction and complete course requirements without having to rely on face-to-face interaction with professors and classmates (NCES, 2012). Some degree programs that use distance learning technologies are delivered entirely through online courses so students do not ever need to come to campus. Other degree programs that use distance learning technologies are offered through blended courses, which combine aspects of on-campus, face-to-face courses with technology-mediated distance learning aspects.

Blended courses make it possible for resident students who live near campus to complete most of their course requirements online so they do not need to come to campus as often as resident students in traditional face-to-face programs do. For example, if a significant amount of a professor's lecture content is delivered via pre-recorded videos or a synchronous (real-time) Web conferencing system, a resident student might only need to come to campus to attend class once a month instead of once a week.

Furthermore, the technologies used in blended courses make it possible for distance students who do not wish to or are not able to come to campus for face-to-face class sessions to complete coursework along with resident students, although distance students might need to complete additional learning activities online to make up for

missed face-to-face class sessions. Whether courses are offered entirely online or utilize a blended format, the flexibility that distance learning programs offer can be appealing to some students, especially those who want to complete a degree while working full-time. In fact, in the 2007-2008 academic year, approximately 4% of all undergraduates and 9% of all graduate students in the United States completed their entire degree program online by using distance learning technologies (NCES, 2011, p. 120).

Distance learning programs certainly seem to appeal to graduate students pursuing business degrees, as evidenced by enrollment figures, especially when compared to enrollment in part-time and full-time programs taught on-campus (AACSB, 2009, 2010, 2011a, 2012). For example, according to reports (AACSB, 2009, 2010, 2011a, 2012) by the international accrediting organization The Association to Advance Collegiate Schools of Business (AACSB), in the 2007-2008 academic year, 44.8% of all students enrolled in AACSB-accredited Master of Business Administration (MBA) programs in the United States were enrolled in part-time MBA programs, which were taught on-campus in the evening and on weekends (see Figure 1). The percentage steadily declined 4% to 40.8% in 2010-2011 (AACSB, 2009, 2010, 2011a, 2012). Enrollment in traditional two-year MBA programs (taught on-campus full-time during workdays) grew only 1.3%, from 23.6% in 2007-2008 to 24.9% in 2010-2011. By contrast, enrollment in part-time distance learning MBA programs grew 2.5%, from 4.2% in 2007-2008 to 6.7% in 2010-2011 (AACSB, 2009, 2010, 2011a, 2012).

Figure 1. Percentage of students enrolled in three types of AACSB-accredited MBA programs offered in the United States during academic years 2007-2008 through 2010-2011 (AACSB, 2009, 2010, 2011a, 2012).

In a report designed to provide guidance to business school administrators interested in developing or evaluating distance learning programs, the AACSB Distance Learning Task Force (AACSB, 2007) claimed that business degree programs offered through distance learning are proliferating rapidly, in part because they can make education available to students with geographic, job-related, familial, and physical constraints. However, the task force warned that distance learning programs often require a significant commitment of organizational resources, including investments in faculty development, student support and training, technology infrastructure, and ongoing program development efforts (AACSB, 2007). In particular, to better identify and address the challenges that students encounter in the distance learning environment, the task force

recommended that business school administrators systematically and proactively solicit the perspectives of various stakeholders (AACSB, 2007).

One challenge associated with the distance learning environment that merits in-depth examination involves employing project-based teamwork. In face-to-face courses, business professors sometimes ask students to collaborate with teammates to complete certain kinds of assignments (e.g., papers, presentations, case study analyses, and business simulations); they believe that rich learning opportunities arise when students collaboratively apply their knowledge and skills—despite personal differences and opposing viewpoints—to co-construct new knowledge, solve complex problems, and complete challenging course requirements (Clark & Gibb, 2006; Dineen, 2005; Hansen, 2006; Koh, Barbour, & Hill, 2010; Lamont, 2001).

Some business professors assign team projects because they want to better prepare their students for an increasingly inter-connected, knowledge-driven, global workplace that often rewards workers who possess well-honed communication, problem-solving, project-management, and technical skills (Hansen, 2006; Newman & Hermans, 2008; Starke-Meyerring & Andrews, 2006). In fact, the AACSB (2011b) stipulated in its list of accreditation standards (Standard 13) that business professors “actively involve students in the learning process” and “encourage collaboration and cooperation” by using pedagogical approaches like “problem-based learning, projects, simulations” so students “have both formal and informal opportunities to develop cooperative work skills” (pp. 55-56).

Unfortunately, business students enrolled in distance learning programs often have limited opportunities to work face-to-face with teammates on projects, especially if

some or all of their teammates are distance students. Even if most of the students on a team are resident students, they might still find it difficult to work on team projects in real-time and in-person, especially if they are graduate students who work full-time or need to travel frequently. Distance students and resident students alike can at least partially overcome the constraints to engaging in teamwork by working in a *virtual team*, which in this dissertation is defined as an organizationally and/or geographically distributed group whose members use various synchronous and asynchronous technologies like e-mail, phones, conferencing systems, and software applications to perform collaborative work (Cox & Bobrowski, 2000; Hunsaker & Hunsaker, 2010; Norton Jr. & Sussman, 2009; Wilkinson & Moran, 1998).

An analysis of literature on virtual teams consisting of business students (see Chapter Two of this dissertation for more details) reveals that some teams experience challenges (usually involving trust, cohesion, communication, coordination, or participation) when they attempt to perform collaborative work virtually. For example, based on an analysis of e-mails, online chat logs, and reports submitted by 13 global (international) virtual teams consisting of business students, Cramton (2001) noticed that students in many of the teams experienced conflicts involving communication. In particular, some students failed to use correct e-mail addresses or forgot to send copies of e-mails to all of their teammates, which hindered collaboration and resulted in an uneven distribution of information (Cramton, 2001). Some students checked their e-mail accounts infrequently or inconsistently, which made it difficult for their teammates to make decisions collectively and in a timely fashion (Cramton, 2001). Additionally, some students reported that they found it difficult and time-consuming to discuss sensitive

issues through e-mail, and worried about being misinterpreted due to cultural differences, language barriers, and the inability to convey non-verbal social cues through e-mail (Cramton, 2001).

Some have suggested that problems and disputes that could be solved relatively quickly in-person can sometimes escalate more quickly in a virtual environment in which social cues and informal bonding opportunities are scarce (see Jarvenpaa, Shaw, & Staples, 2004). Students who consistently experience acute or pervasive conflict while working on projects with teammates may eventually become dissatisfied with a course or degree program, which could potentially affect attrition rates (Bocchi, Eastman, & Swift, 2004).

However, an analysis of the literature on virtual teams consisting of business students (see Chapter Two of this dissertation for details) reveals that professors can help students prevent or overcome some of the challenges of virtual teamwork by providing training and team-building opportunities early on. For example, to help business students working in virtual teams to develop feelings of trust and cohesiveness, business professors could ask students to participate in relationship-building activities (Bocchi et al., 2004; Jarvenpaa et al., 2004; Starke-Meyerring & Andrews, 2006), discuss team processes and procedures (Jarvenpaa & Leidner, 1999; Jarvenpaa et al., 2004), and create a team name, logo, and purpose statement (Starke-Meyerring & Andrews, 2006).

Similarly, to help with coordination efforts and to encourage participation, professors could ask students to have discussions about their individual skills, areas of expertise, and preferred team roles (Bocchi et al., 2004; Davis, Germonprez, Petter, Drum, & Kolstad, 2009). To assist with communication efforts, professors could ask

students to create a virtual communication plan, which describes how the members of a team will interact and work together throughout the semester (Clark & Gibb, 2006). Alternatively, professors can ask students working in virtual teams to engage in many of the team-building activities described above by asking them to create a team charter, which is defined in this dissertation as a written document that describes how group members intend to behave and interact while performing goal-driven, collaborative work (Cox & Bobrowski, 2000; Hunsaker & Hunsaker, 2010; Norton Jr. & Sussman, 2009; Wilkinson & Moran, 1998).

In summary, degree programs offered through distance learning are proliferating rapidly, especially programs designed for graduate-level business students who are employed full-time (AACSB, 2012). One challenge associated with the distance learning environment that merits in-depth examination involves employing project-based teamwork because some business professors assign projects like papers, presentations, case study analyses, and business simulations that must be completed in teams. Consequently, business students enrolled in distance learning classes must work in virtual teams if they are required to complete team projects.

An analysis of literature on virtual teams consisting of business students (see Chapter Two of this dissertation for details) reveals that some students experience challenges when they attempt to perform collaborative work virtually. However, an analysis of the literature on virtual teams also suggests that business professors can help students prevent or overcome some of the challenges associated with virtual teamwork by providing training and team-building opportunities like the team charter.

Problem Statement

This dissertation explores the use of team charters to help students prevent or overcome the challenges associated with virtual teamwork in business school classes. Some business professors (see Cox & Bobrowski, 2000; Hunsaker & Hunsaker, 2010; Mathieu & Rapp, 2009) have systematically studied the use of team charters by face-to-face student teams; others (see Kirkman, Rosen, Gibson, Tesluk, & McPherson, 2002; Rosen, Furst, & Blackburn, 2006) have systematically studied the use of team charters by workplace-based virtual teams. However, my extensive search of numerous academic databases, using the keywords *virtual team charter*, *virtual team*, and *team charter*, revealed that no one has yet systematically studied the use of team charters by virtual teams consisting of business students. Consequently, it can be difficult for business professors and business school administrators to determine whether the act of creating a team charter has any impact on virtual teamwork, or is even perceived by business students to have an impact.

Purpose of the Study

The purpose of this study was to begin, in an admittedly modest way, to respond to the need for a systematic examination of team charter usage by virtual teams consisting of business students. Specifically, this study provides a systematic examination of what business students, grouped into small virtual teams for the first time, reported to be challenging about virtual teamwork. This study also provides a systematic examination of how students, grouped into small virtual teams for the first time, described the process involved in completing a team charter in their first semester of a graduate-level business program. Finally, this study provides a systematic examination of how graduate-level

business students with at least a semester of experience collaborating in virtual teams assessed the impact, if any, that team charters have on virtual teamwork.

Definitions and Research Questions

A *team charter* is defined in this dissertation as a written document that describes how group members intend to behave and interact while performing goal-driven, collaborative work (Cox & Bobrowski, 2000; Hunsaker & Hunsaker, 2010; Norton Jr. & Sussman, 2009; Wilkinson & Moran, 1998). A *virtual team* is defined in this dissertation as an organizationally and/or geographically distributed group whose members use various synchronous and asynchronous technologies like e-mail, phones, conferencing systems, and software applications to perform collaborative work (Lipnack & Stamps, 1997; Martins, Gilson, & Maynard, 2004; Powell, Piccoli, & Ives, 2004; Townsend, DeMarie, & Hendrickson, 1998).

The purpose of this study was to address the following research questions:

1. What, if anything, do business students, grouped into small virtual teams for the first time, report to be challenging about virtual teamwork?
2. How do students, grouped into small virtual teams, describe the process involved in completing a team charter in their first semester of a graduate-level business program?
3. How do graduate-level business students with at least a semester of experience collaborating in virtual teams assess the impact, if any, that team charters have on virtual teamwork?

CHAPTER TWO

A REVIEW OF THE LITERATURE

Chapter Introduction

The purpose of this study was to begin, in an admittedly modest way, to respond to the need for a systematic examination of team charter usage by virtual teams consisting of business students. Specifically, this study provides a systematic examination of what business students, grouped into small virtual teams for the first time, reported to be challenging about virtual teamwork. This study also provides a systematic examination of how students, grouped into small virtual teams for the first time, described the process involved in completing a team charter in their first semester of a graduate-level business program. Finally, this study provides a systematic examination of how graduate-level business students with at least a semester of experience collaborating in virtual teams assessed the impact, if any, that team charters have on virtual teamwork.

The purpose of this chapter is to (a) situate the study in what is already known about team charters, and (b) to demonstrate that this study is needed due to the lack of systematic research on the use of team charters by virtual teams consisting of business students. Specifically, in this chapter, I will (a) summarize the content of three literature reviews whose authors attempted to integrate the vast amount of existing research on virtual teams; (b) provide a literature-based argument that there are two structurally different categories of virtual teams: workplace-based virtual teams and student virtual teams; (c) demonstrate, by referencing the literature, that much of what is known about student virtual teams is actually based on research conducted on virtual teams consisting of business students; (d) provide a focused review of research and conceptual articles

pertaining specifically to the challenges that business students experience while working in virtual teams; (e) list examples from the literature of actions that business professors can take to help business students overcome the challenges of virtual teamwork; (f) provide a review of the literature on team charters created by students who work in face-to-face teams, since literature on team charters created by students who work in virtual teams does not yet seem to exist; (g) provide a review of the literature on team charters created by workplace-based face-to-face teams; and (h) provide a review of the literature on team charters created by workplace-based virtual teams.

A Summary of Three Virtual Team Literature Reviews

In one of the most widely cited literature reviews on virtual teams, Powell, Piccoli, and Ives (2004) analyzed 43 articles describing research conducted between 1991 and 2001 on virtual teams and similar constructs like *computer-mediated communication*, *group support systems*, and *computer-supported collaborative work*. Powell et al. (2004) concluded that research on virtual teams incorporates a variety of theoretical perspectives and involves a wide range of issues.

To identify major focus areas and to “be consistent” (p. 8) with previous work on virtual teams, Powell et al. (2004) used the input-process-output group interaction process model (see Hackman & Morris, 1975) to suggest that much of the research on virtual teams involves issues related to (a) initial inputs that teams are endowed with before work begins (i.e., design, culture, technical, and training), (b) socio-emotional processes that can foster team effectiveness as members work together (i.e., relationship building, cohesion, and trust), (c) task processes that occur as members work together

(i.e., communication, coordination, and task-technology-structure fit), and (d) work outputs (i.e., performance and satisfaction).

The same year that Powell et al. (2004) published their literature review, Martins, Gilson, and Maynard (2004) published a similar literature review, in which they attempted to integrate the 93 articles they found on virtual teams and computer mediated communication by using the same input-process-output group interaction process model (see Hackman & Morris, 1975) that Powell et al. used. Their rationale for using this model was that it was “the dominant framework used in the study of teams and provides a sound basis for organizing and integrating the literature on virtual teams” (Martins et al., 2004, p. 809). Martins et al. (2004) commented that virtual team research spans a variety of disciplines and involves a wide range of issues related to inputs (i.e., team size, knowledge, skills, abilities, technology, task, and composition), processes (i.e., planning, action, and interpersonal), and outcomes (i.e., affective and performance).

Unlike Powell et al. (2004), Martins et al. (2004) included an additional category called “moderators of virtual team performance” (p. 810), which includes research on aspects of virtual teamwork like task type, time spent working in a group, and a team’s social context. Powell et al. and Martins et al. declared that the early research on virtual teams was overly focused on comparisons with face-to-face teams; Powell et al. and Martins et al., therefore, called for more research specific to virtual interaction. In particular, Powell et al. called for more research specific to the “unique managerial, technical, and social challenges” (p. 7) that virtual teams face.

In 2009, Ebrahim, Ahmed, and Taha published a literature review on virtual team research that took a different approach than did Powell et al. (2004) and Martins et al.

(2004). Instead of attempting to comprehensively categorize prior research conducted on virtual teams according to an organizing framework like the input-process-output group interaction process model, Ebrahim et al. (2009) provided a rather cursory treatment of numerous research articles pertaining to various aspects of virtual teamwork, including definitions, examples, characteristics, typology, benefits, drawbacks, and tips for effectiveness. Ebrahim et al. probably could have made their literature review seem less disjointed by using an organizing framework, and probably could have provided a more in-depth discussion of the articles by focusing on fewer aspects of virtual teamwork.

As Powell et al. (2004) and Martins et al. (2004) observed, research on virtual teams is burgeoning and involves a very wide range of issues, which might explain why so few researchers have attempted to publish comprehensive literature reviews on virtual teams. Besides focusing on fewer aspects of virtual teamwork, another way to provide a more focused review of the literature is to tailor it to the interests and needs of specific audiences. Yet another way is to provide a literature review of a specific type of virtual team (i.e., workplace-based virtual team or student virtual team). Hertel, Geister, and Konradt (2005), for example, used all three strategies in their narrowly-focused literature review intended for an audience of human resource practitioners. Their literature review only included an examination of research pertaining to the management of workplace-based virtual teams.

Workplace-Based Virtual Teams

Many organizations, multinational corporations especially, have tried to increase efficiency and remain competitive by relying on virtual teams because they can help make inter-organizational alliances and flattened organizational structures more feasible

(Kayworth & Leidner, 2000; Lipnack & Stamps, 1997; Townsend, DeMarie, & Hendrickson, 1998). Virtual teams have, therefore, become indispensable for some organizations, particularly when key employees, partners, suppliers, and contractors are geographically dispersed, or when travel budgets are constrained (Adya, Nath, Sridhar, & Malik, 2008; Alnuaimi, Jr., & Maruping, 2010; Newman & Hermans, 2008). Workplace-based virtual teams perform numerous knowledge- or service-related organizational functions, including research and development, customer service, new product development, and engineering (Bell & Kozlowski, 2002; Ebrahim et al., 2009; Hertel et al., 2005).

How Workplace-Based Virtual Teams and Student Virtual Teams Differ

Powell et al. (2004) suggested that workplace-based virtual teams and student virtual teams are structurally different. For example, Powell et al. stated that workplace-based virtual teams consist of 12 members, on average, and tend to work together for longer than six months, whereas student virtual teams have four members, on average, and tend to work together for less than six months (probably since academic semesters typically do not last longer than six months). Also, workplace-based virtual teams often have formalized managerial control structures (e.g., monetary compensation, promotion, and termination) and reporting requirements in place, whereas student virtual teams tend to more often be autonomous and self-directed (Powell et. al, 2004).

Others have also suggested that differences exist between workplace-based and student virtual teams. For example, Hertel et al. (2005) remarked that members of workplace-based virtual teams tend to be selected on an as-needed basis, depending on the knowledge, skills, and abilities required for successful project completion. Student

virtual teams, by contrast, tend to be self-selected, randomly selected by professors, or assigned by professors or administrators according to various characteristics like gender or age (Hertel et al., 2005).

Martins et al. (2004) remarked that many studies of virtual teams have been conducted using student virtual teams instead of workplace-based virtual teams due to the complexity of workplace arrangements and the difficulty of obtaining data in “field settings” (p. 823). One could speculate that a related reason is that researchers who publish in peer-reviewed journals are in many cases affiliated with academic institutions, often as teaching members of the faculty, and thus have more opportunities to interact with and gain access to student virtual teams than to workplace-based virtual teams.

In fact, it turns out that 28 of the 43 articles (65.12%) analyzed by Powell et al. (2004) describe research conducted on student virtual teams. Surprisingly, 21 of the 43 articles (48.84%) analyzed by Powell et al. describe research conducted on virtual teams consisting of students enrolled in business courses, which can include a wide range of disciplines like business communication, strategic management, computer information systems, management information systems, human resources management, and organizational behavior (AACSB, 2012). Therefore, it can be argued that much of what is known about virtual teams is based on research conducted on virtual teams consisting of business students.

Business Student Virtual Teams

Markulis, Jassawalla, and Sashittal (2006) observed that it is “common practice” (p. 145) for business professors to assign team projects because they give students an opportunity to learn from each other and because employers tend to value potential

employees who can collaborate effectively in teams. Given the number of business professors who assign team projects (Markulis et al., 2006), the increase in business degree programs offered through distance learning (AACSB, 2007), the demand for employees with virtual teamwork experience (Malhotra, Majchrzak, & Rosen, 2007), and the continued advances in communication and information technologies that can facilitate virtual teamwork (Bell & Kozlowski, 2002), it is not difficult to understand why virtual teamwork has proliferated in business school courses. Despite the benefits that virtual teamwork can potentially offer, an examination of the literature reveals that some aspects of virtual teamwork can be challenging for business students. The literature also includes examples of actions that business professors and business students can take to overcome the challenges of virtual teamwork.

Challenges of Business Student Virtual Teamwork

When business students attempt to work in virtual teams, they tend to experience challenges that involve what Powell et al. (2004) would probably categorize as socio-emotional processes (i.e., trust and cohesion) and task processes (i.e., communication, coordination, and participation).

Socio-Emotional Processes

Trust. In a widely-cited study about trust, Jarvenpaa and Liedner (1999) surveyed members of 75 global virtual teams, each composed of four to six graduate business students who were required to interact solely through e-mail and chat rooms to complete their team project. Jarvenpaa and Liedner analyzed pre- and post-project survey results about the perceived levels of trust among team members and used those survey results to select 12 of the teams for a more in-depth qualitative examination. Jarvenpaa and Liedner

then analyzed the archive of e-mails and chat room messages sent between the members of the 12 teams and created case synopses, which they then used to conduct a cross-case analysis.

Jarvenpaa and Liedner (1999) concluded that trust is developed over time as team members engage in social, task-related, and process-oriented communication. Jarvenpaa and Liedner suggested that constant and open communication about social, task-related, and process-oriented issues can help reduce uncertainty, increases predictability, and aid coordination efforts. Jarvenpaa and Liedner also found that teams with low levels of perceived trust tended to consist of members who (a) did not respond to communication efforts and did not provide feedback about work completed, (b) had difficulty deciding upon and adhering to project completion schedules, (c) did not communicate on a personal or social level, and (d) suppressed or discouraged expressions of excitement over the project.

By contrast, teams with high levels of perceived trust tended to have members who (a) communicated both task-related and social information; (b) transitioned from an early focus on rules and procedures to a focus on the task; (c) maintained regular patterns of communication, which probably assuaged concerns about team member absences and personal commitments; (d) made numerous statements expressing mutual commitment and support; and (e) provided substantive and timely feedback to each other about their contributions to the project (Jarvenpaa & Leidner, 1999).

In a later study, Jarvenpaa, Shaw, and Staples (2004) divided 38 global virtual teams of graduate business students into a set of control groups and a set of experimental groups. Although teams in both sets had to complete the identical assignment and had to

communicate solely through e-mail distribution lists, those in the control groups only received assignment instructions and basic technical support (Jarvenpaa et al., 2004). Members of the experimental groups, however, had to also complete team-building exercises designed to provide greater structure by “decreasing ambiguity and uncertainty” (Jarvenpaa et al., 2004, p. 256) surrounding the team’s work processes. Members of the experimental groups also received instruction about virtual teamwork success factors, had discussions about goals and expectations, and shared personal and professional biographies (Jarvenpaa et al., 2004).

At the beginning, middle, and end of the project, all of the students were required to complete surveys that measured constructs like trust, cohesion, satisfaction, and outcome quality (Jarvenpaa et al., 2004). In addition to the surveys, Jarvenpaa et al. (2004) examined additional data, including project grades (used as a proxy for team performance) and the number of e-mails sent (used as a proxy for the team’s level of communication). In the earlier study on trust, Jarvenpaa and Liedner (1999) analyzed the archive of e-mails and chat room messages sent between the team members. In the 2004 study, however, it could be argued that Jarvenpaa et al. (2004) missed the opportunity to enhance their study by also incorporating qualitative data, which they could have gathered by examining the content of the e-mails, by interviewing participants, or by including open-ended questions in the surveys.

Based on the results from a partial least squares analysis, Jarvenpaa et al. (2004) did not find a significant relationship ($p \leq .05$) between levels of trust and team performance, but did find a significant relationship between the volume of communication and the level of trust that developed between team members. Jarvenpaa et

al. speculated that a sufficient level of communication early on provided reassurance that members were attending to their assigned tasks, which could have engendered feelings of trust and cohesion (defined as the attraction that members feel toward their team and their teammates).

Jarvenpaa et al. (2004) also found that in the control groups, trust had a greater effect on communication levels, perceived cohesion, satisfaction with the team, and perceived outcome quality than in the experimental groups. To help explain the difference, Jarvenpaa et al. proposed that the team-building exercises completed by the experimental groups helped weaken the role and importance of trust by reducing the uncertainty associated with team processes and by providing a pre-determined, more constructive way for team members to interpret each other's actions and thereby avoid misunderstandings.

Cohesion. Lamont (2001) described cohesion as the sense of commitment and attachment that some team members develop over time toward each other and toward their team's shared goals. Similarly, Berry (2002) described cohesion as the attraction that team members feel toward their team, especially when their teammates exhibit attitudes like "trust, openness, and participatory equality" (p. 74). Jarvenpaa et al. (2004) suggested that cohesion is perceived by team members when members of the team get along well, actively try to help each other, work well together, and feel like they are part of the team.

The stability of the team's membership might also have an effect on cohesion, as Dineen (2005) observed. Dineen grouped 99 of his undergraduate students, who were enrolled in the organizational behavior course that he taught, into 26 virtual teams. Each

team had to post a single reply each week to the discussion thread questions he posted. Dineen kept everyone in the same teams for the first four weeks of the course, then randomly assigned students to work in different teams in the last four weeks of the course. Based on course evaluations, direct observations, and questionnaire data, Dineen concluded that 69% of the students preferred being in stable teams instead of the fluid (i.e., constantly changing) teams because the students in stable teams got to know each other over a longer period of time, and, therefore, better knew what to expect from each other. Dineen also observed that when the students were in stable teams, they perceived their teams to be significantly ($p < .01$) more cohesive than they did when in their fluid teams.

Face-to-face interactions may also have an impact on feelings of cohesion. Berry (2002) surveyed 145 MBA students who were enrolled in marketing courses taught by a professor who sometimes taught the course online and sometimes face-to-face. About half of the students surveyed took the course online and, therefore, worked in virtual teams, while the other half took the course face-to-face and, therefore, worked in face-to-face-teams (Berry, 2002). The survey was designed to measure the students' perceptions of team cohesion, their satisfaction with the team interaction process, and their satisfaction with their team's outcomes (Berry, 2002). Berry (2002) found no significant difference ($p < .05$) in satisfaction with the team interaction processes or team outcomes between the virtual teams and the face-to-face teams. However, Berry (2002) noted that the students in the face-to-face teams felt a greater sense of belonging to their teams because, he speculated, they had more opportunities to socialize informally, face-to-face.

Inter-campus virtual teams composed of face-to-face students from two or more colleges or universities, who are required to work together virtually, can also face challenges related to cohesion. For example, Starke-Meyerring and Andrews (2006) suggested, as did Davis, Germonprez, Petter, Drum, and Kolstad (2009), that divisive fault lines or boundaries sometimes develop in inter-campus virtual teams, especially when a subset of the team members are physically co-located and, therefore, have more opportunities to meet with each other face-to-face. According to Starke-Meyerring and Andrews, fault lines can be problematic because they can impede cohesion and cross-site coordination efforts.

Starke-Meyerring and Andrews (2006), therefore, encouraged the students in their management communication course to create a “shared virtual learning culture” (p. 25) by disclosing personal and social information about each other and by discussing and celebrating differences between members. Starke-Meyerring and Andrews’ Canadian and American students, for example, created a team blog and used it to post their team’s name, logo, and purpose statement. The students also posted information about their various areas of expertise, their universities, their neighborhoods, and their upcoming holiday and vacation schedules (Starke-Meyerring & Andrews, 2006).

Bocchi, Eastman, and Swift (2004) suggested that to increase cohesion, prevent feelings of isolation, and increase retention rates, administrators of online programs provide opportunities for students to interact face-to-face with each other and with their professors. The online MBA program that Bocchi et al. (2004) described included a mandatory two-day face-to-face orientation, which included team building exercises, instruction about virtual learning processes, and opportunities for students to interact with

each other and with their professors. To increase cohesion, Zhu, Gareis, Bazzoni, and Rolland (2005) suggested that when face-to-face orientations or meetings are not possible, students share personal profiles and pictures. Others have advised that students try to actively build relationships with each other and try to “warm up a cold medium” (Grosse, 2002, p. 25) by celebrating special occasions together, virtually.

Task Processes

Communication. Powell et al. (2004) suggested that communication lies “at the core of any virtual team process” (p. 11). Most of the challenges described in the literature involving communication also involve technology because virtual team work often requires the use of communication technologies (Lipnack & Stamps, 1997; Townsend, DeMarie, & Hendrickson, 1998).

For example, Lewis, Shea, and Daley (2005) surveyed 206 undergraduates at two universities in Massachusetts, once at the start of the semester and once at the end. The students, who were studying management information systems, were placed in inter-campus virtual teams and were required to use synchronous communication tools like chat rooms and video conferencing and asynchronous tools like e-mail and discussion threads to complete their team projects (Lewis et al., 2005). In the survey conducted at the start of the course, 85.4% of the students reported that they had used e-mail to complete schoolwork in the previous semester, but only some had used discussion threads (27.2%), chat rooms (22.4%), or video conferencing (5.8%) to complete schoolwork (Lewis et al., 2005). Based on those results, Lewis et al. (2005) suggested that students, even undergraduates studying management information systems, are not always experienced users of every kind of communications technology.

However, the survey results are questionable for at least two reasons. Firstly, Lewis et al. (2007) only asked if the students had experience using the technology to complete schoolwork in the previous semester, but some of the students could have used the technology to complete schoolwork two or more semesters ago. Secondly, some of the students could have used technology heavily the previous semester not for schoolwork, but for recreational purposes. In either case, the survey would have provided an inaccurate measurement of the students' level of experience with communications technologies.

Lewis et al. (2005) also found that in the survey given at the beginning of the semester, the students reported high levels of comfort with e-mail and low levels of comfort with the three other tools (i.e., discussion threads, chat rooms, and video conferencing). When surveyed at the end of the semester (after having used all four of the tools), the students reported comfort levels that were significantly higher than at the beginning of the semester: 46% higher for discussion threads, 8.1% higher for chat rooms, and 28% higher for video conferencing (Lewis et al., 2005). Based on those results, Lewis et al. (2005) suggested that experience using a specific technology is generally associated with higher levels of comfort with that technology. Yet, that does not always seem to be the case, since others (see Clark & Gibb, 2006; Grzeda, Haq, & LeBrasseur, 2008) have observed that students will sometimes stop using a technology out of frustration if adequate training and support for the technology is not provided.

Clark and Gibb (2006), for example, observed that students in their online undergraduate strategy course had difficulty learning how to use communication tools like e-mail and discussion threads, which were provided as part of their university's

learning management system. Clark and Gibb posted a link to an online tutorial to help the students figure out how to use the learning management system and told the students that they could get additional assistance from the university's technology help desk staff. Clark and Gibb also asked their students to create a virtual communication plan to establish how they planned to interact with their teammates throughout the semester.

However, even a few weeks into the semester, some students were unable to use the learning management system, which contained the communication tools that the students were required to use (Clark & Gibb, 2006). The students claimed that they were, therefore, unable to fully communicate with their team members for a while, which was why their team was unable to submit their virtual communication plan on time (Clark & Gibb, 2006). Instead of using the university's learning management system, some students started to use communication technologies like instant messaging, text messaging, and chat rooms, which were not provided by or fully supported by the university's technology department (Clark & Gibb, 2006). Other students chose to meet face-to-face instead, even though the instructors discouraged them from doing so (Clark & Gibb, 2006).

Similarly, based on written comments collected in a questionnaire at the end of the semester, Grzeda et al. (2008) found that many of the undergraduate students in their online organizational behavior course were unaccustomed to virtual teamwork. Many of the students claimed that it took too much time to plan their team projects solely through the use of discussion threads and felt overwhelmed by the sheer volume of discussion thread postings they had to keep track of (Grzeda et al., 2008). Some teams stopped using the discussion threads altogether and decided to use e-mail instead, even though their

participation grade was partially based on their level of contribution to the discussion threads (Grzeda et al., 2008). However, like most other technological tools, even e-mail seems to have inherent limitations.

Cramton (2001), for example, used case studies and cross-case analysis techniques to analyze e-mails, online chat logs, and team papers submitted by 13 global virtual teams consisting of graduate business students from four countries. Cramton noticed that many of the teams experienced conflicts, mostly due to problems associated with e-mail. For example, some students failed to use correct e-mail addresses or forgot to send copies of e-mails to all team members, which hindered collaboration and resulted in an uneven, asymmetric distribution of information (Cramton, 2001).

Some students checked their e-mail accounts infrequently or inconsistently, which made it difficult for the team to make collective decisions in a timely manner (Cramton, 2001). Additionally, some students reported that it was difficult and time-consuming to discuss sensitive issues through e-mail, and worried about being misinterpreted due to cultural differences, language barriers, and the inability to convey non-verbal social cues through e-mail (Cramton, 2001). Perhaps that is why some professors (see Clark & Gibb, 2006) have suggested that students create a virtual communication plan early in the semester, which ideally would include the use of various synchronous technologies (e.g., phones, video conferencing, and Web conferencing), which can help minimize the loss or distortion of non-verbal social cues (see Kayworth & Leidner, 2000; Kayworth & Leidner, 2001; Townsend et al., 1998).

