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## Gender Composition Of Online Technical Communication Collaborations

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GENDER COMPOSITION OF ONLINE TECHNICAL  
COMMUNICATION COLLABORATIONS

by

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B.A. University of Central Florida, 2009

A thesis submitted in partial fulfillment of the requirements  
for the degree of Master of Arts  
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## **ABSTRACT**

Online collaborations are more prevalent in society due to electronic communication allowing students and professionals to communicate with each other, without needing to spend time or money traveling. The lack of visual cues in electronic communication means writing styles primarily set the tone of a message. A group member's gender can affect his or her writing style and what he or she assumes about the message. The differing writing styles and potential gender bias can cause misunderstandings, which delay projects and sometimes lead to ostracizing a group member. The gender composition of an online collaboration, therefore, can have a positive or negative effect on a project.

This study helps technical communicators understand how to manage online collaborations effectively to produce a successful project. The study explains how the effects of gender composition on a project are influenced by electronic communication, gender roles, and online collaborations. Society-imposed gender roles include differing writing styles for each gender causing gender bias in both writing and reading electronic messages. Group members, monitors, and project managers must take care in managing online collaborations due to the differences in each gender's communication style, and differences in gender roles and expectations for multinational online collaborations.

The study shows mixed-gender collaborations have increased chances of misunderstandings because of the differing communication styles of each gender compared to same-gender collaborations. However, the advantages of mixed-gender collaborations outweigh the disadvantages due to the variety of ideas, motivations, and expectations. Technical communicators understanding how all the major topics relate together to influence a

collaboration are better able to manage an online collaboration and reduce the chances of misunderstandings to create a successful project.

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## **LIST OF ACRONYMS/ABBREVIATIONS**

CMC	Computer-Mediated Communication
CSILE	Computer-Supported Intentional Learning Environment
ICT	Information and Communication Technology
IT	Information Technology
VisOC	Visualizations of Online Communication

## **CHAPTER ONE: INTRODUCTION**

Online technical communication collaborations are more prevalent in our society due to the ease of communication over the Internet. Electronic communication allows an individual to work online for education or for the workplace, with less expense and less wasted time involved in traveling from home to school or work. People can communicate internationally, without worrying about time zones or delay due to the ease of electronic communication. For the companies, which have expanded across nations, electronic communication seems ideal to save money. For individuals participating in online classes, electronic communication makes it easier to balance education and work as they can turn in assignments or ask questions without needing to take a day off to drive all the way to campus.

The negative aspects of electronic communication in comparison to physical communication are the lack of visual cues to easily decipher tone and the uncertainty concerning when the other person will respond. Misunderstandings can arise in online collaborations due to the electronic communication. Group members sending offensive messages, a group member passive-aggressively delaying a project, or the group ostracizing a group member can all occur due to misunderstandings amongst the group. Some misunderstandings are caused by the group members making assumptions about a message from its writing style.

### Overview of the Study

In this study, I explore how the gender of a group member can affect his or her writing style, and what he or she assumes about another member's communication. The filter of gender potentially biases the electronic communication and may cause misunderstandings within the

collaboration. Therefore, the gender composition within a group can produce a positive or negative effect on an online project. This study helps technical communicators learn the potential effects, so they can work around the negative effects and work to produce a more successful project.

### Purpose

My study helps technical communicators understand how to manage online collaborations effectively to produce a more successful project. I find that the gender composition of an online collaboration plays a factor in a project's outcome, so I examine how the gender of each group member may change the outcome of a project. I also research other factors which contribute to gender being the main influence on a collaboration project.

### Scope

I research four major topics: electronic communication, gender roles in society, online collaborations, and gendered groups. Each topic ties in to the main focus of my study, with the following questions directing the research on these topics:

1. How does electronic communication cause misunderstandings for technical communicators?
2. How does society influence gender roles and writing styles?
3. How are online collaborations managed nationally and internationally?
4. How does a same-gender or mixed-gender group work on a project?

My research for the study comes mainly from analyzing articles, literature, and others' research by using online databases like *ProQuest: GenderWatch* and *EBSCOhost: Academic*

*Search Premier*, and printed works such as the *Encyclopedia of Gender and Information Technology* to locate the necessary research. I incorporate the overall topics for the study, and then use the works of a few researchers with similar concerns about gender composition of an online technical collaboration affecting a project's outcome to help in my final analysis.

### Organization

The first three chapters of my study cover the three major components, electronic communication, gender roles, and online collaborations. The fourth chapter analyzes of the gender composition in online collaborations, while the fifth chapter concludes the thesis.

Chapter One provides an overview of the entire study. The answers to the question of how electronic communication can cause misunderstandings for technical communicators subsequently follow the overview. This chapter also covers the prevalence of electronic communication in the workplace and in education.

Chapter Two focuses on society and gender roles. I explain how society influences gender roles and their writing styles. Literature can potentially change society's influence, so the chapter explores literature and gender roles.

Chapter Three focuses on online collaborations, from local groups to international groups. The main portion of the chapter explains how online collaborations are managed. It briefly touches on face-to-face collaborations to provide the counter-balance to online collaborations.

Chapter Four analyzes gender composition in online collaborations. The chapter explains the differences and similarities of same-gender groups and mixed-gender groups. The topics of the previous chapters are incorporated to help explain the analysis. For instance, group members

can misunderstand each other's electronic communications due to society influencing each gender towards differing writing styles, but a properly managed group can overcome the misunderstandings.

Chapter Five concludes the thesis by describing the positive and negative effects on the project due to the gender composition of an online technical communication collaboration. The chapter also offers suggestions for keeping a more positive effect and for further research to expand the study.

### Significance and Rationale

In this section, I briefly review some of the important work concerning the challenges for communicating clearly online, gender roles, local and international online collaborations, and mixed gender group management. Each authored work correlates to one of the research questions provided earlier.

A majority of the work in the technical communication field involves working in some form of a group in order to complete a project. Technical communicators need to incorporate everyone's ideas into the project to make it successful. When working in an online collaboration, they also need to be careful not to offend anyone due to the potential misunderstandings that can arise from using electronic communication. Offensive messages, passive-aggressively delaying the project, or ostracizing a group member are what occur from misunderstandings or miscommunication.

In "Whose Voice? Whose Text? Negotiating CoAuthorship in Cyberspace," Amanda Goldrick-Jones and Linda M. LaDuc mention how electronic communication can cause misunderstandings for technical communicators. Electronic messages and documents can easily

cause offense as the writer cannot take the words back once sent. Goldrick-Jones and LaDuc argued over misunderstandings caused by casual electronic messages, when they did not take the time to review what they wrote before sending it. When taking their time and reviewing, they were able to distance themselves emotionally from their writing to generate more logical arguments and contribute more overall to their project.

Gender plays an important role in why group members can misunderstand the electronic communication between each other. Society's expectations influence each gender's writing styles, which can cause group members to assume certain things about messages they receive. Our society is slowly transitioning into a more equal society with women and men receiving the same education and heading into the same disciplines. However, men are still viewed as more aggressive and women are viewed as more passive, which affects how they write and how they perceive communication. Because of the changes in our society, we must understand how society affects our writing styles.

Society influences gender roles, which leads to each gender to be more inclined towards certain writing styles due to the differing expectations of each gender. According to Vijai Giri in *Gender Role in Communication Style*, there are three different writing styles:

The Noble communicator is conceptualized as a direct and straightforward [communicator], who feels obligated to state the truth. A Socratic is a verbose, analytical communicator who is concerned with details, and a Reflective is a warm, supportive communicator who is concerned with interpersonal relations and the need to avoid conflict (10).

Men tend to use the Noble style, while women tend to use the Reflective style in their daily lives though either gender can use any of the writing styles depending on the situation. Group members who use the same writing styles work together easily as they have the same expectations for writing documents. However, society expects women to try to avoid conflict and use a Reflective writing style, thus they would be less inclined to speak up in a group as opposed to men who directly state their opinion. Reflective communicators are then marginalized, or ostracized from the group when they do not actively participate whether by injecting their own ideas or directly arguing against another's ideas. Many women and some men slowly accommodate into following someone else's lead in order to avoid conflicts, though conflict or passionate discussion can result in a better project due to more ideas and solutions being discussed by the group to create a cohesive project.

Literature also influences society as seen by the ever increasing equality between genders. Virginia Woolf's works try to influence society into blurring the gender division lines in writing styles. Woolf tried to get women to change their style of writing from the Reflective style of passive voice, to adopt the men's Noble writing style of active voice. In "Professions for Women," Woolf explained how she personally had to fight against the Angel in the House, which alludes to society's expectations of the gender roles. Her story of killing the Angel of the House was to show her audience the need to get away from the preconceived gender roles influencing their writing styles. Woolf's written literacy persuades her audience to slowly blur the gender division lines by changing their writing style habits, which is indirectly proven by some women authors, such as Helene Cixous in "The Laugh of the Medusa," who have a more aggressive writing style after Woolf's literature was published.

Gender roles and writing styles, which are both influenced by society, can affect the communication between group members and changes how online collaborations are managed. In “Transcending the Effects of Sex Composition in Small Groups,” Patricia Yancey Martin and Kristin A. Shanahan did observational studies on how the gender composition of the group affects the productivity of the writing task. When a single woman was in a male-dominated group, she felt ostracized in the group and pressured into a female stereotype from the group’s interactions. Society influenced how the male group members viewed the female group member and her writing style. The woman’s Reflective writing style opposed the men’s Noble writing style, so she decided to follow the men’s lead to avoid conflicts, though conflict or passionate discussion would result in a better project. The effect on the final project was that the project was less successful as she did not feel like going against the main force of the group by offering up ideas and the potential perspective of the female half of the eventual audience. If the leader of the group understood how society influences gender roles and writing styles, then the leader could have created a more successful project by not allowing one member to feel marginalized due to gender or writing style.

International societies are slowly influencing our society as companies expand into multinational organizations and schools incorporate international studies. Just as our society imposes certain ideas, technical communicators should be aware that international societies and communities would also influence gender roles and writings styles on their members. Robert Crooks and Karla Baur, in *Our Sexuality*, state “a kiss on the cheek is considered a feminine act and therefore inappropriate between men in American society. In contrast, such behavior is consistent with masculine role expectations in many European and Middle Eastern societies”



(47). The differences in each society's gender role expectations in turn would affect the writing styles of each gender and can cause international group members to view a message as offensive. We must understand how our society or the international society influences people in order to work together efficiently in an online collaboration.

For an international online collaboration, Janet Barnstable finds students to be more motivated in avoiding miscommunication and taking the time to reword their messages. In "Online Collaboration Benefits Students and Teachers," her students were involved in international online collaborations to create a project. Instructors need to take the time to explain some of each society's expectations in comparison to their own nation to help avoid conflicts. The benefits for the students include a better understanding of writing to a wider audience and how important clarity is for a successful collaborative project. With Barnstable helping to monitor the online collaboration, her students were able to avoid the downfall of offending the international students by being careful in their writing styles.

A successful collaboration project occurs when group members are aware of society's influences and how to avoid misunderstandings when using electronic communication. Prepared technical communicators can easily manage and make a mixed-gender group work smoothly together. Jianxia Du, Bryon Havard, James Adams, Gang Din, and Wei-Chieh Yu studied five mixed-gender student groups working online on a specific task in the article, "Project-Based Online Group Collaborative Learning Characteristics." There was an equal mix of each gender in every group, which means for every male member in the group, there was a female member. The student participants stated afterward that they preferred to work in the mixed-gender groups due to the variety in the ideas, even though there were changes in group interaction in comparison to

single-sex groups. Women and men were more motivated and focused onto the completion of the project when the group composed of an equal gender mix. By being aware of the potential misunderstandings and society's influence, technical communicators can effectively create a successful collaboration project.

This study helps explain to technical communicators how the gender composition of a group can potentially affect the success of an online collaboration project. Clear online communication, gender roles, online collaborations, and gender group management are the four major influences on the project's outcome. Because of these influences, technical communicators must carefully manage online collaborations to avoid any misunderstandings or miscommunication. Technical communicators aware of these influences could better direct a same-gender group or a mixed-gender group to work together effectively to create a successful project. The following section explains the need for communicating clearly online due to a group member misinterpreting electronic communication because of the lack of visual cues to decipher tone. Misunderstandings can arise from the assumptions made by group members, thus there is the need for monitors of a group's electronic communication in schools and workplaces.

### Electronic Communication

Electronic communication is more prevalent in our society due to its cost-effectiveness and efficiency. Individuals and companies alike spend less money and time on travel, while communicating online can avoid time wasted by bringing everyone together with their differing schedules. Depending on the type of electronic communication, no one can say that another group member did not mention something due to the records of the messages.

## Types of Communication Used by Groups

Electronic communication offers many different types of communication that groups can use. Perhaps the most prevalent electronic communication is e-mail. With e-mail, people can take the time to write exactly what they think. Anyone can write an e-mail at any time for any reason, and it does not require the person receiving the e-mail to be there at the same time. Group members using e-mail can communicate with each other across long distances, with receivers of the messages able to open and answer the e-mail on their own time schedule. Whether for work or education, group members can do other things before checking and replying to an e-mail. Documents can also be attached to the e-mail to show a group member's work progress. Another advantage of the e-mail is that the message is a written record, so group members can easily go back to review the message and thoughts of other members over again.

