EFFECT OF GENDER-RELATED COMMUNICATION DIFFERENCES AND AWARENESS OF GENDER-RELATED COMMUNICATION BARRIERS ON COMMUNICATION EFFECTIVENESS

by

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Abstract

Gender-related communication behaviors are affected by certain biological influences and the gender orientation of communicators. These elements affect how people communicate as well as how they interpret the communication efforts of others. Another source of influence on communication behavior and interpretation is awareness of potential gender-related communication barriers. People choose their communication styles based on their strategies, context, and the unique combination of influences on their cognitive behavior. The purpose of the study was to determine the impact of biological influences, gender orientation and awareness of communication barriers on the recognition of communication effectiveness. To address the recognition of communication effectiveness, a 3-part survey was created that (a) measured the recognition score of the respondents, (b) determined gender orientation based on the Bem Sex Role Inventory (BSRI), and (c) provided specific demographic information for consideration in the interpretation of the mean recognition scores. The statistical results indicated the biological sex and gender orientation of this particular research population did not have an impact on their recognition of communication effectiveness. Regarding the demographic variables, the only variable that demonstrated a statistically significant difference in the mean recognition scores was marital status. The respondents who were married had a significantly higher recognition of communication effectiveness compared to the respondents who were not married. This study provides additional insight into the basic gender-related communication behaviors that affect

communication choices. This information can lead to improved interpersonal and organizational communication, as well as provide essential data for developmental training material.

Dedication

This dissertation is dedicated to my family…from my parents and grandparents…to my siblings…but most of all to my precious daughters, Lillie and Maggie…with all my love and gratitude.

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CHAPTER 1: INTRODUCTION

Effective communication is essential in the workplace, in relationships, and in everyday life (Fisher, 1999). In organizations, effective communication can unite the workforce, strengthen shared visions, and improve teamwork and decision making (Thamhain, 1992). Yet, a number of variables can affect the communication process. In particular, gender-related communication differences (Wood, 2003) and the awareness of gender-related communication barriers (Gentile, 1998) may play an important role in communication effectiveness.

Gender-related communication differences can be attributed to two major influences: (a) the biological distinctions between men and women and (b) the gender orientation of communicators as opposed to their biological sex. Chromosomes, hormonal influences, and brain size and activity may drive different communication behavior patterns in men compared with those in women (Fisher, 1999; Wood, 2003). Research indicates the differences in male and female brain activity specifically affect the ability to listen—a key element of effective communication (Wood, 2003; Phillips, Lowe, Lurito, Dzemidzic, & Matthews, 2001). Fisher (1999) also found that as hormone levels change, women can become more aggressive in their communication and less patient with others. These biological differences in men and women may ultimately affect communication effectiveness.

A second cause of gender-related communication differences is the gender orientation of communicators as opposed to their biological sex. Gender orientation is the way people view themselves and how they act in accordance with stereotypical masculine and feminine

characteristics (Wood, 2003). According to Kim and Aune (1997), "The image we have of ourselves as women or as men affects the way we communicate with others, and our self-concept of 'maleness' or 'femaleness' affects how we perceive ourselves as communicators" (p. 939). Further, they reported, "Individuals who exhibit high levels of both masculinity and femininity are optimally equipped for behavioral flexibility and corresponding adaptability in varied, dynamic environments" (p. 941). Kim and Aune's work supports Bem's findings (1974) that both men and women can exhibit masculine or feminine traits, also known as androgyny. Differences in gender orientation may influence communication behavior, as well as the interpretation of communication behavior.

