POWER AND POISTIONALITY: WHAT MAKES A SUCCESSFUL TEAM

A Capstone

Presented to

The Faculty of the School of Education

and Human Development

University of Virginia

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

By

Caroline June Wagner

B.A., The Ohio State University, 2013

M.Ed., The College of William & Mary, 2017

May 2024

University of Virginia
School of Education and Human Development Registrar
Office of Admissions and Student Affairs

Ehd-registrar@virginia.edu
Ridley Hall 102D
417 Emmet Street
Charlottesville, VA 22903

Capstone Approval Form

Student Full Name: Wagner, Caroline June ▮▮▮▮▮

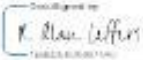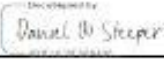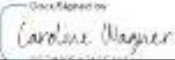**Department Name:** Education Leadership, Foundations & Policy

Degree Program: Higher Education (EDD)

Date of Defense: 3/29/2024

This doctoral capstone has been approved by the Graduate Faculty of the School of Education and Human Development in partial fulfillment for the degree of Doctor of Education.

Approved Title of Doctoral Capstone:

Power and Positionality: What Makes a Successful Team

	Name	Department/University	Signature
Chair	Alan Leffers	EDLF, EHD, UVA	*K. Alan Leffers*
Co-Chair (if applicable)			
Committee Member	Christian Steinmetz	EDLF, EHD, UVA	
Committee Member	Danny Steeper	Associate Dean for Student Services and Academic Operations, McIntire School of Commerce, UVA	*Daniel W Steeper*
Committee Member			
Committee Member			
Committee Member			
Committee Member			
Student	Caroline Wagner	Education Leadership, Foundations & Policy	*Caroline Wagner*

Abstract

This study explores the critical intersection of teamwork, business education, and group dynamics, with a focus on graduate business programs. Emphasizing the universal nature of teamwork and its prevalence in various life contexts, the study recognizes both the benefits and challenges associated with team collaboration. The literature review delves into the significance of leadership styles, Tuckman's group development model, and the impact of individual students' power and positionality on group dynamics. The study also addresses the role of community in business higher education, highlighting the competitive landscape, program preferences, and the importance of belonging and connectedness for student success. Furthermore, the study examines various forms of capital, such as social and cultural capital, and their influence on group interactions. The role of gender in group dynamics is also examined, offering insights into how gender dynamics influence collaborative efforts. The study is centered around Tuckman's Theory of Group Development, highlighting the stages of forming, storming, norming, and performing.

The study, conducted at Oak University, a Predominantly White Institution in the mid-Atlantic region, specifically focuses on a one-year Master's degree in commerce program. Using Tuckman's Model of Group Development as a framework, the research questions guiding the research are:

1. How do students rate their sense of belonging in groups?

2. To what extent do group dynamics change over time?

3. To what extent does gender play a role in group dynamics?

4. What is the relationship between an individual's social capital and job confidence?

5. What is the relationship between social capital and group dynamics?

This data was analyzed using a comprehensive mixed methods approach, and five surveys conducted throughout the semester. The analysis reveals significant increases in students' sense of connection and mutual respect over time. While individual feelings of importance and equality within groups remained stable, group dynamics related to conversation dominance underwent changes. Gender differences were minimal, with only slight variations in perceptions of mutual respect and conversation dominance. The study also explores the relationship between social capital and job confidence, emphasizing the positive correlation between academic success, group collaboration, and confidence in obtaining a job. The recommendations from this study are:

1. Maintaining intentional group structures

2. Implementing pre-entrance personality assessments

3. Utilizing team contracts

4. Mandatory interventions

5. Intra-group dynamic research

Limitations and considerations for future research are also discussed, emphasizing the importance of group experiences in fostering critical thinking and positive outcomes.

Keywords: teamwork, business school, graduate students, group project, power, capital

Dedication

To my favorite groups –

the family I have and the family I am building.

Acknowledgments

This capstone is dedicated to all of the individuals that helped build my love of education, especially higher education; and to those that helped me reach this academic milestone. To my husband, Adam, thank you would never be enough to express my gratitude for the editing, listening, encouraging, and supporting me that you have done these past four years. I love you and Carmen, and I am so excited for our next adventure. To my parents for making sure education was always a priority and making school projects as fun as possible. Thank you for encouraging me to try everything throughout life and giving me every opportunity to succeed and mom – thank you for being a better editor than I will ever be for the past 32 years of my education. To my Aunt Jenny and sisters for being constant cheerleaders in all of my journeys – educational or not; and to my sisters for being my original group project. Thank you, all of my UVA colleagues that have supported and advised me, through this process including, Sally Armentrout, Janelle Jennings, Ryan Hathaway, Karen Connors, Hal Turner, Katy Smith, Kat Lawrence, Hayley Spear, Ira Harris, Andrea Roberts, and Theresa Carroll. To the dearest of my Charlottesville friends, John and Sarah, thank you for keeping me on track and making sure the last four years were so much fun while productive too. To my committee members, Alan Leffers, Christian Steinmetz, and Danny Steeper – thank you for your patience and advice this year – I truly would not be here without you! To my Aunt Elaine for taking me on my college tours, setting up a magical Ohio State tour to sway my decision making, and showing me firsthand the importance of women in higher education, you inspire me to make a difference. To the individuals that made my Ohio State experience everything it was that inspired my love of this field including my friends, sorority sisters, and especially Dr. Kristen Rupert and Dr. Amy Barnes. To everyone in my groups – I am deeply grateful for all of those experiences in making my who I am today.

Table of Contents

SECTION ONE: INTRODUCTION

Community & Success in Higher Education & Beyond

A university's ability to create a sense of community is essential to engage students and make their experience worthwhile (Strayhorn, 2012). Building a cohesive and supportive community among peers in any program is challenging. Although difficult, it is important to both the institution and the students to ensure there are ample opportunities and space to create that community (Brandes, 2006; Hoffman et al., 2002; O'Keefer, 2013; Strayhorn, 2012). Actions on the university's part allows for the natural social and academic forming of groups between students through their experiences. For this reason, belongingness and connectedness have been popular areas of research in higher education over the past two decades (Strayhorn, 2012; Des Armier & Bolliger, 2019; Irani & et al., 2014). Although there is thorough research done on undergraduate populations, the same effort has not been made to study graduate students. For many universities, their graduate programs, and students are a crucial part of their overall mission, financial model, and campus community; however, graduate students are generally an afterthought compared to the undergraduate population (Reinhart, 2010; Strayhorn, 2012). Community is helpful to students' academic success during college and personal and professional success after college, so faculty and staff should constantly assess whether or not their efforts to build community are effective.

Business Schools

Higher education institutions strive to produce students who become productive and successful members of society. What that success looks like is often informed by employers of specific industries. This is true of many disciplines, but especially business (Oh et al., 2004). Engagement with others is critical in business and is seen as a skill students need both professionally and academically (Calma & Davies, 2021).

"Employers inform us [business schools] that teamwork skills are among the things that they most value in potential hires. They understand that the ability to work in teams is associated with high performance. Although as academics, we frequently give our students team projects and have them work in groups, we rarely explicitly train them to work together" (Batts, 2010, p.12).

Training students to perform the technical skills required to do jobs while not adequately addressing the soft skills needed to be contributing members of a team and society is a concern in multiple disciplines (Kyllonen, 2013). Soft skills, unlike technical skills that are taught clearly, include one's "personality and behavior, situation judgment, motivation, [and] dependability, and safety" (Kyllonun, 2013, p.20). These soft or non-cognitive skills can be learned through interactions with others and taught through creating "social-emotional learning" (Kyllonun, 2013, p.19) experiences for students – such as teaming and group work.

Despite universities working to develop student's soft and work-ready skills, such as leadership, critical thinking, conflict management, decision making, and self-reflection, the industry is not seeing those skills reflected in their newest recruits (McManus & Rook, 2021); however, we know they are key skills that these employers are seeking (Varela & Mead, 2018).

Teams & Community

"It is difficult to overstate the importance of teams" (Varela & Mead, 2018, p.172), and "increasingly group-based exercises are becoming more common in business education as educators are placing more emphasis on group learning as a way of developing teamwork skills among students" (Lee et al., 2016, p. 380). Group work and teamwork are ways in which universities can build community and promote the development of soft skills (Johnson, 2021; Schartel Dunn et al., 2021). Assigning group work in an academic setting often elicits immediate

and powerful reactions from students. Some students find great value in it and learn in more influential ways, but generally, students do not see the benefit and dread working with others (Christfort, 2018). Particularly after the COVID-19 pandemic, many students lost two full years of in-person education, and while there were many downsides to that loss, one, in particular was the lack of social skill development and the ability to work with different classmates (Johnson, 2021; Schartel Dunn et al., 2021; Betts, 2010). It is more relevant than ever to consider how teaming and group experiences can contribute to developing soft skills.

Teaming Skills

Teamwork development is often happening outside of the classroom as students work together. "Group work often forces students to discuss their ideas, confront counterarguments, and think beyond their perspectives, which can be an uncomfortable experience" (Lee et al., 2016, p. 380). To be effective, educators must learn how to assist students as they experience group work.

When students work effectively with their peers, they are able to accomplish three outcomes: building knowledge, building relationships, and building capital (Han, 2002, p. 2). In structured groups that have an academic value attached (graded work or peer evaluations), peers must work toward defining success, a common goal, and maximizing their resources to improve group effectiveness (Oh, 2004).

The power and positionality of individual students should be examined to understand the effects students have on each other, especially those that occur in small groups. "Positionality is the social and political context that creates your identity in terms of race, class, gender, sexuality, and ability status" (Dictionary.Com, 2018). A student's power and positionality stem from their social capital, academic talents, self-assuredness, and self-confidence. Student's social capital, and these other aspects, can contribute to the group's capital and what resources they can access.

It indicates to their peers what power they may hold (Oh, 2004) and helps to understand the impact individuals can have on a group dynamic. Understanding these individual contributions to group dynamics is particularly important in a business school setting and how to best teach students how to be impactful in group work during and after school.

Purpose of Study & History of the Program

There is no clear answer on what makes a successful team. This study will examine teamwork and investigate the opportunities and strategies business schools can utilize to develop students' skills and community through teams. This study looks at one highly ranked, one-year business program on the east coast, which uses an integrative approach to train students to be both technically successful and able to work with others.

This program is in its 16th cohort for the 2023-2024 academic year. For the duration of the program, groups of 4 -5 students have been used for course work. This is a well-researched number for small group projects, 5 is the threshold where "all students [are called] to participate extensively" (Mulhim & Eldokhny, 2020, p.160). The threshold of six students creates dynamics where students are statistically less likely to have as many positive benefits in both personal skill development, and academic success as a group (Mulhim & Eldoknhy, 2020; Cohen, 2020).

As the groups have been created each year, the program leadership has attempted to balance the variety of student dynamics, but in recent years have focused on the variety and balance between gender, citizenship, and academic history and skills within each group.

For the first eight years of the program's existence, the program faculty director and the organizational behavior professor would meet with each group once during the semester in order to check in with students, support group development, and address any concerns. "There were occasionally situations calling for follow-up meetings" shared the program director, in cases of

"unresolved conflict persisting across assignments later in the semester". In the programs ninth year the cohort size reached over 90 students; therefore, these individual meetings became too difficult to manage for faculty members and is no longer used.

Although most of the curriculum is centered around technical business skill courses such as strategy, systems, marketing, accounting, and financial management; all students also take a 3-credit Organizational Behavior (OB) course. The OB course, is held in the 16-week semester occurs during weeks 1, 2, and 9-14; the students complete a team contract with guiding questions (Appendix E) in weeks one and two and are asked to refer back to you it specifically during a team feedback activity in October (weeks 9-12). In an informational interview with the OB professor, she stated "team contract is quite important as it prepares the students for engaging in teamwork in a systematic and collaborative manner. It sets out the norms for the team and every member needs to sign off to indicate that they agree". The program has always had groups with dynamics that prohibit the students from being successful, the question of why is important to ask.

Based on the history of the program and current literature on teams, this study will investigate the power and positionality of individual students to try and deduce key factors that are impacting the group. It is important to note that these group dynamics are formed under the stress of both academic requirements and students navigating their personal life and job search during the one-year graduate program. Gender and the student's academic concentration (business analytics, finance, marketing and management, or biotechnology) will be the anchors of comparison and understanding the relationships between individual students' power and positionality and their groups' growth.