Other types of group communication include text messaging, forum messaging, instant messaging, and video or voice conferencing. Text messaging is used the least for group communication as it involves sending text messages over the phone, which inconveniences other group members involved in doing other work. Forum messaging is similar to e-mails, except that anyone with access to the forum has access to the records of the group's messages. Instant messaging cancels out the time convenience of e-mails, because each group member needs to be online at the same time in order to write back and forth to each other. Another inconvenience of instant messaging is the lack of time to prepare a response to the other group member, though having a written record like the other types of group communication stays the same. Video/voice conferencing is closer to physical communication rather than electronic communication, with the only difference being that group members see or hear each other through the electronic device

instead of in person. Generally, video or voice conferencing does not leave a record though it is possible for a device to at least record the vocal portion.

There are other types of electronic communication, such as Facebook, but they are considered more as social media to keep track of friends and family rather than viable tools for an online collaboration. However, companies are starting to use social media to check on their employees and for advertising purposes due to the increasing popularity. With social media, almost anyone can see what is posted, so students and professionals should take caution in what they write.

Electronic communication can seem easier than physical communication for group work due to its convenience and written records for most of the types of electronic communication allowing for group members to easily go back and know for certain what was said. In comparing physical communication to electronic communication, Carolyn Rude suggests “an e-mail is less intrusive than an interruption with a visit to someone’s office” (43). Physical communication, however, allows for group members to take in visual cues to easily decipher tone, and each member is there to immediately ask or answer questions, explain what they are doing, and show their level of involvement. With certain types of electronic communication, there are delays in responses and each message is subject to interpretation by the receiving group member. Both electronic communication and physical communication have their advantages and disadvantages, but electronic communication is becoming more prevalent due to its convenience.

### Message Interpretation

The lack of visual clues to decipher tone in electronic communication leaves the messages subject to interpretation through the audience’s bias. According to Dan Jones in

*Technical Writing Style*, “bias in its mildest form is simply an inclination, opinion, or premature judgment.... bias in its worst form is an outright, unfounded, irrational prejudice” (218). Group members willing to work together try to limit their bias by not assuming the worst of a member’s electronic communication, or calmly discuss their inclinations about a matter.

With the audience not physically there, a writer sometimes misreads their audience and chooses the wrong tone. Jones suggests that “tone has at least three major emphases: the level of formality you choose, the attitude or emotion you choose to convey, and the ethos you project” (208). The formality of a group can vary in the electronic communication such as casual e-mails to an expected formal tone for the attached document for a project. Group members’ writing styles for e-mails focus on working together rather than ethos, so their attitude towards e-mails are casual to establish a working relationship. To show they take the collaboration seriously, the group members use the formal tone of writing for the project in order to project ethos to their eventual audience. Tone, however, is subjective to an audience’s interpretation of the electronic communication. For instance, the writer using humorous tone about a topic in an effort to diffuse its severity could have one group member offended, while another member finds the document hilarious. The offended member’s biased interpretation of the electronic communication is that the other group members are not taking the project seriously. Message interpretation is up to the reader’s own inclinations about what is considered appropriate.

Group members need to be aware of their writing styles in an effort to reduce how their audience interprets the electronic communication. According to Jones, “style is who you are and how you reflect who you are, intentionally or unintentionally, in what you write,” thus writing style projects a writer’s own bias (3). Gender can greatly influence group members’ writing

styles, while gender bias can color the group members' perceptions when reading the electronic communication, causing misunderstandings within the group.

### Misunderstandings

Misunderstandings in electronic communication can arise from offensive messages, passive-aggressively delaying the project, or ostracizing a group member. For most collaborative projects, group members do not send blatantly offensive messages such as swearing at another group member. With a written record of electronic communication, members cannot take their words back and are more careful to not use unacceptable language. Offensive messages generally tend to deride a group member's ideas or work without cause leading to misunderstandings between group members. For example, a male group member suggests using sports metaphors to reach out to the audience, and the female group member complains on how silly the idea is when her idea of shopping metaphors is better. The interpretation of the offensive message cannot be seen in another way by the audience unlike with the humorous tone in the previous example.

Group members, who passive-aggressively delay the project, either misunderstand the project or the other group members. They rather work on something which interests them whether finishing a current project or working on one that they feel is more important than the outcome of a particular group project. An engineer, for instance, would rather figure out an engine problem than electronically communicate with group members on how to create a style guide. The other reason to delay the group project would be the other group members' messages. To explain, the male group member derided about sports metaphors decides to delay working on his portion of the project to get back at the female group member. If she had cause to deny the sports metaphor such as stating that sports metaphors would not fit the topic of women's

liberation and the male group member misinterpreted the message, then the misunderstanding of the other group members caused the project's delay for no reason.

In "Whose Voice? Whose Text? Negotiating CoAuthorship in Cyberspace," Goldrick-Jones and LaDuc each misunderstood the other group member. LaDuc sent a message to Goldrick-Jones, causing Goldrick-Jones to believe "her message to mean that she thought I was leaving her stranded and that she was overly worried about the publisher's deadline" (1). The misunderstanding came from Goldrick-Jones's focus on another project presentation, thus leaving the editing to LaDuc in assumption that only one editor was needed and delaying the project's completion. "We agreed, much later, that we had felt angry and impatient with each other's apparent intransigence about conflicting schedules and needs," yet Goldrick-Jones and LaDuc did not further the misunderstandings with offensive messages and instead took their time in reviewing further e-mails to distance themselves emotionally to be more productive (1).

Ostracizing a group member arises from misinterpreting other group members' electronic communication. A group member using a different writing style can feel hemmed in when he or she tries for a more passive voice in comparison to the rest of the group's active voice. By not putting his or her ideas forward or only posting once in a while, the group member may feel marginalized as the other group members discuss and decide on the roles for the project. They may also feel ostracized when the rest of the group sides with another group member over their own ideas. The ostracized group member either follows along with the rest of the group to get the project over quickly, or deliberately delays the project.

Electronic communication misunderstandings of offensive messages, passive-aggressively delaying the project, or ostracizing a group member can be reduced with group

members' awareness of their writing styles. By reading over the e-mail before sending it, group members can prevent offending the other group member by understanding how the reader would feel about the written message. Awareness of writing style would lead to less misinterpretation by the audience, thus fewer group members would passive-aggressively delay the project or feel ostracized due to their interpretation of the electronic communication. The project having a manager or a monitor would further prevent misunderstandings and increase group members' caution with their words.

### Education and Workplace

As previously mentioned, electronic communication makes education and work closer to an individual, with less expense and wasted time involved in travel. Written messages allow for recorded proof that a person participates in a project whether for school or for the workplace. Alert students and professionals recognize their electronic communications are monitored, even when there are no cues by the monitors or managers for a project. The records of written messages stay available to those outside the group, especially when using forum messaging. Each individual monitors his or her writing style in effort to avoid any potential negative repercussions from the manager. They also have recourse through the onlooker if a misunderstanding does occur and the group cannot solve it by themselves.

### Education Communication Monitors

Instructors are the main monitors for the students' electronic communication for online courses. They monitor the forum messages of each student and can potentially access any e-mail using the course's website. Students can take the group communication to private e-mail servers



to avoid being monitored, yet they should still take caution in how they write for other group members can easily forward e-mails to the instructor whether to resolve a matter or to be removed from the group.

Most students want to avoid misunderstandings out of concern for their grades. No reasonable student would intentionally post an offensive message when doing so would result in a poor grade. Misunderstandings can still occur, such as one student delaying the project, causing the other students to appeal to the instructor so their own grades do not suffer when the delay causes the project to go over the instructor's deadline. The instructor enforcing a participation grade makes sure students have to write a certain amount of electronic messages in an effort to avoid group members feeling ostracized, but their ideas can still be marginalized even when the work is divided equally.

Writing styles of students tend to blend into their expected college's writing styles, which lessens the audience's misinterpretation when they have similar perceptions of how to read a group member's electronic message. For instance, a technical communication student typically writes in a more formal tone for most assignments in comparison to a creative writing student's writing style for most creative writing assignments. Other technical communication students would perceive the message with the writer's intention, whereas a creative writing audience would see the formal tone as too distant or far removed to capture their interest. Instructors guide the students' writing styles by editing their documents for appropriate style, which a certain audience would expect in a particular discipline. Bias is still prevalent in the electronic message interpretation, but students and instructors cannot completely avoid the influence of their gender on their writing styles.

## Workplace Communication Monitors

Monitors in the workplace can vary from one person to several people on multiple levels of an organization. For a small project, a single person is appointed as a project manager to oversee and direct group members to complete the project. A project manager interacts more with the group and participates in the work in contrast to an instructor, whose participation occurs at the conclusion of a project to edit or grade it. For instance, consider a technical communicator appointed as the project manager of a group to create a company-wide style manual. The technical communicator would direct the group to find information and monitor the electronic communication to try to prevent any misunderstandings.

Project managers also monitor the electronic cross-department communication during company-wide projects. In “Communicating Across Organizational Boundaries: A Challenge for Workplace Professionals,” Rachel Spilka states that “in government, business, and other occupational arenas, professionals often need to communicate assertively and effectively outside the social boundaries of their own organization or organizational unit (such as outside their own department, division, or project group)” (372). Successful communication occurs when the units have similarities, such as writing style, for the electronic message to be interpreted similarly by the audience. Yet, differences are also needed “if professionals in them are to recognize what would be gained in terms of unique resources or capabilities from working with each other” (Spilka 379). Each department may designate their own project manager for a company-wide project to oversee the group members within the department and to coordinate with the other project managers to avoid misunderstandings.

Workers understand that they are not just monitored by a single project manager only during a group project, because group members also have their regular job projects to handle. They have a department head that would nominally monitor each worker to keep them on the right track by generally receiving an electronic update on what the worker has done for the week. An Information Technology (IT) Department of a company would monitor workers' company e-mails and Internet usage to check on whether a worker misuses company time by delaying projects for entertainment or sending e-mails to another worker that could potentially offend if someone else saw it.

Companies generally have a style manual that workers use to change their writing style. Each worker using the same style manual lessens the chances of another group member interpreting an electronic message incorrectly. However, gender bias still influences the writing style and interpretation of a message due to society's expectations. The style manual's limitations on the workers may not prevent all misunderstandings that could arise from each gender's interpretation of a message though it reduces the chances of misunderstandings.

Whether for education or the workplace, electronic communication grows more prevalent due to the savings in time and money. Many groups find the advantages of electronic communication with the convenience and written records overcome the disadvantages such as lack of visual cues to decipher tone. Group members' interpretation of electronic communication is filtered through their biases, which in turn influences their own writing styles. Misinterpretations can cause misunderstandings with offensive messages, passive-aggressively delaying a project, or a group member feeling ostracized. By being aware of their writing styles and their bias, group members can reduce the chances of misunderstandings.

An instructor monitoring the students' electronic communication can lessen misunderstandings through the control of their grades. Students know that writing an offensive message or delaying their group project could cause them to fail the course. Workers' electronic communications can be monitored on several levels. Group projects in the workplace are generally handled by project managers who are more involved in the work in comparison to an instructor. Instructors guide their students' writing styles through editing or grading the project documents, whereas project managers direct and participate in the work while also monitoring group members to ensure they follow the company's style manual. Bias still influences both student and worker writing styles as no one can completely separate their writing of their own opinions or inclinations.

With gender bias being a common influence on a group's assumptions about a message and their individual writing styles, group members need to understand what influences gender roles. Society influences gender roles by imposing how a male or female should act or write through literature and other media. However, literature can influence society by changing the overall population's idea, though changes can be slow-paced. The following chapter focuses on gender roles caused by society's influences and how society influenced each gender's writing styles.

## CHAPTER TWO: GENDER ROLES

In *Our Sexuality*, Crooks and Baur state that “gender is a concept that encompasses the special psychosocial meanings added to biological maleness or femaleness” (46). It is true that there are physical characteristics that separate males and females to make up two different sexes, but sociologists have studied how the sexes grow up into established roles. Gender roles are a product of socialization where individuals learn society’s expectations for behavior throughout their lives. As soon as people learn a baby’s sex, they start treating the baby a certain way. This is quite clear to see up to the point that they separate females by giving them pink as society says it’s a feminine, soft color, while they separate males in significance by the color blue for it’s a masculine, active color according to society. The family starts treating the child a certain way as he or she grows older for they place certain expectations due to the sex of the child. According to Crooks and Baur, “social learning is an important influence on the formation of gender identity early in life, so that even by the age of 2 or 3 years, most children have no doubt about whether they are boys or girls” (68). For example, media shows a lot of the children commercials which separate the genders and influence the expectations of each gender role. Boys are shown in commercials to be playing sports like Nerf football or playing with motorized cars, while girls are shown playing with Barbie dolls or having tea parties.