Beyond gender-related communication differences, awareness of gender-related communication barriers may play a key role in the effectiveness of communication. Many organizations—in their attempts to improve teamwork, productivity, and decision making—have implemented diversity awareness training (Gentile, 1998). However, such diversity training and education often focus on sexual harassment prevention or cultural differences rather than recognition of gender-related communication barriers (Egodigwe, 2005). In particular, the content of organizational diversity training fails to provide education on four key communication barriers that dominate the literature: (a) men interrupt more in conversations, whereas women take turns (Butler & Geis, 1990); (b) women tend to be inclusive in their communication, whereas men exhibit individualistic behavior (Wood & Dindia, 1998); (c) women model nongendered language more often than do men (Blaubergs, 1980); and (d) men are prone to linear thought patterns, whereas women favor "web" thinking or the cognitive process of bringing in more details for consideration (Fisher, 1999).

In addition, the scope of content in organizational diversity training is often too broad in that the focus is spread across issues outside the scope of gender, such as age, race, and disabilities, which in turn may dilute the emphasis on gender-related communication barriers (Gentile, 1998). Dedicating more training that is specific to educating people on gender-related communication barriers may help organizations and individuals improve the effectiveness of their communication processes. As Gentile (1998) noted, it is "through our interactions and confrontations of difference—of perspective, of prior experience, of style, of identity—that we come to recognize the limits of our own perspectives, experiences, and styles" (p. 1).

It is evident that certain gender-related variables may impact the communication process. Specifically, biological gender, gender orientation, and awareness of gender-related communication barriers may play an important role in communication effectiveness. To gain further insight into the role these gender-related communication variables play in communication, further scholarly investigation is needed.

Background of the Study

Research from the early 1970s to the present indicates the growing interest in gender issues (Eagly, 1995). This research has opened debates on gender differences and similarities, biological and social influences, and the effectiveness of male versus female communication styles (Wood, 2003). The issues are complex and often hotly debated as implicit masculine assumptions are examined within communication traditions (Carter & Spitzack, 1989). In 1974, Bem reported that androgynous individuals exhibit greater

behavioral flexibility because they can benefit from both male and female traits. By contrast, highly sex-typed individuals are restricted by their behavioral roles. Baker (1991) found researchers in the 1980s classified male communication strategies as emotionless, with categorical assertions, ineffective listening, and the tendency to dominate conversations. By contrast, female communication strategies were labeled as emotional, receptive, and conciliatory. Over the last few decades, political viewpoints have transitioned from androgyny (Bem, 1974) to male and female similarities being strongly endorsed as a method of improving equality (Eagly, 1995) to the current trend of celebrating differences and distinctiveness (Gentile, 1998), especially in communication efforts. The focus in the first decade of the 21st century, particularly in organizations, is to benefit from the synergy of diversity—of the individual differences in all organizational members. The challenge is how to break through barriers to fully realize the benefits of effective interpersonal relationships and communication.

Gender-Related Communication Differences

Biological Differences

Male communication traits have been described as direct, succinct, instrumental (Mulac, 1998), linear (Wood & Dindia, 1998), aggressive (Dobris, 1989), independent, assertive (Valian, 1998), task oriented, and used for maintaining power status (Michaud & Warner, 1997). Female communication traits have been described as participative (Barker & Zifcak, 1999), intimate, expressive (Michaud & Warner, 1997), holistic, empowering (Fisher,

1999), and communal (Wood & Dindia, 1998). Identifying these polar traits allows communicators to question generalities and to resist limiting conceptions of communication behavior (Wood, 2003).

Male and female physical differences are easy to discern, such as body size and type, reproductive systems, and general appearance (Halpern, 2000; Putrevu, 2001). Although the effects of biological differences on communication are more difficult to see, they are easy to understand once the various influences are known. For example, Fisher (1999) reported the female brain, specifically the prefrontal cortex, is genetically equipped to process multiple pieces of information simultaneously more rapidly than the male brain. This finding provides one explanation for the male tendency to be linear in communication and the female tendency to bring in more details. Another explanation is that the left lobe of the brain, which controls linear and sequential thinking, appears to be more developed in men than it is in women (Wood, 2003).