Coordination. Starke-Meyerring and Andrews (2006) reported that some of the students in their management communication course had difficulty working

interdependently on their team papers because they had difficulty coordinating with each other during the paper-revision process. In particular, the students often competed for control over the revision process and sometimes deleted revisions made by other team members without consulting them first (Starke-Meyerring & Andrews, 2006).

Cramton (2001), who analyzed e-mails, online chat logs, and team papers submitted by 13 global virtual teams consisting of graduate business students, found that knowledge-sharing and knowledge-coordination was especially challenging for geographically-dispersed students. Coordination difficulties were often attributed not only to technical limitations, but also to the failure of team members to communicate information about their local conditions and constraints (Cramton, 2001). For example, team members in other countries sometimes had different holidays, were in a different time zone, or had undisclosed personal and academic commitments, which resulted in varying levels of participation (Cramton, 2001). Cramton (2001) concluded that some teams experienced relationship problems, which were mostly due to the mismanagement of knowledge and information.

Building upon the work of Cramton (2001), Kanawattanachai and Yoo (2007) studied the problem of knowledge coordination in global virtual teams by examining survey data, archives of e-mails, and simulation performance scores of 146 MBA students from four countries. The students were randomly assigned to work in global virtual teams and were required to communicate exclusively through e-mail while completing an eight-week-long online business simulation (Kanawattanachai & Yoo, 2007). Kanawattanachai and Yoo (2007) analyzed the text of the archived e-mails and like Jarvenpaa et al. (2004), also kept track of when the e-mails were sent and the number

of e-mails that were sent. Kanawattanachai and Yoo (2007) then conducted exploratory and confirmatory factor analyses, along with path analyses using least-squares.

Kanawattanachai and Yoo (2007) concluded that in the early stage of the simulation, task-oriented communication helped members of a team to learn about each other's areas of expertise. Kanawattanachai and Yoo also concluded that in the later stages, after the teams had already established a "cooperative system of coordinating specialized knowledge" (p. 784), task-oriented communication became less important and instead, knowledge coordination had a greater influence on team performance (Kanawattanachai & Yoo, 2007).

Based on their findings, Kanawattanachai and Yoo (2007) suggested that team members maintain updated records of skills and areas of expertise to make it easier to determine who knows what at the early stages of a project. Team members could then use the record of skills and expertise to better determine how to distribute tasks among members (Kanawattanachai & Yoo, 2007). Kanawattanachai and Yoo (2007) also recommended that individuals keep logs of past performance indicators and peer performance reviews so members of a newly formed team could more quickly assess an individual's ability to reliably perform a task.

Business professors can help students learn how to coordinate more effectively with their virtual teammates. They can, for example, ask students to complete self-assessments that provide insights into their personality and preferred learning style (see Bocchi et al., 2004). Self-assessment exercises could also help students choose appropriate team roles in order to maximize their contributions (see Davis et al., 2009).

Additionally, professors could teach students how to create project plans and project completion schedules that describe how tasks will be allocated, how team members will work with each other, and how team members will respond to unforeseen circumstances (see Clark & Gibb, 2006). During the semester, professors could periodically monitor how teams execute their project plans, and could provide mentoring and advising when needed (see Grzeda et al., 2008; Starke-Meyerring & Andrews, 2006). Professors could also monitor progress by assigning project status reports and individual reflection papers throughout the semester (see Davis et al., 2009).

Participation. Participation can be categorized as a task process because it is closely related to coordination; even with a well-coordinated plan of action, the execution of the plan can be put in jeopardy if the members of the team do not participate or contribute as expected. For example, Cramton (2001) and Grzeda et al. (2008) reported that some of their students only participated in virtual team projects sporadically, which made it difficult for their teammates to trust that they would complete their assigned tasks on time. For example, some students joined in on team discussions and offered feedback on work completed by others, but then suddenly disappeared for weeks and did not respond to communication attempts (Grzeda et al., 2008).

Similarly, Clark and Gibb (2006) wrote that the undergraduate students in their online business strategy course often underestimated the amount of sustained effort and collaboration that their team project actually required. Some of the students ignored requests for meetings, repeatedly forgot to attend meetings, were not self-motivated, and claimed to have technical problems that prevented them from participating (Clark & Gibb, 2006). Zhu et al. (2005) reported that some of their students tended to

procrastinate, so their teammates found it difficult to monitor project progress and simply had to trust that everyone would complete their assigned tasks before the project was due. Similarly, Clark and Gibb (2006) speculated that some of their undergraduate students often neglected their online coursework because they had difficulty organizing themselves in a virtual learning environment, did not have to attend class on a regular basis, and had too much flexibility in choosing when to study.

Ideas exist about what business professors could do to help students address some of the challenges related to participation. Professors could, for example, constantly monitor and check in with students individually or as a team and provide coaching, encouragement, and reminders about upcoming due dates (see Clark & Gibb, 2006; Grzeda et al., 2008; Starke-Meyerring & Andrews, 2006). Zhu et al. (2005) and Davis et al. (2009) suggested that professors require periodic team progress reports, which could make it easier for professors to monitor individual contributions and determine when to intervene. Others have suggested that professors give the same grade to everyone in the project team to ensure equal levels of commitment and motivation among team members (see Starke-Meyerring & Andrews, 2006; Zhu et al., 2005). Others have proposed that peer evaluations could be used to penalize or at least disincentive free-riding, which some academics refer to as social loafing (see Dineen, 2005; Kanawattanachai & Yoo, 2007; Starke-Meyerring & Andrews).

Instead of relying primarily on professors to address some of the challenges related to participation, another approach is to make use of designated student team leaders. Kayworth and Leidner (2001), for example, grouped business students from Europe, Mexico, and the United States into 13 global virtual teams. One student on each

team was designated as the team leader. Each team leader was required to help their teammates write a research paper, but was only allowed to provide guidance and helpful comments, point out places to find information, and resolve any problems that arose (Kayworth & Leidner, 2001). At the end of the semester, the team members evaluated their team leader's participation, the team leader evaluated the participation of the team members, and the professors evaluated and graded each team's research paper (Kayworth & Leidner, 2001).

After analyzing the survey data gathered from the team members at the end of the semester, Kayworth and Leidner (2001) found that of the eight leadership roles assessed in the survey (see Denison, Hooijberg, & Quinn, 1995), perceptions of leader effectiveness were most closely associated with the team leaders who primarily played the role of the broker (by exerting influence), or the role of the mentor (by treating members with empathy and concern in a sensitive, caring way). Based on a qualitative analysis of the reflection papers written by the team members, Kayworth and Leidner found that the team leaders who were considered to be effective were those who often exhibited empathy and understanding, clarified member roles and responsibilities, provided continuous feedback regarding team activities, and responded quickly to issues and questions.

Summary of the Challenges of Business Student Virtual Teamwork

An examination of the literature reveals that business students can face numerous challenges while engaging in virtual teamwork. In particular, the challenges described in the literature are highly interconnected and tend to consist of socio-emotional processes

(i.e., trust and cohesion) and task processes (i.e., communication, coordination, and participation), as indicated in Figure 2.

Figure 2. A list of the types of challenges that business students might experience while engaging in virtual teamwork.

In summary, like cohesion, trust seems to emerge over time through communication and interaction (Jarvenpaa & Leidner, 1999; Jarvenpaa et al., 2004). Trust tends to be lower among virtual teams whose members do not provide feedback to each other about work completed and do not regularly include social, emotional, and task-related content in their communications (Jarvenpaa & Leidner, 1999). Sufficient communication is especially essential at the early stages of team formation because it can help members of the team to develop feelings of trust and cohesion (Jarvenpaa et al., 2004). In particular, team-building exercises and early-stage discussions about team processes and procedures can, in some cases, weaken the importance of trust by helping reduce the amount of initial uncertainty and ambiguity surrounding team processes and by helping team members understand each other better (Jarvenpaa et al., 2004).

Cohesion can be described as the sense of commitment, attachment, and attraction that some virtual team members develop with regard to their teammates and their team's shared goals (Berry, 2002; Jarvenpaa et al., 2004; Lamont, 2001). Students working in virtual teams might find it difficult to develop a sense of cohesion for a variety of reasons. For example, students on virtual teams often do not get many opportunities to informally interact with teammates socially, which may lead to feelings of isolation and disengagement (Berry, 2002; Dineen, 2005). Divisive fault lines can develop in inter-campus or cross-site virtual teams, especially if a subset of members are physically co-located and, therefore, have more opportunities to meet face-to-face (Davis et al., 2009; Starke-Meyerring & Andrews, 2006). To increase cohesion, students can share personal biographies and pictures (Starke-Meyerring & Andrews, 2006; Zhu et al., 2005), participate in team-building and relationship-building activities (Bocchi et al., 2004; Starke-Meyerring & Andrews, 2006), attend face-to-face meetings or orientation programs (Berry, 2002; Bocchi et al., 2004), and create a team name, logo, and purpose statement (Starke-Meyerring & Andrews, 2006).

Most of the challenges described in the literature involving communication also involve technology, probably because virtual teamwork often necessitates heavy use of communications technologies (Lipnack & Stamps, 1997; Townsend et al., 1998). Students sometimes are inexperienced with the various types of communications technologies that are typically used in virtual teams and may, therefore, lack necessary technical skills (Grzeda et al., 2008; Lewis et al., 2005). Some students try to avoid or delay usage of unfamiliar technologies and try to meet face-to-face when possible (Clark & Gibb, 2006; Grzeda et al., 2008). The improper or inconsistent use of technologies like

e-mail can result in confusion and an uneven distribution of information, which can, in turn, lead to conflict and miscommunication (Cramton, 2001).

Coordination can be particularly challenging for those who have difficulty working interdependently, especially for those without prior experience working on virtual teams (Starke-Meyerring & Andrews, 2006). Knowledge coordination can be particularly difficult, especially when team members compete for control over team paper revisions or get upset when revisions are ignored or deleted without prior consultation (Starke-Meyerring & Andrews, 2006). Knowledge coordination can be difficult for global virtual teams, especially if members do not communicate contextual information about local constraints and personal commitments (Cramton, 2001).

Teams with members who communicate early and frequently about project requirements and create records of each member's unique skills, knowledge, and expertise may be better equipped to distribute tasks more optimally (Kanawattanachai & Yoo, 2007). Professors can assist in coordination efforts by asking students to complete assessments to help determine the roles they should perform on behalf of the team (Bocchi et al., 2004; Davis et al., 2009). Professors can also assign project plans, project completion schedules, and individual reflection papers (Clark & Gibb, 2006; Davis et al., 2009; Jarvenpaa et al., 2004), and provide mentoring and advising services when needed (Grzeda et al., 2008; Starke-Meyerring & Andrews, 2006).

Even with a well-coordinated plan, some members of student virtual teams do not contribute as expected or participate only sporadically due to technical problems, a lack of self-motivation, or a lack of time management skills (Clark & Gibb, 2006; Cramton, 2001; Grzeda et al., 2008). Some students forget to attend meetings and fail to respond to

communication attempts (Clark & Gibb, 2006; Grzeda et al., 2008). Others procrastinate and often underestimate the amount of sustained effort and collaboration needed for successful and timely project completion (Clark & Gibb, 2006; Zhu et al., 2005).

Professors can help address some of the challenges related to participation by reminding students about upcoming due dates, by monitoring their activities more closely, and by providing encouragement and mentoring when needed (Clark & Gibb, 2006; Grzeda et al., 2008; Starke-Meyerring & Andrews, 2006).

To help prevent free-riding, professors could ask students to evaluate the contributions and participation levels of team members (Dineen, 2005; Kanawattanachai & Yoo, 2007; Starke-Meyerring & Andrews, 2006; Zhu et al., 2005) or give the same grade on a team project to all the members of the team (Starke-Meyerring & Andrews, 2006; Zhu et al., 2005). Finally, professors could select, or ask the students to select, a team leader who can provide encouragement, mentoring, guidance, and role clarification (Kayworth & Leidner, 2001).

In conclusion, according to the literature, many of the challenges that business student experience while engaging in virtual teamwork involve highly interconnected socio-emotional and task processes (Powell et al., 2004). An examination of the literature reveals that professors can take actions to help business students prevent, mitigate, or overcome some of those challenges. Many of the suggestions consist of what Powell et al. (2004) would categorize as inputs (i.e., design, culture, technical, and training) that virtual teams are endowed with early on in the team's life.

In particular, professors can influence how members of virtual teams interact by providing early-stage team-building activities. For example, to help team members

develop trust and cohesiveness, professors can ask students to complete relationship-building exercises (Bocchi et al., 2004; Jarvenpaa et al., 2004; Starke-Meyerring & Andrews, 2006), discuss team processes and procedures (Jarvenpaa & Leidner, 1999; Jarvenpaa et al., 2004), and create a team name, logo, and purpose statement (Starke-Meyerring & Andrews, 2006). To help with coordination efforts and to encourage participation, professors could ask students to have discussions about their skills, areas of expertise, and preferred team roles (Bocchi et al., 2004; Davis et al., 2009). Professors could also ask students to create a virtual communication plan, which describes how the students will interact and work together throughout the semester (Clark & Gibb, 2006). Alternatively, professors could help students to overcome some of the challenges of virtual teamwork by asking them to create a team charter.

Team Charters for Student Face-to-Face Teams

Although the literature on student virtual teamwork does not seem to currently include articles that specifically mention the use of team charters by student virtual teams, some business professors have written articles describing the team charter assignments that they asked their face-to-face students to complete (see Cox & Bobrowski, 2000; Hunsaker & Hunsaker, 2010; Hunsaker, Pavett, & Hunsaker, 2011). Cox and Bobrowski (2000), for example, recommended that professors who ask students to complete team projects also provide instruction in team management to help them overcome potential problems like mismanaged conflict, poorly defined goals and expectations, poor communication, and free-riding. In particular, Cox and Bobrowski (2000) recommended that professors ask students to create a team charter early in the semester as a graded assignment because the team charter creation process can (a) help

students establish group norms, (b) give them a chance to discuss rules of expected conduct, (c) provide an opportunity for team members to get acquainted, (d) and allow students to practice working together before tackling more demanding team projects later in the semester.

Cox and Bobrowski (2000) used a team charter assignment in their undergraduate business courses and recommended that students include the following elements in their team charter: (a) a team name and logo, (b) a list of objectives, (c) norms for team meetings, (d) norms for individual participation, (e) decision-making norms, (f) a conflict management plan, (g) a sanction plan to deal with members who violate norms, (h) a description of each member's roles, and (i) a list of each member's strengths and weaknesses.

Later in the semester, Cox and Bobrowski (2000) asked some of their students to evaluate the perceived effectiveness of the team charter assignment by completing a survey with nine closed-ended and six open-ended questions. Cox and Bobrowski found, for example, that 83 of the 98 respondents (84.7%) rated the creation of a team name and logo as *moderately useful* to *very useful* (rated four to seven on a seven-point *Likert* scale) and 73 of the 98 respondents (74.5%) rated the team charter assignment as *moderately useful* to *very useful*. Additionally, 75.5% somewhat to strongly agreed (rated one to three on a seven-point Likert scale) that the team charter helped clarify group goals and objectives, 48% somewhat to strongly agreed that the team charter helped the group to identify team member strengths and weaknesses, and 48% somewhat to strongly agreed that the team charter helped the group to manage conflict effectively (Cox & Bobrowski, 2000). Although Cox and Bobrowski (2000) did include six open-ended

questions in the survey, they probably could have made their study even more robust by also interviewing some of the students they surveyed.

Citing the work of Cox and Bobrowski (2000), Hunsaker and Hunsaker (2010) reported that they too had used a team charter assignment with their undergraduate and graduate business students for several years. Hunsaker and Hunsaker described the team charter as a written psychological contract, which they defined as a “set of unwritten mutually accepted expectations...that specifies what each party expects to give and receive in a relationship, including specific social obligations and emotional commitments not usually specified in work contracts or performance agreements” (p. 3). Hunsaker and Hunsaker recommended that team charters include elements like (a) a mission statement that clarifies the team’s purpose and goals, (b) a list of each member’s goals and interests, (c) a vision statement that describes the ideal end state that the team wants to achieve, (d) the team name and a member roster, (e) a list of each member’s self-assessed strengths and weaknesses, (f) a list of team boundaries and limitations, (g) a communication plan, (h) a team decision-making plan, (i) a conflict management plan, (j) a list of expectations for team member participation and contribution, (k) a list of expectations for behavior at team meetings, and (l) each member’s signature to endorse the charter.

Hunsaker and Hunsaker (2010) claimed that the team charter assignment helps members of a team to collectively assess and correct undesired behaviors, define operational boundaries, and commit to a set of common objectives, operating procedures, and behavioral norms. Hunsaker and Hunsaker proposed that if professors do not offer training and team-building activities like team charter assignments early in the semester,

students could later experience problems like free-riding, miscommunication, conflicts due to competing goals, poor performance, and dissatisfaction with the team.

Hunsaker and Hunsaker (2010) asked students in three of their management courses to complete an adapted version of the team charter survey created by Cox and Bobrowski (2000). The survey contained nine multiple-choice questions and six open-ended questions (see Hunsaker & Hunsaker, 2010). Hunsaker and Hunsaker (2010) received 67 usable responses and found, for example, that the statement, “The team charter helped to decrease social loafing,” received a 2.96 (based on a seven-point Likert scale, with one signifying *strongly agree*, four signifying *undecided*, and seven signifying *strongly disagree*), “The team charter helped the team manage conflict effectively,” received an average score of 2.86, “The team charter contributed to the success of our team functioning,” received a 2.72, and the statement, “The team charter helped to clarify team goals and objectives,” received a 2.3 (Hunsaker & Hunsaker, 2010, pp. 5-6). Because Hunsaker and Hunsaker (2010) modified some of the questions created by Cox and Bobrowski (2000) and reported average scores in their conference paper instead of percentages, their survey results cannot be directly compared with the results obtained by Cox and Bobrowski (2000).

Hunsaker, Pavett, and Hunsaker (2011) elaborated on some of the concepts introduced by Hunsaker and Hunsaker (2010). For example, Hunsaker et al. (2011) proposed that teams could proceed through the storming and norming stages (see Tuckman, 1965) more quickly if they have a skilled and experienced leader, create team charters, complete coursework that focuses on team processes and leadership, and have members who are highly compatible from the outset. Hunsaker et al. (2011) suggested

that the process of creating a team charter could help team members develop team goals, establish behavioral norms, define operational boundaries, establish performance standards, and in some cases, minimize the level of conflict, anxiety, confusion, and groupthink (see Janus, 1971).

Hunsaker et al. (2011) stated that students could use their team charters more effectively by adapting the steps outlined in the Pinch Model for managing psychological contracts (see Sherwood & Glidewell, 1972). Specifically, team members could (a) share information and clarify expectations during the team charter creation phase; (b) decide what to do about pinches, which are minor disruptions of shared expectations; and (c) decide what to do when pinches become crunches, which are “unbearable” disruptions of shared expectations that can cause team members to experience high levels of anxiety and resentment (Hunsaker et al., 2011).

To prevent pinches from becoming crunches, Hunsaker et al. (2011) recommended that teams continually analyze team processes to locate and address pinches. In the event of a crunch, Hunsaker et al. (2011) remarked that the offending team member had to either renew his or her commitment to the team and start complying with the original expectations outlined in the team charter, or had to share the reasons for the crunch and had to renegotiate the original expectations outlined in the team charter. Alternatively, the other members of the team could use the process outlined in the team charter to terminate (remove) the offending member (Hunsaker et al., 2011).

Mathieu and Rapp (2009) defined team charters as “codified plans for how the team will manage teamwork activities” (p. 91). Mathieu and Rapp suggested that team charters can help members to consider their mission and objectives, determine member

roles, specify behavioral expectations, determine performance metrics, and establish decision-making norms. Mathieu and Rapp designed a study, which they claimed would “offer the first empirical support of which we know for common practitioner claims regarding the benefits of team charters” (p. 100). Interestingly, Mathieu and Rapp made that claim despite the fact that they stated in their article that they incorporated the team charter design recommendations provided by Cox & Bobrowski (2000). It is possible that Mathieu and Rapp either did not consider the survey Cox & Bobrowski (2000) conducted as sufficiently rigorous “empirical” work, or simply did not read Cox & Bobrowski (2000) carefully enough to learn about the survey they conducted.

In their study, Mathieu and Rapp (2009) randomly grouped 105 of their MBA students into 32 teams. Each team was told that they would be graded for their performance in a competitive eight-round business strategy simulation (Mathieu & Rapp, 2009). Before the simulation began, each team was asked to prepare for teamwork by creating a team charter and prepare for “taskwork” by creating a plan that described the types of business strategies the team intended to use during the simulation (Mathieu & Rapp, 2009).

Mathieu and Rapp (2009) provided a three-part template for the team charter assignment. In the first part, each member had to provide a personal profile, contact information, a schedule of availability, a list of preferred working styles, and a list of self-assessed strengths and weaknesses (Mathieu & Rapp, 2009). In the second part, the team needed to collectively determine member roles, member expectations, team objectives, and behavioral norms (Mathieu & Rapp, 2009). In the third part, the students needed to

collectively determine how they would get everyone to performed as expected and how they would reward members for successes (Mathieu & Rapp, 2009).

Once the simulation ended, Mathieu and Rapp (2009) graded each team's charter and performance strategy plan, and to help control for potential bias, averaged their grades with grades submitted by an independent evaluator who did not know the identity of the students. Mathieu and Rapp then created a team performance index based on a set of pre-determined financial metrics attained at the end of each round of the simulation, which included measures like after-tax profits and return on investment. Mathieu and Rapp then used hierarchical multivariate linear growth modeling techniques to identify performance trends based on the grades that each team received on the team charter, the grades received on the performance strategy plan, and the team's performance in each round of the simulation.

Based on their analysis of performance trends, Mathieu and Rapp (2009) concluded that teams with high-quality charters (as determined by the grade received on the team charter) and low-quality performance strategies peaked in round three of the simulation (which consisted of eight rounds), then fell to average levels by the end of the simulation, whereas teams with high-quality charters and high-quality performance strategies performed at increasingly higher levels until round four, then remained at a high level until the end of the simulation (Mathieu & Rapp, 2009). Teams with low-quality charters and low-quality performance strategies declined rapidly in performance, whereas teams with low-quality charters and high-quality performance strategies exhibited a positive performance trajectory in the first three rounds of the simulation, then quickly fell to an average level of performance (Mathieu & Rapp, 2009). Based on

their findings, Mathieu and Rapp (2009) suggested that teams that create high-quality charters enjoy early performance successes due to their ability to implement their performance strategy in a coordinated way early on in the team's life, but without the aid of a high-quality performance strategy, performance eventually starts to fall, which suggests that to be effective, teams need to take the time early on to attend to both teamwork- and "taskwork"-related functions.

Team Charters for Workplace-Based Face-to-Face Teams

Because there is a dearth of articles published by researchers and practitioners that describe the use of team charters by student teams and especially by virtual student teams, I will now provide a review of the articles that describe the use of team charters by workplace-based teams comprised of members who work together face-to-face.

Wilkinson and Moran (1998), in a conceptual article intended primarily for healthcare practitioners and team sponsors (i.e., managers and executives who put teams together based on project requirements and provide organizational resources), described the team charter as the "official document from the team sponsor that empowers the team to act" (p. 355).

Wilkinson and Moran (1998) included a 21-item template for creating team charters, which included elements like a communication plan, a mission statement, and a list of resources, stakeholders, objectives, milestones, and success measures. Wilkinson and Moran stated that team charters typically include a team's mission, goals, success metrics, constraints, and available resources. Wilkinson and Moran claimed that team charters typically provide direction for a project and help members to better understand

what they need to accomplish and why they need to accomplish it, but do not specifically prescribe how a task should be accomplished (Wilkinson & Moran, 1998).

Wilkinson and Moran (1998) observed that team charters can be used to create project teams and task forces; project teams typically work on tasks that have a well-defined scope, predictable timelines, and known outcomes, whereas task forces work on problems that are typically less prescribed. Wilkinson and Moran claimed that team charters are often under-valued and under-utilized by practitioners because they require lots of time, forethought, and effort to develop. Even after they are developed, team charters need to be reviewed and revised on a regular basis by stakeholders (Wilkinson & Moran, 1998).

Govindarajan and Gupta (2001) recommended that corporate team sponsors create team charters to help frame and clearly depict a project team's objectives, specify the scope and timeline of the project, and provide a list of expected deliverables. Similarly, Peterson (2007) recommended that team sponsors prepare team charters to clear up ambiguity about project needs, help team members understand the project objectives and success criteria, and help members understand how roles and responsibilities will be distributed. Like Wilkinson and Moran (1998), Peterson included a team charter template in the appendix of the article, which included elements like (a) corporate and project mission statements; (b) a description of corporate stakeholder roles and team member roles; (c) a description of the project scope and time frame; (d) a list of performance objectives, milestones, and success criteria; (e) plans for managing conflict, decision-making, communication, and issue escalation; and (f) signatures of approval from corporate stakeholders and team members.

Management professors Norton and Sussman (2009) claimed that the team charter as a “construct is underdeveloped” (p. 7) and lacks a theoretical foundation. Norton and Sussman defined the team charter as “an explicit, written document offering guidelines, rules, and policies governing the behavior of team members” (p. 8). Norton and Sussman stated that corporate team charters are typically crafted not by team sponsors, but by the members of a team.

Norton and Sussman (2009) provided a template for team charters, which included (a) a mission statement; (b) a list of affirmed team values and behavioral norms; (c) a description of critical structural issues including task responsibilities and project-completion target dates; (d) a group decision-making plan, which included rules of engagement and interaction; (e) a conflict-management plan; (f) a plan for resolving persistent behavioral problems; (g) a plan for terminating members; and (h) a plan for equitably distributing rewards and profits among team members.

Norton and Sussman (2009) suggested that team charters can (a) help reduce intragroup conflict and misunderstandings because members make their expectations and assumptions explicit; (b) facilitate decision-making by helping members to clarify their goals and expectations; (c) help unearth shared values and assumptions, which can become the basis for the team’s organizational culture (see Schein, 2004); (d) increase member satisfaction and cohesion through the use of pre-determined protocols when difficulties arise; and (e) help support the team’s implicit psychological contract (defined as the unstated assumptions and expectations that employees have concerning equitable treatment and procedural justice).

Norton and Sussman (2009) suggested that teams are most likely to benefit from team charters (a) if their tasks are significant and complex enough to warrant it; (b) when the team is new and, therefore, in the forming stage; and (c) when teams have heterogeneous members with differing perspectives and, therefore, need a team charter to help unify the group. In particular, Norton and Sussman asserted that four types of teams usually benefit from the use of team charters: (a) project teams, which are often formed ad hoc in response to specific issues or problems; (b) task forces, which are usually short-lived and have a single mission; (c) venture teams designed for entrepreneurial endeavors that require team member role-articulation; (d) boards of directors who need clearly articulated rules of engagement for interacting with senior management; and (e) virtual teams, which have inherent technology-related communication problems that can be alleviated through the use of explicit rules of engagement.

Norton and Sussman (2009) warned that the potential of team charters can be diminished if (a) team members cannot agree on core issues early-on while trying to create a team charter; (b) the team experiences many membership-related problems, like having too many members or members who constantly leave or join (see Dineen, 2005); and (c) if stakeholders within the organization favor centralized decision-making and, therefore, bar the use of collectively-made agreements like team charters.

Team Charters for Workplace-Based Virtual Teams

I will now provide a review of the articles that describe the use of team charters by workplace-based teams comprised of members who work together virtually. Based on an analysis of interview data collected from members and managers of 65 virtual teams working for Sabre, a company that specializes in online travel services, Kirkman, Rosen,

Gibson, Tesluk, and McPherson (2002) concluded that virtual team charters can help foster trust if team members use them to establish behavioral norms and expectations (e.g., the expectation that team members will respond to all e-mails within 24 hours). At Sabre, team members were required to engage in pre-project-launch training and team-building activities, which included the creation of a team charter and a team mission statement, and discussions about team values, team identity, and team member roles. Unfortunately, Kirkman et al. (2002) did not provide specific information about the elements that team members should include in their team charters.

However, Combs and Peacocke (2007) did. Combs and Peacocke remarked that members of virtual teams could create a team charter that includes (a) the team's mission statement, (b) a statement of the business problem, (c) a list of shared objectives, (d) a description of member roles, (e) a decision-making plan, (f) a list of ground rules, and (g) a list of expectations (e.g., openly sharing information, responding to e-mails, attending meetings on-time, and being well-prepared for team meetings).

In a study about workplace-based virtual team training, Rosen, Furst, and Blackburn (2006) asked randomly-selected training and development professionals from the Society for Human Resource Management to complete a survey about virtual team training. Rosen et al. (2006) found that over 60% of the 440 respondents reported that their organization offered no training for virtual team leaders and members, 28% reported that their organization provided a *limited* amount of training, and only 2% reported that their organization provided a *great* amount of training for virtual team leaders and members (p. 235). Because the terms *limited* and *great* can be rather subjective, Rosen et al. probably could have asked the respondents to specify, for example, the total number of

hours of training that their organizations offered to virtual team leaders and members. Nonetheless, Rosen et al. conducted a follow-up survey of respondents whose organizations offered either a *limited* or *great* amount of virtual team training: 80% of the respondents reported that training for virtual teams was *not at all a priority* or only a *slight priority* in their organizations; fewer than 5% of the respondents reported that it was a *major priority* (p. 235).

Rosen et al. (2006) also found that 41% of the organizations that offered *some* virtual team training included the “creation of a team charter *or* mission statement” (p. 236) in their training programs. However, it can be argued that the creation of team charters and the creation of mission statements are not necessarily interchangeable because most team charters include mission statements (see Cox & Bobrowski, 2000; Hunsaker & Hunsaker, 2010; Peterson, 2007; Wilkinson & Moran, 1998), whereas mission statements can be self-standing. Therefore, Rosen et al. (2006) probably should have separated “Creation of a team charter or mission statement” (p. 236) into two distinct items in their survey.

Chapter Summary

In this chapter, I have (a) summarized the content of three literature reviews whose authors attempted to integrate the vast amount of existing research on virtual teams, (b) argued that there are two structurally different categories of virtual teams: workplace-based virtual teams and student virtual teams, (c) proposed that much of what is known about student virtual teams is actually based on research conducted on virtual teams consisting of business students, (d) provided a focused review of research and conceptual articles pertaining specifically to the challenges that business students

experience while working in virtual teams, (e) listed examples of actions that business professors can take to help business students overcome the challenges of virtual teamwork, (f) provided a review of the literature on team charters created by students who work in face-to-face teams, since literature on team charters created by students who work in virtual teams does not yet seem to exist; (g) provided a review of the literature on team charters created by workplace-based face-to-face teams; and (h) provided a review of the literature on team charters created by workplace-based virtual teams. In the next chapter of this dissertation, I will provide an overview of the research design and methodology I employed in this study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Chapter Introduction

This chapter provides an overview of the research design and methodology I employed in this study in order to systematically examine (a) what business students, grouped into small virtual teams for the first time, reported to be challenging about virtual teamwork; (b) how students, grouped into small virtual teams, described the process involved in completing a team charter in their first semester of a graduate-level business program; and (c) how graduate-level business students with at least a semester of experience collaborating in virtual teams assessed the impact, if any, that team charters had on virtual teamwork. Specifically, in this chapter, I will (a) provide information about the study site and the study participants, (b) describe how I collected the data for this study and selected participants, (c) explain how I analyzed the data collected, (d) discuss the limitations and delimitations of the study, and (e) conclude with a discussion of the significance of the study.

Study Site and Study Participants

Data were collected in late 2011 (October through December) in the fall academic semester. At the time of the study, all of the participants were enrolled in a master's-level business program that was offered through the school of business at a private university in California that was accredited by WASC (The Western Association of Schools and Colleges). The business school was accredited by AACSB (The Association to Advance Collegiate Schools of Business). To help protect the identity of the participants, I will use the following pseudonyms from this point forward: (a) *MSIBL* (Master of Science in

International Business Leadership) to refer to the business program, (b) *Fontoya University* to refer to the university that offers the MSIBL program, and (c) *Fontoya* to refer to the city that Fontoya University is located in. I will also use pseudonyms for all of the MSIBL course numbers and for all 16 of the participants I interviewed.

As stated on the MSIBL Web site, the program was designed to help students prepare for “positions of leadership and influence in an increasingly interdependent world by emphasizing the principles of ethical leadership, best business practices, and respect for cultural, political, and economic differences.” The MSIBL program can be described as being comparable to an executive MBA program with an international focus. To earn the MSIBL degree, students have to complete 14 blended courses; blended courses are those that are taught partially face-to-face and partially online. At the time of the study, most of the MSIBL courses were team-taught (two professors per course), so, in total, 23 professors taught the 14 blended courses. Five full-time employees (a program director, an assistant director, a distance learning specialist, a marketing specialist, and a student services specialist) administered the MSIBL program.