Research Questions

This study will examine group development within the one-year Masters in Commerce program, specifically how the program could better formulate these groups if they understood more about the power and positionality of students and how it is affecting their group dynamic and personal soft skill development. The study will focus on the following questions:

6. How do students rate their sense of belonging in groups?

7. To what extent do group dynamics change over time?

8. To what extent does gender play a role in group dynamics?

9. What is the relationship between an individual's social capital and job confidence?

10. What is the relationship between social capital and group dynamics?

Methodology

This study uses a convergent mixed methods research design to understand and measure students' growth throughout an academic teaming experience. The study focuses on a mid-size institution in the mid-Atlantic region of the United States, specifically, a one-year Master's degree in Commerce program, which incorporates teaming in their course work. This study uses Tuckman's Model of Group Development as a framework to explore and compare the experiences of these students.

SECTION TWO: LITERATURE REVIEW

"Teamwork is universal in many environments, and business education is rife with it" (JKCP, 2023). A team denotes a group of two or more people working interdependently to pursue a common goal (Varela & Mead, 2018). This definition is practical because it encompasses all teams' individuals participate in throughout life – family, friends, work, school, and community. "Many organizations today utilize teams to accomplish their goals. and teams are the driving force behind critical elements of our society…; however, teams do not operate without issue" (Grossman & Miller, 2021, p. 732). With issues comes the opportunity to explore strengths and how to enhance or focus on those strengths. Working to figure out the intersection of group projects with capital, community, and peer effects should allow research to explore how to avoid or grow through those issues.

Many factors assure team efficacy, but an essential element is that team members identify and employ the different leadership styles of their members (Gabriel, 2016). In a review of team and group development theories, Bruce Tuckman's 1965 model emerged as one of the most helpful and used theories. Within organizational literature, Tuckman's model is often referenced and recognized (Miller, 2003; Bonebright, 2008). When it was first published in 1965, the focus was mainly on qualitative reference around group therapy, as Tuckman was a research psychologist. (Bonebright, 2008). Although most literature on the theory is positive and recommended for use, a limitation of the model is that it does not state indicators that help researchers understand when a group is successfully transitioning to another stage and does not address how groups change over time (Bonebright, 2008). This study seeks to understand how individual student's power and positionality helps or hinders these individuals navigate through Tuckman's model as part of a group. To more fully understand this dynamic, it is essential to

explore student's positionality through their capital, community, and effects their peers are having on them before returning to explore Tuckman's model and the research in this study. This study will make recommendations on how to use students' power and positionality to create stronger groups and more intentional learning experiences in the program.

Community in Business Higher Education

It is essential to understand graduate business education in higher education. "Business education is not only important in business schools, but throughout higher education" (JKCP, 2023); however, business schools are sensitive and responsive to the needs of the market (Lauricella et al., 2021; Industry Today, 2019; WCBT, n.d) as opposed to providing general business education.

Graduate business education focuses on theory-based subjects, such as marketing and management, and practice-based courses, such as statistics and accounting (Industry Today, 2019). Additionally, graduate business programs are starting to incorporate coding, artificial intelligence, and real estate courses, among other subjects (Industry Today, 2019; WCBT, n.d.).

Most business graduate programs in the United States are MBA programs (Ethier, 2023), but one-year accelerated programs are growing in popularity. Generally, graduate business programs are highly competitive in the United States, with the average acceptance rate of the top 50 programs being 31.2% (Ethier, 2023) and the lowest acceptance rate being just 8.6% (Ethier, 2023). They are often competitive and academically intense due to the high likelihood of finding a job before graduation and the average starting salary being over $135,000 annually (Ethier, 2023; Lauricella et al., 2022).

In a 2021 study of over 600 prospective graduate business students, the top five aspects students were looking for in a program were (in no particular order): "excellent facilities, strong

support during the admissions process, a highly ranked program, the business school being recognized in their home country, and a high level of support during the program" (Bleizeffer, 2022). Students are seeking the support of faculty, staff, and each other – making the community of business schools a vital part of graduate business education.

Belonging and Connectedness

When considering building community and creating a sense of belonging in one-year business graduate programs, it is important to consider what community means to students and why they are essential to the business student experience. Belonging can be described as the perceived social support students receive and their feeling of connectedness; if they feel cared for, accepted, and respected by their peers, their staff and faculty, and the overall community of which they are a part (Strayhorn, 2012; Hoffman et al., 2002; O'Keefe, 2013). Wilson and Gore (2013) reinforce the idea that students feel connected when they, as individuals, are personally included and supported by others. "Student-to-student connectedness is promoted by active, student-centered learning process[es]... and is the result of interpersonal communication and behavior in the classroom, which emulates belonging, cohesiveness, and supportiveness among peers" (MacLeod et al., 2019, p.426). Connectedness is generally attributed to solid relationships inside and outside the classroom. A student's sense of community correlates to academic success (Des Armier & Bolliger, 2019; Irani et al., 2014; Gopalan & Brady, 2020; MacLeod et al., 2019).

Students need to feel a sense of belonging or connectedness to thrive in additional areas of the student's life. "Belonging—with peers, in the classroom, or on campus—is a critical dimension of success at college. It can affect a student's degree of academic adjustment, achievement, aspirations, or even whether a student stays in school" (Strayhorn, 2012).

Belonging affects student's physical health, mental health, academic performance, and relationships with peers and faculty (Contereras-Aguirre & Gonzalez, 2017; Des Armier & Bolliger, 2019; Irani et al., 2014; Wilson & Gore, 2013; Stayhorn, 2012; Gopalan & Brady, 2020; Hoffman et al., 2002; O'Keefe, 2013; MacLeod et al., 2019; Gu & Bourne, 2007).

Benefits of Community and Peer Interactions

Connectedness can help build students' sense of community and ultimately impact their overall success and experience in school (Reinhart, 2010). There are many benefits to community, connectedness, and a sense of belonging at all ages (Maslow, 1970), but particularly in an intense academic experience, it creates better educational discussions and involvement in and out of the classroom (Des Armier & Bolliger, 2019; Strayhorn, 2012). A few important benefits are job readiness, academic involvement, and better mental and physical health (Fish & Wilson, 2009; Uddin et al., 2020; Gu & Bourne, 2007; Allen et al., 2021). Students who are able to practice their soft skills and leadership through extracurricular activities during an academic year are more likely to obtain jobs and be successful in the job marketplace (Fish & Wilson, 2009).

The studies mentioned demonstrate how vital peer-to-peer communication is to community (Gu & Bourne, 2007; Des Armier & Bolliger, 2019; Gopalan & Brady, 2020; MacLeod et al.,2019). Peer relationships, including mutual trust, caring, and reliability, are among the most important predictors of students' success (MacLeod et al., 2019). These relationships can be formed naturally through socialization, as mentioned before, but can be encouraged by the randomization of social interactions intentionally created through group experiences throughout the semester. These experiences of group interactions and soft skill practice help students create a larger community within their program and on campus.

Barriers of Community

There are some common barriers to community and a sense of belonging for graduate students. Suppose students do not feel they belong or have a sense of connectedness. In that case, students may experience social isolation, loneliness, dissatisfaction, marginalization, and interpersonal distress (Bolliger & Inan, 2012).

International students face additional barriers to building community. These barriers can include primary language differences, prior education systems, culture, and field of study (Contreras-Aguirre & Gonzalez, 2017). Additionally, high numbers of students from the same international population can create sub-communities, further deterring these students from creating and participating in the larger program and campus communities (Contreras-Aguirre & Gonzalez, 2017).

These are all barriers to community, and, more importantly, barriers to graduate students being able to achieve a healthy life balance and enjoy life, including social connections (Gu & Bourne, 2007; Webber & Burns, 2021; Contreras-Aguirre & Gonzalez, 2017). In addition to physical, emotional, and identity issues creating barriers to a cohesive community in graduate programs, student debt and socio-economic status is an additional barrier. Over the past 20 years, graduate students have increasingly taken on more debt. Students that take out federal loans are more likely to be focused on part-time jobs or choose lesser programs because of cost, as opposed to their peers who do not have take out loans and are able to more fully invest in their graduate programs, communities, and the educational process (Webber & Burns, 2021).

These specific benefits and barriers to community help to understand how belongingness and connectedness are created for students or difficult to achieve for graduate students. This

foundational need for, and understanding of, belonging sets us up to understand how students navigate community and building it.

Capital

Although there are many different types of capital that could be explored, for the purposes of this study, social and cultural capital will be used. These types of capital are important to this study because of their effect on group dynamics based on the individual's capacity. Capital and the habitat you live in create the way you see the world, and those two cannot be unwound (Kiyama & Rios-Aguilar, 2018). This is important as we explore the capital students come to college with and the way they develop capital throughout their educational experience. Capital, as stated in chapter one, also reflects the power and positionality students have and effects the way in which they move through Tuckman's model.

Cultural Capital

Cultural capital is important to explore when considering how students work together, because cultural capital is a reflection of everything that the student learned before the current point. "A form of dominant cultural capital – is a mechanism through which youth gain access to institutional support and resources" (Jack, 2016, p.2) and this carries with them to college. This includes everything from family culture, including "the different set of linguistic and cultural competitiveness, knowledge, and dispositions that are passed from one generation to another by way of the class-located boundaries of their family" (Rios-Aguilar & Kiyama, 2018, p.11), the culture of where a student grew up, and as stated – the resources they had access to.

"Much of the research on the science of team effectiveness has primarily focused on North American and other Western contexts" (Johnson, 2021, p. 734). In other cultures, teamwork is not as valued, and these international students may bring those cultural norms into

their teams with them. Similarly, suppose a student comes from a background where communication and trust are not values of their community. In that case, that lack of cultural capital and skills may affect their ability to be a productive groupmate. This issue of culture at universities is increasingly important in today's world and literature, because "the cultural norms that govern campus life exacerbate class differences" (Jack, 2016, p.2). Being mindful and inclusive of all backgrounds and perspectives is important both at an institution level and a group experience level.

Social Capital

Social capital is the way in which people benefit from the relationships they have and strategically build relationships with other people whom they think will benefit them at the current time or in a future situation (Rios-Aguilar & Kiyama, 2018). Social capital is "built through meaningful interactions with peers" (Demir, 2021, p.2), and there are two types of networks to consider when thinking about social capital in teams – bonding networks and bridging networks. Bonding networks are made of group members who are similar and naturally form a network of trust and belonging based on those similar characteristics (Bye et al., 2020; Demir, 2021), and bridging networks represent where individuals whom are different reach out to each other; although they may have lower emotional connection their different perspectives often create new ideas and knowledge (Bye et al., 2020; Demir, 2021). A student's cultural capital will affect which networking skill they need to use in order to create social capital.

So, how does one assess social capital and the ability to create it? McKinsey & Company is a global management consulting firm, the firm is "the oldest and largest of the 'Big Three' management consultancies" (McKinsey & Company, n.d.) Companies like McKinsey are the type of institutions that drive and inform how academics train students for the workforce.

McKinsey & Company's partners think three things can assist with this assessment: motivation, access, and ability (Lauricella et al., 2022). They go on to explain that one can assess by asking – are students motivated to build and maintain relations, do they have access to the relationships they are hoping to build, and do they have the time, physical space resources, and skills to build those relationships (Lauricella et al., 2022). This is an important way in which researchers can look at teams and group dynamics. "Social capital also has potential risks and disadvantages for an entity in the form of ossification, 'group think' and 'freeloading'" (Bye et al., 2020, p.298) but has become another lens researchers use to study the effectiveness of teams through (Demir, 2021). Both forms of capital are just a piece of the puzzle in the power students have when working in teams.

Factors of Group Development

There are many aspects and qualities of strong teams to contemplate when considering team formation and group development. In a 2021 study conducted at a business graduate school, the authors found some of the most important work-ready skills to be project planning, communication, strategic thinking, self-management, flexibility, conflict management, creativity, leadership skills, innovation, and most importantly, the ability to work in a team (McManus & Rook, 2021). Working in a team takes all of the skills mentioned above and more. This section highlights several peer effects that are well-researched and firmly attributed to positive group development, these are general soft skills, not specific to Tuckman's model.

Care

"Students who support each other both personally and academically" are more successful in and out of the classroom (Horn, 1997, p. 26). When students, or any humans for that matter, have an emotional and vested interest in a common goal and others, the outcomes are usually

more favorable. One example of this is the link between students who have support of any type and persistence to graduation (Horn, 1997). In contrast, "poorer learning outcomes can be due to highly negative student experiences involving tension and conflict" (Singleton et al., 2021, p.23). "People… complementing and genuinely appreciating each other's strengths, enthusiastically agreed to push harder, achieve more, and celebrate successes together because they know deep down that things work better when people work together better" is what makes successful teams (Christfort, 2018, p.738).