Gender-Orientation Differences

Although biological differences in men and women can directly impact thought patterns and communication behaviors, other differences influence communication behavior, such as social role conditioning. Social role conditioning refers to the fact that the "distribution of women and men into different social roles, promotes stable patterns of behavioral differences between women and men" (Deaux & Major, 1987, p. 369). According to Wood (2003), gender orientation refers to how people view themselves and how they interact with others in society. Gender orientation can be in conflict with social roles and expectations. The communication barrier is created when communicators are highly sex-

typed in their behavior and unable to communicate effectively. For example, a female-oriented communicator who exhibits a high degree of holistic communication behavior could be criticized for not reaching a final point, whereas a male-oriented person who uses linear thought to the extreme could be accused of not considering all of the details. A woman who demonstrates aggressive male-oriented communication behavior would be judged harshly, but not as much as a man who exhibits ultra female-oriented behavior (Barker & Zifcak, 1999).

Bem's research (1974) suggested androgyny as a method for employing the more successful traits of men and women and discarding the least successful. Androgynous communication behavior is a tool that can free communicators from limiting restraints and allow them to effectively communicate with others. Wood (2003) reported, "Women and men who are androgynous are more flexible communicators who are able to engage comfortably in both masculine and feminine styles of speech. The breadth of their communicative competence enhances the range of situations in which they can be effective" (p. 127). In other words, communicators who exhibit androgynous gender-oriented communication behavior can achieve effective communication in a greater variety of contexts.

Awareness of Gender-Related Communication Barriers

According to Smith (1998), a "lack of awareness of diversity issues can pejoratively influence the assessment of learner competence by educators, and evaluation by learners of educators' teaching performance" (p. 8). Being unaware of gender-related communication

barriers may cause a misinterpretation and subsequent misguided reactions in the communication process. Smith also reported, "Increased awareness of communication styles is thus essential for understanding and accurately interpreting cultural cues different from one's own" (p. 12). Smith further stated that one of the key levers for improving business competitiveness is training that focuses organizations on gender diversity awareness. However, organizations often fail to emphasize gender-related communication barriers in their diversity training and instead focus on sexual harassment or ethnic and racial differences.

Although the research on communication effectiveness has grown, opportunities to examine the role of gender-related communication variables still exist. A better understanding of how gender-related communication differences and awareness of gender-related communication barriers are related to communication effectiveness may have important implications for both organizations and individuals. Further scholarly investigation of these topics also may provide meaningful additions to the growing research literature on improving interpersonal communication.

Statement of the Problem

Although effective communication in interpersonal and organizational relationships is important, it can be difficult to achieve (Fisher, 1999). Communication barriers, created by gender-related communication differences and a lack of awareness of communication barriers, can impede communication attempts. Gender-related communication differences may be rooted in biological sex influences, which can affect the ability to recognize

communication barriers (Fisher, 1999). In addition, gender orientation may lead to male and female differences in communication behavior by influencing the way people see themselves and others (Wood, 2003). Gender orientation affects the way people communicate as well as their interpretation of other communicators' behavior (Kim & Aune, 1997). Further research is needed to examine the role of biological sex and gender orientation in communication effectiveness.

Beyond gender-related communication differences, a lack of awareness of gender-related communication barriers may affect the quality of the communication process. Although organizations have attempted to understand diversity issues, such as sexual harassment and ethnic differences, there appears to be a gap in education with respect to gender-related communication behavior (Egodigwe, 2005). Specifically, four key communication barriers: men interrupting in conversation versus women taking turns (Butler & Geis, 1990); women being inclusive in their communication, and men exhibiting individualistic behavior (Wood & Dindia, 1998); women modeling nongendered language more often than men (Blaubergs, 1980); and men being prone to linear thought patterns, yet women favoring web thinking (Fisher, 1999)—dominate the communication literature yet are rarely addressed in organizational diversity training. Further scholarly exploration is needed to fully understand how awareness of these gender-related communication barriers, along with gender-related communication differences, affects communication effectiveness.