However, this is not to say that people cannot be different from their socialized gender roles, but some people grow uncomfortable with those who are away from the preconceived roles and try to force them into certain gender roles. Instead of realizing that genders are a product of upbringing, people believe there are exceptions to the rule instead of the fact that the so called rule is not truly a rule. For example, if a female child acts independently and plays

football with the boys, then she is labeled a “tomboy,” and in reverse, if a male child acts feminine to play house with the girls, he is labeled a “sissy.” Both labels show that children, who are not following society’s gender expectations, are viewed as different rather than the norm. They are treated differently as a result for even as their immediate family encourages them, other people try to fit them back into preconceived roles with the most uncomfortable resorting to trying to force the child to do the things they expect a female or male to do. For example, the parents allow their daughter to play basketball with the neighbors next door, but the grandparents send her jewelry or embroidery kits as they believe it is more appropriate for a girl rather than sports. Another example is that the mother allows her son to help her with the laundry or to sew, then the father tries to stop his son from doing those things by playing baseball or pretend war to make his son more masculine. Even though people are not personally set in exact roles, they are stereotyped to be in those roles by other people in society.

This chapter focuses on the influence of society on gender roles. Literature can influence society, just as society can influence literature, thus literature is one of the causes for society to change slowly over time. The influences of society and literature affect each gender’s communication styles, which is why misunderstandings can arise in electronic communication. Technical communicators understanding the differences in communication styles would be able to reduce the chances of misunderstandings.

### Society Influences

Society becomes what it is through literacy to get people to accept or reject something, such as magazines with articles promoting what is the trend of the season whether fashion, food,

or cars. Literacy, especially written literacy, affects gender in how the gender roles are divided and how the division lines are now blurring together due to changes in culture.

The ideological model of literacy is the best approach to use in order to understand how literacy affects gender. Brian Street explains the ideological model as an approach to link culture and literacy practices. “The ideological model... does not attempt to deny technical skill or the cognitive aspects of reading and writing, but rather understands them as they are encapsulated within cultural wholes and within structures of power” (Street 435). Just as culture can be changed through literacy, literacy is influenced by culture. Culture produces gender roles and influences how each gender writes and speaks. In reading previous generations’ works and articles, the audience can see how the division lines between genders changed over time due to the culture, which is in turn, changed through literacy in order to blur the gender division lines.

#### Literature Influencing Society

History is wrought with examples of groups of people demanding equal rights. Each group spoke out on their issues using verbal and written literacies to influence others and change the overall culture. Women campaigned to be treated as equals to men, thus disrupting the gender roles. Crooks and Baur suggest that “gender role refers to a collection of attitudes and behaviors that are considered normal and appropriate in a specific culture for people of a particular sex” (47). Main characteristics of gender roles before the Renaissance were that women should be submissive, demure, and silent, while men were dominant and out-spoken. Women started demanding to be educated as men were educated, to own their own property, and to be allowed into certain professions. Their verbal and written protest campaign slowly affected

culture to change the gender roles, or at least, blur the gender division lines for more equal treatment overall.

During the Renaissance, the culture had changed to allow women to be educated just enough to read the Bible. Women started justifying that since religious duty caused them to be educated in written literacy, it would also allow them to speak out on political issues through religious preaching. According to Patricia Bizzell and Bruce Herzberg, in *The Rhetorical Tradition: Reading from Classical Times to the Present*, “the social evils they attacked were, they claimed, so offensive to God that pious Christian women must speak out, even at the risk of social condemnation” (749). One of the more well-known female protesters is Margaret Fell, who used her status as a Quaker leader to promote more freedom of speech for women. Her work, “Women’s Speaking Justified, Proved, and Allowed by Scriptures,” tried to change the culture of her time by showing how the Bible itself proves women’s right to speak out in public. Fell’s article focuses on accepting the religious culture’s gender roles of women deferring to their husbands, yet that religion also asks for women to speak their minds. For example, Fell states “here he did not say that such women should not prophesy as had the revelation and Spirit of god poured upon them, but their women that were under the Law...” (755). Fell does not try to completely change the gender roles, though she does try to shift some of the gender division lines for both genders to be able to speak their minds. Her use of written literacy affects gender in trying to change the culture, while simultaneously is affected by culture in that she shows acceptance of most of the gender division.

Around the same time period as Fell, Mary Astell employed written literacy in order to change culture to provide more educational opportunities for women. Her ideas also accepted the



gender roles as directed by the religious culture and to only blur some of the gender division lines. However, unlike Fell, she advocated more freedom for education to benefit families and the community as a whole for propriety as education would encourage the Christian virtues rather than vices. Bizzell and Herzberg mention that “Astell opposed women’s preaching or speaking at the bar or political rostrum, but she advocated a wide sphere of action for women in education and community charitable work” (844). She also tries to unite women together as a group to help each other in her works as she had experienced herself how the gender hierarchy is unbalanced when a young woman does not have male family or sponsors to help in a financial situation. In “A Serious Proposal to the Ladies, Part II,” Astell tries to persuade her female readers to further their minds through education. The prejudice against education for women is groundless as it would allow them to “not only have the Name and common Principles of Religion floating in their Heads and sometimes running out at their Mouths, but understand the design and meaning of it, and . . . know wherein the Nature of a true Christian consists” (Astell 851). Her reasoning was that it was women’s duty to learn more in order to be civilized and virtuous as described by the Bible. Astell tries to blur the gender division lines to have similar educational opportunities by persuading change in the overall culture through her use of written literacy; however, like Fell, she still accepts the main gender roles through the influence of religious culture.

In comparison to the previous time period, the early nineteenth century had more opportunities for women. Women now were receiving more education as Astell advocated, though “art, music, and needlework were emphasized, rather than mathematics, science, history, or languages” (Bizzell and Herzberg 1045). The culture’s gender roles still delineated women as

being more subordinate to men. Women had more freedom of speech as Fell promoted, yet those who became public speakers for a mixed-gender audience were considered promiscuous. Bizzell and Herzberg state that “the ministers suggested that women who took on such activist roles [against exploitation of female slaves] called their own chastity into question” (1047).

Sarah Grimke and her sister, Angelina, were public speakers against slavery and for women’s rights. They also produced many written works to persuade their audiences to change the overall culture and lead demonstrations to advocate women’s rights. Grimke wrote “Letters on the Equality of the Sexes and the Condition of Woman” in protest of the gender roles. She uses examples from the Bible to prove that men and women should have the same rights. Grimke explains “now I believe it will be impossible for women to fill the station assigned her by God, until her brethren mingle with her as an equal, as a moral being; and lose, in the dignity of her immortal nature... the idea of her being female” (1053). Her ideas use the cultural focus on Christian religion to promote that both genders have an immortal soul and follow God, thus there should be no defined gender roles as each soul is equal though the packaging is different. Grimke’s persuasive written literacy uses a cultural focus to advocate for change in culture by denouncing gender roles and trying to blur the perceived gender division lines to promote equality.

The twentieth century brought more changes to the perceived gender roles as literacy influenced culture. Persuasive written literacy promoted by women to blur the gender division lines started showing influence in the beginning of the twentieth century as education was becoming more equalized. According to Bizzell and Herzberg, the “women’s colleges Newnham and Girton, on a par with men’s universities” now existed (1246). Literature by women was

more accepted as their rights to freedom of speech were now widespread. One prominent writer was Virginia Woolf, who still felt there was more to be done to blur the gender division lines. Bizzell and Herzberg suggest that Woolf was “widely known and respected as a literary reviewer for the prestigious *Times Literary Supplement* and other journals... she published a series of works of fiction that made her one of the most important writers in Britain” (1247). Her analysis ideas heralded women’s rhetoric as Woolf’s works try to get women to change their style of writing from the culture influenced women’s passive voice writing style towards the men’s active voice writing style.

In “Professions for Women,” Woolf explained how she personally had to fight against the Angel in the House. Directness was needed to review a novel and “according to the Angel of the House, [criticism] cannot be dealt with freely and openly by women; they must charm, they must conciliate” (Woolf 1254). Her story of killing the Angel of the House was to show her audience the need to get away from the preconceived gender roles influencing their writing. Her written literacy easily persuades her audience towards slowly blurring the gender division lines by changing their writing style habits. Woolf was not so much trying to change the culture’s gender roles as she was trying to blur the gender division lines in their written literacy, which in turn would eventually change the culture as more people change their writing styles.

The need Woolf saw to change the writing styles goes back to the eighteenth century when written literacy was being learned by people of all economic standards and social power. In order to distinguish class, occupation, and gender, handwriting had to conform to a particular written discourse in both font and style. Tamara Plankins Thornton, in “The Lost World of Colonial Handwriting,” explains that people carried themselves and donned the signs that

represented their stations in life, including handwriting to further delineate themselves from another class. Thornton comments that while “incorporating a logic that defined human beings as players on a social stage, it also served as a mechanism whereby handwriting faithfully represented the self” (66). Females were required to have their font be ornamental and their writing style indirect in order to not offend their sensibilities that corresponded to their gender roles of being submissive and demure. Males had a greater range of fonts, which corresponded to their occupations, and their writing style was direct in accordance to their own gender roles as being dominant and powerful.

Fell’s and Astell’s articles were written according to accepted society-influenced passive voice writing style, though they tried to advocate changing the gender roles for speaking out or for education. In the nineteenth century, Grimke tried to change the by demanding equal rights for women, yet her own writing style was also the feminine passive voice writing style due to the culture influencing written literacy. Woolf and other twentieth century women enjoyed more rights thanks to the literary efforts of the previous women authors to change the overall culture. However, Woolf realized that the writing conventions of the eighteenth century subtly enforced the previous gender roles, thus there needed to be a change in order to make the genders more equal. In the twentieth century, women writers needed to change their writing style from passive voice to the more masculine active voice writing style. As mentioned in Chapter One, people with similar writing styles can work together more easily due to less misinterpretation when reading the others’ messages. The changes in written literacy would further influence culture into changing how each gender is perceived.

## Society Influencing Literature

Society still has its problems with preconceived gender roles though the rights are more equal between the genders. Perhaps the easiest way to see the differentiation between the gender roles is when a baby is born. Colors denote what gender the baby is, such as pink for a girl and blue for a boy. Cards, balloons, blankets, toys, and clothes for an infant all follow these particular color schemes to start separating each gender. For instance, the “It’s a boy!” balloons only have a color scheme in blue and never in pink with the reverse true for the “It’s a girl!” balloons. Families who would want to change the preconceived gender roles with different colors for the infant find it difficult when society influences shops into selling baby items geared towards gender.

Family, school, and the media all influence the gender roles during a child’s early development years, according to social-learning theory (Crooks and Baur 58). Growing up each gender is guided towards a particular type of toy in the various media commercials, again promoting certain gender roles. For example, a toy commercial of a kitchen has girls playing with it and the color is pink, and in another commercial, a toy workbench is colored blue and has boys playing with it. The media also influences the gender roles through movies and television shows.

Family can also enforce the gender roles, though their actions may be subconscious, when they play with children and teach them literacy. To explain, Crooks and Baur suggest that a father seeing his son play with his daughter’s dolls might take away the dolls, verbally tell his son that dolls are not for boys, and hand his boy a truck, which enforces certain ideas about gender roles (58). Parents control what their children watch and read, so by picking certain types

of literature they are influencing their children's literacies. Ludwig Bemelmans's *Madeline* is a popular children's book about a young girl who is a bit more adventurous than her friends. Madeline, however, continuously wears dresses and gloves showing a more demure female gender role in contrast to her actions. Society influenced this literature by ensuring that the main character still enacts the preconceived gender role in certain aspects.

Teachers also greatly influence children, thus they have to be careful in their instructional methods. Stories read in class should have an equal division between male and female heroes to influence both genders into taking action and helping others rather than promoting only men taking action, while women are helpless. Teachers should also keep in mind Woolf's advocacy for both genders to have a direct writing style, and try to influence their classes' emerging writing styles to further blur the gender division lines. Children learning the various literacies are influenced by the culture's gender roles, thus as they grow older, their communication styles have unconscious gender bias even when they try to limit all their bias.

American culture overall is still influenced by the preconceived English and religious gender roles of women being submissive and men being dominant. Media, such as ads in magazines, still promote the idealized gender roles showing women as sexy and curvy, while men look rugged and muscular. By the same token, the media also shows the gender division lines getting blurred by women athletes or the image of the sensitive man. Society influences literature by imposing the gender roles onto people, thus they unconsciously write a certain way due to gender bias.

## Communication Styles

Society influences literature, imposing certain writing styles onto each gender due to the expectations of the differing gender roles. Each gender having a different way of conversing causes communication breaches between the two genders and, in turn, reinforces some of the gender stereotypes. Some miscommunications between genders result in people making fun of each gender through stereotypes, such as the comedic writer Jill Browne and the comedian Bill Engvall.