Chemistry and Collaboration

"Relationships can run the gamut from wildly rewarding to routinely frustrating, with huge implications for personal well-being [and] team dynamics" (Christfort, 2018, p.737). This is also true in teams and group work, which is why group chemistry and collaboration are key. These aspects include the idea of self-motivation, self-awareness, and communication. There is ample "evidence supporting collaboration as an empowering way for students of all backgrounds to learn" (Horn, 1997, p. 26) and that "team chemistry and connectedness are critical elements of" team success (Johnson, 730, 2021). In the same way, care for self and others is essential for team dynamics, the overall group chemistry is also important. This becomes more difficult the bigger the team becomes or the more often team members change, and is an evolving process to create chemistry. Collaboration is also crucial – as a holistic team and within the team. "Collaboration does not assure easy success, however," … but it significantly impacts a team's success (Horn, 1997, p. 29).

Additional aspects of strong collaboration are creating systems in which the group can be successful as a collection of individual talents. This can include creating "team structure and giving team members different responsibilities, enabling leadership, monitoring situations, and

providing mutual support throughout the team (Singleton et al., 2021). This creation of systems provides the structure in which collaboration can be utilized to create chemistry. This is different than a conquer-and-divide approach, which can lead to resentment. True collaboration takes diverse perspectives, effective planning and communication, and shared responsibility for group outcomes (Singleton et al., 2021)

Communication

All communication is important, but the type of communication employed is even more important in teams. Whether it is communication within a meeting, providing feedback to a teammate or celebrating victories – these are all important forms of communication. "Meetings are central to how teams interact" (Johnson, 2021, p. 731). While COVID-19 and the 21st century have shifted how students communicate, the ability to meet together and share ideas is crucial to the team dynamic and their overall learning. Giving feedback is uncomfortable for many individuals (students or otherwise), but if students "do not learn in business classes to improve their own teams by giving clear, constructive feedback, they are not learning teamwork skills" (Schartel Dunn et al., 2021, p.385). While all communication is important, discussing common challenges and celebrating victories allows a team to continue to evolve and flow through Tuckman's four stages repeatedly with success (Johnson, 2021). With new projects comes new and different challenges, and finding effective ways to discuss these items with your teammates is crucial. "Supporting the development of communication, conflict resolution, and negotiation skills, whilst instigating interpersonal adaptability" (Singleton et al., 2021, p.24) is a crucial outcome of healthy group development.

There are a multitude of characteristics that affect group development; these are just a few that are highlighted throughout the literature. Students hold a great deal of power in group

dynamics – how they show up, what skills they are willing to develop, and if they are willing to build relationships with those different than themselves are central to success.

Gender

The role of gender in group dynamics is widely researched both from a qualitative and quantitative standpoint, as well as through mixed method studies. Commonly women are given roles, or assumed to have skill sets, by their male counterparts (Doucette & Singh, 2023; Chu et al., 2023); female students also report group work experience being "more difficult and less satisfying than male students" (Healy et al., 2018, p.303). However, one study showed that "single gender group(s) [had] a higher predisposition to groupthink which could constrain its perspectives and experiences" (Adelopo, 2017, p. 559).

Tuckman's Theory of Group Development

In order to understand how students develop group identity and a sense of belonging, we must understand the theory of how groups are formed. Before Tuckman's model (1965) became popularized and the stages known as forming, storming, norming and performing. Prior to his model, the stages were referred to as Testing and Dependence, Intragroup Conflict, Development of Group Cohesion, and Functional Role-Relatedness (Tuckman, 1965; Gabriel, 2016.). Since then, there has been research done on all levels of education and professional realms using and verifying this model. In 1977, Tuckman republished his theory (see Figure 1 below), adding a final component - adjourning (Bonebright, 2010; Lee et al., 2016; Tuckman, 1965). For this study, we will only consider the first four stages. Tuckman "identified four stages of group development, termed "forming," "storming," "norming," and "performing" respectively" (Kiweewa et al., 2018, p. 274). Additionally, a similar and popular group development model is that of Susan Wheelan, who originally published her model in 2005 and took a slightly different

approach. Her model includes four stages, "Stage 1: Dependency/Inclusion, Stage 2: Counterdependency/Fight, Stage 3: Trust/Structure, Stage 4: Work and Productivity" (Lee et al., 2016, p. 380). Another model has groups going from forming to functioning to finishing, with the indicators of success in each of those steps aligning with Tuckman's model (Grossman & Miller, 2021). All models are similar in their progressions; however, this study will proceed using Tuckman's model.

Figure 1

Tuckman's Model of Group Development

Forming

Forming is Tuckman's first stage and mirrors the natural progression of the academic year. "In this stage, the group becomes oriented to the task, creates ground rules, and tests the boundaries for interpersonal and task behaviors" (Bonebright, 2010, p.113). Like orientation, finding their place in the larger cohort of students and their small groups, students seek

connection and boundaries (Strayhorn, 2012; Tuckman, 1965). In stage one, "groups are likely to rely more, and become dependent, on the leader" (Lee et al., 2006, p. 381)

Storming

In this second stage, groups typically experience a "lack of unity and polarization around interpersonal issues. Group members resist moving into unknown areas of interpersonal relations and seek to retain security" (Bonebright, 2010, p.114). Additionally, groups are typically experiencing power struggles, individuals in the group are searching for identity, and there can be a sense of role confusion (Lee et al., 2016; Tuckman, 1965). Groups can experience this stage through social, personal, or academic issues. There is often a power struggle in stage two (countertendency and fight). Conflict either leads into stage three, or the group remains in stage two (Lee et al., 2006).

Norming

In this third stage, ideally, "roles and norms are established" (Bonebright, 2010, p.114). Conflict is avoided or scarce as the group dynamics become stronger (Bonebright, 2010; Tuckman, 1965). What is most interesting about this stage is that groups arrive at it through a variety of ways (storming) and at different times, sometimes not at all (Tuckman, 1965). Trust and structure can also characterize stage three (Lee et al., 2006).

Performing

In the original final stage of Tuckman's model, "the group is a 'problem-solving instrument' as members adapt and play roles that will enhance the task activities. Structure is supportive of task performance" (Bonebright, 2010, p.114). The group roles and energy are flexible because there is an understanding of the individual's part within the group as it evolves throughout the semester, academic year, or individual project. As time has evolved, Tuckman's

model continues to be used in various studies that look at everything from project teams to leadership teams and everything in between (Bonebright, 2008). Most studies are qualitative and have helped the grand amount of literature on the model; however, there is room for more as groups are always evolving (Bonebright, 2008).

The Power Students Hold

Teamwork is an essential part of life – whether in personal relationships, community, volunteerism, professional work, or elsewhere – few things happen in a vacuum. We often associate power with leadership or longevity in these relationships, but the truth is there is power in skills and power in working with others effectively. This is especially true in the realm of higher education and group work within that arena. "There are few true lone wolves among the most successful students; one way or another, successful students find the support for what they need to do" (Horn, 1997, p. 27). Support from peers is common, and group work is a built-in opportunity for students to be supported and support others – whether or not they see it that way. Additionally, "with or without a formalized program for linking students into support systems, instructors of developmental students must make it their responsibility to overtly stress the significance of interconnectedness" (Horn, 1997, p. 30) The ideas of community, capital, teaming skills, and peer effects are all linked together and when used positively can give students the power they need to succeed in group projects, college, and beyond and allow them to move through Tuckman's model effectively.

CHAPTER 3: METHODOLOGY

This study uses a mixed methods research design to understand and measure group dynamics throughout an academic teaming experience. The study focuses on a mid-size institution in the mid-Atlantic region of the United States. Specifically, a one-year Master's degree in commerce program focuses on teaming in their course work. This study looks at teaming using Tuckman's Model of Group Development as a framework.

Research Questions

The research questions at the center of this capstone project are:

1. How do students rate their sense of belonging in groups?

2. To what extent do group dynamics change over time?

3. To what extent does gender play a role in group dynamics?

4. What is the relationship between an individual's social capital and job confidence?

5. What is the relationship between social capital and group dynamics?

Research Design

To address these research questions, a convergent mixed methods approach will be used. Mixed method research is qualified by the collection and analysis of both qualitative and quantitative data and the integration of the data within the analysis (Creswell, 2013). Specifically, the convergent mixed methods design analyzes the different data types separately "and then compares the results to see if the findings confirm or disconfirm each other" (Creswell & Creswell, 2018, p.217). The convergent mixed methods approach was used, as it allows for data to be more generalized due to its strength (Creswell & Creswell, 2018) and the ability to gain a complete understanding of a student's teaming experience. With the combination of data, this study intends to answer the research questions within the context of the School of Commerce

at Oak University and contribute to the growing literature regarding teaming and teaching students teaming skills.

Research Site

Oak University

This study looked at a mid-size public institution in the mid-Atlantic, Oak University. Oak University, founded in the 1800s, is a historical institution with many reputable programs. According to U.S. News & World Report, Oak University's is considered one of the best ten public universities in the United States. (U.S. News & World Report, 2023). The total graduate enrollment in the Fall of 2022 was just below 7,000 students, 56% are females.

Oak University's Business School

The institution's undergraduate and pre-experience graduate business school is highly ranked (U.S. News & World Report, 2023). Their hands-on approach to learning is a focus of their website and promotional materials. The school shares in its marketing material that it is committed to strengthening student's skills through immersive and hands-on coursework. It markets that industry leaders inform the programs and courses and that students will leave the school with an education that provides immediate value and success.

M.S. Commerce Program

This study focused on the M.S. in Commerce program. One of the critical admissions requirements of the program is that students have worked professionally for less than 18 months, the average age of a student is 22. The school's marketing materials share that the program is a unique, 10-month opportunity to both build on a student's existing strengths from their non-business major in their undergraduate degree and assist students in gaining the global business acumen they will need to be successful in future careers.

When the program was created for the 2007-2008 academic year, the goals of the program were informed by the marketplace and recruiters. Program leadership confirmed their assumption of the importance of the skills to work on a team through the marketplace and these recruiters. As program leadership made that assumption, they began to question whether these teaming skills were skills that needed to be explicitly taught or would they come naturally to students through the business education. (I. Harris, personal communication, August 24, 2023). This question has been revisited throughout the program's 15-year history and was the inspiration for this study.

The one-year graduate program consists of 40 credit hours: 21 in the fall, 15 in the spring, and four credits earned through a global experience in late May and June. During the spring semester, students focus on their academic track (business analytics, biotechnology, finance, marketing and management), while in the fall the main focus is on the integrative core experience. The fall semester consists of one 3-credit hour track-focused course and six additional mandatory courses. The fall schedule is referred to as 'the matrix' (Appendix A) and depicts all fall courses, including the integrative nature of the courses. Courses are taken at different intervals and have different credit values.

In five of the six integrative courses, students are in one assigned working group consisting of four to five students. Groups are built by the program manager each summer and balanced taking into consideration – gender, academic track, citizenship, and undergraduate major and institution. In each of these courses, group work is required, as are peer evaluations. Peer evaluations are taken into account when grading assignments. Group members may be moved up or down a letter grade in some courses due to their peer evaluations and reflected performance.

Participants

The 126 students in the Class of 2024 were divided into 26 groups – 22 groups of five and four groups of four. The overall cohort consists of 73 (57.9%) men and 52 (42.1%) women. Twenty-four (19%) of the students are student-athletes competing for Oak University, which is a DI institution. Of the 126 students, 22.2% (28 students) had primary citizenship other than the United States – and represented students from 12 other countries.

Seventy-three of the students also attended Oak University for their undergraduate degree, so they were more familiar with the overall culture and academic style of the institution. The additional 53 students graduated from 45 different institutions domestically and abroad.

The students are admitted into an academic track, but have an opportunity to apply to switch tracks at the end of September. When they were admitted, the breakdown of track enrollment was: 35 students in Business Analytics, 17 in Biotechnology, 27 in Finance, and 47 in Marketing and Management. At the end of the semester the breakdown of track enrollment was: 30 students in Business Analytics, 16 in Biotechnology, 40 in Finance, and 40 in Marketing and Management.