Purpose of the Study

The purpose of the study is to examine the role of gender-related communication differences and awareness of gender-related communication barriers in communication effectiveness. With regard to gender-related communication differences, this study will focus on both biological sex differences and gender orientation. This study will assess communication effectiveness via participant responses to a series of gender-related communication statements.

Research Questions and Hypotheses

Research Question 1: To what extent are gender-related communication differences due to biological sex differences related to communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements?

H_o1: There is no statistically significant relationship between biological sex differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Research Question 2: To what extent are gender-related communication differences due to gender orientation related to communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements?

H_o2: There is no statistically significant relationship between gender orientation differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Research Question 3: To what extent is awareness of gender-related communication barriers related to communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements?

H_o3: There is no statistically significant relationship between awareness of gender-related communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Research Question 4: To what extent do certain participant demographics impact the relationships between gender-related communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements?

H_o4: Certain participant demographics do not have a statistically significant impact on the relationships between gender-related communication differences due to biological sex differences and gender orientation, awareness of gender-related communication barriers, and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Theoretical Foundations of the Study

The theoretical foundation of this study includes theories related to gender as well as those related to communication effectiveness. Specifically, from a gender theory perspective,

this study is rooted in social learning theory (Mischel, 1966), cognitive development theory (Kohlberg, 1966; Halpern, 2000), social role theory (Eagly, 1987), cultural influences theory (Michard & Viollet, 1991; Wood, 2003), and standpoint theory (Barker & Zifcak, 1999), as well as theories that emphasize gender differences (Fisher, 1999), gender similarities (Hyde, 2005), and androgyny (Bem, 1974). In addition, the communication effectiveness theories that guide this study include communication strategies theory (Mahaffy, 1997; Stake, 1997) and the science of communication (Fowler, 2006; Greenberg, 1999; Hersey, Blanchard, & Johnson, 2001). The theoretical foundation of this study will be addressed further in Chapter 2 (the literature review), as well in Chapter 5 (the conclusions and recommendations of the study).

Significance of the Study

The significance of this study is that it expands the literature base on the effect of gender-related communication differences and awareness of communication barriers on communication effectiveness. By synthesizing gender and communication theories, specifically the influence of biological differences and gender orientation on communication effectiveness, this research will challenge using the male standard to define effective communication. In other words, this study will provide a more thorough understanding of how communication effectiveness is related to biological differences, such as the fluctuations in estrogen and testosterone (Fisher, 1999; Wood, 2003) and the effect of brain size and activity (Halpern, 2000). In addition, the focus on gender orientation may provide scholarly

evidence that the standard of effective communication can no longer be defined by stereotypical male-oriented communication traits alone.

This study is timely, because the roles of men and women are changing in society and in organizations due to a confluence of events, such as an influx of female managers and decision makers, as well as the demand for diverse viewpoints (Helgesen, 1990). "With their people skills, their language abilities, their drive to network, and their faculty for contextual thinking, women will be extremely valuable human capital in almost any business setting" (Fisher, 1999, p. 98). This study may help underscore the importance of capturing the synergy created by gender-related differences.

This study is also important because it may affect the learning content and certain developmental processes in business organizations, educational institutions, and nonprofit organizations. For instance, results of this study could help organizations develop and implement training that specifically focuses on gender-related communication differences and their effect on communication effectiveness. A lack of understanding of gender-related communication barriers affects the ability to recognize communication barriers (Fisher, 1999; Helgesen, 1990; Wood, 2003). Such training could improve communication and ultimately performance (Hand & Slocum, 1972).

Definition of Terms

Androgynous. An androgynous style is one that blends the "masculine and feminine behaviors previously seen as belonging exclusively to men or women" (Powell, 2001, p. 10).

Communication. Communication is an exchange of understanding between two or more people. It can include verbal as well as nonverbal language, such as body language, voice intonation, and eye movements. Communication is a primary method of maintaining relationships. Miscommunication and conflict can occur when male and female communicators interpret language semantics differently (Rodino, 2005).