Stereotypes can be pretty strong, which causes each gender to assume certain things about the other whether or not the stereotype is true. Browne comments that men “are in the Beer and Power Tools department,” and they “do not make mistakes in the Romance Department because they do not go into the Romance Department” (52). Joking about where to find men when looking for romance shows how women are expecting one thing having grown up thinking of Prince Charming, while men are brought up to do another. In one of his acts, Engvall starts off with “men are basic... Women are details, details, details. If you don’t got the details, do not talk to a woman” (2). He is making fun of the stereotypes of men being brought up to be strong and silent, while women are talkative. The stereotypes are caused through miscommunications and assumptions about one gender through gender roles. Gender roles affect the communication within the gender, and how the genders come into conflict.

As mentioned in Chapter One, Giri states there are three different writing styles: Noble, Socratic, and Reflective (10). Many men tend to use the Noble style, while several women tend to use the Reflective style in their daily lives though either gender can use any of the writing styles depending on the situation. Deborah Tannen’s work, *Talking from 9 to 5: Women and Men*

*at Work*, shows some of the differences between each gender's communication styles, such as "there is evidence that men are less likely to ask questions in a public situation, where asking will reveal their lack of knowledge" (26). The following paragraphs split communication styles into female and male, but both Gini and Tannen agree that communication styles are more generalized for overall society and do not always hold true for an individual. As Tannen states, the goal of research is "to find a pattern in a seemingly unrelated mass of evidence, to move beyond the description of a single instance, and see its relationship to other instances" (311).

### Female Communication Styles

The product of the gender roles has been the differences in communication, where each sex has its own way to communicate within the gender. The gender role placed on females to be empathic and emotional caused many women to prefer to belong in a group to share experiences and ideas. According to Jennifer Coates, in *Women Talk: Conversation between Women Friends*, women share a collaborative floor where their talk blends together instead of the view of just one speaker and a lot of listeners waiting for the speaker to completely finish (133). The collaborative floor allows a group of women to speak to each other, sometimes at the same time as one another, without feeling as though they are being rude by interrupting. Main speakers can switch in an instant as one picks up the trend from another. The shared construction of the talking, in particular that of overlapping the talk, gives women connection to one another to make it a group work rather than a singular effort. In *Gender and Politeness*, Sarah Mills suggests that "women's linguistic behavior is often characterized as being concerned with co-operation," because women feel the need to share their experiences and know that someone else has felt the same even if it is simply acceptance of how the other felt (203).



Even if the response one woman has to another woman speaking is minimal such as “yeah,” “okay,” or “I see,” the minimal response is showing that she is present and still involved in the talk, otherwise the other women feel uncomfortable. Too much talking by one person or too little participation is viewed as disrupting the collaborative floor, thus disturbing the community feeling of shared ideas and experiences between women. Coates explains how “in a group of women friends there is constant (generally unconscious) monitoring going on, to check that talk is reasonably evenly distributed across participants” (274). The acceptance of the collaborative floor requires all to be involved to not leave anyone out, for the intention is to share things for further acceptance of behavior bringing about the female gender role of being empathic. Though there is no clear idea where the collaborative floor originated, every female child learns from her mother, her female relatives, and even her friends to share the floor to feel connected to the others. The tea parties the girls are stereotyped to have are simply mimicking what they may see their mother doing with her friends. Group connections give many females the support of belonging, which is why the use of the collaborative floor by numerous women continues through today.

### Male Communication Styles

Men, having the gender role of being strong and assertive, “prefer to maintain a single floor and often talk at length, particularly when they are playing the expert” according to Coates (272). Among a group of males, many men tend to monologue about a topic and expect the other guys to stay silent until the first speaker is done. Any interruption is usually met by rudeness as the speaker gets angered that he is interrupted. The rudeness could be ignoring the person, telling them to shut up, or even tossing out derogatory statements. That is not to say all interruptions are

met by rudeness, but within a group of males it tends to be the norm if the speaker is passionate about his topic. In turn when the first speaker is done, the other males challenge what he says by asserting the ideas that they have are better, their information is better, or that the first speaker is wrong. Coates mentions that a man “thinks the task of a true friend is to help you improve yourself by ‘challenging’ and ‘exposing’” (25). Many males go through a constant test against other men in the conversation in a way to establish dominance on who is right. Among some younger males, part of the conversation is physical in mock fights as through whoever wins the fight is the one who is actually right no matter what.

Even though men recognize their stereotype gender role is to be the strong, assertive, silent type, several males try to uphold the role in the majority even if they deviate from it in one sense. They want everyone to believe that they are the right kind of masculine even if they do something that is thought of as feminine such as cooking or sewing. In *Gender Talk: Feminism, Discourse and Conversation Analysis*, Susan Speer suggests that a man “makes a distinction between the type of man he himself is, and the type of man (or ‘image’) he wishes to hold accountable” (137). The single speaker style is to prove to the audience that his point or idea is correct over what the audience actually thinks. For example, a man sews to fix his clothes and his friends catch him at the task. That man then acts out by starting a verbal fight with his friends to prove that he is still as much a man as before even though he did something that the society views as more of a feminine role. He states all the reasons he is still a man and his friends are required to listen before even being allowed to challenge him on this point. And his friends will challenge him verbally about sewing for “men quite often take up an opposing argument even if they don’t believe it... cos [because] they like argument” (Coates 62). Likewise, if a male is

found gossiping with some females, then he tries to prove to the other males that he is still masculine by either telling them that he was bored out of his mind and was stuck there due to a girlfriend or something, or that he was trying to pick the girls up. Dominance and proving their masculinity are how numerous men have established the conversation style of a single speaker with one floor in their interactions.

### Gender Clashes in Communication

The two different styles of communication of each gender are what cause that clashing of the two genders when they try to talk to one another. In using the single speaker style, men are dominating the conversation, which upsets women as they want to share the floor in the collaborative style. Then with the model of the single speaker style, men get upset when they get interrupted as the women try to share or empathize with the speaker. As the men get upset by being interrupted, they become rude, which in turn upsets the women. To explain, Coates uses the example of how Rachel was the only girl in a family of boys and “her complaint was not just that they talk at her, but also their assumption that the floor is theirs and that she will listen” even if she has no interest in the topic that her brothers were interested in or tries to interrupt to add her own experiences (272). Another example is a husband away on a business trip uses instant messaging to rant about his day to his wife. He expects her to stay silent as he writes how awful his day was and would be very upset if she interrupts him when he has the floor in the single speaker style. His wife interjects with an instant message in the middle of his rant to commiserate or speak how her own day has gone, so the husband is now upset for he feels that she was not paying attention and would rather text about her day. Some men start stereotyping

women as flighty or emotional, because they are disturbing the single speaker style of talking with trying to share thus not being courteous to the first speaker.

When women try to use the collaborative floor style of speaking, they get upset that the men are not participating in the discussion. The men are then upset for they do not understand what they did wrong, because they believed they were being courteous by waiting for the woman to finish speaking as per the rules for the single speaker style. For example, a girlfriend starts texting over the phone about what an awful week she has been having. She expects her boyfriend to participate in the talk by being sympathetic with each bad thing that happened and possibly texting back a story how something similar happened to him, so she does not feel like she is the only one that had the situation occur. Her boyfriend is waiting for her to finish for he believes that to be the best thing to do, because he thinks that interrupting her would be rude. The girlfriend gets upset when he is not immediately texting back and starts telling her boyfriend how inconsiderate he is for not being sympathetic. He in turn is upset that she is saying he was being inconsiderate for he thought he was doing the considerate thing by waiting for her to finish writing all the things that had occurred. These situations are how some women start stereotyping men as inconsiderate or emotionally dense, because they are not participating in the collaborative floor.

The communication clashes can wind down to one gender saying “eh, males” or “eh, females” rather than trying to understand the other gender, so that a whole sex is pushed into a stereotypical role due to the miscommunications on a personal level. Speer suggests that though it is known that “men and women need both intimacy and independence... women are more focused on the former and men on the latter,” people still misunderstand for they draw on the

experiences of the conversation style from the talks within their own gender (42). Until more people start to understand the different conversational styles that each gender uses, they will continue to misinterpret the other gender. The miscommunications reinforce gender stereotypes, continuing the sexism of gender roles.

In the *Encyclopedia of Gender and Information Technology*, Alfred P. Rovai and Jason D. Baker suggest that teachers need to mediate online group interactions. Their article, "Community and Gender in the Virtual Classroom," mentions how gender stereotyping can cause conflicts in mixed-gender groups. The conflicts due to gender stereotyping seem to extend mainly towards the leadership of a group as Leonie V. Still mentions in her article, "Gender, Leadership and Communication." Group members' perceptions of the leader go back to society's expectations of the gender roles. Still writes how a woman leader who helps and offers suggestions to other group members is considered a weak leader, because she did not command like a male leader. The effects of gender stereotyping hurt mixed-gender collaboration when the group members do not feel the leader can effectively guide the project towards completion.

Complaints in mixed-gender collaborations seem to further show the effects of society's expectations of each gender. Joanna Wolfe and Elizabeth Powell found that each gender complains for a different reason as shown in their article, "Gender and Expressions of Dissatisfaction: A Study of Complaining in Mixed-Gendered Student Work Groups." Males complain to make themselves feel better or to excuse their actions, which also show the independence focus of society's expectations for men. Females complain to get the group members to fix things, instead of asking nicely. Thus they demonstrate society's expectations of women being dependent in needing others to fix things, but not show the expectation of

passiveness due to the direct complaints. Using Rovai's and Baker's suggestion of mediating the collaborative communications, teachers cut down on the conflicts and complaints in the mixed-gender groups, whether due to the gender stereotyping of the leader or of the group itself.

### Avoiding Miscommunication

Jones suggests to avoid offending anyone and lessen the miscommunications, writers should try to make things more gender-neutral as "numerous changes have occurred over the past few decades to make English more sensitive to both sexes" (220). Some of the changes include the changing of "policeman" to "police," "chairman" to "chairperson," "housewife" to "homemaker." The problem is that people are still brought up into gender roles that have been stereotyped according to each sex, so that the effort to make English more sensitive is merely a bandage on an open sore. There is still sexism throughout society through the attitudes about the different genders, even though gender discrimination has lessened. Some people need to learn to stop imposing stereotypical gender roles on their children as well as other people before they should worry about being politically correct in their gender usage in the English language. They need to influence society to change the gender roles beyond simple word changes, though the word choices can be a start towards English becoming more gender-neutral.

Mary Barrett's and Marilyn Davidson's work, *Gender and Communication at Work*, disagrees with the previous research on how the gender stereotypes cause more conflict. Their research shows that group members adopt the writing style of whoever is leading the group, reducing misunderstandings. Society's expectations play a role because the dominating writing style tends to be towards the aggressive, active voice, which is considered masculine and therefore society views it as the better style. In "Metaphor in the Classroom: Reframing

Tradition and Alternative Uses of Language for Feminist Transformation,” Patrice M. Buzzanell continues the topic of society’s expectations by showing how language tools, like metaphors, polarized towards males being aggressive and females being passive. For instance, consider the metaphor that life is having a football thrown at the face with a bunch of defenders about to hit; the metaphor about life’s troubles is aggressive and masculine as it focuses on society’s expectations that males should love sports, whereas a more feminine metaphor about life’s troubles might involve life is like getting to a sale and finding the best shoes are already gone. Buzzanell says metaphors are prevalent in collaborative discussions as explanations are made easier with their use. Barrett’s and Davidson’s research of how the group members follow the leader’s writing style combine well with Buzzanell’s ideas on metaphors for metaphors are one of the language tools used in writing styles. In other words, the leader’s gender influences the collaboration’s writing style, including the language tools such as metaphors and similes, thus reducing the chances of misunderstandings within the group.

Giri’s research finds that self-disclosure and self-esteem also influence a person’s communication style beside the typical gender roles. Self-disclosure focuses on how open someone would be when communicating in a group, while self-esteem is how aggressive the writing style becomes. His research explains how individuals’ communication styles differ from society’s expectations of the gender roles, though they could still be judged by the audience’s perception of how the individual’s gender should be communicating. Giri’s idea on the audience’s perception supports Still’s research on how the woman leader is successful for the collaboration, but the group views her as weaker in comparison to a male leader.

Mary M. Lay's "Feminist Theory and the Redefinition of Technical Communication" and Lee E. Brasseur's "Contesting the Objectivist Paradigm: Gender Issues in the Technical and Professional Communication Curriculum" both consider ethnography, the study of human cultures, as an effective research method. Ethnographers study collaborations as a social process to separate the culture into how each group could effectively communicate. Lay feels that the ethnographers' research into collaborations help feminist theorists in their theories on how men and women communicate differently, while also learning how to break out of the gender roles to make a collaboration more effective. Brasseur finds ethnography complements traditional laboratory research, thus he had his students focus on gender in a workplace ethnographic study. The students found society's expectations of gender roles influence various groups towards male-dominance whether in leadership or writing styles. Brasseur's findings support Still's and Giri's research that individuals are still judged by the group members' or audience's perceptions of the individual's gender. Lay further supports Giri's research in focusing on how to break out of the gender roles by learning to communicate differently as Charlotte Krolokke and Anne Scott Sorensen thought online communication would support.