Data Collection

This study was formed around a single survey (Appendix B) repeated five times through the first semester of the graduate program. The students were emailed on Thursdays throughout the semester at four-to-five-week intervals. Their academic year began on August 7, 2023, and the students were surveyed on August 10th, September 7th, October 5th, November 2nd, and December 7th. The final survey was at a 5-week, instead of 4-week interval to account for the Thanksgiving break where the students have the full week away from campus. Each survey

opened up at 9 a.m. on the corresponding Thursday mornings and closed at midnight on Sunday, with reminders being sent. Emails to participants are listed in Appendix C.

Instrumentation

The survey measured both self-assessment and group-assessment using the same key factors that are considered to be key to team performance – communication, collaboration, respect, etc. The surveys were given at equal intervals throughout the 17-week semester. Data from the five surveys were compared. The survey collected both quantitative and qualitative data. The quantitative questions asked are informed by the literature and existing research on soft skills and teaming reviewed in chapter two. The qualitative questions were inserted to gain a better understanding of the student's full experience within the team experience.

Based on Tuckman's framework and literature on teaming skills, six areas of teaming skills were selected to form questions. These questions were formed in a manner that allowed students to self-reflect on their own development of these skills and their groupmate's and overall group's development of these skills. The four qualitative questions were used to confirm or disconfirm the findings of the quantitative data.

The validity of the instrument is twofold using construct validity for the quantitative data and triangulation for the qualitative questions, including four reverse-coded questions (Creswell & Creswell, 2018). Using the same instrument repeatedly and the same messaging also supports the internal consistency of the study (Creswell & Creswell, 2018).

Data Organization

The surveys were distributed from Qualtrics, where the data was stored until all five surveys were completed. After data collection was completed, the data was uploaded to SPSS, cleaned and merged, and then striped of any identifying information.

The data sets will be merged using student's self-created codes, which was question one of each survey: "Enter your participant code. Use the month of your mom's birthday, the name of the street you grew up on, followed by your birthday year. For example: my mom is born in September, I grew up on Victoria Ave and I was born in 1991 - so my participant code would be 09Victoria1991".

Data Analysis

Paired-sample t-tests were used to answer the first two research questions, in order to understand the general changes in skill sets and confidence over time for the entire sample population. To answer the third research question a mixed between-within subjects' analysis of variance test. To answer the fourth and fifth research questions, regarding the relationship between the student's social capital and group experience, correlation tests were used.

Researcher Positionality

My interest in team dynamics developed throughout my time in higher education. First, working with fraternities and sororities, I found it interesting advising and developing the leadership dynamics of each chapter's executive boards. Moving into an academic setting, particularly working with business students, I have been intrigued by the direct correlation between the classroom and success in the job market. The desire to understand how students understand and develop their teaming skills led to this research.

My position at Oak University as the Assistant Director for Student Life and the advisor for the students in the M.S. in Commerce program could be a conflict of interest; however, the study was presented to all students before the launch of the first instrument to address this. This meeting was mandatory for all 126 students and allowed both myself as the researcher and the

academic faculty director, to clarify that participating in the study was in no way connected to their academic success as students and had no official impact on their course work.

Limitations

The scope of this study and its results are limited to the experience of the one-year graduate program I am studying. The program – including the admissions requirements, academic rigor, and structure of consistent working groups for the full semester and the full course set – is so specific, that it would be difficult to apply the finding directly to another program or group dynamics. However, the heart of the study intends to suggest key ingredients of successful teams which will contribute to the literature on team formation and group dynamics.

An additional limitation of this study is reliance on student engagement. The likelihood of the overall cohort's demographics not being evenly represented in the collected data is high. A final limitation is the potential for an individual student' slack of consistency in participation, giving us an incomplete picture of their growth over the semester.

This study sought to understand individual student's experiences and compare those to each other, rather than compare groups to each other. This is an opportunity for a future study using a different methodology.

Chapter 4: FINDINGS

This chapter presents the results of the mixed methods analysis conducted to answer the research questions of this study:

1. How do students rate their sense of belonging in groups?

2. To what extent do group dynamics change over time?

3. To what extent does gender play a role in group dynamics?

4. What is the relationship between an individual's social capital and job confidence?

5. What is the relationship between social capital and group dynamics?

Sample

The five samples were comprised of the students who responded to each of the five surveys. Each survey was sent to the same set of 126 students enrolled in the M.S. in Commerce Class of 2024. One student did not participate in any of the surveys, 40 students completed only one of the five surveys, and 85 students completed two or more of the surveys. Table 4.1 indicates the composition of students who completed at minimum 80% of each survey. Any response that was completed less than 80% was not included in this study. Ninety-six responses were needed to achieve a 95% confidence level for the given population of 126. This means the first survey only had a margin error of 5%, while the fifth survey had a margin of error of 6.42%. Each analysis will indicate which of the five surveys are used in the comparison; qualitative data is used from all five surveys.

Table 4.1

Composition of Sample

	Male	Female	No Response	English as First Language	Other First Language	No Response	Total (Percentage of Possible)
Survey 1	52	45	0	81	13	3	97 (76.9%)
Survey 2	29	30	1	52	7	1	60 (47.6%)
Survey 3	25	29	0	44	9	1	54 (42.9%)
Survey 4	29	28	0	48	8	1	57 (45.2%)
Survey 5	42	40	0	67	13	2	82 (65.1%)

Coding Key

The questions and scales can be found Appendix C. After the data was collected, the questions were coded in order to present the data in a more succinct way; the coding key is represented in Table 4.2.

Table 4.2

Coding Key

Code	Question
G1	When my group is together, we are able to focus on getting our work accomplished.
G2	Our group does not enjoy working together.**
G3	Our group enjoys being together.
G4	Our group does not have mutual respect for one another. **
G5	Our group listens to one another.
G6	Our group collaborates.
G7	I am confident my group will academically succeed throughout the semester.
G8	I feel like one or two members dominant our group conversations.
I1	I feel motivated to contribute to my group.
I2	I do not feel that I have the abilities necessary to contribute to my group.**
I3	I feel like I contribute equally in my group.
I4	I do not feel connected to my group.**
I5	I feel that other members of my group take my opinions and suggestions seriously.
I6	I feel I am an important member of my group.
I7	I feel I am an equal member of my group.
I8	I am confident I will academically succeed throughout the semester.

**Indicates Reverse Coded Questions

Research Question 1

How do students rate their sense of belonging in groups? Conducting a paired-samples t-test between the first survey administered in August and the fifth survey, administered in

December, four individual development markers were reviewed that had an influence on student's sense of connection and belonging.

In the evaluation of students' sense of connection, there was a statistically significant increase from August (M= 5.03, SD=1.54) to December (M=2.75, SD= 1.86), t(35)= 5.250, p < .001(two-tailed). This indicates an increase in mutual respect from August to December, with a 95% confidence interval ranging from 1.39 to 3.16. Additionally, a paired-samples t-test was conducted to evaluate the impact of time on students' group dynamic of mutual respect. There was a statistically significant increase from August (M= 5.57, SD=2.12) to December (M=2.43, SD= 2.08), t(27)= 5.079, p < .001(two-tailed). This indicates an increase in mutual respect from August to December, with a 95% confidence interval ranging from 1.87 to 4.41.

There was no significant change over time in student's individual feelings of importance, feeling equal within their group, or feeling that their group members took them seriously. This demonstrates a sense of connection was the only isolated increase over the semester. There was no significant difference in sense of connection when considering a student's first language.

There was an increased sense of connection and belonging throughout the semester. In the first survey students reflected on this connection in a superficial way, making comments such as their group "all like[d] each other" and "we are all social and talkative and get along well." Over time, this evolved into more meaningful relationships. One participant shared in survey four, "We are highly organized and genuinely enjoy spending time together, which makes the academic pressure feel more manageable since we are all in it together." Twenty-three percent of the students that completed the fifth survey included commentary that having relationships or intentionally doing activities outside of academic work to bond as a group benefited their relationships in and out of the classroom. Some of these students shared examples such as, "we

went bowling as a group," another stated a reason work is sometimes difficult to focus on was because "we like each other too much as friends." A final student, simply stated by sharing in response to 'what is a strength of your group?' "Outside of class time spent together".

Another reason students' belongingness seemed to increase was an ability to find the commonalities within their groups. One student shared at the end of the semester,

> "In my group of 5, 4 members (including myself) got along very well and succeeded together. I think that all four of us also got along as friends/colleagues very well too, and that our personalities "suited" each other. For example, all four of us desired to play an active role in groupwork and did not want to be seen as the person who did nothing. We could also be described as people who tend to try very hard; two group members graduated in 3 years and are doing the MSC effectively as college seniors; one completed a double major and double minor in undergrad; the other was a neuroscience major who studied for the MCAT."

This indicates a sense of belonging for the majority of the students in this group' however; we cannot conclusively know how the fifth student in this scenario would rely their sense of belonging. This will create room for later recommendations, but in the analysis, it is important to note that commonalities build community as well as active participation and bonding outside of the classroom.

Research Question 2

To what extent do group dynamics change over time? A paired-samples t-test comparing the eight group-focused questions in survey one, which was completed week one of the fall semester, and survey five, which was completed after the conclusion of their group work for the semester, was used to answer this question.

A paired-samples t-test was conducted to evaluate the impact of time on students' group dynamic of mutual respect. There was a statistically significant increase from August (M= 5.57, SD=2.12) to December (M=2.43, SD= 2.08), t(27)= 5.079, p < .001(two-tailed). This indicates an increase in mutual respect from August to December, with a 95% confidence interval ranging from 1.87 to 4.41. This was a reverse coded question, which accounts for the mean decreasing, which correlates to mutual respect increasing. Mutual respect is a result of multiple positive experiences as a group. As the students navigated growing as a group over the semester, their skills grew as well. In the qualitative data, students were asked what skills they were learning from working in their group. In the first and fifth surveys, the top answers included communication, collaboration, and teamwork; themes that increased were: patience, organization, time management, and conflict resolution.

A paired-samples t-test was conducted to evaluate the impact of time on students' group dynamic of group members dominating conversation. There was a statistically significant increase from August (M= 3.12, SD=1.61) to December (M=4.58, SD= 1.72), t(49)= -4.641, p < .001(two-tailed). This indicates an increase in mutual respect from August to December, with a 95% confidence interval ranging from -2.09 to -.83.

This aligns with many of the comments in the qualitative data set indicating that as the semester went on, some group members contributed less and disengaged. One participant shared,

"we have allowed some members to contribute less than others without addressing it… I think this lack of accountability for their responsibility to contribute has encouraged social loafing for the group member in particular." Another participant shared, "people don't care and do garbage work." As some individuals engaged less, or in a less meaningful way, students' perception of conversation dominance differed.

An additional cause for this difference in contribution, may be because of the different motivations' students arrive with or the inability to reconcile differences. One student shared,

> "I believe that before assigning team members, there should be a survey of each student's personality and work preferences. This is similar to how companies assess the compatibility of new hires' personalities and skills with existing employees before recruitment, to ensure they complement each other."

While another shared, "[I] think the real misalignment was in different group members having different purposes/motivations for being in the program - i.e.: wanting to get a job as opposed to wanting to learn" affected our ability to form a strong group over time.

These statistically significant differences are consistent with the remaining group data indicating that groups began to collaborate less, become less academically confident and focused, and enjoy both working and being with each other less over time. In the student feedback, this seemed to stem from either group members slacking or 'social loafing' through the semester and a lack of patience and understanding with language barriers. Some experiences with language barriers were more positive than others, one student shared "I am learning about working through a language barrier, this has been an eye-opening process" while another shared, "people not being understanding with different accents and pronunciations can be frustrating and sad."

Research Question 3

To what extent does gender play a role in group dynamics? A mixed between-within

subjects' analysis of variance was conducted to assess the impact of gender through of eight

different group dynamic factors across two periods of time, the first survey in August and the

fifth survey, conducted in December (Table 4.3). For group factors one through three, and five

through seven there was no significant interaction between gender or time.