Communication barrier. A communication barrier is an element that may inhibit or impede communication between two or more people (Golen & Grasso, 1995).

Gender. Gender is a learned choice, which "grows out of a society's values, beliefs, and preferred ways of organizing collective life" (Wood, 2003, p. 21). Gender refers to a "social construction of femininity and masculinity which varies over time and place and is enacted through learned, rather than innate, behavior" (MacDonald, Sprenger, & Dubel, 1999, p. 10).

Gender orientation. Gender orientation is the manner in which people define themselves and how they act in accordance with stereotypical masculine and feminine characteristics (Wood, 2003).

Individualistic versus inclusive. Individualistic behavior in communication demonstrates a tendency to focus on one's self. For example, an individualistic person might promote the team's success as one's own success. Inclusive behavior in communication is evidenced by including others in recognizing the team's efforts (Baker, 1991).

Interrupting versus taking turns. In general, men have been socialized to be competitive and dominant in communication, which can result in men interrupting others

more than women do in conversation (Leman et al., 2005). In general, women have been socialized to be patient and to take turns in communication (Fisher, 1999).

Linear thinking. Linear thinking is narrow and focused on one thing at a time (Fisher, 1999).

Organizational culture. Organizational culture is the social and cultural environment that includes systems of shared meaning, transmitted through social interaction. Barker and Zifcak (1999) found that organizational cultures, defined by people who work within the organization, create a "social reality" that demonstrates and perpetuates views of gender roles and functions.

Sex. Sex includes the biological and genetic qualities that categorize one as either a male or a female person. Whereas gender can change over time, sex is a biological imperative that is easily recognizable (Hare-Mustin & Marecek, 1988).

Sexist or gendered language. Sexist language puts forth male standards as the norm and female standards as devalued from the norm. Sexist language lends power to patriarchal societies. Gendered language defines men and women differently by describing women by their physical characteristics and men by their accomplishments (Wood, 2003).

Web thinking. Web thinking is a description of how women think as they bring in more details, consider more options, and try to understand the implications of decisions in a holistic manner (Fisher, 1999).

Assumptions and Limitations of the Study

It is assumed that study participants will have preconceived notions about gender based on social conditioning as described by Eagly (1995), who stated "children learn rules for social interaction from experience in largely sex-segregated peer groups in childhood and then carry this learning into adult social interaction" (p. 148). The limitation here is that study participant responses may be predicated on their prior social conditioning.

In addition, it is assumed that participants will honestly self-describe themselves in the Bem Sex Role Inventory (BSRI) section of the survey instrument. Another limitation is that the definition of gender-specific traits used in the BSRI may be considered outdated by some, because it was created by Sandra L. Bem in 1974. However, the BSRI has been validated and systematically used as a measure of feminine and masculine traits for the last 30 years (Kim & Aune, 1997).

It also is assumed that study participants will have varying degrees of prior training in communication effectiveness. Moreover, a limitation here is that other variables may affect participant responses as well, such as age, level of education, profession, years in profession, and marital status (Fisher, 1999). However, data on these key demographics will be collected and subsequently analyzed.

Nature of the Study

The purpose of the study is to examine the role of gender-related communication differences and awareness of gender-related communication barriers in communication

effectiveness. With regard to gender-related communication differences, this study will focus on both biological sex and gender orientation. This study will assess communication effectiveness via participant responses to a series of gender-related communication statements.

This research will use sets of clear-cut comparisons, as well as an experimental posttest-only design used to test causal relationships. The survey instrument will contain a series of gender-related communication statements, the BSRI, and a section used to gather demographic information. Study participants will be divided into a control group and a treatment group that, before taking the survey, will receive educational information intended to promote awareness of gender-related communication barriers. The collected data will be analyzed using professional statistical analysis software, Statistical Package for the Social Science (SPSS) Version 13.

Organization of the Remainder of the Study

Chapter 2 will provide a literature review on gender and communication theories. Following this theoretical framework, Chapter 3 will focus on research methodology. The results of the study will presented in Chapter 4 and then discussed in Chapter 5.