Because the MSIBL administrators did not typically allow students to complete the 14 courses out of sequence and because the curriculum did not include any electives, each cohort of 15-25 students who started the program together usually took the same three or four courses together each semester and graduated together at the end of the fourth semester. Almost all of the students completed the program in four semesters by completing four courses in the first semester, three courses in the second and third semesters, and four courses in the fourth semester. Each semester lasted four months, so almost all of the students completed the program in 16 months. Four cohorts (60-100

students) were enrolled in the MSIBL program at any given time. Each spring, summer, and fall semester, a new cohort of students started the program and another cohort graduated.

Most of the students at the time of data collection were between 25-45 years old, and most were citizens or permanent residents of the United States. About a third of the students were female. Most of the students had more than 10 years of work experience, mostly gained while working for large corporations as mid-level managers or while serving in various branches of the United States military as officers or specialists. About three-quarters of the students were resident students who lived near Fontoya University. The remaining students were distance students who lived in various regions of the United States, although some lived in, or were temporarily stationed in, other countries. Some of the students who started the program as resident students later became distance students due to job relocations or changes in personal circumstances.

All MSIBL students were required to complete at least two weeks of face-to-face instruction at Fontoya University: orientation week took place in the first semester of the program, a month after the courses were made available on an online learning management system called WebCT; graduation week took place at the end of the fourth semester and included a graduation ceremony. All MSIBL students were required to use WebCT in all four semesters of the program to access course content and to submit most of their course deliverables (i.e., online quizzes, discussion threads, individually-written papers, and team projects).

In addition to orientation week and graduation week, resident students were also required to come to campus to receive 16 hours of face-to-face instruction one weekend

every month (eight hours on Friday and eight hours on Saturday). To compensate for the lack of monthly face-to-face instruction that resident students received, distance students were required to complete additional assignments (usually discussion threads, quizzes, and individually-written papers) and view streaming video recordings of their professors. Most of the MSIBL professors also used the Wimba Web conferencing system several times each semester to offer real-time virtual lectures and virtual office hours, which gave the distance students the opportunity to interact virtually with their professors and with their classmates.

Rationale for Selection of the Study Site

The MSIBL program was an ideal choice for this study because the resident and distance students worked together in four- or five-person virtual teams to complete team projects in all 14 of their courses, which, over time, gave them a significant amount of virtual teamwork experience. The program was also an ideal choice for this study because in the first semester of the program, Drs. Matt and Natalie Smith, a married couple who taught MSIBL courses ever since the program was founded in 1999, required that each team of students complete a team charter together in their course titled *MSIBL 102: Leading others: Individuals, teams and organizations*. According to the MSIBL 102 syllabus, the purpose of the course was to help students develop “skills for leading individuals, teams, and organizations” by examining “leadership models, theories, and research.”

The MSIBL program was also an ideal choice for this study because team charters were used by many of the other MSIBL students because the MSIBL Director Luke Johnson (who was hired in 2005) and Assistant Director Diana Murphy (who was hired

in 2004) strongly encouraged second-, third-, and fourth-semester MSIBL students to voluntarily create team charters with their teammates at the beginning of each semester. Finally, the program was an ideal choice with regard to convenience and study site access because as I will explain later in this chapter, I was an employee of MSIBL at the time of the study.

The MSIBL 102 Team Charter Assignment

The team charter assignment (see Appendix A for the assignment instructions) was worth 15% of the overall MSIBL 102 course grade and had to be submitted to Drs. Matt and Natalie Smith about two months after the online course content became available on WebCT. The team charter assignment was the second team assignment that first-semester students completed; the first was a paper that was due in another class (MSIBL 103) four days before the MSIBL 102 team charter assignment was due. However, the first-semester students only had approximately a month to complete the team charter assignment because they found out who their teammates were during orientation week, which took place about a month after the four first-semester courses became available on WebCT.

During orientation week, Dr. Matt Smith spent approximately 45 minutes of class time to provide more information about the MSIBL 102 team charter assignment, even though the full written instructions were already available on WebCT. In those 45 minutes, Matt explained why he thought it was important to create a team charter, described the seven required sections of the team charter assignment, and asked the students to briefly meet with their teammates to answer some discussion questions related to the team charter assignment.

The purpose of the team charter assignment, as explained in the assignment instructions (see Appendix A), was “to jump-start your work together as a learning team, to help you avoid common problems, and to facilitate continual improvement of your team throughout the course.” In the team charter assignment instructions, Drs. Matt and Natalie Smith included approximately 40 guiding questions that students had to answer in order to complete their team charter. The students were required to include seven sections in their team charter: Mission Statement, Team Vision, Team Identity, Boundaries, Operating Guidelines, Performance Norms and Consequences, and Team Charter Endorsement. Students who refused to endorse his or her team’s completed team charter would need to “leave the team for reassignment.”

Along with the team charter assignment instructions, which were posted on WebCT, Drs. Matt and Natalie Smith also included (on WebCT) an exemplary team charter that a team of MSIBL students created in 2009. (The exemplary team charter is included in Appendix B.) Matt and Natalie also included (on WebCT) a 29-page *Team Charter Handbook* that Matt wrote in 2006 to provide more information about each section of the team charter assignment. I did not get permission to include the *Team Charter Handbook* in the appendices because it was for class use only.

MSIBL Virtual Teamwork

At the start of each semester, MSIBL Assistant Director Diana Murphy took various factors into consideration and grouped the 15-25 students in each cohort into four or five teams, each with four or five members. Students typically worked with their teammates for the entire semester to complete the team projects assigned in all three or

four of their courses. Because Diana tried to distribute the distance students evenly among the teams, most of the teams had at least one distance student member.

Although resident students sometimes chose to have face-to-face meetings with their resident student teammates (usually on-campus), they almost always included their distance student teammates in the meetings through virtual means by using synchronous Web conferencing tools like Skype or Wimba, or by using a cell phone with speakerphone capabilities. Resident and distance students also collaborated asynchronously by using tools like e-mail, discussion threads, and Google [Shared] Documents, which was widely used because it allowed students to co-author team papers and team presentations and access a record of all of the revisions made to their shared documents.

My Involvement with MSIBL

I was hired by the MSIBL administrators in 2006 to serve as the program's distance learning specialist. My primary duty was to support, advise, and train the MSIBL students and faculty in the use of the synchronous and asynchronous distance learning technologies provided by Fontoya University's IT department. My involvement with virtual teamwork was limited to its technical aspects, particularly to technical training and ongoing technical support. For example, during orientation week, I provided several short training sessions to first-semester students so they could learn how to use Wimba and Google Documents to work collaboratively on team projects.

I had the opportunity to interact face-to-face with the first-semester students during orientation week and with the fourth-semester students during graduation week. I also had the opportunity to interact with the first-, second-, third-, and fourth-semester

resident students when they came to campus to attend their monthly weekend class sessions. I also provided ongoing classroom technical support to resident students and professors when needed (especially for in-class team presentations) and provided additional technical training and advice when asked to. When students needed advice concerning teamwork-related issues, they typically contacted their professors, Director Luke Johnson, or Assistant Director Diana Murphy.

Data Collection Methodology and Participant Selection

As stated in Chapter One of this dissertation, the following research questions guided this study:

1. What, if anything, do business students, grouped into small virtual teams for the first time, report to be challenging about virtual teamwork?
2. How do students, grouped into small virtual teams, describe the process involved in completing a team charter in their first semester of a graduate-level business program?
3. How do graduate-level business students with at least a semester of experience collaborating in virtual teams assess the impact, if any, that team charters have on virtual teamwork?

Two Rounds of Interviews with the First-Semester Student Participants

To address the three research questions that guided this study, I interviewed 12 first-semester students two times, once in the middle of the semester (in October, right after they submitted the MSIBL 102 team charter assignment) and again at the end of the semester (in December). To find willing interview participants, I e-mailed all 20 of the first-semester students (see Appendix C for the text of the e-mail) and sent a follow-up e-

mail after waiting a week to those who did not respond to the first e-mail (see Appendix D). I did not offer any compensation for participation. I allowed the 12 students who decided to participate in the study to complete the interviews face-to-face in my office, over the phone, or via a Web conferencing system like Wimba or Skype. The 12 participants signed a research consent form (see Appendix E) before I interviewed them.

In the first round of interviews, I asked the participants to answer the 14 questions and some of the follow-up questions listed in my interview guide (see Appendix F for the complete list of questions). My main objective for the first round of interviews was to gather data to help me address the first and second research questions; specifically, I asked the first-semester student interview participants to (a) describe some of the challenges they experienced, if any, while engaging in virtual teamwork, and (b) describe how they worked with their teammates to complete the MSIBL 102 team charter assignment.

In the second round of interviews, I asked the first-semester student interview participants to answer the nine questions and some of the follow-up questions listed in my second interview guide (see Appendix G for a list of questions). My main objective for the second round of interviews was to gather data to help me address the first and third research questions; specifically, I asked the first-semester student interview participants to (a) describe some of the challenges they experienced, if any, while engaging in virtual teamwork in the second half of the semester; and (b) describe the impact, if any, that their team charter had on their virtual team during the semester. I recorded all of the interviews and sent a transcript to each participant for member-

checking purposes so they could review the transcript and make revisions, if so desired (see Glesne, 2011).

I decided to use interview guides for both rounds of interviews because I wanted the participants to answer the same set of questions in the same order so I could better compare the participants' answers during the analysis phase of this study. I decided not to use focus groups because I wanted to protect the identity of the participants. I ruled out participant observation (see Patton, 2002) because I thought it would be logistically difficult and possibly even intrusive to directly observe the many meetings and discussions that students tend to have while working virtually on team projects.

MSIBL Student Survey

To address the third research question about the impact that team charters are perceived to have on virtual teamwork, I supplemented the interview data I collected from the 12 first-semester student interview participants with survey data I collected from 81 students enrolled in all four semesters of the MSIBL program. Before I distributed the survey to the students, I took an initial draft of the survey to the doctoral students enrolled in Dr. Fred Galloway's survey methodology class (taught at the University of San Diego) for a critical systematic review (see Fowler, 2009).

The final draft of the survey consisted of 40 questions total (see Appendix K for a list of survey questions). In 12 of the 40 questions (see Appendix L, questions 1-12), I asked the participants to answer questions about their demographic characteristics, work experience, teamwork experience, and team charter usage. For example, survey item 11 was a fill-in-the-blank statement, "Before I started MSIBL, I have worked in virtual student teams for _____ years."

In nine of the questions (see Appendix L, questions 13-21), I asked the participants to use a five-point Likert scale (1=*Strongly disagree*, 2=*Disagree*, 3=*Neutral*, 4=*Agree*, 5=*Strongly agree*) to rate how strongly they agreed or disagreed with various statements about team charters and virtual teamwork. For example, in survey item 19, I asked participants to rate their response to the statement, “Team charters make virtual teamwork less challenging for MSIBL students.”

In 17 of the questions (see Appendix L, questions 22-38), I asked the participants to assess how strongly they agreed or disagreed with various statements about the impact that team charters have on various aspects of virtual teamwork. For example, in survey item 28, I asked participants to rate (using the same five-point Likert scale) their level of agreement or disagreement with the statement, “In my experience, team charters help MSIBL student teams to establish what is expected of team members.”

The last two questions of the survey were open-ended (see Appendix L, questions 39-40). The first open-ended question was, “What are some ways that the MSIBL 102 team charter assignment can be improved?” The second open-ended question was, “If you have used team charters (or something similar to them) before you started MSIBL, please describe what you used them for.”

Although I initially considered making the survey available online only, in an attempt to minimize the survey nonresponse rate (see Fowler, 2009), I secured permission from the MSIBL director to invite all resident students (from all four semesters of the program) to complete a paper-based version of the survey during the final 10 minutes of their one-hour lunch break before their Friday or Saturday afternoon class started. Hence, at the end of the Friday or Saturday morning class, right before the hour-long noon lunch

break started, I explained (in-person) the purpose of the survey and told the students that I would distribute it, along with the research consent form (see Appendix J), to interested participants 10 minutes before the start of the afternoon class (see Appendix H for a transcript of the in-class announcement). It took me four weekends (one weekend per cohort) to distribute the surveys to all interested resident student participants during their weekend class lunch breaks.

In the survey that I distributed to the first-semester participants, I asked them to also include their names because I had an additional *Yes/No* question, “I give Sam permission to examine my team’s charter if all my teammates [also] give permission.” I included the question because I wanted permission to read the team charters so I could get a general sense of what they were like. One first-semester survey participant (a member of Team D) did not give me permission to examine Team D’s team charter, but I did obtain permission to examine the other three first-semester team charters. I did not include the team charters in the appendices because I did not get permission to do so from the study participants. Because the first-semester students were required to answer all of the questions included in the team charter assignment, their team charters were fairly similar to the exemplary team charter (see Appendix B) that Drs. Matt and Natalie Smith included on WebCT along with the team charter assignment instructions and the *Team Charter Handbook*.

In total, 67 of the 72 resident students (93.06%) enrolled in MSIBL at the time of the study completed the survey. I also used Qualtrics to create an online version of the survey and e-mailed all enrolled distance students to invite them to complete it (see Appendix I for the text of the e-mail). I made the online version of the survey available

for six weeks. The survey was completed by 14 of the 17 distance students (82.35%) enrolled in MSIBL at the time of the study. In total, 81 participants out of the 89 students (91.01%) enrolled in MSIBL at the time of the study completed the survey.

Interviews with the MSIBL Administrators

Because I knew that MSIBL Director Luke Johnson and Assistant Director Diana Murphy encouraged the use of team charters and provided advice to MSIBL teams when they experienced problems, I thought that it would be valuable to include their perspectives in this study. I thought that Luke might also have valuable insights into student virtual teamwork because in addition to serving as the director, he also co-instructed a business ethics class (MSIBL 101) in the first semester of the program.

I interviewed the director and assistant director separately, although I used many of the same questions in both interviews (see Appendix N and O). However, I had some additional questions for Assistant Director Diana Murphy because I wanted to learn more about how she grouped students into new teams each semester. Each interview lasted approximately 40 minutes. Both administrators signed research consent forms before I interviewed them (see Appendix M).

Interviews with the Professors of MSIBL 102

I also interviewed Drs. Matt and Natalie Smith separately, but I used the same interview guide for both participants (see Appendix Q). My main objective for the interviews was to gather more information about MSIBL virtual teamwork and the MSIBL 102 team charter assignment. Each interview lasted approximately 30 minutes. Both professors signed research consent forms before I interviewed them (see Appendix P).

Data Analysis

Interviews with the First-Semester Student Participants

I chose to employ a case study/cross-case analysis design for this study because case studies provide a way to organize data for in-depth study and cross-case comparison while also allowing for aggregation and disaggregation of individual case units (Patton, 2002; Yin, 2003). Specifically, I treated each of the 12 first-semester interview participants as a single case unit and later aggregated the cases by team so I could make cross-team comparisons.

I imported all of the interview transcripts into ATLAS.ti qualitative analysis software. I eventually developed a list of codes that I derived partially from the interview questions and partially from the themes and patterns I identified in the data (see Glesne, 2011). I then used ATLAS.ti to keep track of the quotations that aligned with the codes I developed. For example, I identified 19 direct quotations pertaining to the team charter creation process, so I tagged the quotations with the code *TC_CREATION_PROCESS* so I could quickly retrieve the quotations for further analysis or quickly sort them by participant or by team. I also used Microsoft Excel to create many of the tables presented in Chapter Four of this dissertation. Additionally, I used MindGenius mind-mapping software mostly as a cognitive tool to help me better visualize and organize the data.

MSIBL Student Survey

I first entered the data I collected from the paper-based and online versions of the 40-question survey (see Appendix K) into an Excel spreadsheet and created variables that corresponded to the survey questions. Because a fourth-semester student participant failed to answer multiple-choice question 16, I performed a zero-order correction (see

Galloway, 2004b) by replacing the missing value with the mean of all responses to the question. I then imported the survey data into Predictive Analytics SoftWare version 18 (PASW 18) and generated descriptive statistics (e.g., means and frequencies), which I incorporated into some of the tables I included in Chapter Four of this dissertation.

I then used the PASW 18 software to run a multiple regression analysis and a hierarchical multiple regression analysis (see Galloway, 2004b) to help me address the third research question (“How do graduate-level business students with at least a semester of experience collaborating in virtual teams assess the impact, if any, that team charters have on virtual teamwork?”). The dependent variable I used in the regression analyses was derived from survey item 17, “Overall, it is worthwhile for MSIBL students to create team charters.” Before running the multiple regression analyses, I selected 33 candidate independent variables and grouped them into three categories.

After running an initial multiple regression analysis with all 33 candidate independent variables included, I ran a hierarchical multiple regression analysis (using stepwise variable selection) by successively adding each of the three categories of variables into the analysis, which made it possible for me to (a) identify the significant variables ($p \leq .05$) in each category of candidate independent variables, and (b) estimate how much of the variation in the dependent variable could be explained by each of the categories of independent variables that were found to be significant ($p \leq .05$). The details of the analysis procedure and findings are provided in Chapter Four of this dissertation.

Limitations and Delimitations of the Study

One possible limitation of the study is that I was an employee of the MSIBL program when this study took place, although my involvement with virtual teamwork

was limited to its technical aspects, namely technical training and ongoing technical support. The students were not required to use any of the university-provided tools that I offered training and support for, although many of them did. I was not involved with team charters in any capacity at the time of the study. However, my insider status could have created limitations. Specifically, given that I respected and had developed a degree of rapport with the two MSIBL administrators and two professors that I interviewed in this study (who happened to be strong advocates of team charters), it is possible that I was predisposed to describe team charters in a slightly more positive way than the data I collected would suggest. The members of my dissertation committee, therefore, encouraged me to also pay close attention to data pertaining to aspects of the team charter that participants perceived to be negative.

Additionally, it is possible that the first-semester student interview participants, who had only known me for a few months at the time of the study, did not fully express their thoughts and feelings during the interviews due to the formal authority I possessed as an MSIBL employee (see Heifetz, 1994). For example, even though I told the interview participants that their comments would remain confidential, it is possible that some participants withheld negative comments about an MSIBL administrator, professor, or student because they wanted to avoid potential repercussions or because they did not want to somehow offend or upset me. I tried to overcome this potential limitation by listening very carefully for signs of hesitation and by using follow-up questions when necessary.

From a methodological perspective, some researchers use factor analysis to fine-tune the selection and ordering of questions in newly-developed survey instruments and

also “when developing and assessing theories” (Galloway, 2004b, p. 11). Although my sample size ($n = 81$) was large enough to support a multiple regression analysis and a hierarchical multiple regression analysis, the sample size was not large enough to adequately support factor analysis, which typically requires a sample size of at least 150 (see Meyers, Gamst, & Guarino, 2006). I was, therefore, unable to use factor analysis to determine whether the survey responses were “driven by just a few underlying...coherent subsets” of “either observed or latent variables...that are relatively independent of one another” (Galloway, 2004a, p. 11).

This study involved participants affiliated with a single blended graduate business degree program offered only at Fontoya University and, therefore, has limited generalizability, if *generalizability* is defined in a traditional way. Nonetheless, I attempted to maximize the trustworthiness and credibility of the study through prolonged engagement with the first-semester participants, as evidenced by the two rounds of interviews, and by systematically searching for alternative themes, divergent patterns, and rival explanations for the phenomena I observed (see Patton, 2002). I also used member-checking and methodological triangulation, and analyzed data from a variety of sources (see Glesne, 2011; Patton, 2002).

Significance of the Study

Some business professors (see Cox & Bobrowski, 2000; Hunsaker & Hunsaker, 2010; Mathieu & Rapp, 2009) have systematically examined the use of team charters by teams consisting of face-to-face students. Other business professors (see Kirkman et al., 2002; Rosen et al., 2006) have systematically examined the use of team charters by members of workplace-based virtual teams. However, my extensive search of numerous

academic databases using the keywords *virtual team charter*, *virtual team*, and *team charter* revealed that no one has systematically examined the use of team charters by virtual teams consisting of business students. Consequently, it can be difficult for business professors and business school administrators to determine whether team charters, or the process of creating them, has any impact, or is even perceived to have an impact, on business student virtual teamwork.

This study was designed to begin, in an admittedly modest way, to respond to the need for a systematic examination of team charter use by business students who work in virtual teams to collaboratively complete assigned team projects. Specifically, this study provides a systematic examination of: (a) what business students, grouped into small virtual teams for the first time, reported to be challenging about virtual teamwork; (b) how students, grouped into small virtual teams, described the process involved in completing a team charter in their first semester of a graduate-level business program; and (c) how graduate-level business students with at least a semester of experience collaborating in virtual teams assessed the impact, if any, that team charters have on virtual teamwork.

Because this study has limited generalizability (as that term has been defined in much social science research), it is up to the readers of this dissertation to determine if and how the study findings can be applied or transferred to other settings (see Wolcott, 1990). As Donmoyer (1990) suggested, social problems are often too complex to have universally applicable and definitive solutions that work in all settings, and in applied fields like education, case-specific idiosyncrasies should be recognized and accommodated. For example, this study was designed around a single version of the team

charter assignment that Drs. Matt and Natalie Smith created and modified over time for use in MSIBL 102 and some of the other graduate-level and undergraduate-level business courses they taught at Fontoya University. However, there is no universally applicable or definitive version of the team charter assignment; it can and should be adapted to better meet the specific needs of those who utilize it.

Case studies like this can be a source of new questions, new ideas, and hopefully, new or deeper understanding (Patton, 2002; Wolcott, 1990). In particular, findings could be of use to business professors and business school administrators interested in incorporating the team charter assignment and virtual team projects into their online courses or programs, to better prepare students for an increasingly inter-connected, knowledge-driven workplace that often requires well-honed collaboration, communication, problem-solving, project-management, and technical skills (Hansen, 2006; Newman & Hermans, 2008; Starke-Meyerring & Andrews, 2006).

Findings could also potentially be of use to business school administrators and business professors interested in adding distance learning aspects to their face-to-face courses, especially aspects involving teamwork. For example, even if all of the students on a team are resident students who live near campus, they still might find it difficult to meet real-time, in-person. They could, therefore, examine this dissertation to find out more about how distance learning technologies and tools like team charters can be used to facilitate or even enhance teamwork.

Chapter Summary

The purpose of this chapter was to provide an overview of the research design and methodology that I employed in this study. In this chapter, I have (a) provided information about the study site and participants, (b) described how I collected the data for this study and selected participants, (c) explained how I analyzed the data I collected, (d) discussed the limitations and delimitations of the study, and (e) concluded with a discussion of the significance of the study. In the next chapter of this dissertation, I will present the study findings.

CHAPTER FOUR

STUDY FINDINGS

Chapter Introduction

This chapter provides an overview of the findings of the study, which help address the following research questions:

1. What, if anything, do business students, grouped into small virtual teams for the first time, report to be challenging about virtual teamwork?
2. How do students, grouped into small virtual teams, describe the process involved in completing a team charter in their first semester of a graduate-level business program?
3. How do graduate-level business students with at least a semester of experience collaborating in virtual teams assess the impact, if any, that team charters have on virtual teamwork?

Before I discuss the study findings that relate to the research questions, I will contextualize the study findings by (a) describing how virtual teamwork and team charters became a part of the Master of Science in International Business Leadership (MSIBL) program,¹ (b) providing background information about the 81 MSIBL students who completed the survey that I distributed, and (c) providing background information about the 12 first-semester MSIBL students who participated in the interviews that I conducted.

I will then discuss the study findings that relate to the three research questions. Specifically, I will (a) summarize the study participants' responses to my questions about

¹ As described in Chapter Three of this dissertation, I used pseudonyms for the participants and study site, including the names of the program, the university (and the city it is located in), and the course numbers.

the challenges of virtual teamwork, (b) describe how the first-semester students created their team charters, (c) summarize the study participants' responses to my questions about the impact that team charters have on virtual teamwork, and (d) present the results of the regression analyses I conducted in order to determine why the majority of student survey participants might have considered team charters to be worthwhile.

How Virtual Teamwork and Team Charters Became a Part of the MSIBL Program

In this section, I will contextualize the study findings by describing how virtual teamwork became a part of the MSIBL program. I will then describe how team charters became a part of the MSIBL program.

MSIBL Virtual Teamwork

Diana Murphy, the assistant director of the MSIBL program, told me that the MSIBL program was founded in 1999 in partnership with a branch of the military and a military university located in the East Coast. The MSIBL program was initially designed primarily for veterans and active-duty military officers interested in attaining a master's degree in international business leadership and management. Diana explained that when the program was founded, only resident students who lived within driving distance of Fontoya University were admitted. A few years after the program was founded, the program administrators decided to also admit distance students who did not live within driving distance of Fontoya University and, therefore, could not attend class in-person with their resident student cohort-mates.²

² As described in Chapter Three of this dissertation, the MSIBL program was cohort-based and the 14 required courses had to be completed sequentially, which meant that most of the MSIBL students started the program and graduated from the program with the same cohort-mates.

The program administrators worked with Fontoya University's instructional technology department to set up distance learning technologies so that the distance students and resident students could access most of their course content online and engage in virtual teamwork together to complete their team projects. As described in Chapter Three of this dissertation, at the start of each semester, Assistant Director Diana Murphy grouped each cohort of MSIBL students into virtual teams, each consisting of three to five members. Each team worked together the entire semester to complete all of their team projects.

Assistant Director Diana Murphy described virtual teamwork as being "the kind of teamwork that has to be done outside of a face-to-face environment." Diana explained that while working virtually, "whether that be telephonically via videoconferencing, you might have visual access to a person, but...the nuances of someone's body language and the inflection of their voice...gets lost." Similarly, Luke Johnson, the director of the MSIBL program, said that virtual teamwork is "learning how to use...Web-based Internet [tools] to supplement or replace the nonverbal cues that you get in [face-to-face] interpersonal teamwork. And also there is the issue of time and distance that becomes a factor." Luke added that virtual teamwork is different from face-to-face teamwork in that virtual teamwork requires "coordination of synchronous and asynchronous teamwork" and also involves "a whole different dynamic than face-to-face."

MSIBL Team Charters

When I asked Director Luke Johnson to explain how team charters became a part of the MSIBL program, he told me that when he was hired in 2005 (one year after Assistant Director Diana Murphy was hired), numerous students asked him and Diana for

advice and assistance in solving some of the virtual teamwork-related problems that arose. Luke, for example, recalled that some students had major conflicts with their teammates and consequently refused to work with them for the remainder of the semester.

One day, Director Luke Johnson found out about the team charter assignment that Drs. Matt and Natalie Smith (the instructors of the course titled *MSIBL 102: Leading others: Individuals, teams and organizations*) used in an older MSIBL course titled *Leadership and Teamwork*, which was previously eliminated from the program after a curriculum review. Luke asked Matt and Natalie to consider adding the team charter assignment to their course MSIBL 102, which was taught in the first semester of the program; they obliged.

After Drs. Matt and Natalie Smith added the team charter assignment to their course MSIBL 102, Director Luke Johnson began to actively promote the value of the team charter assignment to all new (first-semester) MSIBL students during orientation week and told them that “a well thought-through and well-discussed team charter will not only facilitate teamwork, but also preclude many problems.” At the start of each semester, Luke also began (via e-mail) to encourage the second-, third-, and fourth-semester students (most students completed the MSIBL program in four semesters) to create a team charter with their new teams. Luke also encouraged the students to send him a copy of their team’s charter so he could post them in a special online course that all MSIBL students had access to. Luke told the students that he and Assistant Director Diana Murphy would not provide consultations to help teams resolve their problems if they did not already have a team charter posted in the special online course.

Dr. Matt Smith described the team charter as “a psychological contract between the team members about how they are going to treat each other and perform on the teams. It is essentially the norms or the rules that everybody has agreed to abide by.” Matt claimed that he first got the idea for the team charter assignment when he was a doctoral student pursuing a degree in organizational development. Matt read a case study about several newly-formed teams of engineers at TRW Systems, who were sent to a retreat in the mountains for about two weeks before the start of a multi-year project. At the retreat, the engineers were asked to discuss and work through issues like, “What are your strengths, what can you contribute, what do you need to improve on, what do you expect from other people on the team, how do you like to be treated?” As Matt explained, the engineers reported that the team-building activities they completed at the retreat helped them to become more cohesive and made it possible for them to quickly pass through “the forming, the storming, the norming” stages, right to the performing stage (see Tuckman, 1965).

Dr. Matt Smith claimed that he created the team charter assignment (see Appendix A for the assignment instructions) to help student teams “get right in” to the norming stage (see Tuckman, 1965) by providing numerous “questions to address the various issues that could come up and derail their team.” Matt claimed that when he first created the team charter assignment, it started out “as a performance agreement—and it really just dealt with the interaction norms,” but after doing more research into team charters, he added elements like “a mission and a vision and so forth so they keep focused on the purpose of their team and the end product in everything that they do.”

Dr. Matt Smith told me that he also used the team charter assignment in some of the on-campus MBA courses that he taught at Fontoya University. When I asked Dr. Matt Smith whether the team charters created by the MSIBL student virtual teams differed from the team charters that the MBA student face-to-face teams created, he said that “the main distinction would be [that] face-to-face teams do not have to deal with...electronic communication...and differences in time zones, and so forth.”

Summary

In summary, virtual teamwork became a part of the program after some of the previous MSIBL administrators set up distance learning technologies so that the resident students and the distance students could collaborate to complete team projects without having to meet in-person. Team charters became a part of the MSIBL program after Director Luke Johnson asked Dr. Matt Smith to add the team charter assignment to MSIBL 102 because the students were experiencing too many problems while attempting to collaborate with their virtual teammates.

Background Information about the 81 Student Survey Participants

As described in Chapter Three of this dissertation, in November and December 2011, 81 of the 89 students (91.01%) enrolled in MSIBL at the time of the study completed either the paper-based or online version of the 40-question survey about student virtual teamwork and the perceived impact of team charters on student virtual teamwork (see Appendix L for the complete list of survey results). As indicated in Table 1, the demographic characteristics of the 81 MSIBL student participants who completed the survey were fairly similar to those of the population of MSIBL students, which suggests that the sample can be considered to be generally representative of the

population. However, slight differences did exist. For example, although 70.79% of the students enrolled in MSIBL at the time of the study were men, a slightly lower percentage of survey participants (67.9%) were men.

Table 1

Select Demographics Characteristics of the 81 Student Survey Participants and the Population of 89 Students Enrolled in MSIBL at the Time of the Study (n = 81)

Characteristic	Sample n (and percent)	Population N (and percent)
Gender:		
Male	55 (67.90%)	63 (70.79%)
Female	26 (32.10%)	26 (29.21%)
Average age	33.79	33.68
Age range	26-42	22-60
Had at least one year of military experience	53 (65.43%)	56 (62.92%)
Residency status:		
Resident student	67 (82.72%)	72 (80.90%)
Distance student	14 (17.28%)	17 (19.10%)
Semester enrolled:		
First	20 (24.69%)	20 (22.47%)
Second	19 (23.46%)	23 (25.84%)
Third	20 (24.69%)	22 (24.72%)
Fourth	22 (27.16%)	24 (26.97%)

Background Information about the 12 First-Semester Student

Interview Participants

In this section, I will contextualize the study findings by providing background information about the 12 first-semester MSIBL student interview participants.

Specifically, I will (a) describe demographic characteristics of the student interview participants, (b) describe characteristics of the four teams that the student interview participants were on, and (c) describe the roles that the team leaders and the project leaders played.

Demographic Characteristics of the Student Interview Participants

As described in Chapter Three of this dissertation, I planned to interview the first-semester students in the middle of the semester (in October 2011), right after they submitted the MSIBL 102 team charter assignment, and again at the end of the semester (in December 2011). Twelve of the 20 first-semester students (60%) volunteered to participate in both rounds of interviews. As indicated in Table 2, eight of the 12 first-semester interview participants (66.67%) were men (i.e., Ed, Frank, Henry, James, Joe, Peter, Spencer, and Steve) and four (33.33%) were women (i.e., Esther, Jenny, Lane, and Lily). The average age of the participants was 31.5. The youngest participant was 26 and the oldest was 42. Four of the 12 participants (33.33%) had served in the military for at least one year (i.e., Ed, Joe, Peter, and Spencer). Ten of the 12 participants (83.33%) were resident students and two of the 12 participants (16.67%) were distance students (i.e., Ed and James). As indicated in Table 2, the demographic characteristics of the 12 first-semester student interview participants were fairly similar to those of the entire group of 20 first-semester students enrolled at the time of the study, which suggests that the sample of 12 first-semester students can be considered to be generally representative of the population of 20 first-semester students.