Researchers should focus more on ethnography in order to find out how each gender's communication style varies, while they also try to find similarities so miscommunication could be avoided. Because each gender communicates differently due to the influence of society's gender expectations and individual writing styles can vary widely, online collaborations play a part in how successful a project turns out. The following chapter focuses on online collaborations, how they compare to physical collaborations, and the increase in international collaborations.





## CHAPTER THREE: COLLABORATIONS

The number of people in a collaboration can vary from two people to over twenty people depending on needs of the group to produce the project. Whatever the amount of people within a collaboration, it is the successful communication between group members which helps to produce a good project outcome. According to Dan Jones and Karen Lane in *Technical Communication: Strategies for College and the Workplace*, collaborations have certain advantages over working alone for a project: sharing the workload, reducing the project time, sharing expertise, enhancing creativity, sharing responsibility, and sharing recognition (58). Working alone does mean that an individual would avoid the misunderstandings that may occur in a collaboration's communication, but the advantages of collaborations outweigh working alone for major projects whether in education or in the workplace.

As mentioned in the previous chapter, Brasseur's students found that society's expectations of gender roles influence various groups towards male-dominance whether in leadership or writing styles. The type of collaborative project affecting the group's writing style, such as writing for a government grant requires a formal, passive style instead of a blunt, aggressive style for an advertisement, thus could cause communication failure as group members try to change the styles to suit both the gender bias and the audience's expectations. However, in "The Effects of Gender Interaction Patterns on Student Participation in Computer-Supported collaborative Argumentation," Allan Jeong and Gayle Davidson-Shivers found that restricting the project's writing format leads to similar communication styles, which in turn would reduce the chances of misunderstandings. Collaborations must rely on each group member's willingness to work together to move past any misunderstandings for completing a project.

This chapter focuses on managing local and international online collaborations.

Electronic communication provides more advantages for an online collaboration in comparison to the advantages of a physical collaboration, especially as physical collaborations can still have misunderstandings. However, just as American society has differing communication styles influenced by society's gender roles, the international societies have their own communication styles influenced by their cultures and their differing gender roles. Technical communicators understanding the differences in online collaborations would be better able to manage a project and reduce the chances of misunderstandings.

### Online Collaborations

Electronic communication offers more convenience for collaborations to communicate at any time, allow for periodic updates without needing to travel to get together, and provide materials quickly without needing to print and hand copies out to everyone. According to Goldrick-Jones and and LaDuc, the authors state "in retrospect, we see that the immediacy of e-mail (rapid response, a high degree of communicative accessibility) and the distancing effects (ability to delay responses and access only to limited nonverbal communication cues) profoundly shaped how we negotiated control and voice" (1). Less posturing is needed with electronic communication as online programs make it easier to edit documents to blend each group member's work into a cohesive collaborative project.

Some people may think electronic communication is a good way for groups to ignore society's expectations of gender roles due to the lack of physical identifications of gender, so online groups could focus more on the collaborative process for the successful completion of a project. Krolokke's and Sorensen's research conflicts with this idea, but they had online avatars

to represent those physical characteristics. They feel that online communication could be a way to analyze the difference in how each gender communicates. In Krolokke's and Sorensen's work, *Gender Communication Theories and Analyses: From Silence to Performance*, they had participants use online avatars to be either gender as they communicate; some being truthful, while others were not. However, Krolokke and Sorensen feel that the individuals tried to write for their avatar according to society's expectations of gender. In most online courses, the only indication of gender is the name of the participant, so the collaboration would focus more on group participation, which as previously mentioned is equal between the genders.

Successful completion of a project relies on communication between the online group members, whether there is a group leader guiding the process or not. Nancy Allen, Dianne Atkinson, Meg Morgan, Teresa Moore, and Craig Snow write how there is little research on the study of collaborative writing in their article, "What Experienced Collaborators Say About Collaborative Writing." Using an exploratory study, they find the participants generally collaborate in the beginning and the end of a project, splitting off to write individually for the main portion. Group interactions play a large part in the successful creation of a project. Without the communication in the beginning of a project, no one in the collaboration would know what to do or focus on for the rest of the project. Likewise, as Allen et al. find in their study, the communication at the end of the project is also necessary in order to make a cohesive whole project.

Angela Eaton's article, "Students in the Online Technical Communication Classroom," focuses on post-secondary online courses. In her survey, many students disliked the impersonal online group interaction, but online courses were easier to take due to their work schedules. Janet

Barnstable's research conflicts with Eaton's survey. Barnstable in her article, "Online Collaboration Benefits Students and Teachers," finds students to be more motivated by online collaborations. Her research focuses more on cross-cultural online collaborations where students find they learn a better understanding of writing to a wider audience and how important clarity is for a successful collaborative project. Barnstable's work supports Allen et al.'s research on how an online group's success relies on communication. Goldrick-Jones's and LaDuc's research also supports Allen et al.'s work as online communication helps them create a distance over emotional conflicts over writing together as seen in "Whose Voice? Whose Text? Negotiating CoAuthorship in Cyberspace." They feel online collaboration allows for an easier time to edit multiple drafts and enables the document's voice to become collective. The clarity in the online communication also avoids conflicts due to everything being spelled out and allowing for a review of what the person writes before sending to the group member.

Clarity in communication between group members influences the success of the online collaborative project, yet without commitment to the group, the success turns to failure. Eaton's article mentions how the surveyed students dislike online group interactions, so it is likely that they would not commit fully to an online collaborative project so the grade would go down. Gerardi Douglas and Nancy Wolff find social ties to be important to a collaboration. Eaton's students would agree insofar as the social ties are created through face-to-face interaction. However, Douglas's and Wolff's article, "Working Together: A Corrections-Academic Partnership that Works," provides proof that commitment and reciprocity are the key to their successful collaboration. The work could not have been completed without both companies

committing fully to the project in time, money, and effort. For successful online collaborative projects, group members must clearly communicate and commit to doing their part of the work.

### Management of Online Collaborations

Chapter One explained how students and workers are monitored through electronic communication either by a single individual, like a teacher for the students, or by many people, like workers having both a project manager and a department head. Most students try to avoid misunderstandings due to concern for their grades, whereas workers may receive warnings and potentially get fired from their jobs for offensive messages or delaying the project past a deadline. Effective online collaboration, however, is more than monitoring electronic communication to help reduce the chances of misunderstandings.

Group expectations for the project should be clearly defined or discussed at the beginning of the collaboration. Though some collaborations do not discuss style, it should also be discussed for the group to decide on writing style to prevent misunderstandings beforehand rather than after a misunderstanding occurs. In “Online Course and Instructor Evaluations,” Kelli Cook and Keith Grant-Davie state that groups “need to be able to find clear written explanations of assignments and evaluation practices... Without these kinds of written communications of expectations, students [or workers] will be less likely to complete assignments successfully and, therefore, encounter more difficulty in meeting course objectives or goals” (232). E-mail is convenient to send at any time, but groups also should define their expectations on how long is an appropriate response time, such as one to two days, to keep the collaboration moving at a steady pace.

While electronic communication saves time that would be taken away due to travel time or coordinating schedules to meet, online collaborators still need to manage their time properly. A teacher or project manager handles the deadlines for an online collaboration, so he or she needs to have an idea of how much work would be required and approximately how long it would take for each group member to complete their task. For example, Eaton states that “in a class of 25, if an instructor decides to require two posts from each student per week, requires each student to read every post, and adds a requirement that each student respond to five of the posters per week, that assignment becomes 50-100 pages of reading...and 5-10 pages of writing [per week]” (39). Students and workers alike have other demands on their time. Therefore, time management is needed for the monitors of online collaborations as well as the participants in order to create a successful, timely project.

Online collaborations also require each group member to have discipline. Time and effort are needed to create a project. If students or workers are not willing to put their energy into the project, especially as they must work and respond on individual tasks, they will pull the rest of the group’s efforts down. Group members need to wisely plan on how to handle their assignments in the time given and according to the group’s expectations. Management of online collaborations not only comes from the monitors, but also from the individual group members.

#### Differences from Physical Collaborations

Physical collaborations, or face-to-face collaborations, are when group interactions consist of members being physically present at a meeting. Each member is there to immediately ask or answer questions, explain what they are doing, and show their level of involvement. With group members personally there, the dynamics of the group can easily be seen. Physical

interaction allows each member to clearly hear and see visual cues to decipher another's tone. Interest in the project is also gauged to try to avoid any group member potentially delaying the project, and checking the level of involvement could help prevent a group member from feeling ostracized as other members pull them into the conversation. Group members brainstorm and discuss the project collaboratively, but individual tasks for the project are generally handled outside of the meetings similar to online collaborations.

Advantages of online collaboration, such as saving time, cost, and having written records, outweigh the disadvantages of electronic communication, which causes misunderstandings. Cassie Avery, Jason Civjan, and Aditya Johri state that in Computer-Mediated Communication (CMC), "interactions change from face-to-face, real-time social interactions [for physical collaborations] to faceless, asynchronous conversations which revolve around the community, the social networks [of online collaborations]" (246). Group members being careful of their writing styles and bias, while being willing to work together offsets the lack of visual cues for tone. Delays of the project could still occur with physical collaborations for no group watches consistently over an individual's shoulder to make sure they only work on the project. A group member feeling ostracized would feel still feel marginalized, whether for online collaborations or physical collaborations, if her or his ideas get rejected without reason. Therefore, the differences between physical and online collaborations are negligible when misunderstandings can still occur leaving the groups to decide which collaboration is more convenient to them for a project.

### International Collaborations

International societies are slowly influencing American society as companies expand into multinational organizations and schools incorporate international studies. Just as American



society imposes certain ideas, technical communicators should be aware that international societies would also influence gender roles and writing styles on their members. As mentioned in Chapter Two, Crooks and Baur state that “a kiss on the cheek is considered a feminine act and therefore inappropriate between men in American society. In contrast, such behavior is consistent with masculine role expectations in many European and Middle Eastern societies” (47). The differences in each society’s gender role expectations in turn would affect the writing styles of each gender and can cause international group members to view a message as offensive.

Deborah Bosley’s article, “Cross-Cultural Collaboration: Whose Culture Is It, Anyway?,” focuses on how the collaborative process is viewed differently by European and North American cultures in comparison to Hispanic and Asian cultures. A project’s success comes from the quality of the product, though successful communication between group members contribute to the outcome. Bosley explains “Euro-North Americans believe that intra-group competition increases productivity; other cultures believe that competition among individual members disrupts group harmony and, as a consequence, decreases productivity” (469). Essentially, Hispanic and Asian cultures’ communication styles are similar to the American society’s feminine Reflective writing style wherein they write more passively and attempt to avoid conflict. Differences in other societies’ expectations cause differences in their writing styles, thus group members must try to learn the differences in order to communicate successfully between nations and avoid misunderstandings.

### Society Influences

Technical communicators must understand that each culture has its own division lines between the genders. Social-learning theory explains how children are influenced by the

behaviors they see and the literature they read, so their gender roles are influenced by the culture of which they belong. Gloria Anzaldua was a Chicana who tried to use written literacy to change her culture by trying to show the other options her people had. In *Borderlands: La Frontera*, Anzaldua mentions how there used to be only three directions a woman could turn “to the Church as a nun, to the streets as a prostitute, or to the home as a mother” (39). Literacy had previously influenced culture, so she mentions how there was now a fourth choice of education and career. However, the division line between the genders in her culture were not blurred enough as “the onus is still on woman to be a wife/mother... women are made to feel total failures if they don’t marry and have children” (Anzaldua 39). Each culture has their own ideas on gender roles, which influence people when they learn their communication styles.

Bosley states that “our culture, like others, suffers from the belief that we can examine and evaluate the behavior of others according to our own values” (467). Collaborations need to take caution in trying to evaluate another society, because each society has its own values and expectations, in particular, gender roles can differ greatly across nations. The audience’s society changes how they would interpret electronic communication as they would have their own gender bias and cultural bias to filter their perceptions of the message. For example, according to Rude, “the informality of American e-mail messages may make the person writing the messages seem abrupt and curt. Your correspondents in Asia and Europe will appreciate formal greetings (“Dear...”) and closings... On the other hand, the styles in some cultures are more blunt than American style” (44). Group members need to understand how the audience would perceive the communication when in an international collaboration.

The American culture is considered by some people to be more flexible and open to other cultures. The previous example about the kiss on the cheek is used in American culture by those males who are French American or Middle Eastern American. Japanese American women would not kiss each other on the cheek as their Japanese heritage would find that a kiss on the cheek is too personal as a greeting. However, the previous chapter about gender roles shows bias in American society. Gender bias may be unconscious in Americans' communication styles and assumptions, but it also proves Americans can be unconsciously cultural biased in collaborations by expecting things to proceed the way they understand.