Table 4.3
Group Dynamics Over Time – Differences by Gender

	Men			Women		
	n	M	SD	n	M	SD
G1 – Time 1	29	6.03	1.02	32	5.97	1.03
G1 – Time 2	29	5.83	.85	32	5.75	1.16
G2* – Time 1	18	5.89	1.94	18	5.78	2.05
G2* – Time 2	18	5.39	1.82	18	6.00	1.28
G3 – Time 1	29	5.59	.95	32	5.84	1.16
G3 – Time 2	29	5.62	1.01	32	5.59	1.36
G4* – Time 1	14	5.43	2.34	14	5.71	1.94
G4* – Time 2	14	3.00	2.57	14	1.86	1.29
G5 – Time 1	27	6.07	1.17	32	6.06	1.01
G5 – Time 2	27	5.85	1.23	32	5.72	1.40
G6 – Time 1	28	6.25	.70	32	6.16	.95
G6 – Time 2	28	6.00	.98	32	5.75	1.32
G7 – Time 1	29	6.10	.90	32	6.09	1.12
G7 – Time 2	29	5.86	1.33	32	6.06	1.22
G8 – Time 1	24	2.83	1.49	26	3.38	1.69
G8 – Time 2	24	4.21	1.70	26	4.92	1.69

*Reverse Coded Questions

There was significant interaction in the group dynamic marker for the mutual respect,

Wilks' Lambda = .499, $F (1, 26) = 26.135$, $p < .001$ with both groups showing an increase in

mutual respect over time. This was a reverse coded question, which accounts for the mean

decreasing, which correlates to mutual respect increasing. There was also significant interaction

in the group dynamic marker for one of more students being conversation dominant in their

group. Wilks' Lambda = .696, $F (1, 48) = 21.004$, $p < .001$ with both groups showing an increase

in members being conversation dominant over time. One female participant shared, "It seemed most of the semester that two of the three men in my group took everything I said with a grain of salt, not truly caring or believing that I could be right."

Although there is a significant mention of difference in backgrounds, languages, and nationality through the qualitative data, through all five surveys there were only 3 mentions of gender-specific issues. All three comments were from female students, frustrated at the male conversation domination and lack of action in their groups. Overall, gender has minimal effects on group dynamics.

Research Question 4

What is the relationship between an individual's social capital and job confidence? This research question was answered through three points of data – confidence in their individual development throughout the semester, confidence by gender, and confidence by academic track/specialty. The data was collected during survey five only, using the 4-question likert scale. Analyzing their individual success indicators and their confidence in receiving a job post-graduation (Table 4.4), there were three significant correlations:

- the motivation to contribute to their group academically positively correlated with their confidence that Oak University would assist them in securing a job

- their belief that they would be academically significant positively correlated with their confidence that Oak University would assist them in securing a job

- the confidence in their peers helping them secure a job positively correlated with their academic success.

All students in the study indicated that their degree from Oak University, the skills they are learning, and the development from their group experience will increase their social capital and help them after graduation. One participant shared at the end of the semester when reflecting on their group experience, "I am learning how to create a structure and gameplan for a group that allowed us to be the most efficient version of ourselves." When looking at this data through a gender-specific lens (Table 4.5), women are more confident in these factors contributing to their capital and success; whereas the men have more confidence in their previous relationships through family and family friends. This suggests social capital is viewed differently between genders in this population.

Reviewing the data through an academic track lens (Table 4.6), there is no significant difference in social capital perception by academic focus. One participant at the end of the semester shared, "Through the MSC programme, there are certain tasks which play into certain team member's strengths. Thus, it is important to let others help you and learn from them, as well as doing the same for them when it is your time to shine. With that being said, you must take opportunities to learn from them and still be useful, even if you are weaker in a certain area".

Table 4.4

Correlation between Individual Indicators and Job Confidence Indicators

	Institution	Family & Family Friends	Peers	Previous Jobs & Internship
I1	.330**	.019	.167	.176
I2	-.097	-.057	-.051	-.144
I3	.065	-.1	.025	-.088
I4	-.081	.013	-.079	-.193
I5	.092	.037	.006	.038
I6	.120	.058	.106	.126
I7	.052	-.061	.002	-.034
I8	.291**	.126	.271*	.156

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

Table 4.5

Average Job Confidence by Gender

	Institution	Family & Family Friends	Peers	Previous Jobs & Internship
Women	4.7	5	4.58	4.31
Men	4.25	5.29	4.36	3.97

Table 4.6

Average Job Confidence by Academic Track

	Institution	Family & Family Friends	Peers	Previous Jobs & Internship
Business Analytics	4.56	5.06	3.94	4.20
Biotechnology	4.46	4.31	4.08	3.50
Finance	4.32	5.44	4.79	4.13
Marketing and Management	4.50	5.44	4.71	4.54

Research Question 5

What is the relationship between social capital and group dynamics? This research

question was answered through the correlation between student's job confidence and the

development of their group throughout the semester (Table 4.7). This data was collected during

survey five only, using the 4-question likert scale. The correlation between five of the eight

group growth descriptors and increased confidence in the institution are significant. These five

areas are group focus, enjoying other groupmates, listening to each other, collaborating as a

group, and a confidence in the group's academic success. Overall, the students that had

constructive group experiences felt more positively that their experience at the institution would

assist in their ability to obtain a job.

There is also a significant positive correlation between confidence in obtaining a job

because of group experiences and academic success within groups; and a negative correlation

between groups enjoying working with each other and their job confidence because of previous

work experiences. This negative correlation is likely the result of students having additional teaming experience that they found more productive and enjoyable, but there is no qualitative data to support this. These findings contribute to the understanding of how group development and social capital interact throughout the semester. Strong group dynamics lead to students building their own capital through valuing others' strengths. One student reflected, "We are learning how to motivate a group of people and get them all working on the same page… I am learning how to properly work within a group where I don't feel like I have to do excess work to be valuable to the group."

Table 4.7
Correlation between Group Indicators and Job Confidence Indicators

	Institution	Family & Family Friends	Peers	Previous Jobs & Internships
G1	.332**	-.042	.089	.184
G2	.124	-.131	-.143	-.292*
G3	.306**	.153	.226*	.072
G4	.012	.083	.061	.201
G5	.247*	.079	.216	.152
G6	.224*	.088	.177	.036
G7	.308**	-.032	.290*	.211
G8	-.063	-.068	-.032	-.101

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

Chapter 5: DISCUSSION AND RECOMMEDATIONS

In this study, I examined group development within the one-year Masters in Commerce program, specifically how the program could better formulate these groups if they understood more about the power and positionality of students and how it affects group dynamics and soft skill development. The study used a mixed methods approach and focused on the following questions:

1. How do students rate their sense of belonging in groups?

2. To what extent do group dynamics change over time?

3. To what extent does gender play a role in group dynamics?

4. What is the relationship between an individual's social capital and job confidence?

5. What is the relationship between social capital and group dynamics?

The instrument was created by using the vast literature on skills that are important to group development and Tuckman's Model of Group Development (1965), the results from the first and final survey provided informative answers to these research questions. "Group work is also crucial in a work environment and introducing students to their use in higher education could enhance student employability" (Adelopo et al., 2017, p.558). This research and its results will allow practitioners and faculty members to reassess the method in which they create and use groups in an academic setting, but overall reinforces the importance of groups in students forming a holistic skill set prior to entering the work force.

Discussion of Findings

Tuckman's Model of Group Development (1965) addresses the holistic group experience, assuming the full group navigates through the four phases together. Overall, this study found that while the changes in group dynamic markers were mainly insignificant, the experience of

navigating a holistic academic experience with a consistent group was impactful. This confirms the studies reviewed in chapter two that "social-emotional learning" (Kyllonun, 2013, p.19) happens when students develop their soft skills through group work (Fish & Wilson, 2009). Through the qualitative data, many students were able to succinctly reflect on having a wide variety of experiences that were significant to their skill development and learning as a student.

Gender

Through the data analyzed for research question three, there were small but important perception differences by gender in how each gender may be experiencing the stages of Tuckman's model. Particularly in the storming and norming phases of the model, qualitative data showed different perceptions of conflict and how it was navigated. These findings differed from what is in current literature, where gender is often an important negative or positive group dynamic aspect. Although there is not a new and concrete finding to contribute to gender specific literature, the absence of one is important to note.

International Students

One of the most important takeaways from the overall data set, discussed in chapter 4, was the rate at which international students offered qualitative data coupled with the frequency in which domestic students mentioned a language or cultural barrier in their qualitative data. It is likely that the international students are having a very different experience and potentially not moving through Tuckman's model, even if the remaining members of their group are. These findings, along with the other statistical findings outlined in chapter four, have informed five recommendations for academic institutions.

These findings, and lack of qualitative findings, confirm much of the existing literature on barriers of international students in group dynamics, this may be a result of team work being

less of a primary focus abroad compared to Western cultures (Johnson, 2021). It appears in this study, like other studies, the international students are choosing to isolate and opt of out contributing to group dynamics (Bolliger & Inan, 2012).

Implications - Policy and Practice

The data analyzed in this study could have resulted in many recommendations; however, the recommendations below are would have the broadest impact of future students. There were findings in the study that are not be mentioned as a specific recommendation, but could be implemented in the program, or are potential areas for further research. Overall all data confirms what is found in other studies, that experiences as a team and skills built as a result are beneficial during and after their academic experiences (Fish & Wilson, 2009; Gabriel, 2016). One such area is structured group bonding outside of the classroom. Even though there is a strong correlation between students who spent time with their group outside of the classroom and increased positive group experience, there is not enough evidence to recommend implementing this as a program-wide practice. Additionally, in the body of literature surrounding student's sense of community and belonging, many positive examples are due to students' organic nature of being together. The recommendation of creating structure to this may for some, diminish the powerful and positive effect of group bonding for others. The following recommendations for practice are based on this study that was conducted at one institution; therefore, some recommendations are Oak University-specific, while others can be applied broadly.

Recommendation 1: Group Structure and Criteria

A key finding of this study is that a sense of belonging and connectedness increased throughout the semester. The research linking a sense of belonging to wellness, happiness, and academic success is well researched, as reviewed in chapter two. As the intentional group

experience throughout the semester is aiding this feeling for many students, I would recommend the program maintains its use of groups in the core classes throughout the semester. Furthermore, based on the findings, I would continue to build groups using the current program criteria outlined in chapter one.

Currently, the program only allows a two-three gender spilt; not a one-four spilt. It appears this consistency in group size, make up, and use throughout the semester leads to overall positive results. "Learning in groups enhances students' problem-solving skills, as they learn to share and modify their views in the context of others" (Adelopo et al., 2017, p.558). Both the data from this study, and additional studies back this decision. Another study on group dynamics in the classroom found through quantitative data, gender composition matters in groups and mixed gender is best. "Group gender diversity permits diverse perspectives and tolerance of the 'different others' which can enhance group awareness, flexibility, and dynamics" (Singh & Vinnicombe, 2004, p.486).

Recommendation 2: Pre-Entrance Motivation Assessment

Much of the qualitative data reviewed for research question two, including a direct student comment, suggested that an assessment of some type, in addition to the demographic information that the program has, should be used to help form groups. There is limited self-reported data that other graduate programs at Oak University use to form groups such as perceived data skills, writing skills, and work habits. I recommend using or investigating the use of a pre-entrance motivation assessment.

Personal motivation for the program should be considered when building groups. This allows students to still learn from differences in their peers (work habits, timing of schedules,

etc.), but speaks to the core of what they hope to gain from the program. It is also an important opportunity, before they begin this academic endeavor, for students to ask themselves the why behind their motivation. These primary motivations could range from wanting a perfect GPA, to obtaining a job after graduation, or a desire to learn the material and develop their skills. This differs from group structure as these are students' thoughts and feelings that way evolves; whereas the current group criteria are based on demographic information that is highly unlikely to change at any point in the program. This assessment could be as simple as adding a question to the student's existing entrance survey and giving them broad buckets to describe their motivations. Although this process does not perfectly align with how all groups work outside of the academic setting, it is a potential area for change and update in the program.

Recommendation 3: Utilize the Team Contract

A common theme from students that had an overall positive experience, was the mention of the word 'role' in their qualitative feedback. The idea of group member roles and responsibilities is discussed in the first two weeks of the semester through the student's organizational behavior class, in which they complete their team contract (Appendix D). One student reflected a weakness of their group was "we sometimes don't equally distribute work, however a lot of this came from miscommunication/expectation setting" while oppositely another student at the same time interval shared a strength has become "learning to assign roles and responsibilities and be communicative about deadlines, expectations, and assignments". Another interesting take away was some students equating roles with success, with one student stating, "we [our group members] understand our roles and what is needed to succeed".

Another study found that "lack of understanding of the reflective process…. [m]ay suggest the need for module leaders to spend more time in providing clear explanations of the

objectives and process of reflection" (Adelopo et al., 2017, p. 571). As mentioned in chapter 3, the group contract is created in the beginning of the semester and referenced specifically in weeks 9 through 12 of the semester in one course. Based on student feedback and additional studies, I recommend the team contract is intentionally utilized across courses. For some groups, this may allow them to examine how they are norming in their group and navigate the challenges they face. This intentionality may also avoid the need for additional and individualized interventions.