Table 2

*Select Demographic Characteristics of the 12 First-Semester Student**Interview Participants and the 20 First-Semester Students Enrolled in MSIBL at the Time of the Study*

Characteristic	The 12 first-semester interview participants (and percent)	The 20 first-semester students (and percent)
Gender:		
Male	8 (66.67%)	14 (70.00%)
Female	4 (33.33%)	6 (30.00%)
Average age	31.50	30.30
Age range	26-42	25-42
Had at least one year of military experience	4 (33.33%)	7 (35.00%)
Residency status:		
Resident student	10 (83.33%)	17 (85.00%)
Distance student	2 (16.67%)	3 (15.00%)

Characteristics of the First-Semester Student Teams

During face-to-face orientation week (which took place in late September 2011, a month after the online coursework officially started on the WebCT learning management system), MSIBL Assistant Director Diana Murphy grouped the 20 first-semester students into four five-person teams. As indicated in Table 3, at least two members of each first-semester team participated in the interviews. The two distance students (i.e., Ed and James) who participated in the interviews were both members of Team A; the only other first-semester distance student was a member of Team D and did not volunteer to

participate in the interviews. All three of the first-semester distance students resided in the same time zone that the first-semester resident students resided in.

Table 3

Characteristics of the First-Semester Teams

Characteristic	Team A	Team B	Team C	Team D
Percentage of teamwork performed virtually	90%-100%	80%	60%-80%	70%-80%
Number of team members	5	5	5	5
Number of team members who were distance students	2	0	0	1
Number of team members who were resident students	3	5	5	4
Number of interview participants	5	2	2	3
Names of the interview participants	Ed (distance student), James (distance student), Joe, Lane, Steve	Frank, Peter	Esther, Henry	Jenny, Lily, Spencer

I asked the 12 student interview participants, “What percentage of time did you spend as a team working virtually?” As indicated in Table 3, the participants on Team A (which had two distance students) worked virtually 90%-100% of the time to collaborate on projects and have team meetings. In fact, Steve told me that Team A did not have a single face-to-face meeting after orientation week. Frank remarked that Team B, whose members worked virtually 80% of the time, did “not have a real distance student,” but they had “to use technology to fill the gaps” because some of the members lived a few hours away from Fontoya University and, therefore, were reluctant to drive to campus to

participate in face-to-face team meetings.

Lily told me that the members of Team C, whose members worked virtually 60%-80% of the time, met face-to-face several times earlier in the semester, but later “figured it was easier” to work virtually because they found it difficult to schedule face-to-face team meetings. Similarly, Spencer claimed that although the four resident students on Team D initially tried “to meet in-person at the university” with the “distance learner virtually connected [through the Wimba Web conferencing system],” the team “quickly ended up just doing virtual every time,” which “ended up being easier and almost just as good,” especially since some of the resident students had to travel frequently. The members of Team D, which was the only team other than Team A that had a distance student member, worked virtually 70%-80% of the time.

The Roles of the Team Leaders and Project Leaders

For several years, Assistant Director Diana Murphy picked one member of every team she created to serve as the designated team leader during the semester. Based on personal observations and feedback from students, Diana eventually decided to allow the members of each newly-formed team to choose their own team leader because she reached the conclusion that “when you tell people who is going to lead them, they are not nearly as likely to follow their lead as if they get to self-select who will lead them.” Three of the four first-semester team leaders (i.e., Ed, Henry, and Spencer) agreed to participate in both rounds of interviews (see Table 4). Team B’s leader did not volunteer to participate in the interviews. The first-semester students chose Team D’s leader, Spencer, to also serve as the cohort leader, which meant that he was responsible for

communicating with the MSIBL administrators and faculty about any concerns his cohort-mates had about the program or about their courses.

Table 4

Student Interview Participants' Team Membership and Team Leader Roles

Team	Members
A	Ed (team leader), James, Joe, Lane, Steve
B	Frank, Peter (the team leader did not participate in the interviews)
C	Henry (team leader), Esther
D	Spencer (team leader and cohort leader), Jenny, Lily

Although Assistant Director Diana Murphy did not specify what the role of the team leader should be, the first-semester team leaders reported playing similar roles and assuming similar responsibilities. For example, Ed, Team A's leader, claimed that his role was to "facilitate communication," lead the team meetings, help settle arguments between teammates, "have an overview of the projects" and their due dates, and coordinate the work of the team's specific project leaders.

According to Ed, the members of Team A were "sharing the [leadership] wealth" by "making everybody experience what it is like to be a team project leader." Ed claimed it was the project leader's responsibility to analyze the project, communicate what needed to be done, and "assign the actual pieces of the pie, or whatever was required to put together a great project." The members of Team A, B, and C also had a designated project leader for each team assignment; they described similar roles and responsibilities for their project leaders.

The only team did not use project leaders was Team D; the team leader Spencer managed every project. Lily stated that Spencer "coordinated the [project] timeline" and

monitored the team's project progress. Spencer pointed out that he also helped write all of the team's papers and "always did a little bit more work intentionally" to make sure that everything he submitted to the group "was really well-polished." Spencer explained that, in the military, he had "a certain amount of credibility" based on his rank, experience, and position, but as "a leader among peers," Spencer wanted to "establish credibility" and earn the respect of his MSIBL teammates "in order to have something to lead them by" later on, in case he had to "do some of the uncomfortable leadership things."

The Challenges of Student Virtual Teamwork

As stated in Chapter One of this dissertation, the first research question that guided the study is, "What, if anything, do business students, grouped into small virtual teams for the first time, report to be challenging about virtual teamwork?" In this section, I will address this research question by describing what the 81 MSIBL student survey participants, the MSIBL administrators (Director Luke Johnson and Assistant Director Diana Murphy), the professors of MSIBL 102 (Drs. Matt and Natalie Smith), and the 12 MSIBL first-semester student interview participants reported to be challenging about MSIBL student virtual teamwork.

Student Survey Participants

As indicated in Table 5, although 76 of the 81 MSIBL students (93.83%) who participated in the survey (see Appendix L for the full list of results) agreed or strongly agreed with the statement, "In general, I enjoy face-to-face student teamwork" (see Appendix L, question 13), only 37 of the survey participants (45.68%) agreed or strongly agreed with the statement, "In general, I enjoy virtual student teamwork" (see Appendix

L, question 14). Similarly, 52 of the survey participants (64.2%) agreed or strongly agreed with the statement, “I prefer to work face-to-face with MSIBL teammates instead of working with them virtually” (see Appendix L, question 16), probably because virtual teamwork can be challenging for students, as explained in Chapter Three of this dissertation. In fact, 43 of the 81 survey participants (53.09%) agreed or strongly agreed with the statement, “Virtual teamwork is challenging for MSIBL students” (question 15);

Table 5

Responses to Four Student Survey Questions about Virtual Teamwork (n = 81)

Survey question	Mean
13. In general, I enjoy face-to-face student teamwork: 1=Strongly disagree: 2 (2.47%) 2=Disagree: 1 (1.23%) 3=Neutral: 2 (2.47%) 4=Agree: 37 (45.68%) 5=Strongly agree: 39 (48.15%)	4.36
14. In general, I enjoy virtual student teamwork: 1=Strongly disagree: 2 (2.47%) 2=Disagree: 15 (18.52%) 3=Neutral: 27 (33.33%) 4=Agree: 33 (40.74%) 5=Strongly agree: 4 (4.94%)	3.27
15. Virtual teamwork is challenging for MSIBL students: 1=Strongly disagree: 1 (1.23%) 2=Disagree: 22 (27.16%) 3=Neutral: 15 (18.52%) 4=Agree: 34 (41.98%) 5=Strongly agree: 9 (11.11%)	3.35
16. I prefer to work face-to-face with MSIBL teammates instead of working with them virtually: 1=Strongly disagree: 2 (2.47%) 2=Disagree: 3 (3.70%) 3=Neutral: 24 (29.63%) 4=Agree: 28 (34.57%) 5=Strongly agree: 24 (29.63%)	3.85

MSIBL Administrators

According to Director Luke Johnson, “lousy e-mail protocol” is one of the biggest challenges that MSIBL students face while working in virtual teams. Luke elaborated that students sometimes do not respond to e-mails from teammates because they “have gotten into heavy texting, so their interactions are in short clips of texts, whereas e-mails will frequently involve quite a bit more time and sitting down.” Luke continued, “I cannot ask you a question sitting here [face-to-face] and have you just not respond to me, but I can send an e-mail to you and you can say, ‘I do not want to respond to that e-mail; I won’t.’” Additionally, Luke claimed that students are sometimes “more aggressive in e-mail than they would [be] in person. You can sit down and put your anger into text and just hit send, easier than face-to-face.” Luke added that what makes the problem even more challenging is the lack of “that interpersonal dynamic, which is body language.”

Director Luke Johnson proposed that there are several potential solutions to the problem of “lousy e-mail protocol.” One is for students to do more work together synchronously through Web conferencing technologies like Skype or Wimba, “which is the closest thing to actually being in the same room.” Luke also proposed that the members of a team could establish e-mail protocol procedures early in the semester in their team charter and later hold each other accountable to those protocols. Luke stated that if, for example, “somebody sends an emotional or an angry e-mail, you can say, ‘Our charter said there was going to be no accusations.’”

Director Luke Johnson mentioned that virtual teamwork can also be challenging if teammates do not participate or contribute as expected. For example, before Dr. Matt Smith made the team charter assignment part of his course MSIBL 102, several students

complained to Luke about a team member “who was not doing his work, but...got very good [individual] grades. He was a free-rider and the whole cohort knew he was a free-rider.” Similarly, Luke heard complaints about students who did not turn things in to their teammates on time or completed their allocated tasks, but worked “really hard on stuff that did not matter and not hard enough on stuff that did matter.” When I asked Luke why the students asked him and Assistant Director Diana Murphy for advice instead of asking their professors, Luke replied, “They know that we have some authority over the students throughout the whole four semesters they are here.” Luke continued, “There is more trust; they see a lot of us and they do not see that much of the professors. They see us every day during the first [orientation] week and they get to know us.”

Director Luke Johnson speculated that some of the members of the problematic teams suffered from “a communication gap” and often drowned in “accusations and counter-accusations” because they had nothing solid to hold members accountable to, which was one of the reasons why Luke eventually asked Dr. Matt Smith to add the team charter assignment to MSIBL 102. Luke added, however, that team charters might not be very well received in other parts of the world because they are a “very American, contractual sort of thing that is not considered obligatory in a lot of others cultures” in which “the relationship is more important than getting stuff in on time.”

Assistant Director Diana Murphy suggested that the biggest challenge that students face while engaging in virtual teamwork is participation. Diana explained that some students “do not feel as committed to participating in a substantive manner when in their virtual environment as they would if they were sitting around a conference table,” and they act as if “virtual teamwork is a get-out-of-jail-free card to be able to not do their

teamwork at all.” Diana elaborated that students “can hide behind their e-mail or their voicemail or their CrackBerry and say, ‘Oh, I am sorry. I did not get that message.’” Similarly, Diana speculated that “it is easier to shirk those [virtual teamwork-related] responsibilities when it is not the commitment to a live participation” because an agreement to meet in-person “seems more binding than to be available for a telephone call, or be available to be part of an online meeting or an e-mail exchange.”

Assistant Director Diana Murphy explained that members of a virtual team can overcome challenges related to participation by first doing “some soul-searching” before making a commitment “they truly believe they can give to that team.” According to Diana, some students strive for an *A*, others are content with a *B*. Diana observed, “If you know you can only give 50% to a team effort, if you articulate that clearly and your teammates are willing to accept that, then you take the consequences of that behavior.” Diana continued, “Your grade may reflect that [in the peer evaluations at the end of the semester],³ but you have chosen that consciously because your time is committed to other things that have a higher priority.”

Assistant Director Diana Murphy mentioned that members of virtual teams can also experience challenges due to differences in working styles. For example, Diana explained that some students wait “until the very last minute to do anything” because they believe that if they “do something too early, inevitably life will change and you will have to re-do it,” while other students prefer to complete their tasks early so they can move on to other tasks, even if they sometimes have to later revisit completed tasks. Diana explained that “those two different tactics are very problematic to align when you

³ Many of the MSIBL professors included peer evaluations in their courses so students had an opportunity to assess the performance and contributions of their teammates. The peer evaluations usually factored into each student’s final course grade.

are just trying to meet certain milestones of project completion...in the heat of the project.”

Assistant Director Diana Murphy proposed that if students take team charters “seriously and actually do craft it for real and commit to it,” a team charter can help members of a virtual team to prevent or overcome challenges related to participation and misaligned working styles if they discuss and work out potential issues at the start of the semester. Diana explained that a team charter also gives students an “objective measure as to whether every member of the team is participating as they committed to do so. And it gives them a way to adjudicate a problem that might surface” because “they have a document to which to refer, rather than just a bunch of opinions” or a “he-said-she-said thing.”

Professors of MSIBL 102

One of the two professors interviewed for this study, Dr. Matt Smith, remarked that one potentially challenging aspect of virtual teamwork is that students can “hide out” and either skip the team’s virtual meetings completely or not fully participate because “you cannot see what is going on if people are [physically] not all in the same room.” Matt suggested that students can overcome this challenge if they “come up with a linker, or a leader” whose responsibility it is to make sure “everybody is on-board, and notified and confirmed when the virtual team meetings will take place.”

Dr. Matt Smith reflected that students also tend to “have an urgency to get right to work on a project” and typically do not “sit back and do any planning in terms of how they are going to work together...and how they are going to relate to each other.” Matt continued, “When difficulties occur, they are not prepared for it. And the blame game can

start for who caused the problem and so forth,” and students can experience “hostility and conflict” that “can derail a team” if some of the team members have to unexpectedly step in at the last minute to “save the people who did not do the job they were supposed to do.” Matt commented that teams can use team charters to establish “feedback loops...so that all team members receive feedback about how they are doing, according to the rest of the team’s expectations. If they are off-base, they get that warning up-front instead of right towards the end of a project.”

Dr. Natalie Smith, Matt Smith’s wife and the other professor interviewed during this study, remarked that virtual teamwork can be challenging depending on the personalities of those involved. Natalie explained that unlike “highly analytical people,” who have “less of a need for the social component of teams...people who are more geared towards friendships and relationships and emotions...would be missing that social component” and “camaraderie” that members of face-to-face teams sometimes get to experience. Natalie added, “Trust, building relationships, and identifying with the mission of the team are important social outcomes of teams, and without the benefits of face-to-face meetings, it takes longer to develop this type of social capital.” Natalie claimed that leaders of virtual teams can address this challenge by recognizing the importance of their teammates’ social needs and by “using warm and friendly language, being inclusive, and [by] holding all team members accountable and rewarded for their work.”

Student Interview Participants

When I asked the 12 first-semester student interview participants to “talk about any challenges or difficulties” that their teams experienced during the semester, the

participants described 14 types of challenges involving coordination, participation, communication, and cohesion (see Table 6).

Table 6

*Virtual Teamwork-Related Challenges Experienced by the Four
First-Semester Student Teams*

Challenge	Teams affected	Category
*Finding time to meet virtually	A, B, C, D	Coordination
*Determining how to work together virtually	A, B, C, D	Coordination
Coordinating individual contributions to projects	A, B	Coordination
Making team papers sound more cohesive	A, D	Coordination
Keeping track of numerous team projects	C, D	Coordination
Working with teammates who were not native speakers of English	D	Coordination
*Coping with distracting personal issues	A, B, C	Participation
*Dealing with unequal levels of contribution	A, C, D	Participation
Addressing team meeting tardiness	A, D	Participation
*Coping with virtual communication deficiencies	A, B, D	Communication
*Handling non-response to communication attempts	A, C, D	Communication
Having problems with communications technologies	B, C	Communication
Working together despite personality differences	C	Cohesion
Meeting expectations of team members	D	Cohesion

As indicated in Table 7, the majority of first-semester teams reported experiencing six types of challenges involving coordination, participation, and communication: (a) finding time to meet virtually, (b) determining how to work together virtually, (c) coping with distracting personal issues, (d) dealing with unequal levels of contribution, (e) coping with virtual communication deficiencies, and (f) handling non-response to communication attempts.

Table 7

*Virtual Teamwork-Related Challenges Experienced by the Majority of
First-Semester Student Teams*

Challenge	Example quote	Solutions attempted
Finding time to meet virtually (Coordination)	People have different jobs with different requirements. Some travel more than others, and so the scheduling of those critical...open dialogue meetings is sometimes difficult (Spencer, Team D).	Recorded Wimba meetings for later playback, had regular meeting times established, and shared personal calendars and team project-related calendars.
Determining how to work together virtually (Coordination)	There were times when I had like 30 e-mails and I am like "You guys, this is craziness. You do not want to do this, seriously. Use chat for that stuff" (Esther, Team C).	Chose an initial set of collaborative tools, taught each other how to use those tools, and switched tools if needed.
Coping with distracting personal issues (Participation)	In our group, there are two people who are having personal issues that are very, very deep right now. So there are sometimes times where there are high emotions (Esther, Team C).	Allowed distracted members to contribute less although they had to contribute more later on, had social events to lower social tensions, and confronted distracted members.
Dealing with unequal levels of contribution (Participation)	There are some people who are putting in a lot of effort....They are trying to overcompensate for the other people (Lily, Team D).	Warned or terminated problematic member, re-distributed and completed the member's assigned tasks.
Coping with virtual communication deficiencies (Communication)	One of the farther away team members had to chime in via Wimba. It was difficult as far as audio for him to hear us. It seemed like he was not totally in the loop when it came to the conversation...like the tone of the room...or the emotion (Frank, Team B).	Tried alternative technologies, attempted to increase frequency of interactions, and tried to have more face-to-face team meetings.
Handling non-response to communication attempts (Communication)	Not everyone has been as responsive to e-mail as we would have hoped (Henry, Team C).	Tried alternative communication channels and warned the problematic member.

Summary

In summary, according to the survey findings, the majority of MSIBL student participants considered virtual teamwork to be challenging and preferred to work face-to-face with their teammates rather than virtually. The MSIBL administrators claimed that students often experienced challenges involving problematic virtual communication protocols, unequal levels of participation, and differences in working styles. The professors of MSIBL 102 claimed that students often experienced challenges involving poor meeting participation, lack of team planning, and the lack of opportunities for social interaction. Many of the first-semester participants I interviewed reported experiencing six types of challenges involving task processes (i.e., coordination, participation, and communication).

The Team Charter Creation Process

As stated in Chapter One of this dissertation, the second research question that guided this study is: “How do students, grouped into small virtual teams, describe the process involved in completing a team charter in their first semester of a graduate-level business program?” To address this research question, I asked each of the 12 first-semester interview participants to describe how their team completed the team charter assignment together. In this section, I will provide a summary of their responses, which I have sorted by team.

Team A

Steve remarked that Team A’s leader, Ed, who was a distance student, wanted “to take the leadership of constructing” the team charter and, therefore, volunteered to be the project leader for the team charter assignment. Joe recalled that Ed created a shared

Google Document and asked everyone to list ideas for the team's mission statement. Ed also asked everyone to make a list of individual goals to help clarify what each member expected to achieve by being a part of the team (e.g., grade expectations, learning goals, and social expectations; see Appendix A for the team charter assignment instructions).

James remarked that everyone also listed ideas for "rules that we had to work by, like if you do not get this done, this is what happens." Joe recalled that Ed then "correlated everybody's goals and ideas," then "had a very large part in building those mission statements and visions...and finished up the charter. Although there was a lot of team input, in that particular case on the charter, there is a strong influence of one person."

Similarly, James recalled, "Ed, from the get[-go], has been the one outlining and setting up things in Google Documents. He basically asked the questions and organized everything...He put everyone's ideas together into a charter." Ed remarked that he uploaded the initial draft of the team charter to Google Documents and asked his teammates "to read it and then comment on certain things. And there were comments and we incorporated those comments; [after] about two drafts, three drafts, we finally got it correct."

Team B

Frank recalled that when the members of Team B initially learned about the team charter assignment, they thought it "was a good idea to get done, just to keep us all cohesive and operating together." Peter explained that Team B's leader (who did not participate in the interviews) read the team charter assignment instructions and used Google Documents to share an outline of the team charter with his teammates.

Frank said, “Everyone put in their response for all these thirty little facets of the team charter. And at the end, he [the team leader] synthesized it all by just editing it,” by “removing any redundancies in the answers and just making it one statement.” Frank claimed that the team charter creation process overall was “somewhat tedious” and repetitive because most of his teammates had “very similar concepts of what the parts of the team charter should be and [should] look like. Although we all put in our input, by the end, we were just agreeing with each other.” Peter recalled that the team met to vote “on team names, logos” and reviewed all of the sections of the team charter together before submitting it (to Drs. Matt and Natalie Smith).

Team C

When Team C’s leader, Henry, who was also the project leader for the team charter assignment, first found out about the team charter assignment, he wondered, “Really, we have to do this?” Henry told me that he “thought a lot of it was kind of obvious, and things that we could work out amongst ourselves, and things that we did not necessarily have to have on paper.” Henry recalled that the team met in-person and “talked about each section...and then made sure we were on the same page and then let each individual articulate the different sections.” Henry then “put it all together” and sent the completed document to the team members for a final review.

According to Esther, the members of Team C completed their team charter “in a short period of time” without “tremendous effort” or conflict. Esther speculated that the team charter creation process went so smoothly because the team decided to meet—even though they were not required to meet in order to complete the team charter assignment—to determine what they had to do, then divided up the tasks, and then went

“to work on it.” Esther explained that when they wrote their first team paper (for a different first-semester course, MSIBL 103), the team did not first meet to discuss what they wanted to include in the paper. Instead, they “assigned tasks equally” without analyzing the assignment first; each member wrote a few sections of the paper, but when they put all of the sections together, the paper itself did not “make sense” because it was “missing the analysis,” so everyone decided to collectively re-write the paper.

Team D

According to Jenny, the members of Team D initially remarked that the team charter seemed like “an easy assignment” and were “not excited” about it. Jenny said that she was not excited about it either because she thought it did not seem to “have anything to do with business,” which suggests that Drs. Matt and Natalie Smith might not have explained to their students that team charters are sometimes used by workplace-based face-to-face teams and virtual teams. Team D’s leader, Spencer, who also was the project leader for all of the team’s projects, said that he was initially “not so attracted” to the team charter assignment because it seemed very “hokey” and “touchy-feely.” Spencer then noted that one teammate, however, was excited about the team charter and “carried a lot of passion initially until everyone else got warmed up to the idea.”

Jenny stated that the members of Team D met face-to-face for about four-and-a-half hours to work on the team charter assignment. The distance student attended the meeting virtually by using the Wimba Web conferencing system. Spencer recalled that everyone “sat around a table, each with our computers in front of us.” Spencer continued, “The person typing had the document open on their [laptop’s] desktop and shared with the rest of us in Wimba such that we could all see them typing as we made suggestions.”

The distance student was also able to use Wimba to see what was being typed. Spencer recalled that the team went through the team charter instructions together and “answered these questions as a group while debating or agreeing on [the] exact wording.”

Spencer remarked that when his teammates saw the exemplary team charter that Drs. Matt and Natalie Smith provided (see Appendix B), everyone “honed in on that” because they “were unsure about what it [their team charter] could or should look like...and that may have limited some of the creativity.” Spencer also observed that the team put a lot of “creative and motivated thought...into the initial sections” of the team charter, but had “less and less buy-in and motivation in creating” some of the final sections because the sections seemed “to be a little bit repetitive, and it sort of droned on.” Spencer said that after the four-and-a-half-hour-long meeting, everyone reviewed the initial draft of the team charter on their own and took turns making final edits to make sure that it “flowed a little bit more.”

Summary of the Team Charter Creation Process

In summary, as indicated in Table 8, each of the four first-semester student teams created their team charter through a unique series of steps. The leader of Team A, for example, wrote most of the sections of the team charter because he wanted to use the team charter as a “road map” to outline how he wanted the team to function in terms of operating procedures, roles, and responsibilities. The members of Team D, by contrast, took a more collaborative approach. Specifically, the four resident students met in-person for four-and-a-half hours (the distance student attended the meeting virtually by using Web conferencing software) and wrote an initial draft of their team charter by answering each of the questions contained in the team charter assignment instructions.

Table 8

*First-Semester Student Team Charter Creation Process According to the Student**Interview Participants*

	Step 1		Step 2		Step 3		Step 4
Team A	Leader wrote most of the sections	→	Members provided individual input on some sections	→	Leader combined individual input and wrote initial draft	→	Everyone reviewed the initial draft before submitting it
Team B	Leader created the outline	→	Everyone listed what to include in each section	→	Leader wrote the initial draft	→	Everyone met to review the initial draft before submitting it
Team C	Everyone met to decide what to include in the sections	→	Everyone wrote a few sections	→	Leader combined everyone's sections into the initial draft	→	Everyone reviewed the initial draft before submitting it
Team D	Everyone met to write the initial draft together	→	Everyone reviewed the initial draft individually before submitting it				

Some commonalities can be identified between the teams. For example, all of the teams created their team charters by collaborating virtually to some degree. Also, in every one of the teams, the team leader volunteered to be the project leader for the team charter assignment. Interestingly, many of the interview participants reported that their teammates were rather unenthusiastic about the team charter assignment. For example, Team C's leader told me that he thought the team charter assignment contained too many

questions, many of which were “kind of obvious, and things that we could work out amongst ourselves, and things that we did not necessarily have to have on paper.” Other interview participants reported thinking that the team charter assignment did not seem to “have anything to do with business” and seemed rather “hokey” and “touchy-feely.”

Impact of Team Charters According to the MSIBL Administrators and the Professors of MSIBL 102

In this section, I will summarize what the MSIBL administrators told me during the interviews I conducted, when I asked them to describe the impact that team charters have on student virtual teamwork. I will then summarize what the professors of MSIBL 102 told me when I interviewed them.

MSIBL Administrators

Director Luke Johnson suggested that the team charter creation process gives the members of a team the opportunity to discuss the level of commitment they are willing to give to the team. Luke provided an example about varying levels of commitment: “If you have somebody who is happy with getting a *B-* and that is all the work they want to do, then the people who insist on getting an *A* will understand that they are only going to get so much out” of that teammate. Luke also suggested that the team charter assignment helps members of a team to establish communication procedures and protocols so that someone does not, for example, send “an emotional or angry e-mail,” or is not “in the kitchen fixing popcorn or something and...not paying attention” during a Wimba Web conferencing session.

Director Luke Johnson insisted that “the biggest and most unpleasant hassle that we have had in this program have been team issues” and emphasized that “a well-

thought-through and discussed team charter” helps “facilitate better teamwork” and also helps “forestall, prevent a certain percentage of the problems” that virtual teams can experience. Assistant Director Diana Murphy observed that after Drs. Matt and Natalie Smith added the team charter assignment to MSIBL 102, she and Luke witnessed a dramatic decrease in the number of teams asking for help with their problems or conflicts. Diana claimed that she did not have any “knock-down-drag-outs in quite a few cohorts. That either means something is working; or, they are just not telling us anymore.” However, Diana added that she and Luke did occasionally hear “about team problems after the fact,” which probably meant that they either “worked it out amongst themselves,” or got help from their professors.

Assistant Director Diana Murphy commented that when teams asked for advice or for an intervention, she and Director Luke Johnson first asked the members of the team whether they did their “due diligence” by creating a team charter at the beginning of the semester. If they did not create a team charter, Diana and Luke refused to work with the team; as Luke explained, he did “not want to step in” if they were not willing to have an initial meeting at the beginning of the semester determine how they wanted “to work together.” If the team did have a team charter, Diana and Luke first encouraged them to attempt to resolve their problems on their own, based on the processes and procedures outlined in their team charter.

Assistant Director Diana Murphy claimed that team charters provide an “objective measure as to whether every member of the team is participating as they committed to” and give teams “a way to adjudicate a problem that might surface” because “they have a document to which to refer, rather than just a bunch of opinions.” Luke mentioned that if

someone, for example, consistently failed to turn her assigned tasks in on time, her teammates could “hold her accountable” to what she originally agreed to in the team charter and could also enact the pre-determined consequences outlined in the team charter because she failed to meet the team’s expectations.

Assistant Director Diana Murphy noted that if a team experienced an unanticipated problem that was not already addressed in their team charter, she typically suggested that they re-craft their team charter to include measures and consequences to address the problem. Luke mentioned that in the e-mail that he sent out to the second-, third-, and fourth-semester students at the start of every semester, he provided a list of “issues that have been repeatedly problems” so that the students could anticipate them and describe (in their team charter) how they planned to address those potential problems.

Professors of MSIBL 102

Dr. Matt Smith, who co-instructed MSIBL 102 with his wife Dr. Natalie Smith, stated that team charters help members of a team to “make sure that all the functions of a productive team process are going to work,” including “how they are going to treat each other, how rules will be established, how leadership will be rotated or not.” Natalie claimed, for example, that it is important to “have responsibilities more clearly defined” in a team charter, to help get “rid of the social loafers that you sometimes find in graduate school, people who are skating through.” Matt also remarked that students can prevent major conflicts from developing by using their team charter to establish “feedback loops...so that all team members receive feedback about how they are doing, according to the rest of the team’s expectations; if they are off-base, they get that warning up-front instead of right towards the end of a project” so that students could, for example, avoid

the “hostility and conflict” that can ensue when members of a team have to step in right before an assignment is due to “save the people who did not do the job they were supposed to do.”

Dr. Matt Smith stated that team charters help members of a team to pass more quickly through “the forming, the storming, the norming” stages, right to the performing stage (see Tuckman, 1965). Matt elaborated that after teams are “formed” by Assistant Director Diana Murphy, students use their team charter to establish the team’s behavioral norms and the consequences for violating those norms so that “the various issues that could come up and derail their team” are avoided during the storming phase (see Tuckman, 1965). Matt explained that if a team member violates the team’s norms, “there are no surprises” and “no hard feelings” when the pre-determined consequences outlined in the team charter are enacted. Matt remarked that “some teams are exceptional; they just all get along because they naturally are able to take care of this stuff,” but “90% of the teams would benefit from running through this charter process up-front to ensure they have a positive experience, not only in terms of getting along, as well as the performance results.”

Similarly, Dr. Natalie Smith explained that if “you have already agreed ahead of time how to handle conflict...those little pinches [minor disruptions of shared expectations] are not going to get to be the big crunches [unbearable disruptions of shared expectations that can cause high levels of anxiety and resentment] because there is a mechanism in place for dealing with that” (see Sherwood & Glidewell, 1972). Natalie also explained that team charters provide an opportunity for students to disclose their individual strengths so that the members of a team could collectively “play to people’s

strengths.” Natalie claimed that team charters also provide an opportunity for members to admit, “I have a weakness in this area, but I want an opportunity for growth. Can I do that [task]? But I really need somebody to back me up who is good at it.” When I asked Natalie if there was a connection between team charters and student team leadership, she replied, “There could be none, or it [the team charter] could be a vehicle where somebody who wants to exert leadership by having influence on others is able to do that by how they facilitate the team charter.”

According to Dr. Natalie Smith, students who “believe that it [the team charter] will make a difference in their final product...are more convinced to do a good job” on it. Natalie elaborated that it was helpful, for example, to “have people like Luke [the director of MSIBL] really pushing the team charter...like an advocate and a cheerleader for it,” encouraging students to “take it seriously” because some students sometimes “do not think it is important.”

Summary

In this section, I have described what the MSIBL administrators and the professors of MSIBL 102 told me when I asked them to describe the impact that team charters have on student virtual teamwork. Their responses are summarized in Table 9. Interestingly, although the administrators and professors made several general comments about the impact that team charters have—or could potentially have—on MSIBL student teamwork, they did not provide many specific examples or cite other forms of evidence to help support their claims.

Table 9

Impact of Team Charters According to the MSIBL Administrators and the Professors of MSIBL 102

MSIBL administrators	<ul style="list-style-type: none"> • Give members an opportunity to discuss mutual expectations • Members can discuss the level of commitment they are willing to give to team • Establishes communication procedures and protocols • Helps facilitate better teamwork overall • Fewer teams need to ask administrators for help with problems or conflicts • Provides a way to measure whether teammates participated as they committed to • Gives teams a way to adjudicate problems on their own without administrators • Members can anticipate potential problems and consider how to address them
Professors of MSIBL 102	<ul style="list-style-type: none"> • Can ensure that the functions of a productive team process will work • Helps get rid of free-riders if responsibilities are more clearly defined • Establishes early-warning feedback loops to prevent major conflict development • Team can pass quickly through forming, storming, norming stages, to performing • Establishes behavioral norms and consequences for violating those norms • No surprises and hard feelings when consequences in team charter are enacted • Pinches have fewer opportunities to become big crunches • Helps team to play to member's strengths if individual strengths are disclosed • Team charters could be used to influence others and thereby facilitate leadership

Impact of Team Charters According to the Student Interview Participants

As stated in Chapter One of this dissertation, the third research question that guided this study is: “How do graduate-level business students with at least a semester of experience collaborating in virtual teams assess the impact, if any, that team charters have on virtual teamwork?” To address this research question, I asked each of the 12 first-semester student interview participants to talk about (a) the ways in which the participants’ teams used or referred to the team charter after it was created, if applicable; (b) the perceived impact, if any, that the team charter or the team charter creation process had on the participants’ teams; (c) the participants’ critiques, if any, of the team charter or

the team charter assignment; and (d) whether or not the participants planned to create another team charter with their future MSIBL teammates.