### Avoiding Misunderstandings

Several strategies are available to help reduce the chances of misunderstandings in international collaborations. Teachers or project managers can lead discussions on cultural differences to help the group understand what kind of assumptions or writing styles each member expects. A detailed style manual, which covers the whole international company's expectations and values, could be used or created by the collaboration. If there is someone in the collaboration who understands both societies, then the group could appoint him or her as the liaison. However, Rude mentions that "even a person who is sensitive to and respectful of differences will not intuit all the ways in which language may evoke unintended responses" (364). While none of these strategies can completely eliminate miscommunication, they will help reduce the chances of misunderstandings.

For an international online collaboration, Barnstable finds students to be more motivated in avoiding miscommunication and taking the time to reword their messages in comparison to regular group work. In "Online Collaboration Benefits Students and Teachers," her students were

involved in international online collaborations to create a project. Teachers taking the time to explain some of each society's expectations in comparison to their own nation would reduce the chances of misunderstandings. Students learning another culture's influence on their group benefit through a better understanding of writing to a wider audience and how important clarity is for a successful collaborative project. With Barnstable helping to monitor the online collaboration, her students were able to avoid the downfall of offending the international students by being careful in their writing styles.

Linda Beamer's work, "Learning Intercultural Communication Competence," explains how culture governs communication behavior. To communicate in international collaborations, each society must use the intercultural learning model to reduce the chances of misunderstandings. The five levels of the intercultural learning model are: "(a) acknowledging diversity, (b) organizing information according to stereotypes, (c) posing questions to challenge the stereotypes, (d) analyzing communication episodes, and (e) generating 'other culture' messages" (Beamer 404). The time and effort put into the intercultural learning model would generally be too long for a student international collaboration, but an international company should use it to create a detailed style manual for use in several collaborations.

Collaborations have more advantages than working alone for a major project, even when group communication can result in misunderstandings. Monitors or managers of collaborations direct the values and expectations to reduce the chances of misunderstandings by controlling the writing styles and goals of a project. For example, in "Affinity, Collaboration, and the Politics of Classroom Speaking," Kirstin Hotelling and Alexandra Schulteis state that "once the semester is underway, we use student-led discussions and our collaboration to shift students' focus from

asking ‘what the teacher wants’ to participating in a communal investigation of our various subject positions vis a vis [through] our interpretations of the texts” (123). Group members must also discipline themselves into putting their time and effort into online collaborations in order to not drag the rest of the group’s work down, which includes managing their time effectively to keep the collaboration moving at a steady pace.

Physical, or face-to-face, collaborations have slight advantages in reducing misunderstandings in comparison to online collaborations, yet reduction does not mean elimination of problems. In “Feminist Invitational Collaboration in a Digital Age: Looking over Disciplinary and National Borders,” Wei Zhang and Cheris Kramarae find that their “research on the differences between face-to-face communication and computer-mediated communication [CMC] regarding opinion change in small group decision-making suggests that people in a discussion using computer-mediated communication [CMC] tend to be more likely to resist persuasive messages” (11). The resistance may be due to the lack of visual clues to decipher tone, which can also be a disadvantage when reading electronic communication. Differences between the two types of collaborations are negligible when considering the possibilities of misunderstandings still occurring. Groups should decide whether a physical or online collaboration would more effectively produce a project based on better management of the collaboration.

American society imposing gender roles and influencing writing styles creates a need for technical communicators to evaluate other societies’ expectations for an international collaboration. Different societies have different audience perceptions on communication filtered through their own gender and cultural bias. Understanding the other culture’s expectations for

writing styles would help reduce the chances of misunderstandings. The following chapter analyzes the effects of gender composition of an online collaboration on a technical communication project's outcome.

## **CHAPTER FOUR: ANALYSIS OF GENDER COMPOSITION IN ONLINE COLLABORATIONS**

Successful online collaborations rely on group members' willingness to work together to avoid or overcome potential misunderstandings arising from the use of electronic communication. The lack of visual cues to decipher tone means the audience must decipher tone through the writing style of a group member. While the type of collaborative project can influence the writing style of the group, each member would still filter their perception and their writing style through their society-imposed gender role. Overcoming misunderstandings involving offensive messages, a member passive-aggressively delaying the project, or ostracizing a group member requires effort and participation from the whole collaboration when using electronic communication.

A collaboration deciding the project's writing style beforehand, could still have group members' writing styles be more lax or contradictory to the project's style in personal communication. To explain, the group decides that their project, a technical style manual, should have a formal, passive style, but their writing styles in an email are more casual and blunt. The casual emails could still cause misunderstandings due to assumptions made by a group member's gender bias, even if group members try to eliminate the chances of an audience misunderstanding the actual project.

Each gender having their own communication style means the gender composition of an online collaboration can affect the project's outcome. There are three types of gender composition: female same-gender group, male same-gender group, and mixed-gender group. Same-gender group members generally have similar communication styles, thus reducing the

chances of misunderstandings. Mixed-gender groups must put in more effort to try to avoid or overcome potential misunderstandings due to the differing communication styles used in electronic communication. There are concerns about each gender's participation in online collaboration, which could affect either group, if one gender participates more than the other. After all, participation shows that a group is communicating to complete the project.

This chapter focuses on identifying the advantages and disadvantages of the gender composition of a collaboration. With online collaborations using electronic communication, each gender could participate differently causing misunderstandings to occur. Gender participation needs to be measured due to the two types of collaborations, same-gender and mixed-gender groups, whose project outcome could be affected. Same-gender groups are either male-only or female-only, so each collaboration type has a similar communication style to help the groups in working together. However, mixed-gender groups must take more care due to the gender bias and differing communication styles between the society-imposed gender roles. Technical communicators understanding the advantages for the gender composition of a collaboration would be better able to influence the project's success.

### Gender Participation

Before understanding if the gender composition in an online collaboration affects the project's outcome, the participation of each gender in a collaboration must be measured. The misunderstandings of a group member passive-aggressively delaying a project or a group member feeling ostracized could come from a lack of participation. For example, a male member only posts once or twice in the discussions about the project in a mixed-gender group, then complains later that he felt ostracized by his female group mates. His participation in the



collaboration was lower, thus causing the misunderstanding rather than the female group members marginalizing him by siding with each other to ignore his ideas without reason. Therefore, each gender's participation in online collaborations could potentially cause misunderstandings if the participation is unequal.

### Evaluations

Evaluations for participation for an online collaboration can be provided through digital assessment tools, like VisOC (Visualizations of Online Communication), monitor participation, group members evaluating other members, and observations. In the article, "Assessing Student Interaction in the Global Classroom Project: Visualizing Communication and Collaboration Patterns Using Online Transcripts," Avery et al. state that the goal for VisOC is "to provide educators with a versatile automated process for building interactive graphical representations that compare aspects of student profiles with performance patterns and analyze these aspects' role in contributing to the overall learning goals of the classroom" (245). Digital assessment tools would allow monitors, whether teachers or project managers, to see each group member's participation at a glance. For instance, a student group posts on forums to discuss a project, then the teacher uses a digital assessment tool to graph how many posts each student contributed. Quick glances using digital assessment tools would allow the monitors to keep track of participation over several projects.

Monitoring participation in a collaboration would allow monitors to directly see what level of participation each group member offers. Project managers, in particular, directing the group work can easily see who is doing their work and who lags behind. Asking group members to evaluate the other members' participation in the collaboration is not as accurate as a monitor's

evaluation. As each group member splits into their regular tasks, they do not see the amount of work another member does on their own task. If a misunderstanding arose in the group, then members could also blame each other when asked to do evaluations rather than suggest better ways to avoid it.

Similar to monitor participation, observation evaluation is the most used method for researching online collaboration. An outsider to the collaboration views the interactions within the electronic communication to evaluate the group. Though teachers monitor their students' collaborations, the observation evaluation can be considered their evaluation method as they do not directly participate in the group until the project's end. In "Gender Equalization in Computer-Mediated Communication," Rosalie Ocker states that "researchers must consider the content of contributions to determine a true measure of equality of participation and influence" (592). Observation evaluations or monitor participation strategies would most determine the true value of participation, yet the other strategies are also helpful depending on what researchers need.

## Results

Participation in online class communications could be affected by each gender's communication style, which in turn affects how well a collaboration project turns out. Allan Jeong's case study, in "Gender Interaction Patterns and Gender Participation in Computer-Supported Collaborative Argumentation," is on how each gender participated in online discussions. Jeong finds that both males and females participate equally in online team debates, with similar communication styles. Since there is a debate format, the results for communication styles may have been affected by the format; though participation would not be affected.

Jeong wrote another article with Davidson-Shivers on the same topic, “The Effects of Gender Interaction Patterns on Student Participation in Computer-Supported Collaborative Argumentation,” yet they also did not find any inequalities in participation of the mixed-gender teams after having restricted the students yet again to the debate format. With less of each gender’s own communication style being used when students are restricted to a certain writing style format for either study, the gender composition of the online collaboration does not affect participation when a certain writing style format is required for a project. As online participation is equal for both genders, teachers can restrict the writing style format for a project in order to reduce the chances of misunderstandings and have each group learn to write for a specific format as they may need to in the business workplace.

Even without restricting the writing style format, gender participation in online groups is approximately equal. Li Qing proves through her analysis in her article, “Gender Differences, Mathematics and CSILE [Computer-Supported Intentional Learning Environment],” that no matter how long the collaborative process was for either a single gender [same-gender] or mixed-gender group, each gender averaged about the same number of posts. She finds some contradictory results when looking at the individual groups due to the gender of the group’s leader, but overall the gender participation in the collaborative projects was equal. Qing’s research supports Jeong’s and Davidson-Shivers’s research on the gender composition of an online collaboration not affecting each gender’s participation, thus communication between the genders is what would affect the successful completion of a project.

In “Gender Equalization in Computer-Mediated Communication,” Ocker researched “a series of laboratory studies on equalization in groups communicating via CMC by looking at

dominance, the antithesis of equalization” (591). Participants were divided into equal mixed-gender groups, wherein collaborations were composed of two males and two females. Each gender participated equally, but “males were found to dominate team discussion in terms of linguistic style” (591). Her study also proves that it is the communication between genders which can affect the project, even when the participation is equal.

Successful online collaborative projects rely on the group’s commitment and communication. For commitment, each gender averages equally in participation, so it relies more on how a group member’s individual commitment to the project. Therefore, each gender generally participates equally in online collaborations leaving communication to be affected by group members’ gender biased perceptions and communication styles and affecting a project’s outcome.

#### Same-gender Groups

Same-gender groups are groups solely composed of one gender, creating either male-only or female-only collaborations. With a collaboration having only one gender, the chances of misunderstandings are greatly reduced as group members would have similar communication styles. Online same-gender collaborations would also need less discussion about expectations for the project, because management of the group would direct the group members as they expect. A same-gender group could still have misunderstandings, though they would have more solidarity and willingness to work it out.

## Benefits

Group members who use similar communication styles work together easily as they have similar expectations for writing documents. In “Women and Men in Online Discussion: Are There Differences in Their Communication?,” Gayle Davidson-Shivers and Samantha Morris observed same-gender group interactions. Group members tend to stay with their communication styles as they are more comfortable, especially as their audience’s perceptions and assumptions of the electronic communication would be similar. As mentioned in Chapter Two, many women share a more collaborative communication style, wherein they share both ideas and support and involve more compromise to ensure everyone has equal roles. Men’s communication style of single speaker had “each [member] communicate his own ideas without necessarily commenting on the others’ [ideas]; it tends to be a side-by-side type of pattern without much discussion or interrelationship between the males’ comments” (Davidson-Shivers and Morris 5). Same-gender groups allow the communication to flourish as each group member has similar expectations and perceptions.

With ever-increasing numbers of men and women in education and the workforce, an argument occurs that separating people into same-gender groups is actually segregating the genders. In “Negotiating Power in the Classroom: The Example of Group Work,” Linda Briskin states that “in making an argument, then, for the possible use of same-sex or same-race work groups... it is important to stress that, in the current context, this strategy is different from imposed segregation, or from separation based on essentialist difference; rather, it rests on the recognition of differences in power” (23). Having same-gender groups reduces the chances of

misunderstandings and allows group members to feel comfortable in working together with those of similar values and perceptions.

Same-gender groups can be more performance-driven than a mixed-gender group if the incentive for completing the project appeals to their gender. To explain, Melissa Guzman's work, "The Mediating Role of Motivation and Job Satisfaction in Work Environment-Outcome Relationships," suggests that "if a reward that is more desirable to men is presented as a performance incentive to an all male group, performance may be higher than if this same reward is presented to a mixed-gender or all female group" (46). Incentive pushing the same-gender group means no group member would want to delay the project in any way, thus they will communicate effectively in order to produce the project. In "Gender Issues in Collaborative Learning," Revathi Chennabathni and Gillian Rejskind explain that even "in single-gender groups with unfamiliar tasks... group members are more likely to share and cooperate in order to achieve the goal interdependently" (44). The same-gender groups would be more driven to complete the project, even through unfamiliar tasks, if the incentive for completing the project appeals to their gender as the whole group would feel the benefit.