Recommendation 4: Mandatory Intervention

As discussed, the program used to have intentional and mandatory meetings between two faculty members and each group. This time allowed each group to focus on their specific challenges and successes and evolve as a group. We know that "placing students in groups will not necessarily result in cooperative learning and the realization of the potential benefits… this requires positive interdependence, individual accountability, face to face interaction, appropriate social skills, and periodic processing on how to improve group effectiveness" (Healy et al., 2018, p. 288). The re-introduction of these interventions could allow groups to constructively reassign roles from their initial team contract or have a structured group reflection on their peer evaluations.

As students grow and evolve over the semester the idea of periodic processing is increasingly important (Healy et al., 2018). Interventions throughout the semester create room for periodic processing. Additionally, the data answering research questions three and four supports this need for processing. Having mutual respect and conversation dominance present as the only significant group dynamic changes. This demonstrates an opportunity for staff and faculty to intervene and create space for positive change. "Students often find it difficult to

engage in critical reflection and it may therefore be necessary to allocate sufficient time to providing necessary supports to enhance the quality of student' critical reflection" (Adelopo et al., 2017, p.570). This recommendation allows staff and faculty to create a more thoughtful group experience and student development opportunity. A potentially sensible time for these interventions would be after the first set of peer evaluations; this timing creates an automatic structure to the conversation. This, along with the following recommendation, also allows staff to address how students may be navigating and experiencing the group norming and forming experience differently.

Recommendation 5: Intra-Group Dynamic Research

The final recommendation, based on the depth of the qualitative data from this study is to examine students by groups. For the purposes of this study, we did not track group-specific development, but rather the group and individual experience throughout the semester. We know that "where cooperative learning has been introduced in…education improved skills and understanding have been reported in a number of studies" (Health et al., 2018, p.286); however, this study did not fully explore the experience of cooperative learning in the same environment.

What this study cannot conclude based on this data is: do all groupmates, in a singular group, have similar experiences? In the analysis of research question one, a student reflected that four of the five members of his group got along because of commonalities in motivation. While each experience is an individual experience, if four students perceive that they have a strong and rewarding group experience, but the fifth member has an opposite experience, what does that mean for the overall group experience, and the growth for all five individual students. Given the structure of this program, and in order to make future results increasingly applicable to the general body of literature, I would recommend studying students within their groups and focus

on qualitative data. Additionally, I would recommend researching groups that are assigned based on program criteria versus groups that the students create themselves in the second semester.

Limitations

This study experienced four limitations throughout data collection and analysis. The first limitation is that of the five surveys conducted, the second, third, and fourth surveys were answered less than the first and fifth making the data slightly less impactful. The research questions were able to be answered via the comparison between the first and fifth sets of quantitative data; however, the additional survey data would have been used had the response rate been higher. The second limitation was only sixty-one of the same students completed both survey one and five. Again, this was helpful in answering the research questions, however a fuller set of data would have provided more validity to the study.

The third limitation of the study was a significantly lower completion rate for the qualitative questions from non-native English speakers versus their peers for whom English is their first language. This limited the scope of how these students--and their experiences--were represented in the data. The response rates for qualitative questions in each survey are represented in Table 5.1 The final limitation of this study was the depth and breadth of the qualitative data. While there were several meaningful quotes that provide substance to the data analysis and findings, many participants chose not to engage with these questions or to engage in a brief way. Additional qualitative data, whether through surveys or follow up interviews, would have added to this study.

Table 5.1

Qualitative Response Rate by Primary Language

	First Language: English	First Language: Non-English
Survey 1 Response Rate	82%	52%
Survey 2 Response Rate	81%	72%
Survey 3 Response Rate	80%	50%
Survey 4 Response Rate	81%	61%
Survey 5 Response Rate	80%	54%

Considerations for Future Research

As the marketplace evolves, so too will the skills that employers seek in future employees. It is important in future research of academic groups, that these new and updated skills are taken into consideration. Additionally, other aspects of a students' power and positionality could be researched including, but not limited to: socio-economic status, sexuality, and commitments outside of school whether that is a part-time job, family responsibilities, or other engagements. Another important consideration would be to broaden the scope of the study, understanding group dynamics from different institutions. The institution used in this study was a predominately white institution on the east coast of the United States, that generally has an affluent student body. These aspects of the participant's power and positionality informed this study, but in the future could be an important area for additional studies.

Conclusion

This study sought to understand how to students' power and positionality affect group dynamics in hope of informing practitioners how to create stronger groups and more intentional learning experiences. This is increasingly relevant as group dynamics continue to be an important aspect of society, education, and individual development. Research demonstrations that students that work in groups report "higher levels of motivation, increased enthusiasm, and a

belief that their problem-solving abilities had improved" (Healy et al., 2018, p. 288). Intentionally forming and guiding students through these experiences increases these positive outcomes.

These findings provide a foundation on how to improve these important and intensive group experiences and contribute to the existing findings of the importance of group work in the classroom throughout higher education, but especially in graduate business education programs. Our institutions, driven and directed by practitioners and faculty members, not only have the option to deliver critical thinkers in their fields, but productive and thoughtful members of society by helping them develop skills to function well in a world with others.

References

Adelepo, I., Asante, J., Dart, E., & Rufai, I. (2017). Learning Groups: The Effects of Group Diversity on The Quality of Group Reflection. *Accounting Education 26(5-6), 553-575.*

Ahedo Gurrutxaga, I., Alvarez Muguruza, I., Gomez Etxegoien, C. (2023). Gender Really Matters in Group Work: A Visibilization and Politicization Teaching Sequence. *Journal of Political Science Education, 19(1), 151-168.*

Allen, H. K., Barrall, A. L., Vincent, K. B., & Arria, A. M. (2021). Stress and Burnout Among Graduate Students: Moderation by Sleep Duration and Quality. *International Journal of Behavioral Medicine, 28*(1), 21-28.

Batts, E., Clark, T., Clark, L., &Clemson, C. (2023). The Relationship Between Teacher Candidates' GPA and Teamwork Knowledge, Skills, and Abilities. Educational Research Quarterly, 46(4), 37-56.

Betts, S. C. (2010). Having a Ball Learning about Teamwork: An Experiential Approach to Teaching Group Development. *Allied Academies International Conference: Proceedings of the Academy of Educational Leadership (AEL)*, *15*(2), 12–15.

Bleizeffer, K. (2021). *What do MBA students want from a school? career help with a human touch*. Poets&Quants. https://poetsandquants.com/2021/12/14/what-do-students-want-from-business-school/

Bleizeffer, K. (2022). *What prospective students want above all else in an MBA program*. Poets&Quants. https://poetsandquants.com/2022/06/07/what-prospective-students-want-above-all-else-in-an-mba-program/

Bolliger, D. & Inan, F. (2012). Development and Validation of the Online Student Connectedness Survey (OSCS). *International Review of Research in Open and Distributed Learning*, *13*(3), 41–65. https://doi.org/10.19173/irrodl.v13i3.1171

Bonebright, D. (2010). 40 years of storming: a historical review of Tuckman's model of small group development. Human Resource Development International, 12(1), 111-120.

Bye, L.-A., Jenner, P., Graham, W. (2021) The dynamics of social capital in first-year teaching teams: a comparative case study analysis. *Journal of Further & Higher Education,* 45(3), 297-311.

Calma, A., & Davies, M. (2021). Critical thinking in business education: current outlook and future prospects. *Studies in Higher Education*, 46(11), 2279-2295.

Christfort K. (2018). Business Chemistry: A Formula for Greater Empathy and Well-Being. *American Journal of Health Promotion*. 2021;35(5):737-739.

Clopton, Aaron. (2011). Social capital and team performance. Team Performance Management. 17. 369-381.

Cohen, J. (2020). Student Preferences for Group Size in a Language Development Course. *Networks: An Online Journal for Teacher Research 22(3), 1-18.*

Contreras-Aguirre, H. C., & Gonzalez, E. G. Y. (2017). Experiences of International Female Students in U.S. Graduate Programs. *College Student Journal*, 51(1), 33-46.

Creswell, J. W. (2013). Qualitative Inquiry & Research Design: Choosing among Five Approaches (3rd ed.). Thousand Oaks, CA: SAGE.

Creswell, J. W., & Creswell, J. D. (2018). Research design (5th ed.). SAGE Publications.

Chu, Y., Li, X., & Zhao, D. (2023). Gender Diversity: From Wall Street to Main Street. *Journal of Business Ethics, 188(1), 151- 168.*

De Prada, E., Mareque, M., & Pino-Juste, M. (2022). Teamwork skills in higher education: is university training contributing to their mastery? Psicologia: Reflexao e Critica, 35(1), 1-13.

Demir, Ema. (2021). The Role of Social Capital for Teacher Professional Learning and Student Achievement: A Systematic Literature Review. Educational Research Review. 33.

Des Armier, D., & Bolliger, D. U. (2019). An Investigation of Graduate Students' Internet Attitudes and Their Feelings of Connectedness. *Journal of Continuing Higher Education, 67* (2/3), 83-96.

Dictionary.Com. (2018). Positionality. https://www.dictionary.com/e/gender-sexuality/positionality/

Dippold, D., Heron, M., & Gravett, K. (2022). International students' linguistic transitions into disciplinary studies: A rhizomatic perspective. *Higher Education (00181560)*, *83*(3), 527–545.

Doucette, D. & Singh, C. (2018). Making Lab Group Work Equitable and Inclusive. *Journal of College Science Teaching, 52(4), 31-37*.

Ethier, M. (2023, September 14). *Acceptance rates & yield at the top 50 U.S. MBA programs*. Poets&Quants. https://poetsandquants.com/2023/09/01/has-the-window-reopened-acceptance-rates-yield-more-at-the-top-50-u-s-mba-programs/

Fakhreldin, H., Youssef, N., & Anis, M. (2021). Cross-Cultural Management Eductaion: Core for Business Students in the 21st Century. *Journal of Teaching in International Business*, 32(2), 109-134.

Fish, L.A., Wilson, F. S. (2009) Predicting Performance of Mba Students: Comparing the Part-Time Mba Program and the One-Year Program. *College Student Journal, 43*(1), 145-160.

Gabriel, J. (2016). Situational Leadership and Group Development Theory for the Outdoor Leader. *Association of Outdoor Recreation & Education Conference Proceedings*, 38-43.

Gopalan, M., & Brady, S. T. (2020). College Students' Sense of Belonging: A National Perspective. *Educational Researcher*, *49*(2), 134–137.

Griffith, A. L., & Rask, K. N. (2012). Peer effects in higher education: A look at heterogeneous impacts. *Economics of Education Review*, 39, 65-77.

Grossman, R., & Miller, J. P. (2021). Optimizing Team Effectiveness: Key Takeaways From the Science With a Focus on the Virtual Context. *American Journal of Health Promotion,* 35(5), 732-737.

Gu J, Bourne PE (2007) Ten Simple Rules for Graduate Students. PLoS Comput Biol 3(11): e229.

Han, S., Oh, E. G., & Kang, S. (2022) Social Capital Leveraging Knowledge-Sharing Ties and Learning Performance in High Education: Evidence from Social Network Analysis in an Engineering Classroom. AREA Open, 8(1).

Healy, M., Doran, J., &McCutcheon, M. (2018). Cooperative Learning Outcomes from Cumulative Experiences of Group Work: Differences in Student Perceptions. *Accounting Education, 27(3), 286-308.*

Hoffman, M. Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention*, *4*(3), 227-256.

Horn, S.K. (1997). Ideas in practice: Extending collaboration beyond the developmental classroom. *Journal of Developmental Education*, 21(2), 26.

Industry Today . (2019). *Why is Business Education Important Today?*. Industry Today. https://industrytoday.com/why-is-business-education-important-today/

Irani, T. A., Barbour Wilson, S., Slough, D. L., & Rieger, M. (2014). Graduate Student Experiences ON- and Off-campus: Social Connectedness and Perceived Isolation. *International Journal of E-Learning & Distance Education, 28(1), 1-16.*

Jack, A. A. (2016). (No) Harm in Asking. *Sociology of Education*, 89(1), 1-19.

JKCP. (2023, January 10). *6 reasons why business education is important in schools*. Just Keep Carving Paths. https://www.jkcp.com/business-education-in-schools/

Johnson, S.S. (2021). Knowing Well, Being Well: well-being of understanding: The Science of

    Teamwork. *American Journal of Health Promotion*, 35(7), 1028-1047.