Team Charter Usage: Team A

When I asked the members of Team A whether they actually used or referred to their team charter after creating it, Ed told me that he occasionally e-mailed “quotes from it” and also “used it several times to refer to what our goals were, and what our model was, and what we stood for.” Ed also recalled that the members of Team A revisited the team charter “from time to time,” but “could have done it more” to see if their team really functioned as planned when they first created the team charter: “Are we functioning as efficiently as we can be?...Should we just fix the charter?”

Team A experienced major issues involving James, who was a distance student and was also one of the interview participants. James explained that he “had some personal stuff...to take care of” and also started a new job that sometimes required 14-hour workdays; James said that he had difficulty finding time to communicate with his teammates and meeting “the deadlines for certain assignments” because there “was just a lot of stuff going on at once.” Ed remarked that James was unreliable, “unreachable, and totally incommunicado” and did not act like he was a part of the team, right from the beginning of the semester, which is why Ed kept a record of instances in which James failed to meet the performance expectations listed in the team charter. Steve claimed that James missed some of the team meetings and repeatedly failed to submit his assigned tasks to the team on time. Lane said that James broke a lot of promises and was not committed to the team, so she and Ed “gave him a couple of verbal warnings” and sent James an e-mail to express their concerns, but James did not respond.

Toward the end of the semester, Ed told Drs. Matt and Natalie Smith (the professors of MSIBL 102) that the members of Team A wanted to terminate James, which meant that James would have to complete all of his remaining team projects alone for all four of his first-semester courses, unless he was able to find another first-semester team to join. Matt replied that in order to terminate James, the members of Team A had to follow the procedures outlined in their team charter. Matt added that the members of Team A were allowed to amend their team charter if needed, because it was a “living, breathing document.”

In the original version of Team A’s team charter that they submitted to Drs. Matt and Natalie Smith, the members of Team A wrote that they would simply use the sample termination procedure included in the *Team Charter Handbook* that Matt and Natalie wrote in 2006, which stipulated that the team members only needed to send a written warning to the offending member (and a copy to the professors), and, if necessary, later send the offending member (and the professors) a final written notice of termination. Therefore, in order to officially terminate James from the team, the members of Team A had to modify their original team charter *ex post facto* to more accurately reflect the actions they had already taken to terminate James, which according to Lane, consisted of “a verbal warning, three [additional] verbal warnings, then a written warning, and then termination.”

Impact of Team Charters and the Team Charter Creation Process: Team A

James observed that when everyone disclosed their individual goals during the team charter creation process, he and his teammates gained a “greater perspective” of each other and what they were “trying to accomplish...as a team.” James claimed,

“Virtual work...is very challenging and it only works if you have everybody on the same page.” Similarly, Team A’s leader, Ed, remarked that team charters make it possible for the members of a team to find “common ground” and get “things out on paper that sometimes you assume others would understand or know.”

James, the team member who was terminated, suggested that the performance expectations listed in the team charter provide “something to base the evaluation of your peers off of as well,” which was useful because many of the MSIBL courses included end-of-semester peer evaluations that factored into a student’s final grade. James remarked, “Team charters keep you accountable for your actions.” James continued, “If you were not able to meet certain deadlines, you are aware of what you are going to face....You cannot point the finger at anyone but yourself, because you knew what was expected.” It is quite possible that although James used the word *you* when he made those remarks, he was speaking autobiographically.

Ed claimed that team leaders could also use team charters to “basically pledge what you are going to do and how you are going to do it, so the team leader does not lead in a fashion that others do not understand or recognize.” Ed elaborated that as the team leader, he used the team charter as a “road map” to outline how he wanted the team to function (i.e., operating procedures, roles, and responsibilities). Ed claimed that Team A got “off and running to a great start because everybody was very clear...on how to function.” Joe said that Ed provided “a lot of guidance and input” as the project leader for the team charter assignment and “set the standard for how we should be conducting the rest of the papers and assignments.”

Critiques of Team Charters or the Team Charter Assignment: Team A

Steve remarked that Dr. Matt Smith's 45-minute-long in-class introduction to the team charter assignment was "kind of quick and dirty" and "there was not a lot of open time to discuss [the team charter], especially if you are a virtual team with distance learners." Steve recommended that there be "more [class] time associated to the team [charter] project up-front towards the beginning of the orientation week, with some dedicated time to working on it, understanding it better." Ed stated that "for the time allotted [three-and-a-half weeks], when it is presented to the student to go ahead and make it...they [Drs. Matt and Natalie Smith] should have a much more simplified version of it."

Joe insisted that he and his teammates should have been allowed to terminate James on the basis of the many warnings they gave him and the extensive documentation procedures they had devised on their own, without having to first modify the termination procedures in their team charter. Joe claimed that modifying the team charter was a "pointless exercise" and a "pain in the ass" because "if four students come to a professor...and we are all saying, 'Hey, this guy is not contributing,' it is pretty obvious." Joe, who had served in the military for 11 years before joining MSIBL, claimed that in the military, "as long as there are steps and there are substantiating documents, then you have every right to dismiss that individual regardless, because you have already talked to him and you have already documented it." Steve, on the other hand, claimed that even though the members of Team A had to modify the termination procedure they originally included in their team charter, "having done that pre-work kind of helped" because

otherwise, they “would have been contacting professors immediately and having to work with the cohort leader....It would have been a little more chaotic.”

Plans for Future Team Charter Usage: Team A

With the exception of Joe, all of the members of Team A claimed that they wanted to use a team charter with their future MSIBL teammates. Steve said that he wanted to use a team charter with his future teammates, but expressed concerns about the time it took to complete a new team charter because “when everything was functioning well, there is absolutely no reason to look back at it.” Steve claimed, “I am also very, very busy, so I think starting from scratch—that is just another additional project.”

Joe remarked that the team charter assignment was “overall, in the first semester...a worthwhile assignment to do because it establishes a base and gets everybody on the same page,” but he added that it would be “a waste of time” to “write down another 13-page charter” with his future teammates. When I asked Joe how many pages a written team charter should be, ideally, he replied, “one or two pages” that would include “goals, objectives, requirements, and consequences.”

Joe explained that if it were his choice alone, he would not create a written team charter and would instead prefer to meet with his new teammates face-to-face to discuss “what everybody expects to get out, and how everybody prefers to communicate, and what their objectives are, what projects they want to lead.” Joe said that after coming to an agreement about how to operate as a team, everybody could seal the agreement with a handshake because “If you develop something that is concrete in face-to-face, I think that will carry a lot more weight down the road.”

Table 10

Summary of Team Charter Usage, Impact, Critiques, and Future Usage: Team A

Team charter usage:	<ul style="list-style-type: none"> • Team leader reminded members about team's goals, values, and operating model • Members periodically reviewed operating processes and procedures • Modified original termination process before being allowed to terminate James
Team charter impact:	<ul style="list-style-type: none"> • Provided a greater perspective of teammates and their goals • Helped everyone find common ground and get on the same page • Got things on paper that you assume others would know or understand • Established performance expectations and consequences • Served as a basis for semester-end peer performance evaluations • Allowed team leader to outline his leadership plan • Allowed team leader to provide a road map of how the team should function • Got team off to a great start because everybody was clear on how to function • Held team members like James accountable for their actions • Having an initial termination procedure in place made things less chaotic later
Team charter critiques:	<ul style="list-style-type: none"> • Dr. Smith's in-class charter introduction should be longer and more in-depth • Allow more time during orientation week for team charter creation & discussion • Given the short time allotted for the team charter, have a simplified version • Members should have been allowed to terminate without modifying team charter
Team charter future usage:	<ul style="list-style-type: none"> • Four out of five participants would use in the future; Joe would not • Joe would not because he preferred having an initial face-to-face meeting instead

Team Charter Usage: Team B

Frank and Peter told me that they did not actually use or refer to their team charter after they created it, but Peter added, "We knew it was there in case we needed it."

Similarly, Frank remarked that "the team charter was there mostly as a fail-safe for when people were not doing a good job."

Impact of Team Charters and the Team Charter Creation Process: Team B

Frank said that when the members of Team B met to work on their team charter, they realized that they had similar goals and expectations, which allowed them "to synch up really, really quickly." Similarly, Peter remarked that everyone "shared stories" with

each other and “opened up a little bit more to each other” so that you could see what that teammate was “all about” and “where their styles fit into where you fit in.” Peter claimed that the overall team charter creation process allowed his teammates to “get to know each other,” to set behavioral rules, and to define operating parameters.

Critiques of Team Charters or the Team Charter Assignment: Team B

Frank insisted that their 11-page team charter was “so long and had so many different facets to it that by the time the team was done writing it, we were kind of over it. It had become more of a project than a tool for us to use.” Frank claimed that the team charter creation process was “somewhat tedious” and repetitive because most of his teammates had “very similar concepts of what the parts of the team charter should be and look like.” Frank argued, “All of the stuff in the team charter, we could have hashed out just by talking together for a couple of minutes.” He said that his team “could have done just as good of a job without the team charter” because they “basically all had similar visions and goals” and were “performing highly.”

Plans for Future Team Charter Usage: Team B

Because Assistant Director Diana Murphy released the list of second-semester teams at the end of the first semester, Frank and several other first-semester students got a chance to have planning meetings with their future second-semester teammates. Frank stated that he and his future second-semester teammates decided not to create a team charter together because they thought that it “would kind of be redundant...to keep writing a team charter over and over about the same thing.” Frank added that if there were “some sort of huge failing on someone’s part,” his team would already “have steps on how to correct that” because everyone already created a team charter with their first-

semester teammates. Frank proposed that “it is worthwhile to do [a team charter] one time,” but “because everyone that is in the program has done one already...we already know each other’s expectations.”

Peter remarked that he and his future second-semester teammates decided to create a team charter because one future teammate “had to refer to the team charter” in the first semester and, therefore, insisted that it was important to have one. Peter said that if he alone had to decide whether or not to create team charters in future semesters, he would, because team charters provide an opportunity for team members “learn about each other.” However, Peter hypothesized that if his team had not created a team charter in the first semester, “people’s innate nature to not disappoint” teammates would “come into play.” Peter added that most MSIBL students want to succeed and “get a decent grade,” especially if they have to “achieve a certain grade” to get their tuition funded.

Table 11

Summary of Team Charter Usage, Impact, Critiques, and Future Usage: Team B

Team charter usage:	<ul style="list-style-type: none"> • Team members did not use their team charter
Team charter impact:	<ul style="list-style-type: none"> • Members learned that they had similar goals and expectations • Initial discussions allowed everyone to open up and learn more about each other • Sparked a discussion about everyone’s working styles and how they fit together • Members set rules and parameters for working together • Team charter was available as a fail-safe in case the team needed it
Team charter critiques:	<ul style="list-style-type: none"> • Assignment had too many facets, so creation was tedious and repetitive • Team charter content could have been covered just by talking for a few minutes • Not needed: everyone had similar visions and goals and performed highly
Team charter future usage:	<ul style="list-style-type: none"> • Peter would use because his teammates could learn more about each other • Frank would not use because he could refer to first-semester charters if needed

Team Charter Usage: Team C

Team C's leader, Henry, claimed that their team charter "was kind of a security blanket, so that we knew it was there in case something came up. We never really had a reason to go back to it." Esther claimed that the team "did not have a conflict," so "The only time we brought it [the team charter] up was when we had to remind ourselves to have fun because that is one of the goals we had. We said, 'This is not a life-and-death situation....Let's get it done, let's chill, and don't forget to have fun.'"

Impact of Team Charters and the Team Charter Creation Process: Team C

Henry mentioned that although it "was a little bit challenging at first, just actually articulating what we seem to all value...that first initial discussion was really helpful" because it helped his team to "establish an identity from the beginning," not only as "a group of students, but...as an entity, as setting up a culture for yourself." For example, Henry explained that the members of Team C decided that it was "really important to have an enjoyable experience as a team" and to "develop relationships and friendships along the way," which is why they decided to meet at "bars or restaurants for a couple of drinks" to get "some team camaraderie...rather than just being all business, all the time."

Henry claimed that the rules and guidelines the team developed during the team charter creation process helped the team to "come to a common understanding at the beginning," especially since they initially "did not know each other very well." Henry explained that it was also useful to have measures in place in case things did not go well, so the team leader does not have to make a hasty, on-the-spot "decision that he thinks everyone should follow, when everyone else is not really on the same page."

Esther mentioned that it was useful to list each member's roles, responsibilities, and preferred working styles "on paper so everyone could look at it" and "remember three months from now what you said." For example, Esther mentioned that during the team charter creation process, one of her teammates admitted that he or she had a tendency to procrastinate at times, so the team decided that they would meet to work on each assignment "10 days before...instead of like 24 hours before" it was due, so they could "avoid that [procrastination] problem...and not have stress." Esther also speculated that because the teammate admitted to being a procrastinator, he or she would not be offended if someone later asked, "You have not turned in your paper....I know you said [in the team charter that] you are a procrastinator, so should we be concerned here, or do you have it under control?"

Critiques of Team Charters or the Team Charter Assignment: Team C

Esther did not have any critiques of the team charter or the team charter assignment. Henry, however, remarked, "Although it was helpful to have the team charter so we could put it all in one place, we would have been fine without it." Henry continued, "We would have created some of those things that we outlined in the charter—some of the rules in terms of splitting up assignments; things that we had to create anyway." Henry observed that his teammates "were cohesive enough" and "were able to meet as a group [face-to-face] more than some of the other teams. And having everyone's presence was helpful because if we ever had a complaint...we were able to share it really quickly."

Plans for Future Team Charter Usage: Team C

Henry told me that one of the members of his future second-semester team was "very, very adamant about creating a charter" because his team "had to eliminate

someone....It helped them, so he wants us to have the same thing, just in case anything happens.” Henry remarked that he was “on board” with creating a team charter because “If everyone is willing to do it, I am willing to do it.” However, Henry added that it “is important to get everyone thinking the same though, so you at least need to have a discussion about it and about what everyone expects. For me, it is not necessary to put it [the team charter] on paper.” Esther claimed that she would want to create a team charter with her future teammates because “it would be really beneficial for us to be able to refer back to what we said [during the team charter creation process]; it is a good safety net.”

Table 12

Summary of Team Charter Usage, Impact, Critiques, and Future Usage: Team C

Team charter usage:	<ul style="list-style-type: none"> • Members reminded each other about the team’s goals and values
Team charter impact:	<ul style="list-style-type: none"> • Established the team’s identity, culture, goals, and values • Rules and guidelines helped the team to come to a common understanding • Was helpful to have a system in place in case something did not go well • Prevented team leader from making on-the-spot decisions members disagreed with • Provided a written record of roles, responsibilities, and preferred working styles • Members could foresee and prevent problems related to differing working styles • Less offensive to confront members with a self-disclosed problematic working style
Team charter critiques:	<ul style="list-style-type: none"> • Not needed because the team was cohesive enough • Members would have eventually created the team charter content on their own • Not needed because they often met in-person and could share complaints quickly
Team charter future usage:	<ul style="list-style-type: none"> • Henry would not use: initial discussion about mutual expectations was adequate • Esther would use: it is a safety net and a record of what was initially discussed

Team Charter Usage: Team D

Jenny stated that she occasionally re-read the team charter to see what her teammates’ self-disclosed strengths and weaknesses were. Once, for example, when the

team met to divide up tasks for one of the team papers, Jenny reminded everyone that one of her teammates wrote in the team charter that he or she was “good at writing.” Lily, on the other hand, remarked that it was useful to learn about her teammates’ strengths and weaknesses “just by experience,” by observing “where people really contributed in the first few projects.”

Lily also claimed that one of her teammates (who did not participate in the interviews) “was doing part of the work, just not all of it.” She continued that he “was not contributing enough” and “relied on others to pick up some of the slack” by passing his work “off to someone else to do.” Team D’s leader, Spencer, explained that the teammate’s behavior “was a significant problem for a while...because as soon as you have one person sort of check out like that, that exponentially increases the workload for everyone else.” Jenny said that she and her teammates “reminded that person [that] we have rules in the team charter” that everyone agreed to follow.

Lily remarked that she wished her team had “used the team charter a little bit more.” Lily elaborated, “We really wanted to get the other person more in line. We should have been speaking more to it [the team charter] all along, and to the roles that we had, and...what our expectations were.” Lily explained that her team’s termination procedures listed in the team charter included “a three-strikes rule [for crunches, which are disruptions of shared expectations], and they would get spoken to, and then we would take it to the [MSIBL] administration.”

One day, Spencer and his teammates decided to have “an intervention...on what would have been [the problematic teammate’s] strike three.” Spencer recalled that in the meeting, they “used the team charter to sort of point out [to the teammate] what the

problems were.” Spencer continued, “We acknowledged really this should be strike three, but it was our fault for not acknowledging strikes one and two, so we needed something to change.” Lily recalled that the teammate insisted that the third “strike” did not count because he *did* submit the assigned task to his teammates eventually, but just “not on time.”

At that moment, although someone else was leading the intervention, Lily told me that she “jumped in” and said, “I know we are all really busy, but we need to move forward and work on getting the rest of these things put into place. If you feel that you have done your work so far, we need more to go forward and to get the rest completed.” Spencer stated that the problematic teammate changed his behavior after the intervention, but added, “Was it amazing quality stuff being brought in after that? No, not necessarily, but there was a distinct attempt at least made to make a change. And so we did not have to pursue it [the termination] like the other group [Team A].”

Impact of Team Charters and the Team Charter Creation Process: Team D

Jenny claimed that the team charter creation process allowed her to understand the common goals and “vision of the team.” It also helped her to see how each member of the team was “different from the other,” especially with regard to individual goals, and strengths and weakness. Similarly, Lily remarked that it was useful to know what her teammates’ goals were because “everyone is different on what motivates them...so finding what makes them tick is important.” Team D’s leader, Spencer, mentioned that it was useful to have a team name because they used it in their e-mails “to address each other. That just sort of helped create that [team] identity.”

Spencer remarked that having consequences pre-established for violations of performance expectations “almost guaranteed effectiveness, because there are quantifiable repercussions...almost like, I hate to say it, but, legal backing,” which is “a motivator if you are that person trying to slack off a little bit.” Similarly, Spencer remarked that teams can prevent a “he-said she-said personal debate” from occurring by having “a black and white document that clearly specifies what will happen if certain criteria are not met,” which essentially makes the consequences less of “a personal thing between me and you that we are having” and more about “this document that we all sort of made and agreed on.”

Jenny mentioned that the team charter was “like a catalog for our relations” in that it helped define things we “have to do, and how each member will treat the other” and “what the rules of the team are.” Similarly, Lily commented that the team charter helped “get everyone on the same page” so that everyone could “decide on mutual rules and expectations for our team and for each other.” Lily added, “I have heard from other teams: one team was just there to get by, one team was there to be the absolute best. We wanted to be our best—not necessarily *the* best—but we were not there just to get by.”

Critiques of Team Charters and the Team Charter Assignment: Team D

Lily did not offer any critiques of the team charter or the team charter assignment. Spencer’s only critique of the team charter assignment was that when he first learned about it, he thought that it seemed “touchy-feely, sort of on the borderline of false-motivational.” Spencer, who had served in the military for 10 years at the time of the study, claimed that he soon developed “a great deal of respect for them” because they could be used, for example, to generate “buy-in in a peer-leading-peers situation or in a

civilian team.” Jenny claimed that her team’s charter was “very long” because the team charter assignment instructions consisted of “30-something questions.” Jenny also insisted that the 29-page *Team Charter Handbook* that Dr. Matt and Natalie Smith provided was so long that “most of the students—or maybe no one—read it.”

Plans for Future Team Charter Usage: Team D

Spencer claimed that he wanted to create a team charter with his second-semester teammates because team charters can help members of a team to “get to know everybody else and what their issues are, what they feel strongly about, what their expectations are.” Jenny said that when she met with her second-semester teammates, they decided to integrate various parts of everyone’s first-semester team charter to create a new team charter. However, Jenny told me that if it were her choice alone, she would not want to create a team charter because she knew that she personally would “never be late” on her assigned tasks because she would “never do something that hurts the team.”

Lily told me that her future second-semester teammates had already decided to create a team charter together. Lily was glad about the team’s decision because “Without having a team charter, you do not know what the expectations are. How can you eliminate someone or what-not if you do not have the expectations set?” Lily remarked that she “put an outline together” of a team charter that she wanted her second-semester team to adopt, which included “more specifics on what the expectations are for communication, deadlines, and final projects.”

Table 13

Summary of Team Charter Usage, Impact, Critiques, and Future Usage: Team D

Team charter usage:	<ul style="list-style-type: none"> • Used list of member strengths and weaknesses when distributing project tasks • Reminded problematic member about the rules that everyone agreed to follow • Warned problematic member that he might be terminated if he did not change his ways
Team charter impact:	<ul style="list-style-type: none"> • Everyone understood the team goals and the team vision • Was useful to know teammates' individual goals to find out what motivated them • Use of the team name helped create a team identity • Having consequences for violations of performance expectations prevented slacking • Prevented he-said-she-said personal debates because consequences clearly specified • Enforcement of consequences became less personal and more procedural • Established member roles and how members would treat each other • Outlined the team's rules and behavioral norms • Could generate more buy-in for team leaders in peer-leading-peers situations
Team charter critiques:	<ul style="list-style-type: none"> • Assignment seemed touchy-feely and false-motivational at first • Assignment instructions had too many questions • <i>Team Charter Handbook</i> was so long that most of the students probably did not read it
Team charter future usage:	<ul style="list-style-type: none"> • Spencer would use because they reveal members' issues, values, and expectations • Jenny would not use because she personally would never do anything to hurt the team • Lily would use because you cannot terminate members without first setting expectations

Summary of the Impact of Team Charters According to the Student**Interview Participants****Team Charter Usage**

As indicated in Table 14, the members of Team B did not use their team charter at all after creating it. The members of Teams A and C periodically reminded each other about the shared goals and values they listed in their team charter. The members of Teams A and D had to use their team charter to confront their problematic teammate. The members of Team A had to modify the original termination procedure they outlined in their team charter and subsequently used their modified team charter to terminate their problematic teammate James. The members of Team D did not have to terminate their problematic

teammate because he changed his behavior after his teammates reminded him about the rules, expectations, and the termination procedure outlined in their team charter.

Table 14

Summary of Team Charter Usage According to the Student Interview Participants

Team A	<ul style="list-style-type: none"> • Team leader reminded members about team's goals, values, and operating model • Members periodically reviewed operating processes and procedures • Had to modify original termination process before being allowed to terminate James
Team B	<ul style="list-style-type: none"> • Team members did not use their team charter
Team C	<ul style="list-style-type: none"> • Members reminded each other about the team's goals and values
Team D	<ul style="list-style-type: none"> • Used list of member strengths and weaknesses when distributing project tasks • Reminded problematic member about the rules that everyone agreed to follow • Warned problematic member that he might be terminated if he didn't change his ways

Team Charter Impact

As indicated in Table 15, team charters had an impact on all four of the first-semester teams. As indicated in Table 16, I re-ordered the student interview participants' comments to make them align with the section of the team charter assignment that they pertained to (see Appendix A for the team charter assignment instructions). Table 16 demonstrates that most of the comments made about the perceived impact of team charters pertained to three sections of the team charter assignment: (a) Section I: Mission Statement, which includes the team's purpose, the team's goals, and the team members' individual goals; (b) Section V: Operating Guidelines, which outlines the team's structure and operating processes (e.g., leadership plan, decision-making plan, and work coordination plan); and (c) Section VI: Performance Norms and Consequences, which includes a plan for how performance will be evaluated and rewarded, and a list of expectations regarding team meetings and team member contributions to projects.

Table 15

Summary of Team Charter Impact According to the Student Interview Participants

Team A	<ul style="list-style-type: none"> • Provided a greater perspective of teammates and their goals • Helped everyone find common ground and get on the same page • Got things on paper that you assume others would know or understand • Established performance expectations and consequences • Served as a basis for semester-end peer performance evaluations • Allowed team leader to outline his leadership plan • Allowed team leader to provide a road map of how the team should function • Got team off to a great start because everybody was clear on how to function • Held team members like James accountable for their actions • Having an initial termination procedure in place made things less chaotic later
Team B	<ul style="list-style-type: none"> • Members learned that they had similar goals and expectations • Initial discussions allowed everyone to open up and learn more about each other • Sparked a discussion about everyone's working style and how they fit together • Members set rules and parameters for working together • Team charter was available as a fail-safe in case the team needed it
Team C	<ul style="list-style-type: none"> • Established the team's identity, culture, goals, and values • Rules and guidelines helped the team to come to a common understanding • Was helpful to have a system in place in case something did not go well • Prevented team leader from making on-the-spot decisions members disagreed with • Provided written record of roles, responsibilities, and preferred working styles • Members could foresee and prevent problems related to differing working styles • Less offensive to confront members with a self-disclosed problematic working style
Team D	<ul style="list-style-type: none"> • Everyone understood the team goals and the team vision • Was useful to know teammates' individual goals to find out what motivated them • Use of the team name helped create a team identity • Having consequences for violations of performance expectations prevented slacking • Prevented he-said-she-said personal debates because consequences clearly specified • Enforcement of consequences became less personal and more procedural • Established member roles and how members would treat each other • Outlined the team's rules and behavioral norms • Could generate more buy-in for team leaders in peer-leading-peers situations

Table 16

Summary of Team Charter Impact, Re-Ordered by Team Charter Assignment Section

I Mission Statement	
Team A	Helped everyone find common ground and get on the same page
Team A	Provided a greater perspective of teammates and their goals
Team A	Got things on paper that you assume others would know or understand
Team B	Initial discussions allowed everyone to open up and learn more about each other
Team B	Members learned that they had similar goals and expectations
Team C	Established the team's goals and values
Team D	Was useful to know teammates' individual goals to find out what motivated them
Team D	Everyone understood the team goals
II Team Vision	
Team D	Everyone understood the team vision
III Team Identity	
Team C	Established the team's identity and culture
Team D	Use of the team name helped create a team identity
IV Boundaries	
Team B	Members set rules and parameters for working together
Team C	Rules and guidelines helped the team to come to a common understanding
Team D	Outlined the team's rules and behavioral norms
V Operating Guidelines: Team Structure and Processes	
Team A	Allowed team leader to outline his leadership plan
Team A	Allowed team leader to provide a road map of how the team should function
Team A	Got team off to a great start because everybody was clear on how to function
Team B	Sparked a discussion about everyone's working style and how they fit together
Team C	Prevented team leader from making on-the-spot decisions that members disagreed with
Team C	Members could foresee and prevent problems related to differing working styles
Team C	Provided written record of roles, responsibilities, and preferred working styles
Team C	Less offensive to confront members with a self-disclosed problematic working style
Team D	Could generate more buy-in for team leaders in peer-leading-peers situations
Team D	Established member roles and how members would treat each other
VI Performance Norms and Consequences (Performance Agreement)	
Team A	Established performance expectations and consequences
Team A	Served as a basis for semester-end peer performance evaluations
Team A	Held team members like James accountable for their actions
Team A	Having an initial termination procedure in place made things less chaotic later
Team B	Team charter was available as a fail-safe in case the team needed it
Team C	Was helpful to have a system in place in case something did not go well
Team D	Having consequences for violations of performance expectations prevented slacking
Team D	Prevented he-she-said personal debates because consequences were clearly specified
Team D	Enforcement of consequences became less personal and more procedural

Team Charter Critiques

As indicated in Table 17, several of the student interview participants mentioned that the team charter assignment included too many questions, which made the team charter creation process seem tedious, repetitive, and time-consuming. Some participants recommended that Drs. Matt and Natalie Smith simplify the team charter assignment instructions or allow students to complete the team charter assignment in-class during orientation week. Other participants suggested that it was not necessary to have a written team charter because much of the content typically included in a team charter could be covered verbally in a team meeting.

Table 17

Summary of Team Charter Critiques According to the Student Interview Participants

Team A	<ul style="list-style-type: none"> • Dr. Matt Smith's in-class charter introduction should be longer and more in-depth • Allow more time during orientation week for team charter creation and discussion • Given the short time allotted for the charter assignment, have a simplified version • Members should have been allowed to terminate James without modifying charter
Team B	<ul style="list-style-type: none"> • Assignment had too many facets, so creation was tedious and repetitive • Team charter content could have been covered just by talking for a few minutes • Not needed because everyone had similar visions and goals and performed highly
Team C	<ul style="list-style-type: none"> • Not needed because the team was cohesive enough • Members would have eventually created some of the charter content on their own • Not needed because they often met in-person and could share complaints quickly
Team D	<ul style="list-style-type: none"> • Assignment seemed touchy-feely and false-motivational at first • Assignment instructions had too many questions • <i>Team Charter Handbook</i> was so long that most students probably did not read it

Team Charter Future Usage

As indicated in Table 18, four of the 12 student interview participants (33.33%) claimed that if it were entirely up to them, they would choose not to create a team charter with their future MSIBL teammates. Joe and Henry, for example, claimed that they

would rather have a discussion with their new teammates than create a new written team charter.

Table 18

Summary of Team Charter Future Usage According to the Student Interview Participants

Team A	<ul style="list-style-type: none"> • Four out of five participants would use in the future; Joe would not • Joe would not because he preferred having an initial face-to-face meeting instead
Team B	<ul style="list-style-type: none"> • Peter would use because his teammates could learn more about each other • Frank would not use because his team could refer to first-semester team charters if needed
Team C	<ul style="list-style-type: none"> • Henry would not use because initial discussion about mutual expectations is adequate • Esther would use because it is a safety net and a record of what was initially discussed
Team D	<ul style="list-style-type: none"> • Spencer would use because they reveal members' issues, values, and expectations • Jenny would not use because she personally would never do anything to hurt the team • Lily would use because you cannot terminate members without first setting expectations

Eight of the 12 student interview participants (66.67%) claimed that they would want to create a team charter for use with future MSIBL teammates. Spencer and Peter, for example, remarked that the team charter creation process made it possible for members of newly-formed teams to learn more about each member's goals, values, and expectations. By contrast, only 37 of the 81 student survey participants (45.68%) enrolled in all four semesters of the MSIBL program agreed or strongly agreed with the statement, "In upcoming semesters, I plan to create team charters with my future MSIBL teammates" (see Appendix L, question 18). It should be noted that I worded survey item 18 slightly differently for the fourth-semester students (i.e., "If I were not graduating, I would have planned to create team charters with my future MSIBL teammates").

Summary

In this section, I have provided a summary of the responses that I received when I asked each of the 12 first-semester student interview participants to talk about (a) the

ways, if any, in which the participants' teams used or referred to their team charters after they were created; (b) the perceived impact, if any, that the team charter or the team charter creation process had on the participants' teams; (c) the participants' critiques, if any, of the team charter or the team charter assignment; and (d) whether or not the participants planned to create another team charter with their future MSIBL teammates.

The Impact of Team Charters According to the Student Survey Participants

Although 43 of the 81 survey participants (53.09%) agreed or strongly agreed with the statement, "Virtual teamwork is challenging for MSIBL students" (see Appendix L, question 15), only 26 of the 81 survey participants (32.1%) agreed or strongly agreed with the statement, "Team charters make virtual teamwork less challenging for MSIBL students" (see Appendix L, question 19). As explained in Chapter Two of this dissertation, an examination of the literature on virtual teamwork reveals that students can face numerous challenges while engaging in virtual teamwork. In particular, the challenges described in the literature are highly interconnected and tend to consist of socio-emotional processes (i.e., trust and cohesion) and task processes (i.e., coordination, communication, and participation).

With regard to social-emotional processes (i.e., trust and cohesion), only 33 of the 81 survey participants (40.74%) agreed or strongly agreed that team charters increase the level of trust between members, and 35 of the 81 participants (43.2%) agreed or strongly agreed that they increase the level of cohesion between members. With regard to task processes (i.e., coordination, communication, and participation), only 31 of the 81 survey participants (38.27%) agreed or strongly agreed that team charters increase the level of coordination between members, 28 of the 81 participants (34.57%) agreed or strongly

agreed that team charters increase the level of communication between members, and 32 of the 81 participants (39.51%) agreed or strongly agreed that team charters increase the level of participation of team members.