CHAPTER 2: LITERATURE REVIEW

The following literature review is organized into the major subjects of communication effectiveness (Fisher, 1999; Fowler, 2006; Greenberg, 1999; and Hersey et al., 2001) and gender theory (Barker & Zifcak, 1999; Bem, 1993; Brewer, Mitchell & Weber, 2002; Eagly, 1995; Halpern, 2000; Kohlberg, 1966; Mischel, 1966; and Wood, 2003). Gender theory is further divided into the theories of gender differences (Fisher, 1999), gender similarities (Hyde, 2005), and androgyny and gender schema theory (Bem, 1974), as well as how these theories relate to communication effectiveness, biological sex, and gender orientation. In addition, research on gender-related communication barriers is explored and analyzed. A summary of the literature review is provided at the end of this chapter.

Communication Effectiveness

Communication effectiveness has long been held to be a success factor for leaders. Effective communication can add value to organizations (Thamhain, 1992). Research (Hersey et al., 2001) suggests a direct correlation between good communication and profitability in some organizations. Traditionally, the standard of effective communication has been defined by male communication traits, such as aggressive, linear, direct, and sequential communication (Gentile, 1998). In hierarchal, autocratic, "top-down" organizational structures, the masculine style of communication was common; women were forced to either adopt the male style of communication or retain a more feminine

communication style at their own peril (Fisher, 1999). Although effective communication remains a desired skill for a successful leader, the definition has changed.

A confluence of events has occurred that demands a change in the definition of effective communication. These events, such as increased diversity in the workforce and the globalization of the marketplace, require cultural communication flexibility (Helgeson, 1990). In other words, the business organization itself and the world in which it competes have changed, culminating in a change in the definition of effective communication. The definition of an effective communicator is one who delivers a clear message, listens carefully, and receives and sends clear feedback (Hersey et al., 2001). In addition, an effective communicator has the flexibility to vacillate between stereotypical male or female communication behavior as required for the context or situation (Fisher, 1999; Wood, 2003). To better understand the art of communication, the following sections will synthesize the relevant literature on the science of communication, effective listening, feedback, and the ways that the perception of gender affects communication effectiveness.

Science of Communication

One definition of effective communication is to successfully communicate a message in a manner in which a person could easily understand and accept it (Hersey et al., 2001). Although there are several models of communication, the basic science of communication includes a sender, message, noise, receiver, and context. Fowler (2006) found there is room for error at each element of this communication formula, with successful communication occurring when the sender and receiver perceive the message to be the same.

The mechanics of communication begin with a sender, the person who initiates the communication. Senders are at an advantage if they already have credibility with their audience or are considered to be subject matter experts (Hersey et al., 2001). The message itself is affected by the sender's tone, perception of the audience, method of thought processes, and individual style (Fisher, 1999). Messages also convey intellectual or emotional elements used in an organizational sense to clearly communicate an argument or to psychologically motivate the receiver to accept the message. The message is conveyed through a channel, such as verbal communication (e.g., face-to-face interactions, telephone conversations, and speeches or videoconferencing) or a written communication channel (e.g., e-mails, letters, memos, reports, or organizational documents) (Fowler, 2006). The sender uses these channels to transmit the messages, which can be stopped by a limitation known as noise.

Three types of noise can impede communication attempts: external noise (noise that occurs outside of the brain, such as distractions), internal noise (brain activity that affects communication), and semantic noise (the influence of word meanings) (Hersey et al., 2001). An external noise or distraction could range from the sound of a sneeze to the sound of an airplane flying overhead. An example of internal noise might be a speaker communicating too rapidly; the receiver's brain might be affected by his or her listening ability. An instance of semantic noise could include a difference in perception of the word a speaker uses compared with the interpretation of the word by the receiver. A classic example is when Chevrolet attempted to market its Nova automobile in Spanish-speaking countries, where "no

va" means "no go" (Hersey et al., 2001). In addition to internal, external, and semantic noise, the sender should consider the receiver as well as that person's perceptions.