Kiweewa, J.M., Gilbride, D., Luke, M., & Clingerman, T. (2018). Tracking Growth Factors in

    Experiential Training Groups through Tuckman's Conceptual Mode. *Journal for Specialists in*

    Group Work, 43(3), 274-296.

Kiyama, J.J. and Rios-Aguilar, C. (2018) Funds of Knowledge in Higher Education: Honoring Students'

    Cultural Experiences and Resources as Strengths. Routledge, New York.

Kralova, Z., & Dolezelova, E. (2021). The importance of English in business education in the Czech

    republic. *Journal of Education for Business*, 96(2), 111-119.

Kyllonen, P. (2013). Soft Skills for the Workplace. *Change*, *45*(6), 16–23.

    https://doi.org/10.1080/00091383.2013.841516

Lauricella, T., Parsons, J., Schaninger, B., & Weddle, B. (2022). Network effects: How to rebuild social

    capital and improve corporate performance. McKinsey & Company. Retrieved from:

    https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-

    insights/network-effects-how-to-rebuild-social-capital-and-improve-corporate-performance

Lee, S. H. (Mark), Smith, D., & Sergueeva, K. (2016). What do students think about group work in

    business education? An investigation into the benefits, challenges, and student-suggested

    solutions. *Journal of Education for Business*, *91*(7), 380–386.

Lippman L. H., Ryberg R., Terzian M., Moore K. A., Humble J., McIntosh H. (2014). Positive and

    protective factors in adolescent well-being. In Ben-Arieh A., Casas F., Frones I., Korbin J. E.

    (Eds.), *Handbook of child well-being* (pp. 2823–2866). New York, NY: Springer

MacLeod, J., Yang, H.H. & Shi, Y. (2019). Student-to-student connectedness in higher education a

    systematic literature review. *Journal of Computing Higher Eduction* 31, 426-448.

Maslow, A. H. (1970). *Motivation and personality*. New York: Harper & Row.

McManus, L., & Rook, L. (2021). Mixed views in the academy: academic and student perspectives about the utility of developing work-ready skills through WIL. *Studies in Higher Education, 46*(2), 270-284.

Mulhim, E. N. A., & Eldokhny, A. A. (2020). The Impact of Collaborative Group Size on Students' Achievement and Product Quality in Project-Based Learning Environments. *International Journal of Emerging Technologies in Learning, 15(10), 157-174.*

Ng, N. W. K., Haslam, S. A., Haslam, C., & Cruwys, T. (2018). "How can you make friends if you don't know who you are?" A qualitative examination of international students' experience informed by the Social Identity Model of Identity Change. *Journal of Community & Applied Social Psychology*, *28*(3), 169–187.

O'Keefe, P. (2013). A sense of belonging: Improving student retention. *College Student Journal, 47*(4), 605-613.

O'Meara, K., Griffin, K. A., Kuvaeva, A., Nyunt, G., & Robinson, T. (2017). Sense of Belonging and Its Contributing Factors in Graduate Education. *International Journal of Doctoral Studies*, *12*, 251–279.

Oh, H., Chung, M.-H., & Labianca, G. (2004). Group Social Capital and Group Effectiveness: The Role of Informal Socializing Ties. *The Academy of Management Journal*, *47*(6), 860–875. https://doi.org/10.2307/20159627

Ostrove, J. M., Stewart, A. J., & Curtin, N. L. (2011). Social Class and Belonging: Implications for Graduate Students' Career Aspirations. *Journal of Higher Education*, *82*(6), 748–774.

Reinhart, J. (2010). Graduate students' communication practices and perceived sense of community- An examination of information services. *The Quarterly Review of Distance Education, 11*(4), 223-238.

Rios-Aguilar, C., Kiyama, J. M., Gravitt, M., & Moll, L. C. (2011). Funds of knowledge for the poor and forms of capital for the rich? A capital approach to examining funds of knowledge. *Theory and Research in Education*, *9*(2), 163–184.

Schartel Dunn, S., Dawson, M., & Block, B. (2021). Teaching teamwork in the business school. *Journal of Education for Business*, 96(6), 381-386.

Singleton, J. A., Watson, K. E., & Kenyon, J. (2021). GATES: An Online Step-Wise Tool to Develop Student Collabortive Teamwork Competencies. *Innovative Higher Education,* 47(1), 23-43.

Stayhorn, T. (2012). *College students' sense of belonging: A key to educational success for all.* New York, NY: Routledge.

Tuckman, B. W. (1965) 'Developmental sequence in small groups', *Psychological Bulletin*, 63, 384-399.

Tuckman's stages of group development. N.d. *Figure 1*

Uddin, R., Burton, N.W., & Khan, A. (2020). Combined Effects of Physical Inactivity and Sedentary Behauvior on Psychological Distress Among University-Based Young Adults: a One-Year Prospective Study. *Psychiatric Quarterly*, *91*(1), 191-202.

University of Virginia. (2023) Graduate Program Record 2023-2024. http://records.ureg.virginia.edu/index.php

University of Virginia (b). (n.d.). *Statistics: The Office of Undergraduate Admission*. Statistics | The Office of Undergraduate Admission. https://admission.virginia.edu/admission/statistics

US News Best Colleges. (n.d.). University of Virginia overall rankings | US News Best Colleges. https://www.usnews.com/best-colleges/uva-6968/overall-rankings

Varela, O., & Mead, E. (2018) Teamwork skill assessment: Development of a measure for academia. *Journal of Education for Business*, 93(4), 172-182.

WCBT. (2021). *The importance of Business Education*. Sacred Heart University. https://www.sacredheart.edu/news-room/news-listing/the-importance-of-business-education

Webber, K. L., & Burns, R. (2021). Increased in Graduate Student Debt in the US: 200-2016. *Research in Higher Education, 62*(5), 709-732.

Wheelan, S. A., Davidson, B., & Tilin, F. (2003). Group Development Across Time: Reality or Illusion? *Small Group Research*, *34*(2), 223–245.

Wilson, S., & Gore, J. (2013). An attachment model of university connectedness. *Journal of Experimental Education, 81*(2) 178-198.

Winston, G. C., & Zimmerman, D. J. (2004). Peer Effects in Higher Education. Discussion Paper.

APPENDIX A: Fall Schedule/Matrix

07/28/23

M.S. in Commerce
Fall Semester Schedule of Courses
2023-2024

TERM 1: weeks 1-8   2023-2024

TERM 1: weeks 9-16

TERM 1: weeks 17-19

Legend:

Course	Abbr.		Details
strategy	Strat	=	GCOM 7010 Prof. Harris, Room 123
systems	Sys	=	GCOM 7010 Prof. Lukyanenko, Room 123 and Computer Lab 317A&B
communication	Com	=	GCOM 7010 Prof. Patterson, Room 123
cost acctg	Cost	=	GCOM 7020 Prof. Roberts, Room 123
fin'l acctg	FA	=	GCOM 7030 Prof. Koch, Room 123
org behav	OB	=	GCOM 7050 Prof. Zhao, Rm 120 in Aug; Rm 123 in Oct/Nov
finance	Fin	=	GCOM 7060 Prof. McCartney, Rooms 118 (12:30 section) and 123 (2:00 & 3:30 sections)
mktg & QA	Mktg	=	GCOM 7040 Prof. Mittal—Mon: Rm 317 A&B; Wed: Rm 123
quiz bowl	QB	=	quiz bowl competitions; room 116
finance prep	FN-Prep	=	finance prep series; required for all finance trackers
proj mgmt	PM	=	GCOM 7250 Prof. Maurer, Room 123
data mgmt	DM	=	GCOM 7230 Prof. Kitchens, Room 225; Prof. Liang, Room 317A
corp finance	CF	=	GCOM 7710 Prof. Erwin, see syllabus for times & locations
frontiers in bio	BIO	=	GCOM 7290 Prof. Hastings, Room 260
consulting	cnsult	=	optional sessions for those interested in consulting

picnic = McIntire Welcome Picnic

review = optional cost acctg review session, via Zoom; Sect 2 at 9:30; Sect 1 at 11:00

review = optional finance review sessions

Flipped Class Sessions by Section

number refers to section in class

Two-person team Integrative Final Exam (distributed on Wednesday, 12/6, collected on Tuesday, 12/12)

07/28/23

APPENDIX B: Survey Instrument

Group Dynamic Research

Q7

Electronic Study Information Page

Study Title: Group Dynamic Research

Protocol #: 6055

Please read this study information sheet carefully before you decide to participate in the study.

Purpose of the research study: The purpose is to examine group development within one-year graduate programs at the School of Commerce, specifically how to understand better the context of what helps groups succeed or struggle. I would like to research, through the lens of Tuckman's Group Development Theory, how connectedness, power, and positionality assist or hinder the team dynamic.

What you will do in the study: As a participant in this study, you will be emailed on Thursdays throughout the semester at regular intervals. The dates are August 10th, September 7th, October 5th, November 2nd, and December 7th. Each survey opened at 9 a.m. on the corresponding Thursday mornings and closed at noon on Sundays, with reminders being sent to those who had not completed it. You will briefly reflect on your experience with your small group from GCOM 7010, 7020, 7030, 7040, and 7050 during the Fall 2023 semester. In the surveys, you can skip any question(s) that make you uncomfortable, and you can stop the survey at any time you wish.

Time required: The study will require about 1-1.5 hours of your time throughout the semester, with each survey taking between 10-15 minutes to complete.

Risks: There are no anticipated risks in this study.

Benefits: There are no direct benefits to you for participating in this research study. The study may help us understand more about what makes up a successful team in the M.S. in Commerce program.

Confidentiality: The information that you give in the study will be handled confidentially. Your information will be assigned a code number. The list connecting your name to this code will be kept in a

locked file. When the study is completed and the data have been analyzed, this list will be destroyed. Your name will not be used in any report.

Voluntary participation: Your participation in the study is completely voluntary. Your decision to participate OR NOT will no affect on your grades or school services.

Right to withdraw from the study: You have the right to withdraw from the study at any time without penalty.

How to withdraw from the study: Please notify the researcher via email by December 15, 2023 with the desire to withdraw. After that, the data will be unable to be deleted due to unlinking the data from the participant I.D.s. Payment: You will receive no payment for participating in the study.

Using data beyond this study: The data you provide in this study will be retained in a secure manner by the researcher for 2 years and then destroyed.

Please contact the researchers on the study team listed below to:

• Obtain more information or ask a question about the study.

• Report an illness, injury, or other problem.

• Leave the study before it is finished.

Researcher's Name:

Caroline Wagner University of Virginia, McIntire School of Commerce

40 South Lawn, Office 155, Charlottesville, VA 22903.

Telephone: (434)-924- 5991 Email address: co3c@virginia.edu

Faculty Advisor's Name:

Christian Steinmetz University of Virginia, School of Education

Ridley Hall 286 PO Box 400265 405 Emmet Street S, Charlottesville, VA 22903

Telephone: (434) 924 3180 Email address: cls5p@virginia.edu

You may also report a concern about a study or ask questions about your rights as a research subject by contacting the Institutional Review Board listed below.

Tonya R. Moon, Ph.D. Chair, Institutional Review Board for the Social and Behavioral Sciences

One Morton Dr Suite 400 University of Virginia, P.O. Box 800392 Charlottesville, VA 22908-0392

Telephone: (434) 924-5999 Email: irbsbshelp@virginia.edu

Website: https://research.virginia.edu/irb-sbs Website for Research Participants: https://research.virginia.edu/research-participants

UVA IRB-SBS # 6055

You may print a copy of this consent for your records.

Q11 I consent to participate in this survey

○ Yes (1)

○ No (2)

Skip To: End of Survey If I consent to participate in this survey = No
Skip To: End of Block If I consent to participate in this survey = Yes

End of Block: Study Information

Start of Block: Demographic Information

Q16 Enter your participant code. Use the month of your mom's birthday, the name of the street you grew up on, followed by your birthday year.

For example: my mom is born in September, I grew up on Victoria Ave and I was born in 1991 - so my participant code would be 09Victoria1991

_____

Q2 What gender do you identify with?

○ Woman. (1)

○ Man. (2)

○ Transgender. (3)

○ Non-binary/non-conforming. (4)

○ I prefer not to respond. (5)

Q3 What is your current track in the program (regardless of track switching)?