As indicated in Table 19, 17 of the 40 survey questions (see Appendix L, questions 22-38) pertained to the student survey participants' perceptions of the impact of team charters. For each of the 17 questions, I asked the 81 participants to use a five-point Likert scale (1=*Strongly disagree*, 2=*Disagree*, 3=*Neutral*, 4=*Agree*, 5=*Strongly agree*) to rate how strongly they agreed or disagreed with statements about the impact that team charters are perceived to have on various aspects of virtual teamwork.

Table 19

The 17 Student Survey Questions About the Perceived Impact of Team Charters on Virtual Teamwork (n = 81)

In my experience, team charters help MSIBL student teams to...	Mean
22. establish a group identity	3.64
23. establish group norms	3.79
24. complete team assignments on time	3.30
25. establish team goals	3.72
26. manage conflict	3.51
27. earn higher grades on team assignments	2.84
28. establish what is expected of team members	3.81
29. operate more effectively	3.27
30. make collective decisions	3.32
31. hold team members accountable	3.63
In my experience, MSIBL team charters increase the level of ...	Mean
32. communication between team members	3.06
33. individual contribution to team assignments	3.04
34. cohesion between team members	3.19
35. participation of team members	3.09
36. coordination between team members	3.12
37. individual satisfaction with the team	2.95
38. trust between team members	3.15

As indicated in Table 20, survey questions 23, 28, 25, 31, and 22 received the highest percentage of *Agree* or *Strongly agree* responses. For example, 65 of the 81 survey participants (80.25%) agreed or strongly agreed that team charters help MSIBL student teams to “establish group norms,” and 64 of the 81 survey participants (79.01%) agreed or strongly agreed that team charters help MSIBL student teams to “establish what is expected of team members.” By contrast, as indicated in Table 21, survey questions 37, 27, 32, 33, and 36 received the lowest percentage of *Agree* or *Strongly agree* responses. For example, only 23 of the 81 survey participants (28.39%) agreed or strongly agreed

that MSIBL team charters increase the level of “individual satisfaction with the team,” and only 24 of the 81 survey participants (29.63%) agreed or strongly agreed that team charters help MSIBL student teams to “earn higher grades on team assignments.”

Table 20

The Five Team Charter Impact Survey Questions That Received the Highest Percentage of Agree or Strongly Agree Responses (n = 81)

Survey question	Mean
23. In my experience, team charters help MSIBL student teams to establish group norms: 80.25% agreed or strongly agreed 1=Strongly disagree: 3 (3.70%) 2=Disagree: 5 (6.17%) 3=Neutral: 8 (9.88%) 4=Agree: 55 (67.90%) 5=Strongly agree: 10 (12.35%)	3.79
28. In my experience, team charters help MSIBL student teams to establish what is expected of team members: 79.01% agreed or strongly agreed 1=Strongly disagree: 3 (3.70%) 2=Disagree: 8 (9.88%) 3=Neutral: 6 (7.41%) 4=Agree: 48 (59.26%) 5=Strongly agree: 16 (19.75%)	3.81
25. In my experience, team charters help MSIBL student teams to establish team goals: 66.67% agreed or strongly agreed 1=Strongly disagree: 2 (2.47%) 2=Disagree: 7 (8.64%) 3=Neutral: 18 (22.22%) 4=Agree: 39 (48.15%) 5=Strongly agree: 15 (18.52%)	3.72
31. In my experience, team charters help MSIBL student teams to hold team members accountable: 65.43% agreed or strongly agreed 1=Strongly disagree: 6 (7.41%) 2=Disagree: 5 (6.17%) 3=Neutral: 17 (20.99%) 4=Agree: 38 (46.91%) 5=Strongly agree: 15 (18.52%)	3.63
22. In my experience, team charters help MSIBL student teams to establish a group identity: 64.20% agreed or strongly agreed 1=Strongly disagree: 3 (3.70%) 2=Disagree: 7 (8.64%) 3=Neutral: 19 (23.46%) 4=Agree: 39 (48.15%) 5=Strongly agree: 13 (16.05%)	3.64

Table 21

The Five Team Charter Impact Survey Questions That Received the Lowest Percentage of Agree or Strongly Agree Responses (n = 81)

Survey Question	Mean
37. In my experience, MSIBL team charters increase the level of individual satisfaction with the team: 28.39% agreed or strongly agreed 1=Strongly disagree: 5 (6.17%) 2=Disagree: 20 (24.69%) 3=Neutral: 33 (40.74%) 4=Agree: 20 (24.69%) 5=Strongly agree: 3 (3.70%)	2.95
27. In my experience, team charters help MSIBL student teams to earn higher grades on team assignments: 29.63% agreed or strongly agreed 1=Strongly disagree: 10 (12.35%) 2=Disagree: 24 (29.63%) 3=Neutral: 23 (28.40%) 4=Agree: 17 (20.99%) 5=Strongly agree: 7 (8.64%)	2.84
32. In my experience, MSIBL team charters increase the level of communication between team members: 34.57% agreed or strongly agreed 1=Strongly disagree: 4 (4.94%) 2=Disagree: 19 (23.46%) 3=Neutral: 30 (37.04%) 4=Agree: 24 (29.63%) 5=Strongly agree: 4 (4.94%)	3.06
33. In my experience, MSIBL team charters increase the level of individual contribution to team assignments: 38.27% agreed or strongly agreed 1=Strongly disagree: 4 (4.94%) 2=Disagree: 23 (28.40%) 3=Neutral: 23 (28.04%) 4=Agree: 28 (34.57%) 5=Strongly agree: 3 (3.70%)	3.04
36. In my experience, MSIBL team charters increase the level of coordination between team members: 38.27% agreed or strongly agreed 1=Strongly disagree: 3 (3.70%) 2=Disagree: 18 (22.2%) 3=Neutral: 29 (35.80%) 4=Agree: 28 (34.57%) 5=Strongly agree: 3 (3.70%)	3.12

Perceived Worthwhileness of Team Charters According to the Student

Survey Participants

In this section, I will describe the results I attained when I analyzed the survey data that I gathered. Specifically, I (a) ran a multiple regression analysis, (b) ran a hierarchical multiple regression analysis using stepwise variable selection, and (c) developed the equation for a least-squares regression line.

Interestingly, despite the time and effort that it takes to create team charters, 42 of the 80 student survey participants⁴ (52.5%) agreed or strongly agreed with survey item 17: “Overall, it is worthwhile for MSIBL students to create team charters.” To better understand why the 42 participants might have considered team charters to be worth the time and effort required to create them, I ran a multiple regression analysis and a hierarchical multiple regression analysis (see Galloway, 2004b) using the dependent variable (TC_WORTHWHILE), which corresponded to survey item 17. I created 33 candidate independent variables, which corresponded to some of the survey items.

I then grouped the 33 candidate independent variables into three categories. The Demographic category contained 12 candidate independent variables that measured demographic or experience-related characteristics of the participants (see Table 22). The Teamwork category contained four candidate independent variables that measured the participants’ level of agreement with statements about face-to-face teamwork and virtual teamwork (see Table 23). The TC-Impact category contained 17 candidate independent variables that measured the participants’ level of agreement with statements about the impact that team charters are perceived to have on virtual teamwork (see Table 24).

⁴ One participant failed to answer question 17, which is why the total sample size in this case was 80, instead of 81.

Table 22

Demographic Category of Candidate Independent Variables

Variable	Survey question
FEMALE (dummy variable)	1. My gender: Female.
AGE	2. My age: __
SECOND_SEM (dummy variable)	3. My cohort: Second-semester student.
THIRD_SEM (dummy variable)	3. My cohort: Third-semester student.
FOURTH_SEM (dummy variable)	3. My cohort: Fourth-semester student.
DISTANCE (dummy variable)	4. I am a: Distance Student.
YRS_W_FTF (dummy variable)	5. I have worked in face-to-face teams in the workplace for __ years.
YRS_W_VTW	6. I have worked in virtual teams in the workplace for __ years.
YRS_MIL	7. I have served in the military for __ years.
NUM_TC_CREATED	8. While enrolled in MSIBL, I have helped create a team charter __ times so far.
NUM_TC_USED	9. In total, my MSIBL teams have had to actually use our completed team charter __ times.
YRS_S_FTF	10. Before I started MSIBL, I have worked in face-to-face student teams for __ years.
YRS_S_VTW	11. Before I started MSIBL, I have worked in virtual student teams for __ years.
INTROVERT (dummy variable)	12. My MBTI (Myers-Briggs) personality type: Introversion.

Table 23

Teamwork Category of Candidate Independent Variables

Variable	Survey question
ENJOY_S_FTF	13. In general, I enjoy face-to-face student teamwork.
ENJOY_S_VTW	14. In general, I enjoy virtual student teamwork.
S_VTW_CHALLENGING	15. Virtual teamwork is challenging for MSIBL students.
PREFER_S_FTF	16. I prefer to work face-to-face with MSIBL teammates instead of working with them virtually.

Table 24

TC-Impact Category of Candidate Independent Variables

Variable	Survey question
TC_IDENTITY	22. Team charters help MSIBL students to establish a group identity.
TC_NORMS	23. Team charters help MSIBL students to establish group norms.
TC_ON_TIME	24. Team charters help MSIBL students to complete team assignments on time.
TC_TEAM_GOALS	25. Team charters help MSIBL students to establish team goals.
TC_CONFLICT	26. Team charters help MSIBL students to manage conflict.
TC_GRADES	27. Team charters help MSIBL students to earn higher grades on team assignments.
TC_EXPECTATIONS	28. Team charters help MSIBL students to establish what is expected of team members.
TC_OPERATE	29. Team charters help MSIBL students to operate more effectively.
TC_DECISIONS	30. Team charters help MSIBL students to make collective decisions.
TC_ACCOUNTABLE	31. Team charters help MSIBL students to hold team members accountable.
TC_COMMUNICATION	32. MSIBL team charters increase the level of communication between team members.
TC_CONTRIBUTION	33. MSIBL team charters increase the level of individual contribution to team assignments.
TC_COHESION	34. MSIBL team charters increase the level of cohesion between team members.
TC_PARTICIPATION	35. MSIBL team charters increase the level of participation of team members.
TC_COORDINATION	36. MSIBL team charters increase the level of coordination between team members.
TC_SATISFACTION	37. MSIBL team charters increase the level of individual satisfaction with the team.
TC_TRUST	38. MSIBL team charters increase the level of trust between team members.

Initial Multiple Regression Analysis Results

I used Predictive Analytics SoftWare version 18 to run a standard multiple regression analysis (using the “enter” variable selection method) that included all 33 of the candidate independent variables contained in the three categories. I attained an R-square of .70, but only two of the candidate independent variables were found to be significant ($p \leq .05$). One significant independent variable was THIRD_SEM, which had an unstandardized coefficient of -.90 and a p-value of .05. (THIRD_SEM was a dummy variable that indicated whether or not the participant was a third-semester student.) The other significant independent variable was NUM_TC_USED, which had an unstandardized coefficient of .26 and a p-value of .03. (NUM_TC_USED was a variable that indicated the number of times that the participant’s teams had to actually use or refer to their completed team charter.)

In other words, 70% of the variation in a participants’ level of agreement with the statement, “Overall, it is worthwhile for MSIBL students to create team charters,” can be explained by whether or not the participant was a third-semester student and the number of times the participant’s teams had to use their team charter. However, one potential limitation of the multiple regression analysis that I initially ran is that it contained a large number of candidate independent variables that were all considered simultaneously (i.e., as a block of variables):

Sometimes you have a relatively large set of variables that may be good predictors of the dependent variable, but you cannot enter such a large set of variables without sacrificing the power to find significant results. In such a case, stepwise regression might be used. (Leech, Barrett, & Morgan, 2005, p. 91)

Hierarchical Stepwise Multiple Regression Analysis Results

To better estimate how much of the variation in the dependent variable TC_WORTHWHILE could be explained by each of the three categories of candidate independent variables, and to better identify the significant independent variables within each of the three categories of candidate independent variables (see Galloway, 2004b), I also ran a hierarchical multiple regression analysis using the stepwise variable selection method (with a variable entry F value of .05 and a variable removal F value of .1).

In the first stage of the regression analysis, I only included the 12 independent variables in the Demographic category. As indicated in Table 25, only three of the 12 candidate independent variables were retained and found to be significant ($p \leq .05$; R-square=.29). In other words, 29% of the variation in a participant's level of agreement with the statement, "Overall, it is worthwhile for MSIBL students to create team charters," can be explained by three demographic or experience-related independent variables: namely, the number of times a participant's teams had to use their team charter, whether or not the participant was a third-semester student, and the number of years the participant served in the military.

Table 25

Stage 1 Hierarchical Stepwise Multiple Regression Analysis Results (R-square=.29; F=10.07)

Variable category	Significant variable ($p \leq .05$)	Unstandardized Coefficient	p-value
Demographic	NUM_TC_USED In total, my MSIBL teams have had to actually use our completed team charter__times (Question 9).	.35	.00
Demographic	THIRD_SEM My cohort: Third-semester student (Question 3).	-.81	.00
Demographic	YRS_MIL I have served in the military for __years (Question 7).	-.03	.02

In the second stage of the analysis, I ran the regression with the three retained Demographic independent variables and the four candidate Teamwork variables (see the list of candidate Teamwork variables in Table 23). All four of the candidate Teamwork variables were excluded by the stepwise algorithm and the R-square value did not change ($p \leq .05$; R-square=.29). In other words, none of the variation in the level of agreement with the statement, “Overall, it is worthwhile for MSIBL students to create team charters” can be explained by the degree to which participants enjoyed face-to-face student teamwork, enjoyed virtual student teamwork, preferred to work face-to-face with teammates instead of virtually, or thought that virtual teamwork was challenging.

In the final stage of the analysis (stage three), I ran the regression with the three retained Demographic independent variables and the 17 candidate TC-Impact variables (see the list of candidate TC-Impact variables in Table 24). As indicated in Table 26, the R-square increased from .29 to .62, and only two of the TC-Impact variables were retained and found to be significant ($p \leq .05$). In other words, 29% of the variation in the level of agreement with the statement, “Overall, it is worthwhile for MSIBL students to create team charters,” can be explained by the three significant Demographic independent variables alone, 33% of the variation can be explained by the two significant TC-Impact independent variables alone, and 62% of the variation can be explained by the three significant Demographic and the two significant TC-Impact independent variables.

Table 26

Stage 3 Hierarchical Stepwise Multiple Regression Analysis Results (R-square=.62; F=23.72)

Variable category	Significant variable ($p \leq .05$)	Unstandardized Coefficient	p-value
Demographic	NUM_TC_USED In total, my MSIBL teams have had to actually use our completed team charter__times (Question 9).	.18	.00
Demographic	THIRD_SEM My cohort: Third-semester student (Question 3).	-.55	.00
Demographic	YRS_MIL I have served in the military for__years (Question 3).	-.02	.01
TC-Impact	TC_OPERATE Team charters help MSIBL students to operate more effectively (Question 29).	.45	.00
TC-Impact	TC_CONFLICT Team charters help MSIBL students to manage conflict (Question 26).	.24	.01

Interestingly, none of the five candidate TC-Impact variables that received the highest percentage of *Agree* or *Strongly agree* responses, as indicated in Table 20 (i.e., TC_NORMS, TC_EXPECTATIONS, TC_TEAM_GOALS, TC_ACCOUNTABLE, TC_IDENTITY), were found to be significant. One can speculate that although the

majority of survey participants agreed or strongly agreed that team charters help establish group norms (80.25%), help establish what is expected of team members (79.01%), help establish team goals (66.67%), help hold team members accountable (65.43%), and help establish a group identity (64.2%), it is possible that many of the participants did not think that any of those five benefits made team charters worth the time and effort required to create them.

Least-Squares Regression Line

A survey participant's level of agreement with the statement, "Overall, it is worthwhile for MSIBL students to create team charters," can be explained and even predicted by using the equation for the least-squares regression line (see Norusis, 2006) that includes the constant 1.33 and the unstandardized coefficients of the five independent variables that were found to be significant ($d_1 = \text{NUM_TC_USED}$, $d_2 = \text{THIRD_SEM}$, $d_3 = \text{YRS_MIL}$, $t_1 = \text{TC_OPERATE}$, $t_2 = \text{TC_CONFLICT}$):

$$\hat{Y} = 1.33 + 0.18d_1 - 0.55d_2 - 0.02d_3 + 0.45t_1 + 0.24t_2$$

For example, if a third-semester MSIBL student never had to use a team charter with his or her MSIBL teammates, had 10 years of military experience, strongly disagreed that "team charters help MSIBL students to operate more effectively," and strongly disagreed that "team charters help MSIBL students to manage conflict," according to the least-squares regression equation

$\hat{Y} = 1.33 + 0.18 \times 0.00 - 0.55 \times 1.00 - 0.02 \times 10.00 + 0.45 \times 1.00 + 0.24 \times 1.00$, the student would probably respond to survey item 17 with a rating of 1.27 on a five-point Likert scale (1=*Strongly disagree*, 2=*Disagree*, 3=*Neutral*, 4=*Agree*, 5=*Strongly agree*). In other

words, the third-semester student would probably strongly disagree with the statement:

“Overall, it is worthwhile for MSIBL students to create team charters.”

On the other hand, if a fourth-semester MSIBL student had to use a team charter one time with his or her MSIBL teammates, had no military experience, agreed that “team charters help MSIBL students to operate more effectively,” and agreed that “team charters help MSIBL students to manage conflict,” according to the least-squares regression equation

$\hat{Y} = 1.33 + 0.18 \times 1.00 - 0.55 \times 0.00 - 0.02 \times 0.00 + 0.45 \times 4.00 + 0.24 \times 4.00$, the participant would probably respond to survey item 17 with a rating of 4.27 on a five-point Likert scale (1=*Strongly disagree*, 2=*Disagree*, 3=*Neutral*, 4=*Agree*, 5=*Strongly agree*). In other words, the fourth-semester student would probably agree with the statement: “Overall, it is worthwhile for MSIBL students to create team charters.”

Summary

In this section, I have describe how I used the survey data I collected to (a) run a multiple regression analysis, (b) run a hierarchical multiple regression analysis using stepwise variable selection, and (c) develop the equation for a least-squares regression line that can be used to predict the degree to which a survey participant might agree or disagree with the statement: “Overall, it is worthwhile for MSIBL students to create team charters.” In summary, of the 33 candidate independent variables I identified, the results of the hierarchical stepwise multiple regression analysis I ran suggest that 62% of the variation in the level of agreement with the statement, “Overall, it is worthwhile for MSIBL students to create team charters,” can be explained by three significant

Demographic independent variables and two significant TC-Impact independent variables.

The three significant Demographic independent variables are: (a) the number of times a participant's teams had to use their team charter (positive coefficient), (b) whether or not the participant was a third-semester student (negative coefficient), and (c) the number of years the participant served in the military (negative coefficient). The two significant TC-Impact independent variables are: (a) the participant's level of agreement with the statement, "Team charters help MSIBL students to operate more effectively" (positive coefficient), and (b) the participant's level of agreement with the statement, "Team charters help MSIBL students to manage conflict" (positive coefficient).

In other words, the results of the hierarchical multiple regression analysis I ran suggest the following: compared to the survey participants enrolled in the first, second, and fourth semesters of the MSIBL program, the survey participants enrolled in the third semester of the program tended to agree less strongly that team charters are worthwhile. Similarly, the more years of military experience a participant had, the less likely the participant was to strongly agree that team charters are worthwhile. Additionally, the more strongly a participant agreed that team charters help students to operate more effectively and to manage conflict, the more likely the participant was to strongly agree that team charters are worthwhile. Finally, the more times a participant's teams had to use their team charter, the more likely he or she was to strongly agree that team charters are worthwhile.

Chapter Summary

Before providing a discussion of the study findings that related to the three research questions that guided this study, I first contextualized the study findings by (a) describing how virtual teamwork and team charters became a part of MSIBL program, (b) providing background information about the 81 MSIBL students who completed the survey instrument that I developed, and (c) providing background information about the 12 first-semester MSIBL students who participated in the interviews that I conducted.

I then discussed the study findings that related to the three research questions. Specifically, I (a) summarized the study participants' responses to my questions about the challenges of virtual teamwork, (b) described how the first-semester students created their team charters, (c) summarized the study participants' responses to my questions about the impact that team charters have on virtual teamwork, and (d) presented the results of the regression analyses I conducted in order to determine why the majority of student survey participants might have considered team charters to be worthwhile. In the next chapter of this dissertation, I will present a discussion of the study findings and conclusions.

CHAPTER FIVE

DISCUSSION OF STUDY FINDINGS AND CONCLUSIONS

Chapter Introduction

This chapter provides a discussion of the study findings and conclusions. Specifically, in this chapter, I will briefly (a) review the purpose of the study, (b) review the research design and methodology I employed in the study, (c) summarize the key study findings, (d) interpret the key study findings, (e) discuss the implications of the study findings, (f) provide suggestions for further research, and (g) end with concluding remarks.

Purpose of the Study

Some business professors (see Cox & Bobrowski, 2000; Hunsaker & Hunsaker, 2010; Mathieu & Rapp, 2009) have systematically studied the use of team charters by face-to-face student teams, and others (see Kirkman et al., 2002; Rosen et al., 2006) have systematically studied the use of team charters by workplace-based virtual teams. However, my extensive search of numerous academic databases, using the keywords *virtual team charter*, *virtual team*, and *team charter*, revealed that no one has yet systematically studied the use of team charters by virtual teams consisting of business students. Consequently, it can be difficult for business professors and business school administrators to determine whether the act of creating a team charter has any impact on virtual teamwork, or is even perceived by business students to have an impact.

The purpose of this study was to begin to respond, in an admittedly modest way, to the need for a systematic examination of team charter use by virtual teams consisting

of business students. The following research questions guided the collection and analysis of data:

1. What, if anything, do business students, grouped into small virtual teams for the first time, report to be challenging about virtual teamwork?
2. How do students, grouped into small virtual teams, describe the process involved in completing a team charter in their first semester of a graduate-level business program?
3. How do graduate-level business students with at least a semester of experience collaborating in virtual teams assess the impact, if any, that team charters have on virtual teamwork?

Research Design and Methodology

In this section, I will provide a brief review of the research design and methodology I employed in this study. Specifically, I will describe how I addressed the research questions by interviewing students enrolled in the first semester of the Master of Science in International Business Leadership⁵ (MSIBL) program and by surveying students enrolled in the first-, second-, third-, and fourth-semester of the program. I will also describe how I addressed the research questions by interviewing two MSIBL program administrators and the two faculty members who teach a first-semester course, *MSIBL 102: Leading others: Individuals, teams and organizations*, in which creating a team charter is a required assignment.

⁵ As described in Chapter Three of this dissertation, I used pseudonyms for the participants and the study site, including the name of the university and the city it is located in, the program, and the course numbers.

Interviews with the First-Semester Student Participants

To address the three research questions, I interviewed 12 first-semester students enrolled in the MSIBL program that was offered through the school of business at Fontoya University. I employed a case study/cross-case analysis design for this part of the study. Specifically, I treated each of the 12 first-semester interview participants as a single case unit and later aggregated the cases by team (i.e., Team A, B, C, and D) so I could make cross-team comparisons. I carefully reviewed the interview transcripts and created a list of codes, which I derived partially from the interview questions and partially from the themes and patterns I identified in the data (see Glesne, 2011). I then used qualitative analysis software to keep track of the quotations that aligned with those codes so I could retrieve them for further analysis and sort them by participant or by team.

MSIBL Student Survey

I also addressed the third research question about the impact of team charters on virtual teamwork by distributing a 40-question survey to the entire population of MSIBL students (i.e., those enrolled in all four semesters of the program). The survey consisted of questions about the participants' demographic characteristics, work experience, teamwork experience, previous team charter usage, and the participants' level of agreement with various statements about the impact that team charters have on virtual teamwork.

In total, 81 out of the 89 MSIBL students (91.01%) enrolled at the time of the study completed the survey. I then ran a multiple regression analysis and a hierarchical multiple regression analysis (see Galloway, 2004b). The dependent variable I used in the

analyses was derived from survey item 17: “Overall, it is worthwhile for MSIBL students to create team charters.” I also used 33 candidate independent variables in the analyses, which I grouped into three categories.

Interviews with the MSIBL Administrators and Two MSIBL Professors

I interviewed the MSIBL program director and assistant director because they encouraged second-, third-, and fourth-semester students to create team charters, though students were not required to do this. The administrators also provided advice to MSIBL teams when they encountered difficulties. Additionally, I interviewed the two professors who taught MSIBL 102 in the first semester of the program. As explained in Chapter Three of this dissertation, MSIBL 102 was a course in which virtual teams were required to create and use team charters to facilitate their work.

Key Study Findings

Research Question One

The first research question that guided this study was: “What, if anything, do business students, grouped into small virtual teams for the first time, report to be challenging about virtual teamwork?” As explained in Chapter Two of this dissertation, an examination of the literature on virtual teamwork reveals that students can face numerous challenges while engaging in virtual teamwork. In particular, the challenges described in the literature are highly interconnected and tend to consist of two socio-emotional processes (i.e., trust and cohesion) and three task processes (i.e., coordination, communication, and participation). When I asked the 12 first-semester student interview participants to describe some of the challenges that they faced while engaging in virtual teamwork, most of the challenges that they claimed to have experienced involved task

processes (i.e., coordination, communication, and participation) rather than socio-emotional processes (see Table 7 in Chapter Four of this dissertation for more details about this point).

For example, with regard to coordination, several of the interview participants reported having difficulty scheduling meeting times and determining how to work together virtually. With regard to communication, several of the interview participants reported having difficulty because their virtual teammates sometimes did not respond quickly enough to communication attempts or were unable to express or pick up on nonverbal social cues when communicating via e-mail or Web conferencing software. With regard to participation, several of the interview participants reported having teammates who did not contribute as expected, often because they were distracted by personal issues and crises.

Research Question Two

The second research question that guided this study was: “How do students, grouped into small virtual teams, describe the process involved in completing a team charter in their first semester of a graduate-level business program?” As indicated in Table 8 in Chapter Four of this dissertation, each of the four first-semester student teams (i.e., Teams A, B, C, and D) created their team charter through a unique series of steps. The leader of Team A, for example, wrote most of the sections of the team charter because he wanted use the team charter as a “road map” to outline how he wanted the team to function in terms of operating procedures, roles, and responsibilities. The members of Team D, by contrast, took a more collaborative approach. Specifically, the four resident students met in-person for four-and-a-half hours (the distance student

attended the meeting virtually by using Web conferencing software) and discussed how they wanted to answer each of the questions contained in the team charter assignment.

However, some commonalities can be identified between the teams. For example, all of the teams created their team charters by collaborating virtually to some degree. Also, in every one of the teams, the team leader volunteered to be the project leader for the team charter assignment. (The project leader role was normally assumed by other team members with other assignments.)

Interestingly, many of the interview participants reported that they were rather unenthusiastic about the team charter assignment. For example, Team C's leader told me that he thought the team charter assignment contained too many questions, many of which were "kind of obvious, and things that we could work out amongst ourselves, and things that we did not necessarily have to have on paper." Other interview participants reported thinking that the team charter assignment did not seem to "have anything to do with business" and seemed rather "hokey" and "touchy-feely."

Research Question Three

The third research question that guided this study was: "How do graduate-level business students with at least a semester of experience collaborating in virtual teams assess the impact, if any, that team charters have on virtual teamwork?" As described in Chapter Three of this dissertation, data to answer this research question were collected by interviewing the first-semester students and by surveying all of the students enrolled in the MSIBL program (i.e., those enrolled in all four semesters of the program). The survey findings were analyzed by generating descriptive statistics and by running a multiple regression analysis and a hierarchical multiple regression analysis.

The study findings suggest that team charters did not typically make virtual teamwork less challenging for the majority of MSIBL students. In fact, although 43 of the 81 survey participants (53.09%) agreed or strongly agreed with the statement, “Virtual teamwork is challenging for MSIBL students” (see Appendix L, question 15), only 26 of the 81 survey participants (32.1%) agreed or strongly agreed with the statement, “Team charters make virtual teamwork less challenging for MSIBL students” (see Appendix L, question 19). Also, when I asked the first-semester student interview participants if anything helped them overcome some of the challenges that their team experienced, only four of the 12 participants (33.33%) mentioned the team charter. Specifically, four members of Team A mentioned that they used their team charter late in the semester to terminate their teammate James because he did not participate as he originally agreed to in the team charter.

Although only the members of Team A mentioned that they used their team charter to overcome some of the challenges they experienced, two other first-semester student teams (i.e., Teams C, and D) reported that they used or referred to their team charters for other reasons (see Table 14 in Chapter Four of this dissertation). Specifically, the members of Team C used their team charter periodically to remind each other about the team’s goals and values. The members of Team D periodically used the list of every member’s strengths and weaknesses contained in their team charter when allocating project tasks. They also warned a problematic teammate that they might terminate him if he continued to break the rules and performance norms that he had agreed to abide by in the team charter; the teammate consequently changed his behavior and was not terminated.

Interestingly, although the 81 survey participants (i.e., those enrolled in all four semesters of the program) reported creating, on average, 2.47 team charters, 43 of the 81 survey participants (53.09%) reported that they never used their team charter after creating it and 21 (25.93%) only used their team charter once. There is, however, some evidence from the interviews with the first-semester students to suggest that the team charter creation process might have had an impact on some of the teams, even if the team charters themselves were not used after they were created.

Specifically, as indicated in Table 16 in Chapter Four of this dissertation, most of the comments made by the 12 first-semester student interview participants about the perceived impact of team charters pertained to the discussions that the participants had with their teammates when they met to answer the list of questions in the team charter assignment, especially the questions in three sections: (a) Mission Statement, which includes questions about a team's purpose, the team's goals, and the individual goals of the team's members; (b) Operating Guidelines, which includes questions about a team's structure and operating processes (e.g., leadership plan, decision-making plan, and work coordination plan); and (c) Performance Norms and Consequences, which includes questions about a team's performance evaluation procedures and performance expectations, especially with regard to team meetings and team member contributions to projects (see Appendix A for the complete team charter assignment instructions).

For example, the members of Teams A, B, C, and D reported that the questions in the Mission Statement section helped their teams find common ground because they were able to identify shared team goals and values that aligned with the members' individual goals and values. The members of Teams A, C, and D reported that the questions in the

Operating Guidelines section helped their teams to coordinate member roles and responsibilities. Finally, the members of Teams A and D reported that the questions in the Performance Norms and Consequences section helped increase accountability because their teams had to establish performance expectations and consequences for violating those expectations.

Similarly, when I asked the 81 survey participants (i.e., the students enrolled in the first, second, third, and fourth semesters of the program) to use a five-point Likert scale (1=*Strongly disagree*, 2=*Disagree*, 3=*Neutral*, 4=*Agree*, 5=*Strongly agree*) to rate how strongly they agreed or disagreed with 17 statements about the perceived impact that team charters have on various aspects of virtual teamwork, the five statements that received the highest percentage of *Agree* or *Strongly agree* responses pertained to three sections of the team charter: (a) the Mission Statement, (b) Performance Norms and Consequences, and (c) Team Identity. Specifically, as indicated in Table 20 in Chapter Four of this dissertation, 65 of the 81 survey participants (80.25%) agreed or strongly agreed that team charters help MSIBL student teams to “establish group norms,” 64 (79.01%) agreed or strongly agreed that they help “establish what is expected of team members,” 54 (66.67%) agreed or strongly agreed that they help “establish team goals,” 53 (65.43%) agreed or strongly agreed that they help “hold team members accountable,” and 52 (64.2%) agreed or strongly agreed that they help “establish a group identity.”

In fact, 42 of the 80 student survey participants⁶ (52.5%) agreed or strongly agreed with survey item 17: “Overall, it is worthwhile for MSIBL students to create team charters.” To better understand why the 42 participants might have considered team

⁶ One participant failed to answer survey item 17, which is why the total sample size in this case was 80, instead of 81.

charters to be worth the time and effort required to create them, I ran a multiple regression analysis and a hierarchical stepwise multiple regression analysis (see Galloway, 2004b) using the dependent variable (TC_WORTHWHILE), which corresponded with survey item 17.

The results of the hierarchical stepwise multiple regression analysis I ran suggest the following: compared to the survey participants enrolled in the first, second, and fourth semesters of the MSIBL program, the survey participants enrolled in the third semester of the program tended to agree less strongly that team charters are worthwhile. Similarly, the more years of military experience a participant had, the less likely the participant was to strongly agree that team charters are worthwhile. Additionally, the more strongly a participant agreed that team charters help students to operate more effectively and to manage conflict, the more likely the participant was to strongly agree that team charters are worthwhile. Finally, the more times a participant's teams had to use their team charter, the more likely he or she was to strongly agree that team charters are worthwhile.