#### Detriments

Same-gender groups do not have the perspective a mixed-gender group would have. If the final audience of the project is mixed, then the same-gender collaborations could leave out half of the audience through the project's writing style. Rovai and Baker, in "Community and Gender in the Virtual Classroom," state that "CMC does not encourage the liberation of individuals from social influence and general social norms. Instead, individuals tend to engage in heightened stereotypical behavior, conform to group norms, commit to the group, and engage in

‘us vs. them’ behavior given the relative impersonal online environment” (105). The “us vs. them” attitude can cause the same-gender groups to direct the project to only appeal to their particular gender. While in education, teachers are likely the only ones to see the students’ final projects. However, the single gender perspective can hurt workers as their audiences are generally mixed-gender, especially for a project presented to consumers.

In “Effects of Gender Role and Task Content on Performance in Same-gender Dyads: Transactive Memory as a Potential Mediator,” Estelle Michinov, Nicolas Michinov, and Pascal Huguet separated participants into two-person, same-gender groups. They were trying to find if same-gender groups would be better at tasks which suited their gender. Results showed that male same-gender groups performed poorly at masculine tasks in comparison to the female-only groups, and female same-gender groups did not perform better at feminine tasks. However, “it seems that whatever the nature of the task, female dyads activate communal characteristics and consequently achieve better collective performance in same-gender learning groups” (Michinov et al 162). Though the female same-gender collaborations performed better, the same-gender groups were very detrimental for the male-only groups.

Society’s expectations of the workplace also are detrimental for male same-gender groups. Companies expect their workers to cooperate with everyone in the company as well as present a pleasant face to those outside the company. According to “Do They Speak SNAG?,” Mary Barrett suggests that “value judgments about them [communication styles] have shifted under the influence of modern management styles which endorse cooperative problem solving, rapport building, emotional self-reflexivity and self-disclosure, “active” listening and expressing empathy” especially when considering or communicating with the consumers for the company

(149). The workplace expectations shifted more to favor women communication styles, which a male same-gender group can have trouble changing or expressing in their project.

Incentives, which can push the same-gender groups to be more performance-driven, can be detrimental to same-gender groups causing a lack of performance when the incentive does not appeal to their gender. Guzman states that “a mixed gender group may outperform a same-gender group if the reward is not desirable or motivating to the gender represented in the same-gender group but desirable and motivating to half of the mixed-gender group” (46). Overall, a same-gender group can have a negative effect on the project’s outcome, even though their communication styles are similar and reduce the chances of misunderstandings.

#### Mixed-gender Groups

Mixed-gender groups are collaborations with a mix of male and female group members. Generally, the mixed-gender groups are unbalanced with more of one gender over the other, yet there are equal mixed-gender groups wherein the genders are evenly split. For instance, a group with one female and three male group members is unbalanced whereas a group with two females and two males is considered an equal mixed-gender group. The gender composition of a mixed-gender group can either help or hinder the collaboration’s efforts when considering the audience’s perceptions and communication styles are filtered through gender bias. Misunderstandings are greater for a mixed-gender group in comparison to a same-gender group, but willingness to work at communication can still reduce the chances of misunderstandings in mixed-gender collaborations.



## Benefits

In the previous section about detrimental effects, same-gender groups were mentioned to lack the perspective a mixed-gender group would have. Projects are generally expected to appeal to mixed-gender audience, especially company projects which must appeal to a wide consumer base. Guzman suggests that “mixed-gender groups perform better than same-gender groups due to gender differences in behavior: men tend to offer suggestions and opinions during group tasks, whereas women tend to act friendly and agree with others” (44). The varying perspectives create a better project to appeal to a greater audience.

Society’s workplace expectations lean more towards the female communication style for improved collaborations with other companies and consumers. Mixed-gender groups would allow the female group members to help male members alter the final project’s writing style to fit with the companies’ expectations. Compromise would also create a more cohesive project instead of documents and projects with several separate voices. As previously mentioned, mixed-gender groups would outperform same-gender groups even when the incentive only appeals to a few members as a portion is still better than appealing to none of a same-sex group.

Du et al., in “Project-Based Online Group Collaborative Learning Characteristics,” find gender composition affects the communication within the collaboration, thus has the potential to cause misunderstandings. Their study involves three female-led groups and two male-led groups. The student participants state afterward that they prefer to work in the mixed-gender groups due to the variety in the ideas, even though there are changes in group interaction in comparison to single-sex groups. Women and men were more motivated and focused on the completion of the project when the group was composed of an equal gender mix. Results show the students prefer

mixed-gender groups due to the variety in ideas and motivation, so the affect of the gender composition of an online collaboration was positive to the project's outcome.

In "Gender-Based Communication Styles, Trust, and Satisfaction in Virtual Teams," Kimberly Furumo and J. Michael Pearson feel that females were more successful in online collaborations than males due to society's expectations of females to be understanding of other's perspectives. Their study concludes with online communication equalized the genders, while their results supports Du et al.'s research. In other words, mixed-gender online collaborations are more successful due to the variety in ideas and output. The mixed perspectives appeal to a larger audience causing a project to be more successful than a same-gender group.

#### Detriments

Ocker states that "computer-mediated communication (CMC) holds the promise of helping to level the playing field between the sexes, at least in terms of equitable communication between genders. However, evidence from recent research shows that gender inequalities persist" (589). Chapter Two mentions how the genders clash due to the differences in communication styles. With mixed-gender collaborations communicating online, the differences can become more pronounced and cause more misunderstandings. Rovai and Baker explain "group composition (i.e. the gender mix of a group) can also trigger stereotype-relevant thoughts and behaviors, because group composition can make salient one's social identity and the stereotypes associated with that identity" (105). Reducing the chances of misunderstandings would take more effort than with a same-gender group as a mixed-gender group would have different expectations, especially in communication styles.

Though agreeing on the success of a mixed-gender online collaboration, the direct numeral gender composition can affect the group's efficiency according to Martin and Shanahan. Their article, "Transcending the Effects of Sex Composition in Small Groups," focuses on gender composition being skewed towards one gender through observational studies on how the gender composition of the group affects the productivity of the writing task. For instance, a single woman in a mixed-gender group could feel pressure from or ostracized by all the males in the group. When a single woman was in a male-dominated group, she felt marginalized in the group and pressured into a female stereotype from the group's interactions. Martin and Shanahan feel that with an equalized mixed-gender group, neither gender will feel out of place and would contribute towards the completion of a successful online collaborative project. Overall, if the gender composition of an online collaboration is mixed, then the project will be successful due to the variety of ideas and motivation even when there is a greater chance of misunderstandings in comparison to a same-gender group.

Whether a collaboration is a same-gender or a mixed-gender group, the gender participation in an online collaboration is equal. Strategies for determining the participation for online collaborations are digital assessment tools, like VisOC, monitor participation, group members evaluating other members, and observations. The most used method is observation evaluation wherein an outsider to the group observes the group interactions in electronic communication. Teachers are considered to use observation evaluation as they do not participate in groups except for grading a project at the conclusion. In the workplace, project managers would use monitor participation as they direct the collaboration, yet department heads and other interested members would observe in order to make sure everyone participates. Participation in

online collaborations is equal between the genders, thus the project's outcome is affected more by group members' communication styles which can potentially cause misunderstandings.

Same-gender groups are groups composed solely of one gender, whereas a mixed-gender group is composed of both genders. Successful online collaborations rely on group members' willingness to work together to avoid or overcome potential misunderstandings arising from the use of electronic communication. The lack of visual cues to decipher tone means the audience must decipher tone through the writing style of a group member. With same-gender groups, each group member has similar communication styles and similar expectations, thus reducing the chances of a misunderstanding. The same-gender group striving for similar goals would help prevent a group member passive-aggressively delaying a project, and similar perceptions would diminish the chances of a group member feeling ostracized by the rest of the group.

The potential for misunderstandings is greater with a mixed-gender group than a same-gender group due to the different communication styles and perceptions filtered through gender bias. The chances for misunderstandings can still be reduced through the mixed-gender groups who are willing to work together to move past any misunderstanding caused by the electronic communication. Mixed-gender groups offer greater perspective than a same-gender group due to the variety of ideas, which would make the project appeal to a wider audience.

Male same-gender groups also suffer from the lack of perspective due to society's expectations in the workplace. Passive voice, active listening, and empathy are expected of the employees in the workplace to better collaborate with other companies and consumers both locally and internationally. The traits are in line with women's communication styles, thus the male same-gender groups can lack the desired traits, which would affect their project. However,

mixed-gender groups would be require to put in more effort than a same-gender group to avoid misunderstandings and to try to make the project have a cohesive style rather than many styles. The following chapter concludes the study of gender composition of an online collaboration on a technical communication project's outcome.

## **CHAPTER FIVE: CONCLUSION**

This chapter focuses on concluding the study of the effects of gender composition in an online technical communication collaboration. Each major topic of electronic communication, gender roles, and online collaboration is directly related to explain their influence on the gender composition of an online collaboration. The positive and negative effects of a same-gender group and a mixed-gender group on the outcome of a project are also answered in this chapter. Lastly, the chapter ends with suggestions for further research on this study. Technical communicators understanding how all the topics relate together to influence a collaboration would be better able to manage an online collaboration by selecting the best gender composition for the group, and reduce the chances of misunderstandings to create a successful project.

Online collaborations are more prevalent today due to the ease of electronic communication. With electronic communication, individuals and companies waste less time and money for traveling, and less time is wasted by communicating online instead of trying to find a time in everyone's differing schedules to meet. The different types of electronic communication include e-mail, text messaging, forum messaging, instant messaging, and video/voice conferencing. Electronic communication is also more convenient than physical communication due to the written records of most types of electronic communication to allow group members to go back over each other's words and ideas.

Electronic communication does not have visual cues to decipher tone, thus messages are subject to interpretation by the group members' perceptions. Each group member's perceptions and writing styles are affected by their gender bias imposed on them through society's expectations. Message interpretations are up to the reader's own inclinations about what is

appropriate, though the author's writing style can help direct or limit how the audience perceives the electronic communication. However, gender bias can still cause misunderstandings from the author's writing styles and the audience's perceptions. Group members aware of the gender bias and willing to work together can reduce the chances of misunderstandings.

Monitors are teachers or project managers that overlook a group's electronic communication, and for project managers, to direct the group in working on the project. Group members are more cautious with how they write when they know their words are being monitored, thus a monitor for the project would prevent misunderstandings such as offensive messages. Alert students and professionals recognize their electronic communications are monitored, even when the monitors do not show they are watching the communication by directly stating or interfering in the messages. The records of the electronic communication can be available to those outside the group, such as students using forum messaging or workers on companies' computers. Individuals are more careful when they know they are being monitored, yet they could also get assistance from the monitors if they ask or have problems due to misunderstandings.

Gender roles are products of society's expectations imposed on individuals to further separate them from their biological sex. As soon as an infant is born, society immediately imposes a gender role on them. To explain, a male infant is surrounded by the color blue from "It's a boy!" balloons to blankets and clothes. Family members when seeing the infant start comparing the child to masculine acts, such as a strong grip means he will be a good football player. A female infant is surrounded by pink and family starts talking about feminine acts. Even

the idea that an act or action is either masculine or feminine is society's expectations imposing gender roles.

Society's expectations are influenced by literacy, just as literacy is influenced by society. History is wrought with examples of groups of people speaking out on their issues using verbal and written literacies to influence others and change the overall culture. Women writers wrote to dispel the gender roles of being submissive and silent, while men were to be dominant and outspoken. Their literature slowly changed society over time until today where it is more equal between each gender.

However, society's influence over literacy causes the gender role expectations. Women are considered more emotional and compromising, while men are considered more impassive and commanding. Family, school, and media are how a child learns society's expectations whether consciously or unconsciously. Whether family or school, the child learns how to communicate and their style gets influenced by their gender role. Society's influence causes the gender role expectations, so an individual tends to perceive things through the filter of their gender's communication styles.

Each gender having a different way of conversing causes clashes in communication between the two genders, which in turn may reinforce some of society's expectations on gender roles. The gender role placed on females to be empathic and emotional can cause them to prefer to belong in a group to share experiences and ideas. Many women tend to share a collaborative style where their communication blends together, with other women interjecting their own thoughts and ideas whether to show empathy or to share their own experiences. Group connections give women the sense of belonging, and helps them compromise. The



communication may be passive, but that is in support so no woman feels ostracized or foolish if they mention something that winds up wrong. For example, a woman tells another that she heard the gym may close; the “may” gives her an out if the gym does not close.

Many men tend to share a single-speaker style, where a single man communicates his ideas and the other men in the group do not interrupt until the first person is finished. They do not interject comments like women do to show they are listening, because men believe that staying silent until the first person finishes proves they are listening. When the single man finishes, the other men challenge his statements or ideas in a constant test as a way to prove conversational dominance. Their active voice is more direct to challenge or be decisive in their communications in proof that they are right. The men’s style of communication clashes with the women’s communication style causing either gender to get upset over the misunderstandings and further imposing the gender roles through expectations.