○ Biotechnology (1)

○ Business Analytics (2)

○ Finance (3)

○ Marketing and Management (4)

End of Block: Demographic Information

Start of Block: Group Focused Questions

Q5 Thinking about the group you are in for 7010, 7020, 7030, 7040, and 7050 answer the following questions about your group as a whole using the scale below.

1= Strongly Disagree	4= Neutral	7 = Strongly Agree

1	2	3	4	5	6	7

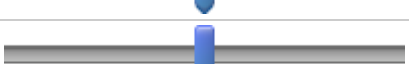|	
When my group is together, we are able to focus on getting our work accomplished. ()	
Our group does not enjoy working together. ()	
Our group enjoys being together. ()	
Our group does not have mutual respect for one another. ()	
Our group listens to one another. ()	
Our group collaborates ()	
I am confident my group will academically succeed throughout the semester. ()	
I feel like one or two members dominant our group conversations ()	

End of Block: Group Focused Questions

Start of Block: Self-Focused Questions

Q6 Thinking about the group you are in for 7010, 7020, 7030, 7040, and 7050 answer the following questions about your role in the group using the scale below.

1= Strongly Disagree	4= Neutral	7 = Strongly Agree

1	2	3	4	5	6	7

I feel motivated to contribute to my group. ()	
I do not feel that I have the abilities necessary to contribute to my group. ()	
I feel like I contribute equally in my group ()	
I do not feel connected to my group ()	
I feel that other members of my group take my opinions and suggestions seriously ()	
I feel I am an important member of my group. ()	
I feel I am an equal member of my group. ()	
I am confident I will academically succeed throughout the semester. ()	

End of Block: Self-Focused Questions

Start of Block: Demographic Information

Q14 What is your first language?

_____

End of Block: Demographic Information

Start of Block: Open-Ended Questions

Q8 What skills are you learning by working on your group?

_____

_____

_____

_____

_____

Q9 What are some activities/ characteristics of your group that you feel contribute to the group's success?

_____

_____

_____

_____

_____

Q10 What are some activities/ characteristics of your group that you feel contribute to the group's mistakes?

_____

_____

_____

_____

_____

Q15 Please add anything else you think it is important for us to know about the dynamics or your group.

_____

_____

_____

_____

_____

APPENDIX C – Survey Participation Emails

August 10th Email

Hello, M.S. in Commerce Class of 2024,

I hope the first few days of classes have gone well. As I noted in orientation on Monday and in Professor Lukyanenko's class this morning, today is the first of five surveys you will receive this semester regarding your group dynamic.

As a reminder, this has nothing to do with your academic performance of courses and is part of my own doctoral research. I would be so appreciative if you could take the time to complete the 10-minute survey between now and this Sunday, August 13th at 11:59 pm.

The link to the survey can be found here (link survey) and feel free to respond with any questions.

Best,

Caroline

September 7th Email

Hello, M.S. in Commerce Class of 2024,

As I noted in Professor Lukyanenko's class this morning, today is the second of five surveys you will receive this semester regarding your group dynamic.

As a reminder, this has nothing to do with your academic performance of courses and is part of my own doctoral research. I would be so appreciative if you could take the time to complete the 10-minute survey between now and this Sunday, September 10th at 11:59 pm.

The link to the survey can be found here (link survey) and feel free to respond with any questions.

Best,

Caroline

October 5th Email

Hello, M.S. in Commerce Class of 2024,

As I noted in the 7010 midterm review session this morning, today is the third of five surveys you will receive this semester regarding your group dynamic.

As a reminder, this has nothing to do with your academic performance of courses and is part of my own doctoral research. I would be so appreciative if you could take the time to complete the 10-minute survey between now and this Sunday, October 8th at 11:59 pm.

The link to the survey can be found here (link survey) and feel free to respond with any questions.

Best,

Caroline

November 2ⁿᵈ Email

Hello, M.S. in Commerce Class of 2024,

As I noted in Professor Zhao's class this morning, today is the fourth of five surveys you will receive this semester regarding your group dynamic.

As a reminder, this has nothing to do with your academic performance of courses and is part of my own doctoral research. I would be so appreciative if you could take the time to complete the 10-minute survey between now and this Sunday, November 5ᵗʰ at 11:59 pm.

The link to the survey can be found here (link survey) and feel free to respond with any questions.

Best,

Caroline

December 7ᵗʰ Email

Hello, M.S. in Commerce Class of 2024,

I hope the integrative final is off to a good start! Today is the LAST of the five surveys you have received this semester regarding your group dynamic.

As a reminder, this has nothing to do with your academic performance of courses and is part of my own doctoral research. I would be so appreciative if you could take the time to complete the 10-minute survey between now and this Sunday, December 10ᵗʰ at 11:59pm

The link to the survey can be found here (link survey) and feel free to respond with any questions.

Best,

Caroline

Sunday Reminder Emails: August 13ᵗʰ, September 10ᵗʰ, October 8ᵗʰ, November 5ᵗʰ, and December 10ᵗʰ

Hello, M.S. in Commerce Class of 2024,

This is a friendly reminder, if you have not done so already, to complete this survey by tonight at 11:59 pm.
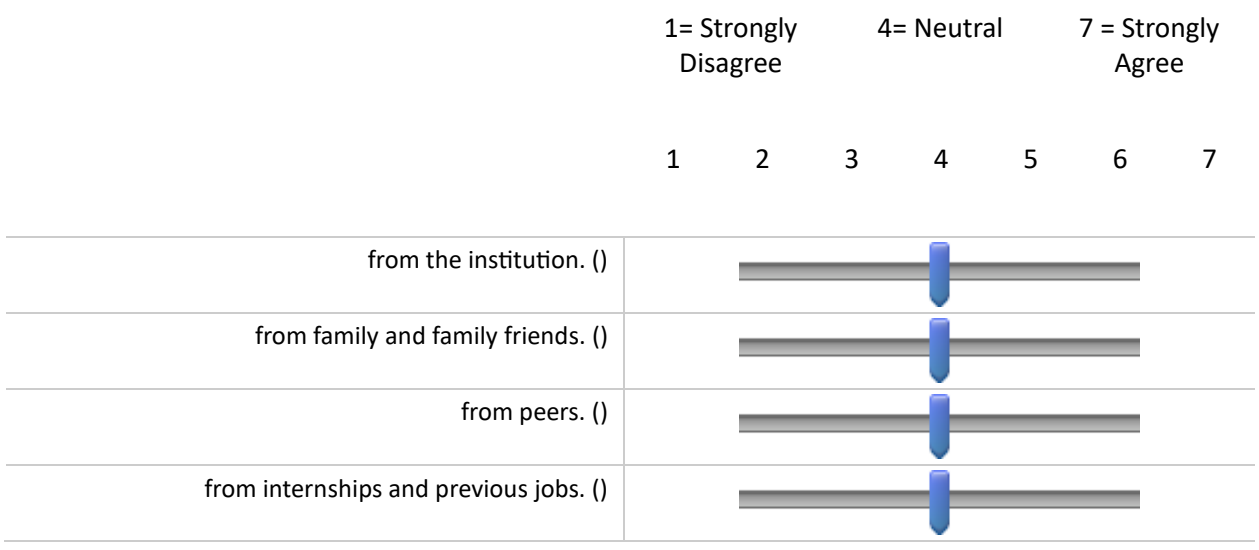
I appreciate your help with my research!

Best,

Caroline

APPENDIX D- Survey Five Additional Questions

Q17 Did you attend the University of Virginia for your undergraduate degree?

○ yes (1)

○ no (2)

Q19 I feel confident that I have contacts to find a job after the M.S. Commerce program

	1= Strongly Disagree	4= Neutral	7 = Strongly Agree
	1 2 3	4	5 6 7
from the institution. ()			
from family and family friends. ()			
from peers. ()			
from internships and previous jobs. ()			

APPENDIX E- Team Contract and Instructions

TEAM LAUNCH CONTRACT ASSIGNMENT

Objective: To facilitate an initial discussion regarding how your team will work together this semester.

To come to a shared understanding of team goals, norms, and strategies for responding to problems.

Process:

1. Establish a time to meet as a team to complete this exercise. You should allow 60-90 minutes for the team discussion. You are strongly encouraged to "lunch and launch"— that is, incorporate this exercise into a social occasion in which you can get to know each other more informally as well. Maybe a virtual meal!
2. Prior to the team meeting, each member should complete the "Individual Goals & Expectations" template. Bring this with you to the team meeting. The team discussion is far more productive when everyone is prepared and has their notes in front of them.
3. Begin with a discussion of each member's personal goals for the team (section B). Reach consensus on a set of shared goals that all members of the team are willing to commit to. Keep the number manageable (3-5 goals). * Be sure to note if there are any member goals that cannot be accommodated by the team as a whole. How might these pose problems for the team's work?
4. Next, discuss the norms and processes that the team will adopt to help it achieve its goals and avert potential problems (including any problems identified in step 3). It may be helpful to refer back to the material we discussed in class regarding communication, scheduling, and meeting conduct/management. Develop a list of expectations that all members of the team are willing to commit to.
5. Finally, discuss expectations specifically related to managing conflict. Make sure that everyone on the team is in agreement about what will happen if a team member is concerned about a teammate's behavior and/or the effectiveness of the team's norms/processes. Record these agreements along with any other expectations that pertain to conflict management.
6. Following the meeting, summarize the team's agreements using the Team Launch Contract (attached).

Final Deliverable: Team Launch Contract (ONLY submit Pages 4 and 5; 1 submission/team)

Due date: Thursday, August 24th at 8pm

• Post electronic file to Canvas – Gradescope

INDIVIDUAL GOALS & EXPECTATIONS

It is not uncommon for team members to initially approach their work together with different goals and expectations in mind. When these differences are not openly discussed and addressed, it can create problems for the team down the road. One of the most important steps that members can take to avert such problems is to be transparent regarding their goals and expectations. By understanding members' perspectives, a team can agree on shared goals and anticipate and plan for potential challenges. To prepare for this discussion with your teammates, please complete the following information.

    A. Your Individual Goals

What goals are most important to you this semester? Think broadly! Consider learning goals (e.g. developing a specific skill or knowledge base), academic performance goals (e.g., achieving certain grades), and goals outside of the classroom (e.g., finding a job, sleeping a certain amount of time each night, working at a part time job, participating in social activities).

Prioritize these goals (3-5):

1.

2.

3.

4.

5.

       B. Your Team Goals

Taking into consideration your personal priorities, what are your goals for your work team? Again, think broadly—consider learning goals, academic performance goals, and process goals (e.g., don't pull any all-nighters, have fun working together).

Prioritize these goals (3-5):

1.

2.

3.

4.

5.

C. Your Team Expectations

Taking into consideration your responses in section B, what norms or processes would you like to see your team adopt? Remember to consider the material we discussed regarding communication, scheduling, and meeting conduct/management. Feel free to also note expectations in other areas that you believe are important to achieving the goals that you identified. List the ideas that you would like to raise in your team discussion.

Finally, think about how you want your team to respond if a problem arises. First, consider individual level problems. It is most useful to think about how you would want your teammates to approach you if they were concerned about your behavior or contribution. Second, consider team-level problems (e.g., meetings go on too long, team can't reach a decision). When and how should these problems be discussed? Also list any other norms or processes that you believe are important to effectively managing conflict in the team.

TEAM LAUNCH CONTRACT

Team Number:

Team Name:

Team Members:

1. **Team Meeting Details** (Please indicate where & when you met to complete this assignment, and whether your launch meeting was connected to a social occasion— lunch, dinner, etc.—as suggested. If not, briefly report whether the team has organized any other social activities to date as a group.)

2. **Mission Statement**

3. **Definition of Success** (As a team, how are you going to define 'success' as a team. Be specific)

4. **Team Goals** (Record shared goals.)

5. **Team Expectations** (What are your expectations as a team?)

6. **Accountabilit**y (How are you going to keep the team and each other accountable)

7. **Team Meetings** (What are some of the guidelines around team meetings?)

8. **Conduct** (How are you going to behave towards each other on an interpersonal level)

9. **Team Expectations Related to Conflict Management** (Record any norms/processes that relate to conflict management here. Be sure that it is clear how the team has decided to respond in the event of problems with a) a team member or b) team processes or dynamics. There is only 1 role that every team should have and that is the role of the leader – please outline the role and the responsibilities – including the role of the leader as that may look different for every team)

10. **Member Roles:**

Team Member's Name	Team Member's Role/ Description

11. Signatures

Team Member's Name	Team Member's Signature