It must be noted, however, that 18 of the 80 survey participants (22.5%) disagreed or strongly disagreed with survey item 17, "Overall, it is worthwhile for MSIBL students to create team charters." Furthermore, four of the 12 first-semester student interview participants (33.33%) told me that if it were their decision alone, they would not create a team charter with their future MSIBL teammates. In fact, as indicated in Table 17 in Chapter Four of this dissertation and Appendix L (question 39), many of the student participants were critical of team charters and the team charter assignment.

For example, some of the participants insisted that team charters were devoid of value and were a complete waste of time. Other participants claimed that it was useful to

complete a full team charter in the first semester so students could develop an awareness of some of the ground rules and expectations associated with virtual teamwork, but recommended that an abbreviated version be developed for second-, third-, and fourth-semester students. Similarly, many participants suggested that the team charter assignment contained too many questions and took too long to complete. They claimed that the resulting team charters were consequently too lengthy, redundant, and difficult to refer back to later. Some participants, in fact, suggested that the team charter assignment be completed verbally, ideally in-class, face-to-face. Other participants reported that instead of team charters, they wanted to create individual charters or cohort charters that did not need to be created or completely revised each semester.

Interpretation of the Study Findings

Although the literature on business student virtual teamwork does not seem to currently include research pertaining to the use of team charters by student virtual teams, some business professors have conducted research pertaining to the use of team charters by student face-to-face teams. In particular, Cox and Bobrowski (2000) and Hunsaker and Hunsaker (2010) asked some of the students in their management courses to complete a team charter assignment that contained many of the same questions and sections that Drs. Matt and Natalie Smith used in their team charter assignment. Cox and Bobrowski (2000) and Hunsaker and Hunsaker (2010) also asked their students to complete a survey about their team charter assignments.

Although I used a different Likert scale and surveyed students who worked in virtual teams instead of face-to-face teams, two of the survey items I used were similar to the survey items that Cox and Bobrowski (2000) and Hunsaker and Hunsaker (2010)

used, though the responses to the statements varied somewhat. Specifically, in the survey I conducted, which used a five-point Likert scale (1=*Strongly disagree*, 2=*Disagree*, 3=*Neutral*, 4=*Agree*, 5=*Strongly agree*), 54 of the 81 survey participants (66.67%) agreed or strongly agreed with the statement, “In my experience, team charters help MSIBL student teams to establish team goals” (see Appendix L, question 25). The average rating was 3.72, which suggests that, on average, the survey participants were neutral about or were in agreement with the statement.

In the survey that Cox and Bobrowski (2000) conducted, which used a seven-point Likert scale (1=*Strongly agree*, 2=*Agree*, 3=*Somewhat agree*, 4=*Undecided, no opinion*, 5=*Somewhat disagree*, 6=*Disagree*, 7=*Strongly disagree*), 74 of the 98 undergraduate management students (75.5%) somewhat to strongly agreed with the statement, “The team charter helped to clarify group goals and objectives.” Hunsaker and Hunsaker (2010) used the same seven-point Likert scale that Cox and Bobrowski (2000) used and reported that the statement, “The team charter helped to clarify team goals and objectives” received an average rating of 2.3, which suggests that, on average, the 67 management students⁷ they surveyed somewhat agreed or agreed or with the statement.

Additionally, in the survey I conducted, which used a five-point Likert scale (1=*Strongly disagree*, 2=*Disagree*, 3=*Neutral*, 4=*Agree*, 5=*Strongly agree*), 51 of the 81 survey participants (62.96%) agreed or strongly agreed with the statement, “In my experience, team charters help MSIBL student teams to manage conflict” (see Appendix L, question 26). The average rating was 3.51, which suggests that, on average, the survey participants were neutral about or were in agreement with the statement. In the survey

⁷ Hunsaker and Hunsaker (2010) did not specify whether the participants who completed their survey were undergraduate or graduate management students.

that Cox and Bobrowski (2000) conducted, 48% of the participants somewhat to strongly agreed with the statement, “The team charter helped the group manage conflict effectively.” In the survey that Hunsaker and Hunsaker (2010) conducted, the statement, “The team charter helped the team manage conflict effectively,” received an average score of 2.86, which suggests that, on average, the participants agreed or somewhat agreed with the statement.

Interestingly, in the survey that Cox and Bobrowski (2000) conducted, 54 out of 98 of the participants (55.1%) somewhat to strongly agreed that team charters were “useful and/or helpful.” By comparison, in the survey that I conducted, 42 of the 80 student participants (52.5%) agreed or strongly agreed with survey item 17: “Overall, it is worthwhile for MSIBL students to create team charters.” Hunsaker and Hunsaker (2010), unfortunately, did not have a comparable overarching question about the perceived usefulness or worthwhileness of team charters.

Although it is not possible to reach any definitive conclusions based on the survey results compared above, it is at least interesting to consider whether findings from studies about student virtual teams can be compared with findings from studies about student face-to-face teams. Dr. Matt Smith, for example, told me that the students enrolled in one of the MBA courses he taught face-to-face at Fontoya University also had to complete the same team charter assignment (with the same set of questions) that the MSIBL students had to complete in the course that Matt taught, MSIBL 102. When I asked Matt whether the team charters created by the MSIBL student virtual teams differed from the team charters that the MBA student face-to-face teams created, he suggested that “the main

distinction would be [that] face-to-face teams do not have to deal with...electronic communication, and those kinds of things, and differences in time zones, and so forth.”

Although I did not, in this study, examine any team charters created by MBA student face-to-face teams, the three MSIBL team charters I examined, which were created by the first-semester MSIBL student virtual teams, included a list of technologies that the students planned to use to facilitate virtual communication and interaction. However, none of the team charters I examined included an in-depth discussion about how the team members planned to cope with differences in time zones, probably because it was unnecessary to do so, given that the three first-semester distance students resided in the same time zone that the first-semester resident students resided in.

Implications of the Study Findings

In this section, I will discuss some of the implications of the study findings. Specifically, I will discuss some of the implications that pertain to business professors and business school administrators who already use or are interested in using the team charter assignment.

Implications for Business Professors

Given that many of the student participants in this study were critical of the team charter assignment, business professors might want to consider whether it is worthwhile to use a team charter assignment, especially since other, less time-consuming alternatives exist. For example, to help team members develop trust and cohesiveness, professors could ask students to complete relationship-building exercises (Bocchi et al., 2004; Jarvenpaa et al., 2004; Starke-Meyerring & Andrews, 2006), discuss team processes and procedures (Jarvenpaa & Leidner, 1999; Jarvenpaa et al., 2004), and create a team name,

logo, and purpose statement (Starke-Meyerring & Andrews, 2006). To help with coordination efforts and encourage participation, professors could ask students to have discussions about their skills, areas of expertise, and preferred team roles (Bocchi et al., 2004; Davis et al., 2009). Professors could also ask students to also create a virtual communication plan, which describes how the students will interact and work together throughout the semester (Clark & Gibb, 2006).

Business professors who do decide to use a team charter assignment might find it necessary to convince their students of the potential value of the team charters and the team charter creation process. In this study, for example, when some of the first-semester students on Team D first found out about the team charter assignment, they reported thinking that it did not seem to “have anything to do with business” and seemed rather “hokey” and “touchy-feely.” As Dr. Natalie Smith (one of the professors of MSIBL 102) stated when I interviewed her, “Students who do not take the team charter seriously...do not do a good job on it and they generally do not have a good project at the end.” Business professors who use a team charter assignment could, therefore, attempt to convince students (e.g., through lectures or through assigned readings) of the potential value of team charters, not only with regard to student virtual teamwork, but also with regard to workplace-based project work, which is increasingly being completed by teams, rather than by individuals.

Specifically, given that many of the study participants expressed concerns about the amount of time it took to complete the full team charter assignment, and, given that team charters in the workplace are used primarily for project planning purposes (see Chapter Two of this dissertation for details), business professors could consider

emphasizing the project management aspects of team charters while de-emphasizing other aspects. For example, instead of asking students to create a lengthy, all-encompassing team charter at the beginning of the semester, business professors could ask students to create a much more project-management-oriented team charter at the start of each team project.

Business professors who do decide to use a full team charter assignment like the one that the professors of MSIBL 102 used (see Appendix A for the team charter assignment instructions), could also examine the study findings in Chapter Four of this dissertation to get ideas about how to modify their team charter assignment instructions. For example, given that four of the seven sections (i.e., Mission Statement, Operating Guidelines, Team Identity, and Performance Norms and Consequences) of the team charter assignment instructions that the professors of MSIBL 102 used appeared to have had the most impact on virtual teamwork—at least according to the first-semester student interview participants—business professors could consider modifying their team charter instructions to emphasize these sections and de-emphasize or even omit others, assuming, of course, that they judge the findings in this study to be transferable to their situations.

Similarly, if their instructions for generating a team charter are similar to the instructions used by the professors of MSIBL 102 in this study, business professors might consider modifying their team charter assignment instructions by making them shorter and simpler, given that several first-semester student interview participants (see Table 17 in Chapter Four of this dissertation) and student survey participants (see Appendix L, question 39) claimed that it took too much time and effort to answer all of the questions included in the team charter assignment instructions.

Implications for Business School Administrators

Some researcher have suggested that problems and disputes that could be solved relatively quickly in-person can sometimes escalate more quickly in a virtual environment in which social cues and informal bonding opportunities are scarce (see Jarvenpaa et al., 2004). Students who consistently experience acute or pervasive conflict while working on projects with virtual teammates may eventually become dissatisfied with a course or degree program, which could potentially affect attrition rates (Bocchi et al., 2004).

Therefore, business school administrators may find it worthwhile to coordinate their efforts with business school professors to bring team charters into courses or programs, like Director Luke Johnson and Assistant Director Diana Murphy (the MSIBL program administrators) did in this study. For example, after Drs. Matt and Natalie Smith (the professors who taught MSIBL 102) added the team charter assignment to MSIBL 102, the MSIBL administrators reported experiencing a sharp decline in the number of teams who sought their assistance with teamwork-related problems and conflicts, which Director Luke Johnson considered to be “the biggest and most unpleasant hassle” that he and Assistant Director Diana Murphy had in the MSIBL program.

This study also demonstrates how business school administrators could potentially increase the effectiveness of team charters by promoting their value, for according to Dr. Natalie Smith, students who “believe that it [the team charter] will make a difference in their final product...are more convinced to do a good job” on it. Natalie elaborated that it was helpful to “have people like Luke [the director of MSIBL] really

pushing the team charter...like an advocate and a cheerleader for it,” encouraging students to “take it seriously” because some students “do not think it is important.”

Suggestions for Future Research

Researchers interested in team charters and business student virtual teams could replicate this study at other domestic and foreign study sites and compare their findings with the findings from this study. Director Luke Johnson, for example, hypothesized that team charters might not be very well received in other parts of the world because they are a “very American, contractual sort of thing that is not considered obligatory in a lot of others cultures” in which “the relationship is more important than getting stuff in on time.”

When I asked Dr. Matt Smith whether the team charters created by the MSIBL student virtual teams differed from the team charters that his MBA student face-to-face teams created, he said that “the main distinction would be [that] face-to-face teams do not have to deal with the component of their charter about the electronic communication, and those kinds of things, and differences in time zones.” In a follow-up study, researchers could attempt to compare and contrast the usage of team charters by student face-to-face teams and student virtual teams, especially if researchers are able to find at least two comparable business courses (one taught online, the other taught face-to-face) taught by an instructor who uses the same team charter assignment in both courses.

Additionally, in a follow-up study, researchers in the field of leadership studies could explore the possible connection between team charters and virtual team leadership. When I asked Natalie if there was a connection between team charters and student team leadership, she replied, “There could be none, or it [the team charter] could be a vehicle

where somebody who wants to exert leadership by having influence on others is able to do that by how they facilitate the team charter.” Team A’s designated leader, for example, proposed that student team leaders can use team charters to “basically pledge what you are going to do and how you are going to do it, so the team leader does not lead in a fashion that others do not understand or recognize.” Thus, researchers could examine, for example, the impact that team charters have or could have on virtual team leadership, either in the workplace or in academic settings.

Concluding Remarks

In a report designed to provide guidance to business school administrators interested in developing or evaluating distance learning programs, the AACSB Distance Learning Task Force (AACSB, 2007) claimed that business degree programs offered through distance learning are proliferating rapidly, in part because they can make education available to students with geographic, job-related, familial, and physical constraints. However, the task force warned that distance learning programs often require a significant commitment of organizational resources, including investments in faculty development, student support and training, technology infrastructure, and ongoing program development efforts (AACSB, 2007). In particular, to better identify and address the challenges that students encounter in the distance learning environment, the task force recommended that business school administrators systematically and proactively solicit the perspectives of various stakeholders (AACSB, 2007).

One challenge associated with the distance learning environment that merits in-depth examination involves engaging in project-based teamwork because business students enrolled in distance learning classes must work in virtual teams if they are

required to complete team projects. An analysis of literature on virtual teams consisting of business students (see Chapter Two of this dissertation for details) reveals that professors can help students prevent or overcome some of the challenges of virtual teamwork by providing training and team-building opportunities early in a team's life. The team charter assignment is one such training and team-building tool that professors could consider adding to their courses.

However, when I interviewed Dr. Natalie Smith in this study, she insisted that some students "do not take the team charter seriously. Some of them think it is stupid busywork" and consequently "do not do a good job on it." Further research is needed to help determine whether or not team charters really should be taken seriously. The findings from this study suggest that team charters have serious potential, at least if they are crafted well and used effectively. However, the study findings also suggest that team charters can, in some cases, be considered a serious waste of time and effort.

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APPENDIX A

MSIBL 102 Team Charter Assignment Instructions

Description: Develop team charter that includes a mission statement, values, operating guidelines, and performance agreement for the MSIBL team you are assigned to for the first semester. Make sure to address all of the components you see below, which should serve as the format for your paper headings (you then provide the information for each heading for your specific team), although you may add additional headings deemed appropriate.

Purpose: The purpose of developing a team charter is to jump-start your work together as a learning team, to help you avoid common problems, and to facilitate continual improvement of your team throughout the course. By addressing the following issues, you should be able to enhance your team performance, member satisfaction, and learning.

Instructions: Download and read the *Team Charter Handbook* from WebCT or an e-mail attachment. Develop your team charter through mutual sharing and consensus. Include the following components in your written team charter.

I Mission Statement

- Team purpose (*This is your mission statement*)
 - Why do you exist as a team?
 - What do you want to accomplish?
- Team goals (*These are means to your mission*)
 - What team goals do you need to accomplish to attain your mission?
- Member goals (*These help align individuals to the overall team goals*)
 - Clarify what each member expects to achieve by being a part of this team.
 - What do you have in common?
 - How do individual goals differ? (*Clarify grade expectations, learning goals, and social expectations*)

II Team vision

- Develop a clear and concise statement of the ideal end state your team desires to achieve in terms of the entities that will be affected by the team's outcomes.
Describe what it will be like for all stakeholders if your team is successful?

III Team identity

- Develop a team name that represents your member composition and goals.
- Develop a team logo: an image of who you are and what you will accomplish.
- Develop a team roster that includes: Each team members' name, phone number, e-mail address and an assessment of his/her team strengths and improvement goals.

IV Boundaries

- What policies, procedures and values do you subscribe to that cannot be violated?
- What are the limitations on the teams' performance (e.g., time and resources)?
- What decisions can you make on our own versus needing permission from others?
- What activities are and are not legitimate for the team to engage in?
- Who are the stakeholders affected by your team's activities?

V Operating guidelines: Team structure and processes

- Do you need a leader? What is expected of your leader?
Will you rotate leadership?
- How will you make decisions: most vocal wins, voting, consensus (100% agree)?
- How will you perform the work that needs to be done on the various projects?
- How will you communicate with each other?
- How will you encourage positive/creative conflict and discourage dysfunctional conflict?
- How will you facilitate member growth and development?

VI Performance norms and consequences (Performance Agreement)

What norms (behavioral rules) do you need to facilitate goal attainment and member satisfaction? What are your standards of performance?

- How will you evaluate and reward *overall team* and member performance?
 - How you will treat each other in general?

- How will you deal with dysfunctional behaviors, e.g., dominating, withdrawing, wasting time, free riding, etc.?
- How will you evaluate member contribution to the team process (see example evaluation rubric)
- How will team members be disciplined for not adhering to team norms?
- What is your due process for terminating a member from the team?
- How will the team reward itself for a job well done?
- What expectations do you have for *team meetings*?
 - What consequences for missing or being late to a meeting?
 - What are valid excuses for missing or being late to a meeting?
- What expectations do you have for *team project* contributions?
 - What is expected for delivery and quality of assigned work?
 - What are your criteria for evaluating project contributions?
 - What are the consequences for work that is late or is of poor quality?
 - How will grades for your team projects be allocated to individual team members? (see example of grade allocation method)
 - How will the team reward individual members for outstanding contributions?

VII Charter endorsement

- All team members sign the team charter agreement.
- Those not agreeing to all terms should leave the team for reassignment.

APPENDIX B

MSIBL 102 Exemplary Team Charter

MSIBL 102: *Checkmate* Team Charter (Created in 2009)

Professors: Dr. Matt Smith and Dr. Natalie Smith

Team Members:

Student A

Student B

Student C

Student D

ARTICLE 1: MISSION STATEMENT

“To satisfy the course requirements for the MSIBL Program by developing and utilizing each team member in Checkmate and their skills of leading and following, and to learn how to communicate as individuals within a team environment to accomplish semester course goals in order to graduate.”

1.1 Why do you exist as a team and what do you want to accomplish?

All members of Checkmate exist as a team to learn new ways to work with people in leading and following and to develop leadership skills and abilities. Team Checkmate would like to complete all assignments effectively and creatively in a timely manner while engaging our fellow cohorts and teammates in what we learn along the way.

Checkmate is looking to complete quality assignments to the best of each member's abilities and inform our cohorts of what we gather in our research. Checkmate would like to maximize learning thru the experience of having each other. Working in a team is slightly challenging but more rewarding and efficient when multiple heads are working together for ideas.

1.2 What team goals do you need to accomplish to complete your mission?

During the first semester of classes, team Checkmate has general and specific goals that we would like to collectively achieve:

- Complete assignments for team meetings and team project deadlines not only on time but with the best quality possible

- Regarding deadlines, Checkmate team members will show honesty in relation to workload and personal deadlines, ensuring that they do not jeopardize their teammates
- Ensuring equal distribution of assignments and roles within the team of Checkmate
- Build close professional relationships with each other based on mutual respect and understanding of personal lives and differences
- Requires proactive inputs and feedback on an ongoing basis with each other
- Communication is key
- To assist each other in improving member weaknesses and help each other feel more confident in a team setting

Checkmate needs to make sure each member of the team has a common vision and can work effectively to achieve that vision. Each member should work to achieve these goals with respect of one another and differences.

1.3 Clarify what each member expects to achieve by being a part of this team.

Student A I would like to maximize every learning opportunity possible while attaining the best grades. In addition, I'd like to further develop my leadership and interpersonal skills while simultaneously helping others to achieve their goals.

Student B My expectations include, building confidence in a team setting so as to provide feedback and be able to express my ideas and perspectives freely. I'd also like to learn from my teammates and use their ideas and strong work ethic as motivation to do better than my best!

Student C I would like to learn a different way to approach issues that could potentially be global. In general I would like to learn to perfect my leadership approach to better solve issues and work with others. I would like to have a better understanding and experience of leadership through my teammates and cohorts. I also want to receive satisfactory grades as they relate to my performance and effort and graduate from the program.

Student D I expect to improve my self-knowledge, my skills when working (leader and follower) when in a team, learn with different approaches and ideas, and reach and exceed the professor's expectation.

1.4 What do these goals all have in common?

All four members of Checkmate have a desire to learn from each other as well as enhance their leadership abilities and do well in each class the first semester.

1.5 How does each individual goal differ?

Some of the members in Checkmate have goals that specify learning to gain better communication skills in a group setting. For the most part, all members of Checkmate have the same goals in mind.

ARTICLE 2: TEAM VISION

The team vision of Checkmate is to have an increased global knowledge to enhance business and organizations we work for and people we interact with on a day-to-day basis. In addition, all members of Checkmate want to have an increased awareness of our leadership skills to help lead and influence people in our everyday lives.

ARTICLE 3: TEAM IDENTITY

3.1 Develop a team name that represents your member composition and goals.

Our team has chosen the name CHECKMATE because of its relation to playing the game of chess. In the game, all of the pieces have to work together to achieve a common goal of stealing the king and essentially winning the game. Every piece has a different role in movement within the game, yet all of the pieces are vital to keep the game alive.

3.2 Develop a team logo: an image of who you are and what you will accomplish.

3.3 Develop a team roster (include name, phone, email and strengths and weaknesses):

SEE EXHIBIT A

ARTICLE 4: BOUNDARIES

4.1 What policies, procedures and values do you subscribe to that cannot be violated?

It is important that every member of team Checkmate puts forth their best efforts to reach the overall goals and succeed in completion of our best work for each project. Each member can do this through active participation in team meetings and throughout any team projects during the semester. Each member that participates should have an equal and fair say in any decision-making with the team. It is crucial that each member can trust in the team and desire the success of the team. No acts that would violate the team's trust should be permissible.

4.2 What are the limitations on the teams' performance (e.g., time and resources)?

Limitations of Checkmate's performance include time and resources. Consequently, each member needs to be respectful of team deadlines for each class and work hard to achieve these goals. Some additional limitations of the teams' performance include full time jobs, travel, health issues and some of us have children or families. Any of these limitations may have an impact on the final team projects and group dynamic of the team.

4.3 What decisions can we make on our own versus needing permission from others?

All decisions pertaining to each member's individual projects could and should be made without consulting the team. All decisions affecting the team members, team projects, team grades, team schedule & so forth, should be discussed with all members of the team. In addition if there are any questions of ethics or ability complete tasks relating to classes, professors may need to be consulted.

4.4 What activities are and are not legitimate for the team to engage in?

Legitimate activities for Checkmate to engage in are ones that boost team spirit and motivate the success of team projects (i.e. meetings, wimba sessions, group meetings in a social setting, lunch meetings etc...). All other activities should depend on the willingness, comfort and convenience of each team member or otherwise should be deemed illegitimate.

4.5 Who are the stakeholders affected by your teams' activities?

Stakeholders within the program and university affected by Checkmate are all team members, our professors, our cohort, and the entire MSIBL program. Stakeholders outside of the MSIBL program that are affected by our activities are our families and friends, supervisors and coworkers as well as customers of our professions.

ARTICLE 5: OPERATING GUIDELINES: Team Structure and Processes

5.1 Do you need a leader? What is expected of your leader? Will you rotate leadership?

Checkmate will select a leader for each MSIBL class and one team leader to oversee the entire group of class leaders. The leader will remain the same throughout the semester and it will be each class leader's responsibility to keep all members of the group on task and work to accomplish team and member goals.

5.2 How will you make decisions: most vocal wins, voting, total consensus?

To make decisions, Checkmate will begin with research and discussion of decisions.

There will be voting from all members when necessary and in the event of a long discussion if a decision cannot be reached, the leader of the team will bring Checkmate to a decision.

5.3 How will you perform the work that needs to be done on the various projects?

Each class leader of Checkmate will be compiling the papers or projects, but each member will be assigned one portion of each project to read and report on in a timely manner. These duties assigned to each member will be on a volunteer basis so everyone has a chance to work on something that attracts them. However, IF NO volunteers are offered for different portions of the projects, the team leader will assign them accordingly. The team leader will continually delegate jobs and workload based on

requests of each team member and their strengths. Each team member will present their work as requested, while each class leader brings each class assignment together.

5.4 How will we communicate with one another?

Checkmate will communicate with each other through WIMBA, Google docs, email, Facebook, phone and in person. We will set team date meetings and times that can be flexible based on each person's workload and lifestyle.

5.5 How will we encourage positive/creative conflict?

Checkmate will discuss each point as needed openly with respect for each other and one another's thoughts. We will discourage negative/dysfunctional conflict by being fair and making sure that everybody has the opportunity to talk. We will encourage and manage differences of opinion and different perspectives by reminding each other to stay open-minded. If there is a difference of opinion we will not attack each other but remember to respect each other's opinions and listen. We will not get defensive. Team Checkmate will analyze and discuss these differences and try to put ourselves in the other person's shoes.

5.6 How will we facilitate member growth and development?

Checkmate will encourage and help to enhance growth and development through strong and open communication and constructive and positive feedback. Each team member can utilize their strengths to balance out the weaknesses of the team, and of course be willing to help when and where it's needed.

ARTICLE 6: PERFORMANCE NORMS AND CONSEQUENCES

6.1 What norms (behavioral rules) do you need to facilitate goal attainment and member satisfaction?

Team Checkmate expects RESPECT and benefit of the doubt. Communication is key.

Anytime someone cannot complete an assignment or there is a change, Team Checkmate will use the communication tools available to them to talk with one another and inform team members of the extenuating circumstances and work towards resolution.

6.2 What are your standards of performance?

Team Checkmate's standard of performance is excellence. Although everyone's capacity and efforts, based upon constraints of time and other responsibilities, are different, we can each expect ample exertion from one another to complete the agreed upon work. We will all try our best at completing the tasks to the greatest extent of our ability, knowing that everyone on our team has a different level of quality and expectation of complete assignments. We will work to complete work as expected at the graduate level, again keeping in mind the expectations and differences of each team member. Our team will have something ready for the team when we set deadlines even if it is a rough draft.

6.3 What is expected in terms of preparation and participation in *class* discussions, exercises, and overall behavior?

Team checkmate will treat each other with respect, positive reinforcement and empowerment. Noisy people in the group that are dominant or carry on side

conversations will be politely brought back to task. Whoever notices it can direct the conversation to someone else. People that are too quiet and disengaged from conversation or are paying attention to other things like cell phones, etc. will be actively engaged through questions from any of the team members that notice this behavior.

6.4 What expectations do we have for team meetings?

Consequences for Team Checkmate if someone misses or is late for a meeting date or time is that they have to buy everyone on the team a coffee or a drink of choice. Also they have to inform the team first of their accomplishments on papers for the week. Valid excuses for missing or being late for a meeting include a health or family member issues or a work function that is mandatory. Prior information of potentially missing a meeting is respectful and requested. Team Checkmate expects each member to treat each other with respect. Dysfunctional behaviors such as dominating, withdrawing, wasting time, etc. will be dealt with on a case by case basis. The team leader of the entire group will assist each class leader with bringing that member back on task and keeping the team in line. The targeted duration of team meetings will be decided by the team based on requirements, and will be monitored for efficiency and effectiveness.

6.5 How will you evaluate member contribution to the team process (See Appendix for an example evaluation rubric)?

For team Checkmate, evaluation will be based on effort of each individual team member. Each member will have varying levels of effort they can put forth due to work and personal commitments. However, each team member can evaluate each other based on

the overall growth of the team. The criteria listed in the Appendix sufficiently evaluate a person's attitude, creativity, contribution, encouragement and assistance to other team members and active participation within the team throughout the semester. The opportunity to provide a scaled individual grade enables each team member to understand their contribution to the team members of Checkmate and what areas of their teamwork need improvement.

6.6 What expectations do we have for team project contributions?

Team Checkmate expects delivery and quality of assigned work to follow the guidelines of the course from the professor and the APA guidelines for citing a paper. Neatness, consistency and timeliness as well as working as a team are also important. Team Checkmate will accomplish this by contributing ideas and communicating on Wimba or also a quick phone call. To evaluate performance Team Checkmate will follow the peer evaluation. Team Checkmate members can expect consequences for work that is late or poor quality. First, the resulting grade may not be good. Second, if items are late consistently building up to a paper, the team leader will talk to that person or each team member that has an issue will communicate up front to the other team member.

6.7 How will grades for your team projects be allocated to individual team members? (See Appendix for an example grade allocation method)

Grades for team projects will be based on the allocation method. The team will have a total of 15 points to distribute to members according to their contributions. Checkmate will decide whether or not all four of Checkmate members contributed equally by

consensus. If they did, then everyone would receive equal grading including the thought of partial grading. If there were people that contributed more than others, they would receive a majority of the 15 points and the remainder would be split appropriately between other members. If there is any discrepancy in grading based on this scale, each member should voice this accordingly after each project is submitted so that each member of the team can know what to improve on for the next project or paper.

6.8 How will we evaluate and reward overall team and member performance?

Team Checkmate will reward itself for a job well done with a team happy hour at Starbucks, announce it on Facebook, send each other a card. Team Checkmate will reward individual members for outstanding contributions through positive reinforcement, potentially awards or a friendly email or card. Team Checkmate will evaluate whether team members are living up to norms (commonly agreed upon expectations) through anonymous feedback. We will each be responsible to make each other better as a team and improve our weaknesses. Team Checkmate will deal with violations of expectations, rules or norms through communication. We will be honest and upfront with each other or go to the team leader if there is conflict we don't feel we can resolve together. Team Checkmate team members will be disciplined for not adhering to team norms through communication right up front. Each team member will be reminded of the team charter.

6.9 What is your due process for terminating a member from the team? (See Appendix for an example procedure)

Due process for terminating a team member based on Appendix would include first a written warning along with discussion of why the team member is receiving it. This is to ensure that they have time to correct the issue. Also there will be a probation period set up which would be agreed on by the team. If a team member does not comply with the written warning, termination may occur. This is a fair form of termination in our team, as time is limited and it allows someone an attempt to better the situation.

Performance Agreement

By initialing below, I agree to adhere to the standards of performance set forth in this agreement of the CHECKMATE team charter. In addition, my initials are an indication of my agreement to abide by the consequences outlined within this document.

Student A

Student B

Student C

Student D

APPENDIX C

First E-mail Sent to First-Semester Students to Identify Willing Interview Participants

Subject: May I interview you for my USD dissertation research?

Dear _____,

I hope your first semester with MSIBL is going well! As you may know, I am now working on my dissertation at USD so I can hopefully earn a Ph.D. in Leadership Studies. Would you be interested in participating in my dissertation research study about first-semester MSIBL students' perceptions of course assignments? I would greatly appreciate your help, and I am very interested in what you have to say!

I would like to interview you twice for about 30-60 minutes, once in October and again in December. You can choose when and how to be interviewed. The interviews will be recorded and you will get to review and edit the transcripts afterwards. I will use pseudonyms in my dissertation to help protect your identity. This study has already been reviewed and approved by the MSIBL Director and by USD's research oversight board (IRB).

Participation is entirely voluntary, and you may withdraw at any time. If you are interested in participating, please visit the Web link below to choose the date and time for your October interview. Thank you so much for considering this request, and let me know if I can address questions or concerns you might have about this study.

APPENDIX D**Second E-mail Sent to First-Semester Students to Identify Willing Interview Participants**

Subject: More interviewees needed for my dissertation research study

Dear _____,

Would you please allow me to interview you twice for 30-60 minutes (once in October and again in December) for my dissertation research study? Your participation can potentially improve the MSIBL program by providing helpful and actionable feedback on some of your course assignments. This study is also important to improving business school education programs more generally because it potentially will provide important insights about students' reactions to different types of course assignments and a variety of teaching methods which have not been studied yet. Your participation will also be a huge personal favor to me as I attempt to complete my dissertation, especially since I am only interviewing students in your cohort.

Participation, of course, is completely voluntary, but if you would be willing to be interviewed, please click the Web link below to choose the date and time for the first October (or, possibly, an early November) interview. Or, if you instead want me to call you to schedule the interview, please let me know what number to call. Thank you so much for considering this request!

APPENDIX E**Research Consent Form for First-Semester Student Interview Participants**

University of San Diego

Institutional Review Board

Research Participant Consent Form

For the research study entitled:

Virtual Teamwork in a Business School Master's Program:

Do Team Charters Have an Impact?

I. Purpose of the research study

Samuel K. Chung is a student in the School of Leadership and Education Sciences at the University of San Diego. You are invited to participate in a research study he is conducting. The purpose of this research study is to explore how first-semester business students in your program perceive some aspects of their required course assignments.

II. What you will be asked to do

If you decide to be in this study, you will be asked to participate in two 30-60 minute one-on-one interviews (with at least 12 questions), once in the middle of this Fall semester (in October) and again near the end of this Fall semester (in December). For the interviews, you can choose days and times that are convenient for you and you can choose to be interviewed over the phone, over a Web conferencing system like Wimba or Skype, or in-person in Samuel's office. You will be audiotaped during the interviews.

Your participation in this study (for both interviews) will take a total of 60-120 minutes.

III. Foreseeable risks or discomforts

Sometimes when people are asked to think about their feelings, they feel sad or anxious.

If you would like to talk to someone about your feelings at any time, you can call toll-free, 24 hours a day: California Mental Health Hotline at 1-800-XXX-XXXX

IV. Benefits

While there may be no direct benefit to you from participating in this study, the indirect benefit of participating will be knowing that you helped Samuel better understand how first-semester business students in your program perceive some aspects of their required course assignments.

V. Confidentiality

Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file in Samuel's office for a minimum of five years. All data collected from you will be coded with a number or pseudonym (fake name). Your real name will not be used. The results of this research project may be made public and information quoted in professional journals and meetings.