As each gender communicates differently due to the influence of society’s gender expectations, online collaborations play a part in how successful a project turns out. Online collaborations are restricted to electronic communications, thus the writing styles of the electronic messages are the only way each group member communicates. The type of collaborative project can restrict the writing style format to reduce the chances of misunderstandings due to the gender bias filtering a group member’s perception. For example, a technical writing grant is expected to have a formal, passive writing style for the government department to accept it, so the group decides to use that style for the electronic communication and the final project. Online collaborations also have it easier to make the project into a more

cohesive whole due to all the programs that allow for the group to easily create multiple edits of a document.

Effective online collaborations need more than a monitor over the electronic communication to reduce the chances of misunderstandings. Management of online collaborations not only comes from the monitors, but also from the individual group members. Group expectations for the project should be clearly defined or discussed at the beginning of the collaboration, such as the writing style for the project to help prevent gender clashes over communication style. Time management and discipline are also needed by group members. Many individuals have more demands on their time than a single collaboration, thus each group member must manage their time wisely to not cause any delays in the project. Group members must also be disciplined to focus on the project and put effort into their tasks to make the project successful.

International collaborations are becoming more prevalent due to the ease of electronic communication allowing for more online collaborations both for multinational organizations and educational purposes. Just as American society imposes certain gender role expectations, technical communicators should be aware that international societies would also influence gender roles and writing styles on their members. The differences in each society's gender role expectations in turn would affect the writing styles of each gender and can cause international group members to view a message as offensive. Gender bias may be unconscious in Americans' communication styles and assumptions, but it also proves Americans can be unconsciously culturally biased in collaborations by expecting things to go the way they understand. Group

members must try to learn the differences in order to communicate successfully between nations and reduce the chances of misunderstandings.

Successful online collaborations rely on group members' willingness to work together to avoid or overcome potential misunderstandings arising from the use of electronic communication. The group needs to put in effort and to participate when using electronic communication in order to avert the chances of misunderstandings that arise due to each member's gender bias influencing their perception and writing style due to their society-imposed gender role. The gender composition of an online collaboration can affect the project's outcome due to gender bias affecting the perception and writing styles of each group member.

There are three types of gender composition: female same-gender group, male same-gender group, and mixed-gender group. Same-gender group members generally have similar communication styles, thus reducing the chances of misunderstandings. Mixed-gender groups must put in more effort to try to avoid or overcome potential misunderstandings due to the differing communication styles used in the electronic communication.

Participation is key as it shows a group is communicating to complete the project. The misunderstandings of a group member passively-aggressively delaying a project or a group member feeling ostracized could come from a lack of participation. For example, a male member only posts once or twice in the discussions about the project in a mixed-gender group, then complains later that he felt ostracized by his female group mates. His participation in the collaboration was lower, thus causing the misunderstanding rather than the female group members marginalizing him by siding with each other to ignore his ideas without reason. Therefore, gender participation in online collaborations could potentially cause

misunderstandings. Whether the writing style format was restricted or not, gender participation averages to be approximately equal for online collaborations. With each gender generally participating equally in online collaborations, communication is affected by group members' gender biased perceptions and writing styles, thus gender composition affects a project's outcome.

### Positive Effects

Same-gender group members who use similar communication styles work together easily as they have similar expectations for writing documents. As previously mentioned, women share a more collaborative floor, wherein they share both ideas and support and involve more compromise to ensure everyone has equal roles. Men's communication style of single speaker allows each member to have their turn before getting challenged to come up with better ideas. Same-gender collaborations allow the communication to flourish as each group member has similar expectations and perceptions, which makes group members feel more comfortable and reduces the chances of misunderstandings.

If the incentive for completing the project appeals to their gender, same-gender collaborations can be more performance-driven. With incentive pushing the same-gender group so that no group member would want to delay the project in anyway, they will communicate effectively in order to produce the project. Even with the project requiring unfamiliar tasks, same-gender collaborations would be more driven to complete the project if the incentive for completing the project appeals to their gender.

Mixed-gender collaborations would outperform same-gender groups even when the incentive only appeals to a portion of group, because some members feeling motivated are better

than no motivation from a same-sex collaboration. With incentives pushing some members, the other gender would also get motivated to complete the project either as a competition for the male group members or by compromise for the female group members. Motivation for the mixed-gender collaboration thus leads to a positive effect on the project's outcome.

Society's expectations do not just cover gender roles as society imposes more of the female communication style on the workplace for improved collaborations with other companies and consumers. Mixed-gender groups would allow the female group members to help male members alter the final project's writing style to fit with the companies' expectations. Compromise would also create a more cohesive project instead of documents and projects with several separate voices. Mixed-gender online collaborations also allow for more variety in ideas and perspectives, which appeal to a project's final consumer mixed-gender audience.

### Negative Effects

Same-gender groups do not have the perspective of both genders, which can leave out half of the audience through the project's writing style. Teachers are likely the only ones to see the students' final projects for educational same-gender collaborations, thus the audience is limited. However, the single gender perspective can hurt workers as their audiences are generally mixed-gender, especially for a project presented to consumers. The effect of a same-gender collaboration on a project's outcome can be negative due to the needs and gender biased perceptions of the audience.

Society expects the workplace to have a more feminine communication style of passive voice, because workers are expected to compromise to create better working relationships and companies want to keep consumers happy to come back either for questions or more products.

The change in the workplace's writing style is detrimental for male same-gender groups. Companies expect their workers to cooperate with everyone in the company as well as present a pleasant face to those outside the company. Even if projects are divided into same-gender tasks, male same-gender groups performed poorly at masculine tasks in comparison to the female-only groups, and female same-gender groups did not perform better at feminine tasks. The female same-gender collaborations performed better due to their collaborative communication style, but the same-gender groups were very detrimental for the male-only groups. Overall, a same-gender group can have a negative effect on the project's outcome, even though their communication styles are similar and reduce the chances of misunderstandings.

Mixed-gender collaborations using electronic communication can cause the differences in writing style to become more pronounced and potentially cause more misunderstandings. A mixed-gender group would have different expectations, especially in communication styles, causing more time to be spent discussing project expectations. The chances of misunderstandings are also increased due to the differing writing styles and gender biased audience perceptions.

An unbalanced mixed-gender online collaboration can affect the group's efficiency. To explain, a single woman in a mixed-gender group could feel pressure from or ostracized by all the males in the group. She felt more pressurized into the female stereotype from the male-dominated group's interactions. An equalized mixed-gender group could have neither gender feel out of place, but the collaboration may get split down the middle if neither gender could compromise causing a negative effect on the project.

Technical communicators must understand how to manage online collaborations effectively to produce a successful project. The gender composition of an online collaboration

plays a large factor in a project's outcome, therefore a same-gender or mixed-gender group can have a positive or negative effect on the project. The negative effects of a same-gender collaboration are more pronounced in comparison to a mixed-gender collaboration on a project's outcome. In comparison to mixed-gender collaborations, same-gender collaborations are less motivated, and have a lack of perspective from the other gender which counts against them due to the audience for the project is generally mixed-gender. However, mixed-gender collaborations deal with increased chances of misunderstandings, because of the differing communication styles of each gender. Considering the advantages of a mixed-gender group over a same-gender group in variety of ideas, motivation and audience's expectations, the gender composition does matter on the project's outcome. Overall, if the gender composition of an online collaboration is mixed, then the project's outcome will be successful due to the variety of ideas and motivation in contrast to a same-gender group.

#### Further Research

This study on gender composition in an online technical communication collaboration focused more on the communication and interaction aspects rather than the actual project's outcome. Communication and interaction are important parts of a collaboration, but seeing changes in a project's outcome could be the difference in getting more people to pay attention to those aspects. More research needs to be done for technical communicators to learn to work around the negative effects and work with positive effects to produce a more successful project.

Researchers focusing on companies may have a harder time to determine the differences of a mixed-gender collaboration to a same-gender collaboration on a project's outcome, because companies try to make money. The companies would have collaborations working on different

projects, rather than similar projects, in an effort to gain more consumers. However, project's outcome or success could be easily measured by researchers due to consumer interest in or comments about the project. Some companies may hire researchers to find how gender composition affects collaborations, though it is likely that the participants will not be workers for the companies so the studies would not interrupt the companies' daily business practices.

In education, researchers can observe several groups, both same-gender and mixed-gender, creating a project with the same expectations and deadlines for every group. Content of the electronic communication should be observed to check on the ideas and help each gender give for the collaboration. Since participation is about equal, the content of the messages could reveal further perception into gender interaction. Researchers can also compare each project's outcome to figure out which collaboration type had a positive or negative effect on the project.

Researchers should compare physical collaborations and online collaborations with respect to the project's outcome to see if the collaboration format affects the project. They may find that the gender composition of a project may be more pronounced in a physical collaboration, because group members can see each other's gender versus the writing style and a name for an online collaboration. The research can be done by observation of a physical collaboration and an online collaboration working on similar projects to check the outcome against each. Researchers working with teachers could have students work on both a physical collaboration and an online collaboration. Students could be put in the same group for both collaborations, though with different projects so they can only work on a certain project at certain times such as when they are in class for the physical collaboration. With the same groups for both collaborations, researchers can focus more on the communication and interactions of the



groups during the projects. They can then compare the projects' outcomes of each group to see the overall effect of a physical collaboration's gender composition and an online collaboration's gender composition.

Researchers could also put students in different groups for the physical and online collaborations with the same project expectations for both collaborations. The projects' outcomes could then be compared to each other to see whether a physical or an online collaboration's gender composition is better. Students' interactions and communication could also be compared for further analysis into their effort for a physical collaboration in comparison to an online collaboration. Researchers would have an easier time to control the variables for student participants in comparison to simply observing companies' collaborations.

Surveys can be used to further research by allowing for wider spread of randomized participants, instead of a few pre-selected collaborations. Appendix A has an example of a quick survey about gender composition in collaborations. The survey was not used for this study as it is best used in conjunction with an observational study, and the study focused more on interaction and communication rather than project outcome. The sample survey could be used at the beginning of an observational study to either separate the participants into a collaboration they feel they would work better with or to place them into a collaboration that they felt was harder to work with. Another factor would be to use this survey first, then place the participants into two collaborations, one same-gender and one mixed-gender, then give them the survey again at the end of the projects to see if the answers have changed. The quick sample survey could also be sent to randomized individuals for quantitative data on the overall population's preference towards one type of collaboration over another.

The value of the survey is in the qualitative data that the researchers can accumulate to understand the participants' perceptions of collaborations. The questions within the sample survey are mainly yes or no questions for future researchers to quickly go through the data for potentially hundreds of participants, depending on how they decide to use the survey. Gender is the only demographic of the sample survey as gender is the main focus for this study, though age or ethnicity may prove to be factors depending on the researcher's focus. Data gathered from the survey is more about the participants' perceptions about working in a same-gender or mixed-gender collaborations, therefore the questions deal with the project's success or outcome, effects from group members misunderstanding the communication, such as project delays, and which type of collaboration was easier to work with. The last question about any comments or suggestions about working in a group is for researchers to see if the participants felt there are other factors to working in a group beyond gender or communication.

Researchers could expand the survey questions to go into more detail, like using a system from poor to excellent instead of yes or no answers to change the survey to gather more qualitative data. The participants' perceptions could go into more detail such as how they felt if the project was delayed or their understanding on why there were misunderstandings between group members. Other variables to be considered could include physical collaborations to expand the sample survey's focus from online collaborations for researchers to use in conjunction with the observational studies mentioned previously. Researchers could use the basic ideas from the sample survey to create a survey that is more applicable to their own research.

In conclusion, the gender composition of an online technical communication collaboration does affect the project. A mixed-gender collaboration has a more positive effect on

the project's outcome due to the variety of ideas and motivation to complete the project, though the negative effect is that there are greater chances for misunderstandings due to the differing communication styles. Technical communicators understanding the major influences of electronic communication, gender roles, and online collaborations on a mixed-gender collaboration would be able to reduce the chances of misunderstandings and guide the group to complete a successful project.

## **APPENDIX: SAMPLE SURVEY FOR FURTHER RESEARCH**

1. Gender?    Male    Female
2. Worked with an online group?    Yes    No
3. Worked with a same-gender group?    Yes    No
  - a. Was the project successful?    Yes    No
  - b. Was anyone offended by a post or message?    Yes    No
  - c. Was there an issue that caused an argument?    Yes    No
  - d. Was the project stopped or delayed for more than a week?    Yes    No
  - e. Could the project's outcome been better?    Yes    No
4. Worked with a mixed-gender group?    Yes    No
  - a. Was the project successful?    Yes    No
  - b. Was anyone offended by a post or message?    Yes    No
  - c. Was there an issue that caused an argument?    Yes    No
  - d. Was the project stopped or delayed for more than a week?    Yes    No
  - e. Could the project's outcome been better?    Yes    No
5. Was it easier to work with a same-gender group than a mixed-gender group?    Yes    No
  - a. Was the communication easy to understand?    Yes    No
  - b. Was every member participating almost equally?    Yes    No
6. Was it easier to work with a mixed-gender group than a same-gender group?    Yes    No
  - a. Was the communication easy to understand?    Yes    No
  - b. Was every member participating almost equally?    Yes    No
7. Any comments or suggestions about working in a group?

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