VI. Compensation

You will receive no compensation for your participation in the study.

VII. Voluntary Nature of this Research

Participation in this study is entirely voluntary. You do not have to do this, and you can refuse to answer any question or quit at any time. Deciding not to participate or not answering any of the questions will have no effect on any rights and benefits you're

entitled to as a student in the program. You can withdraw from this study at any time without penalty.

VIII. Contact Information

If you have any questions about this research, you may contact either:

1) Samuel Chung (Researcher)

Email: chung@san Diego.edu

Phone: (XXX) XXX-XXXX

2) Robert Donmoyer, Ph.D. (Faculty Advisor)

Email: donmoyer@san Diego.edu

Phone: (XXX) XXX-XXXX

I have read and understand this form, and consent to the research it describes to me. I have received a copy of this consent form for my records.

Signature of Participant

Date

Name of Participant (**Printed**)

Signature of Investigator

Date

APPENDIX F**Interview Guide One for First-Semester Student Interview Participants**

- Please tell me what you think overall about the course assignments you have completed so far in the program.
 - Follow-up: What do you think of your team assignments so far?
- Could you talk about any successes your team has experienced so far?
 - Follow-up: Is there anything that might help your team to be even more successful in the future?
- Could you talk about any challenges or difficulties that your team has experienced so far?
 - Follow-up: Is there anything that has helped your team overcome the challenges you mentioned?
- Let's switch gears for a minute. Please describe to me how you personally would define or describe leadership.
- Please describe to me how you personally would define or describe virtual teamwork.
- Would you mind telling me what you initially thought when you first found out about the team charter assignment?
- What do you think now about team charters, now that you have already created one?
- What did your team initially seem to think about the team charter assignment?
- In your opinion, what does your team now think about team charters, now that you have created one together?
- Please tell me about how your team completed the team charter assignment together.

- Follow-up: As your team worked together, did you see any attempts to exercise leadership?
- In what ways, if any, could the team charter assignment be improved?
 - Follow-up: What components should be included or excluded from the charter?
- What advice would you give to a brand new student about creating team charters?
- What advice would you give to a brand new student about virtual teamwork?
- Do you have any final thoughts or comments about team charters or virtual teamwork?

APPENDIX G

Interview Guide Two for First-Semester Student Interview Participants

- What percentage of time did you spend as a team working virtually?
 - Was that constant or did it change throughout the semester?
- I would like to hear about your experiences this semester, in working with your team since we spoke last.
 - Could you talk about any challenges or difficulties your team might have experienced this semester, since the last time we spoke?
 - How about any success you had as a team since last we spoke?
- What impact, if any, did the team charter have on your team this semester?
 - Did your team use or refer to your charter in any way after it was submitted?
 - What impact did the process of creating a charter have on your team this semester?
 - Hypothetically, what might have happened if you had not created a charter this semester?
- In what ways has the first semester of MSIBL prepared you to work in virtual teams?
- What, if anything, did you learn this semester about leadership while working with your virtual team?
- In upcoming semesters, do you plan to create team charters with your future MSIBL teammates? Why or why not?
 - What would you ideally include in that charter?
- Have you used anything similar to a team charter before joining MSIBL?

- Overall, do you think the team charter assignment is a worthwhile activity for MSIBL teams to complete—why or why not?
- Any final thoughts about team charters or virtual teamwork?

APPENDIX H

In-Class Announcement to Identify Willing Participants for the Paper-Based Survey

Hello everyone, would you please consider completing a brief one page survey that will take about 10 minutes to complete?

The survey, which is about team charters and virtual teamwork, will potentially help the MSIBL staff learn how to better support you and other MSIBL students with regard to virtual teamwork, help Professors Matt and Natalie Smith learn how to improve the MSIBL 102 team charter assignment, and help the MSIBL staff decide how much we should encourage the creation of team charters after MSIBL 102.

Finally, your participation will be a huge personal favor to me because it is part of my dissertation research, which I need to complete in order to finally graduate and receive a Ph.D. in Leadership studies from USD.

This survey has already been approved by the MSIBL program staff and USD.

Participation, of course, is completely voluntary. The first page is a consent form for you to review and sign. Thank you so much for considering this request!

APPENDIX I**E-mail Sent to Identify Willing Participants for the Online Survey**

Subject: Requesting your help with an important survey about MSIBL team charters

Dear _____,

I hope you are having a great semester so far! I haven't seen you around for a while. I hope MSIBL is not keeping you too busy. Would you please consider completing a brief one page (10-minute) online survey that your classmates recently completed in-class? I very much need your insights as a distance student too, especially since we have so few distance students in the program. Your participation will be a huge personal favor to me because it is part of my dissertation research, which I need to complete in order to finally graduate and receive a Ph.D. in Leadership Studies from USD.

The survey, which is about team charters and virtual teamwork, will potentially:

- Help the MSIBL staff learn how to better support you and other MSIBL students with regard to virtual teamwork**
- Help the Smiths learn how to improve the MSIBL 102 team charter assignment**
- Help the MSIBL staff decide how much we should encourage the creation of team charters after MSIBL 102**

This survey has already been approved by the MSIBL program staff and USD.

Participation, of course, is completely voluntary. Thank you so much for considering this request! The link to the survey is below.

APPENDIX J**Research Consent Form for Student Survey Participants**

University of San Diego
Institutional Review Board

Research Participant Consent Form

For the research study entitled:
Virtual Teamwork in a Business School Master's Program:
Do Team Charters Have an Impact?

I. Purpose of the research study

Samuel K. Chung is a student in the School of Leadership and Education Sciences at the University of San Diego. You are invited to participate in a research study he is conducting. The purpose of this research study is to explore how business students perceive virtual teamwork and team charters.

II. What you will be asked to do

If you decide to be in this study, you will be asked to complete a survey about virtual teamwork and team charters. Your participation in this study will take a total of 15 minutes.

III. Foreseeable risks or discomforts

This study involves no more risk than the risks you encounter in daily life.

IV. Benefits

While there may be no direct benefit to you from participating in this study, the indirect benefit of participating will be in knowing that you helped researchers better understand how business students perceive virtual teamwork and team charters.

V. Confidentiality

Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file in the researcher's office for a minimum of five years. All data collected from you will be coded with a number or pseudonym (fake name). Your real name will not be used. The results of this research project may be made public and information quoted in professional journals and meetings.

VI. Compensation

You will receive no compensation for your participation in the study.

VII. Voluntary Nature of this Research

Participation in this study is entirely voluntary. You do not have to do this, and you can refuse to answer any question or quit at any time. Deciding not to participate or not answering any of the questions will have no effect on any benefits you're entitled to, like your health care, or your employment or grades. **You can withdraw from this study at any time without penalty.**

VIII. Contact Information

If you have any questions about this research, you may contact either:

1) Samuel Chung: chung@sandiego.edu, (XXX) XXX-XXXX

2) Robert Donmoyer, Ph.D., donmoyer@sandiego.edu, (XXX) XXX-XXXX

I have read and understand this form, and consent to the research it describes to me. I have received a copy of this consent form for my records.

Signature of Participant

Date

Name of Participant (**Printed**)

Signature of Investigator

Date

APPENDIX K**Survey Questions for Student Survey Participants**

This survey is designed to examine your perceptions of team charters and virtual teamwork. Your responses will remain confidential and survey results will only be reported in the aggregate. Thank you!

My gender: ☐ Male ☐ Female

My age: _____

My cohort: _____

I am a: ☐ Resident Student ☐ Distance Student

I have worked in **face-to-face** teams in the workplace for _____ years.

I have worked in **virtual** teams in the workplace for _____ years.

I have served in the military for _____ years.

While enrolled in MSIBL, I have helped create a team charter _____ times so far.

In total, my MSIBL teams have had to actually use our completed team charter _____ times.

Before I started MSIBL, I have worked in **face-to-face** student teams for _____ years.

Before I started MSIBL, I have worked in **virtual** student teams for _____ years.

My MBTI (Myers-Briggs) personality type: _____

In general, I enjoy face-to-face student teamwork.

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

In general, I enjoy virtual student teamwork.

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

Virtual teamwork is challenging for MSIBL students.

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

I prefer to work face-to-face with MSIBL teammates instead of working with them virtually.

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

Overall, it is worthwhile for MSIBL students to create team charters.

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

In upcoming semesters, I plan to create team charters with my future MSIBL teammates.

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

Team charters make virtual teamwork less challenging for MSIBL students.

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

The first semester of MSIBL prepared me to work effectively in virtual teams.

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

The MSIBL 102 team charter assignment prepared me to create effective team charters.

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

In my experience, team charters help MSIBL student teams to...

establish a group identity:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

establish group norms:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

complete team assignments on time:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

establish team goals:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

manage conflict:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

earn higher grades on team assignments:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

establish what is expected of team members:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

operate more effectively:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

make collective decisions:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

hold team members accountable:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

In my experience, MSIBL team charters increase the level of ...

communication between team members:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

individual contribution to team assignments:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

cohesion between team members:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

participation of team members:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

coordination between team members:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

individual satisfaction with the team:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

trust between team members:

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

What are some ways that the MSIBL 102 team charter assignment can be improved?

If you have used team charters (or something similar to them) before you started MSIBL, please describe what you used them for.

APPENDIX L**Survey Results Collected from Student Survey Participants (n = 81)**

1. My gender:

Male: 55 (67.9%)

Female: 26 (32.1%)

2. My age: 33.79 (mean)

3. My cohort:

First-semester student: 20 (24.69%)

Second-semester student: 19 (23.46%)

Third-semester student: 20 (24.69%)

Fourth-semester student: 22 (27.16%)

4. I am a:

Resident student: 67 (82.72%)

Distance student: 14 (17.28%)

5. I have worked in face-to-face teams in the workplace for _____ years: 11.69 (mean)

6. I have worked in virtual teams in the workplace for _____ years: 4.04 (mean)

7. I have served in the military for _____ years: 7.98 (mean)

Note: 53 (65.43%) participants served in the military for at least one year

8. While enrolled in MSIBL, I have helped create a team charter _____ times so far:

2.46 (mean)

9. In total, my MSIBL teams have had to actually use our completed team charter _____

times: 0.79 (mean)

10. Before I started MSIBL, I have worked in face-to-face student teams for _____ years:

4.96 (mean)

11. Before I started MSIBL, I have worked in virtual student teams for _____ years.

1.30 (mean)

12. My MBTI (Myers-Briggs) personality type: 25 (30.86%) of the 81 participants disclosed that they were introverts, at least according to the Myers-Briggs Type Indicator assessment that all MSIBL students completed during the first semester of the program.

13. In general, I enjoy face-to-face student teamwork: 4.36 (mean)

1=Strongly disagree: 2 (2.47%)

2=Disagree: 1 (1.23%)

3=Neutral: 2 (2.47%)

4=Agree: 37 (45.68%)

5=Strongly agree: 39 (48.15%)

14. In general, I enjoy virtual student teamwork: 3.27 (mean)

1=Strongly disagree: 2 (2.47%)

2=Disagree: 15 (18.52%)

3=Neutral: 27 (33.33%)

4=Agree: 33 (40.74%)

5=Strongly agree: 4 (4.94%)

15. Virtual teamwork is challenging for MSIBL students: 3.35 (mean)

1=Strongly disagree: 1 (1.23%)

2=Disagree: 22 (27.16%)

3=Neutral: 15 (18.52%)

4=Agree: 34 (41.98%)

5=Strongly agree: 9 (11.11%)

16. I prefer to work face-to-face with MSIBL teammates instead of working with them
virtually: 3.85 (mean)

1=Strongly disagree: 2 (2.47%)

2=Disagree: 3 (3.7%)

3=Neutral: 24 (29.63%)

4=Agree: 28 (34.57%)

5=Strongly agree: 24 (29.63%)

Note: One fourth-semester student did not answer the question, so I performed a zero-order correction and replaced the missing value with a “3.”

17. Overall, it is worthwhile for MSIBL students to create team charters: 3.43 (mean)

1=Strongly disagree: 2 (2.5%)

2=Disagree: 16 (20%)

3=Neutral: 20 (25%)

4=Agree: 30 (37.5%)

5=Strongly agree: 12 (15%)

Note: One fourth-semester student did not answer the question, so the total n for this question only was 80, not 81. I did not perform a zero-order correction because I used this question as a dependent variable in the regression analyses I ran.

18. In upcoming semesters, I plan to create team charters with my future MSIBL

teammates: 3.28 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 13 (16.05%)

3=Neutral: 28 (34.57%)

4=Agree: 32 (39.51%)

5=Strongly agree: 5 (6.17%)

Note: For fourth-semester students only, the question was phrased “If I were not graduating, I would have planned to create team charters with my future MSIBL teammates”

19. Team charters make virtual teamwork less challenging for MSIBL students:

3.02 (mean)

1=Strongly disagree: 4 (4.94%)

2=Disagree: 23 (28.4%)

3=Neutral: 28 (34.57%)

4=Agree: 19 (23.46%)

5=Strongly agree: 7 (8.64%)

20. The first semester of MSIBL prepared me to work effectively in virtual teams:

3.93 (mean)

1=Strongly disagree: 1 (1.23%)

2=Disagree: 6 (7.41%)

3=Neutral: 10 (12.35%)

4=Agree: 45 (55.56%)

5=Strongly agree: 19 (23.46%)

21. The MSIBL 102 team charter assignment prepared me to create effective team

charters: 3.90 (mean)

1=Strongly disagree: 2 (2.47%)

2=Disagree: 2 (2.47%)

3=Neutral: 13 (16.05%)

4=Agree: 49 (60.49%)

5=Strongly agree: 15 (18.52%)

In my experience, team charters help MSIBL student teams to...

22. establish a group identity: 3.64 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 7 (8.64%)

3=Neutral: 19 (23.46%)

4=Agree: 39 (48.15%)

5=Strongly agree: 13 (16.05%)

23. establish group norms: 3.79 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 5 (6.17%)

3=Neutral: 8 (9.88%)

4=Agree: 55 (67.9%)

5=Strongly agree: 10 (12.35%)

24. complete team assignments on time: 3.30 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 21 (25.93%)

3=Neutral: 19 (23.46%)

4=Agree: 25 (30.86%)

5=Strongly agree: 13 (16.05%)

25. establish team goals: 3.72 (mean)

1=Strongly disagree: 2 (2.47%)

2=Disagree: 7 (8.64%)

3=Neutral: 18 (22.22%)

4=Agree: 39 (48.15%)

5=Strongly agree: 15 (18.52%)

26. manage conflict: 3.51 (mean)

1=Strongly disagree: 6 (7.41%)

2=Disagree: 9 (11.11%)

3=Neutral: 15 (18.52%)

4=Agree: 40 (49.38%)

5=Strongly agree: 11 (13.58%)

27. earn higher grades on team assignments: 2.84 (mean)

1=Strongly disagree: 10 (12.35%)

2=Disagree: 24 (29.63%)

3=Neutral: 23 (28.4%)

4=Agree: 17 (20.99%)

5=Strongly agree: 7 (8.64%)

28. establish what is expected of team members: 3.81 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 8 (9.88%)

3=Neutral: 6 (7.41%)

4=Agree: 48 (59.26%)

5=Strongly agree: 16 (19.75%)

29. operate more effectively: 3.27 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 15 (18.52%)

3=Neutral: 28 (34.57%)

4=Agree: 27 (33.33%)

5=Strongly agree: 8 (9.88%)

30. make collective decisions: 3.32 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 16 (19.75%)

3=Neutral: 21 (25.93%)

4=Agree: 34 (41.98%)

5=Strongly agree: 7 (8.64%)

31. hold team members accountable: 3.63 (mean)

1=Strongly disagree: 6 (7.41%)

2=Disagree: 5 (6.17%)

3=Neutral: 17 (20.99%)

4=Agree: 38 (46.91%)

5=Strongly agree: 15 (18.52%)

In my experience, MSIBL team charters increase the level of ...

32. communication between team members: 3.06 (mean)

1=Strongly disagree: 4 (4.94%)

2=Disagree: 19 (23.46%)

3=Neutral: 30 (37.04%)

4=Agree: 24 (29.63%)

5=Strongly agree: 4 (4.94%)

33. individual contribution to team assignments: 3.04 (mean)

1=Strongly disagree: 4 (4.94%)

2=Disagree: 23 (28.4%)

3=Neutral: 23 (28.04%)

4=Agree: 28 (34.57%)

5=Strongly agree: 3 (3.7%)

34. cohesion between team members: 3.19 (mean)

1=Strongly disagree: 5 (6.17%)

2=Disagree: 14 (17.28%)

3=Neutral: 27 (33.33%)

4=Agree: 31 (38.27%)

5=Strongly agree: 4 (4.94%)

35. participation of team members: 3.09 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 22 (27.16%)

3=Neutral: 24 (29.63%)

4=Agree: 29 (35.8%)

5=Strongly agree: 3 (3.7%)

36. coordination between team members: 3.12 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 18 (22.2%)

3=Neutral: 29 (35.8%)

4=Agree: 28 (34.57%)

5=Strongly agree: 3 (3.7%)

37. individual satisfaction with the team: 2.95 (mean)

1=Strongly disagree: 5 (6.17%)

2=Disagree: 20 (24.69%)

3=Neutral: 33 (40.74%)

4=Agree: 20 (24.69%)

5=Strongly agree: 3 (3.7%)

38. trust between team members: 3.15 (mean)

1=Strongly disagree: 3 (3.7%)

2=Disagree: 19 (23.46%)

3=Neutral: 26 (32.1%)

4=Agree: 29 (35.8%)

5=Strongly agree: 4 (4.94%)

39. What are some ways that the MSIBL 102 team charter assignment can be improved?

- "Honestly" I lucked out. I felt I always had a good team, so the charter served as a platform to generate discussion about team norms during the forming phase of the team. Had we had issues, it might have played a larger role.
- Add a small writing assignment to measure how much a team deviated from the charter throughout the semester. Also, focus on items like "goals" is not needed; we only put down generic goals anyway.
- Allow more flexibility in how the charter is structured and what is included.

- As discussed in the marketing class, there are no long-term benefits to leadership classes or retreats. The entire class had no effect on my leadership abilities or performance. Three charters created was never used, and I have not opened the expensive Daft book since. The professors were nice, professional, and intelligent, I just learned nothing from it. I don't blame anyone for the coursework, I understand it is a masters in international business LEADERSHIP, I personally found the entire course a waste of time.
- As technology progresses I think we'll see the improvements in making a meeting of people more personal.
- Before starting the assignment more instruction by faculty on the assignment.
- Check lists for implementation within group to create a commitment among members.
- Consider brain storming vice a given format for the deliverable.
- Continually reinforce the importance of using them. Have an instructor evaluate the strengths/weaknesses of a charter.
- Don't need to be 13 pages. Can be effective at one page. Length shouldn't be a grading criteria.
- Done in class.
- Earlier during first week orientation, so that members have more time to understand what is expected.
- Eliminate it. Very worthless.
- Feedback from profs on the team charter. I.e. sit down with the team and walk through the drafting process.

- Get rid of it. We never look at charter after creating it.
- Give them "teeth." If charters can be used to directly contribute to affecting someone's grade that will make members more accountable.
- Good to go!
- Having teams share their charters with other students to open a forum of ideas to what a team should be.
- I believe it is a good tool only if it is utilized.
- I believe the team charter is a very useful tool for the first semester in establishing goals for the team, unfortunately it was not a tool that we had to use. I would hope that we are all at an age that we are responsible enough to know what is expected of us. Unfortunately, that is not always the case. I would improve the team charter by making it an in-class assignment done the first week of class [during orientation week] when teams are first formed by highlighting the importance of teamwork and teams in the corporate sector.
- I don't believe a charter helps much since it isn't enforceable.
- I don't see how the MSIBL 102 one can be improved. But after the first semester, we rarely used the team charters even though we made them up each semester.
- I don't think team charters are necessary. An individual charter submitted at the beginning of the MSIBL program and turned into to the staff and then distributed to each team member at the beginning of the semester would be more effective.

Team charters are a paperwork drill and no one really pays attention to them! We do them because it's a requirement every semester but we just fill in the blanks to

get the work done. I've never referenced it after I submitted it--waste of time! A individual charter would be more effective and not a waste of time.

- I recommend that after the robust (first) charter there should be a more general executive summary charter vs. a robust charter for every semester.
- I think the team charter assignment should be limited to the first semester so everyone can develop an awareness of what is expected from them by other team members.
- I think there should only be one charter--after that we all pretty much know the ground rules. There may be slight variations but we work those out as we go along. Unlikely we'd invoke charter to deal with a problem. The team identity cohesion happens in class, not on the paper.
- I think they can be much shorter.
- I understand that every team must agree to their guidelines for operating as a team, but I think the class would benefit from an overall cohort charter which outlines the standard set of values, principles and goals we all agree to as a class and to each other throughout the whole program. I think this would reduce repetitiveness and rework of doing charters every semester because, so far after 2 semesters, my 2 charters are very similar in their goals and expectations. I think a group team charter then would be only over and beyond what is not in the class charter. Somehow, I feel like in first semester the team charter was viewed as an assignment to complete thoroughly versus communicating and establishing group norms and group identity. Somehow the motivation for doing a charter has to be changed. Also, I think as part of the team evaluations, the question could ask or

measure a teammate's adherence to the charter- this would hopefully establish accountability and measure effectiveness.

- I'm not a fan.
- If after the end of each assignment a review of the charter took place.
- In think the charter is too extensive of a document to actually be useful.
Streamlining it would be beneficial.
- It took a while for us to get the charter back from the professors. I don't know if that would have helped but actually talking to set up the assignment was the best part of this task.
- It's already improved. I don't have ideas right now. Hopefully by tomorrow I will have when we meet.
- Less cheesy requirements (goals, etc.), more standards and guidelines.
- Make it the first thing we do as a team maybe. There is some value to struggling through one project.
- Make them shorter. Have a way to formally ensure members adhere to and review them.
- Make WebCT mandatory. Challenging but will be better in long run.
- Minimize switching of teams for each semester. Use two teams but change the team lead each semester. Would offer opportunity to make changes based on lessons learned. Alternate teams each semester. E.g. first semester Team 1, second semester Team 2 (new), third semester original Team 1, fourth semester original Team 2.
- More brief & concise. The format is a little repetitive.

- More emphasis on the importance of them, "make" us review them, update them.
- Needs to be early before another class loads up the charter. Should provide "lessons learned" from previous charters on what they need to protect against. Should not be sold as a warm, fuzzy document. It should establish clear "professional conduct" rules.
- Not much. They would be better if they were actually used, but that is hard to enforce.
- Reduce the length. Too taxing to sort through.
- Revisit the assignment in second class meeting.
- Shorten.
- Standardize basic rules for all charters.
- Started day 1 before all classes begin.
- Stress the future application of charters in the work environment. In class, it's just an "assignment" and carries little weight.
- The team charter assignment is effective as it stands now. It is a "in case of emergency, break glass" tool. If there is never a problem, it is never used.
- The Team Charter assignment is well designed as-is.
- The team charter is good but never needed to refer to it. Maybe need an assignment completed law charter & assessment of how it worked.
- There is a great deal of fluff in the charter. Simplify it. Here is who we are, what we expect, how we will hold ourselves accountable.

- They are fine the first semester, but each group gets a little lazy and just cuts and pastes making busy work. The good part is they are like an insurance policy. It is there if you need to use it.
- They are prepared well. I don't know how many people refer to them.
- Too "fluffy."
- Unless there was an issue on the team, charters were not used after initial creation.
- Useless, just extra work. Most teams got an old one and updated it.

40. If you have used team charters (or something similar to them) before you started MSIBL, please describe what you used them for.

- At work, we have dept. mission statements and meetings, but no formal "charter."
- Company handbook - corporate norms & expectations.
- Created and utilized team charters for work. Used to define the scope of work, membership, responsibilities, and define when team objectives are met. When objectives were met, the team was dissolved.
- Establishing team expectations and ensuring consequences for sub-par work.
- For team building within sports.
- Have not used them before. Won't use them again.
- In a tactical environment to conduct meetings and debriefs in the military.
- Nonprofit organization. Professional associations.
- Once the charter was made, people generally followed it. This was especially valuable first semester.
- Only mission statements.

- Operating guidelines on how we would conduct face-to-face sessions.
- Personal relationships are a better investment of time.
- Project management.
- Project planning at work.
- Projects.
- starting a team project in a workplace
- Student organizations - HSBA (Skype/Facebook). Social group (Google & Facebook) INTASU.
- They were for my organization to define our purpose - not used.
- Used during conferences to lay out the ground rules.
- Used them at work when standing up a project team, used to establish team purpose, goals and objectives, plan of action, team deliverables and measurable outcomes.
- Work committee.
- Work, IPT's, project.

APPENDIX M**Research Consent Form for the Interviews with the Director and Assistant Director**

University of San Diego
Institutional Review Board

Research Participant Consent Form

For the research study entitled:
Virtual Teamwork in a Business School Master's Program:
Do Team Charters Have an Impact?

I. Purpose of the research study

Samuel K. Chung is a student in the School of Leadership and Education Sciences at the University of San Diego. You are invited to participate in a research study he is conducting. The purpose of this research study is to explore how business students perceive virtual teamwork and team charters.

II. What you will be asked to do

If you decide to be in this study, you will be asked to: participate in a 30-60 minute one-on-one interview. You can choose a day and time that is convenient for you and you can choose to be interviewed over the phone, over a Web conferencing system like Wimba or Skype, or in-person. You will be audio-taped during the interview. Your participation in this study will take a total of 30-60 minutes.

III. Foreseeable risks or discomforts

Sometimes when people are asked to think about their feelings, they feel sad or anxious.

If you would like to talk to someone about your feelings at any time, you can call toll-free, 24 hours a day: California Mental Health Hotline at 1-800-479-3339.

IV. Benefits

While there may be no direct benefit to you from participating in this study, the indirect benefit of participating will be knowing that you helped researchers better understand how business students perceive virtual teamwork and team charters.

V. Confidentiality

Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file in the researcher's office for a minimum of five years. Your real name will be used. The results of this research project may be made public and information quoted in professional journals and meetings.

VI. Compensation

You will receive no compensation for your participation in the study.

VII. Voluntary Nature of this Research

Participation in this study is entirely voluntary. You do not have to do this, and you can refuse to answer any question or quit at any time. Deciding not to participate or not answering any of the questions will have no effect on any benefits you're entitled to, like

your health care, or your employment or grades. **You can withdraw from this study at any time without penalty.**

VIII. Contact Information

If you have any questions about this research, you may contact either:

1) Samuel Chung

Email: chung@sandiego.edu

Phone: (XXX) XXX-XXXX

2) Robert Donmoyer, Ph.D.

Email: donmoyer@sandiego.edu

Phone: (XXX) XXX-XXXX

I have read and understand this form, and consent to the research it describes to me. I have received a copy of this consent form for my records.

Signature of Participant

Date

Name of Participant (**Printed**)

Signature of Investigator

Date

APPENDIX N**Interview Guide for the Director**

- Please describe to me how you personally define virtual teamwork.
- In what ways, if any, does student virtual teamwork differ from face-to-face student teamwork?
- What, in your opinion, are some of the benefits of student virtual teamwork?
- What, in your opinion, seems to be challenging about student virtual teamwork?
- What, if anything, can students do to overcome some of the challenges they experience?
- What, if anything, can students do to achieve more success with virtual teamwork?
- Please describe to me how you personally would define or describe leadership.
- Please share your definition of a “team charter.”
- How did you initially get the idea of asking students in their second, third, and fourth to complete the team charter assignment?
 - Follow-up: How long have team charters been used by the program and by MSIBL 102?
- Why do you ask students to complete a team charter?
- Would you share your thoughts about what might happen if your students did not complete a team charter?
- In general, how effective are the team charters you have seen?
- What kind of feedback or reactions have you gotten about team charters?
- What advice would you give a brand new student about creating team charters?
- What advice would you give a brand new student about virtual teamwork?
- Any final thoughts or comments about virtual teamwork or team charters?

APPENDIX O**Interview Guide for the Assistant Director**

- Please describe to me how you personally would define or describe leadership.
- Please describe to me how you personally would define or describe virtual teamwork.
- Please share your definition of a “team charter.”
- What, in your opinion, are some of the benefits of student virtual teamwork?
- What, in your experience, seems to be challenging about student virtual teamwork?
 - Follow-up: What, if anything, can students do to overcome some of the challenges they experience?
 - Follow-up: What role has the MSIBL staff played in this, if any?
- Why did distance students only work with each other in the past?
 - Follow-up: What kinds of challenges did they face?
- What, if anything, can students do to achieve even more success with virtual teamwork?
- In what ways, if any, does student virtual teamwork differ from face-to-face student teamwork?
- By what process do you assign students into teams each semester?
 - Follow-up: Why change them each semester?
 - Follow-up: Why do students choose their own team leads now?
- When did team charters start being used by students in the program? Why?
 - Follow-up: What might happen if students do not complete a team charter?
- In general, how effective are the team charters you have seen, if any?

- What kind of feedback or reactions have you gotten from students about team charters?
- What advice would you give a brand new student about creating team charters?
- What advice would you give a brand new student about virtual teamwork?
- If you were the next director, in what ways, if any, would you plan to support or hinder the use of team charters in the future?
- Any final thoughts or comments about virtual teamwork or team charters?

APPENDIX P**Research Consent Form for the Interviews with the Professors of MSIBL 102**

University of San Diego
Institutional Review Board

Research Participant Consent Form

For the research study entitled:
Virtual Teamwork in a Business School Master's Program:
Do Team Charters Have an Impact?

I. Purpose of the research study

Samuel K. Chung is a student in the School of Leadership and Education Sciences at the University of San Diego. You are invited to participate in a research study he is conducting. The purpose of this research study is to explore how business students perceive virtual teamwork and team charters.

II. What you will be asked to do

If you decide to be in this study, you will be asked to: participate in a 30-60 minute one-on-one interview. You can choose a day and time that is convenient for you and you can choose to be interviewed over the phone, over a Web conferencing system like Wimba or Skype, or in-person. You will be audio-taped during the interview.

Your participation in this study will take a total of 30-60 minutes.

III. Foreseeable risks or discomforts

Sometimes when people are asked to think about their feelings, they feel sad or anxious.

If you would like to talk to someone about your feelings at any time, you can call toll-free, 24 hours a day: California Mental Health Hotline at 1-800-479-3339.

IV. Benefits

While there may be no direct benefit to you from participating in this study, the indirect benefit of participating will be knowing that you helped researchers better understand how business students perceive virtual teamwork and team charters.

V. Confidentiality

Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file in the researcher's office for a minimum of five years. Your real name will be used. The results of this research project may be made public and information quoted in professional journals and meetings.

VI. Compensation

You will receive no compensation for your participation in the study.

VII. Voluntary Nature of this Research

Participation in this study is entirely voluntary. You do not have to do this, and you can refuse to answer any question or quit at any time. Deciding not to participate or not answering any of the questions will have no effect on any benefits you're entitled to, like

your health care, or your employment or grades. **You can withdraw from this study at any time without penalty.**

VIII. Contact Information

If you have any questions about this research, you may contact either:

1) Samuel Chung

Email: chung@sandiego.edu

Phone: (XXX) XXX-XXXX

2) Robert Donmoyer, Ph.D.

Email: donmoyer@sandiego.edu

Phone: (XXX) XXX-XXXX

I have read and understand this form, and consent to the research it describes to me. I have received a copy of this consent form for my records.

Signature of Participant

Date

Name of Participant (**Printed**)

Signature of Investigator

Date

APPENDIX Q**Interview Guide for the Professors of MSIBL 102**

- Please describe to me how you personally define virtual teamwork.
- In what ways, if any, does student virtual teamwork differ from face-to-face student teamwork?
- What, in your opinion, are some of the benefits of student virtual teamwork?
- What, in your opinion, seems to be challenging about student virtual teamwork?
- What, if anything, can students do to overcome some of the challenges they experience?
- What, if anything, can students do to achieve more success with virtual teamwork?
- Please describe to me how you personally would define or describe leadership.
- Please share your definition of a “team charter.”
- How did you initially get the idea of requiring students to complete the team charter assignment?
 - Follow-up: How long have you been using the team charter assignment in your classes?
- Why do you ask students to complete the team charter assignment?
- Would you share your thoughts about what might happen if your students did not complete the team charter assignment?
- In general, how well or how poorly do students seem to perform on the team charter assignment?
- What kind of feedback or reactions, if any, have you gotten from students about the team charter assignment?
- In what ways, if any, has the team charter assignment changed over time?

- In what ways, if any, do you plan to change the team charter assignment in the future?
- What advice would you give a brand new student about creating team charters?
- What advice would you give a brand new student about virtual teamwork?
- Any final thoughts or comments about virtual teamwork or team charters?