A receiver is not simply an empty abyss into which messages can be dropped. A receiver is an individual, fully equipped with opinions, perspectives, and personal interpretation skills (Fisher, 1999). The receiver may receive a message from the sender, yet there may have been noise in the particular context in which the message was received. One method of gauging whether the receiver received the correct message is through the use of paralanguage, which is the ability to adjust the voice and affect how something is communicated, such as the use of timing, pitch, pausing, and intensity (Hersey et al., 2001). Senders can use paralanguage in two ways: first by adjusting their own voice to convey enthusiasm or confidence and second by interpreting the paralanguage of the receiver. The sender's analysis of the receiver's perceptions may take place initially or continually throughout the communication process.

In a communication model, context refers to the situation in which the message is delivered (Fowler, 2006) and it is the communicator's responsibility to determine the appropriate communication style to use in that context. For example, in a context such as negotiations, a communication style which emphasizes cooperation might be the best choice (Mahaffy, 1997), whereas in a competitive situation where one's interests prevail, an autocratic style might work better. An analysis of the context should also consider the culture of the organization and the communicators.

To deliver a message effectively, senders must consider their own biases, the context in which the message will be received, the communication channel, and the perceptions of

the receivers (Fowler, 2006). At each one of these junctures, there are limitations or possible barriers to effective communication. Two methods help ensure effective communication was attained: effective listening and feedback.

Effective Listening

An effective listener concentrates on what is being said, listens to all facts and does not interrupt the speaker, listens for key words of interest on which to comment or ask questions, and is objective and holds back personal judgments until the speaker has presented all of his or her ideas (Greenberg, 1999). Appropriate listener responses, which could be considered feedback, include "It sounds like you are saying . . . " or "Let me make sure I understand your point: do you mean . . . ?" Acknowledging what one hears does not necessarily mean one agrees with the speaker. Effective listening requires concentration, patience, and discipline.

Problems in the listening process can occur when there is a gap between the speaker's message and the translation time for the receiver. Hersey et al. (2001) reported that the average sender speaks 125 words a minute, whereas the human brain can listen at a speed of 400 to 600 words per minute. Because there is excess time, the receiver might begin to think of other things during the gaps, which directly affect the receiver's listening accuracy. An effective listener should concentrate and try to stay focused on the sender's message.

Because effective listening skills are so vital to effective communication, many organizations are investing in training to improve listening skills. Research (Greenberg, 1999) has shown that effective listeners are promoted more often than ineffective listeners,

adding to the other benefits of listening such as greater understanding, improved relationships, and greater communication overall (Fisher, 1999; Wood, 2003).

Feedback

Another way to gauge successful communication is to evaluate feedback. Feedback occurs when a communication receiver sends his or her own message back to the sender. Greenberg (1999) reported feedback is the best way to discern whether the original message was received properly. When the receiver delivers feedback to the sender, another cycle of communication can occur. This cyclical nature is why communication is considered "continuous" in interpersonal communication (Greenberg, 1999, p. 127).

In organizational communication, feedback is also used in the context of performance evaluations, whether formally or informally. Although it depends on the context, Lizzio, Wilson, Gilcrist, and Gallois (2003) found a more participative communication style in interpersonal conversation and in formal feedback situations generally garners greater satisfaction from the communication sender's and receiver's messages and feedback.

Perception of Gender

Stereotypical gender differences in communication can influence communication effectiveness. Stake (1997) reported that men generally strive for mastery, independence, and self-assertiveness in communication, whereas women strive for connectedness, cooperation with others and emotional openness. Understanding the context and the receiver's perspective, including gender perspective, can increase communication flexibility.

> Understanding the other gender's style and differences in perceptions of individual interactions can minimize gender issues. Recognizing the effects of gender style and focusing on reducing the impact of miscommunication due to gender differences will break down one more barrier. (Manss, 1994, p. 79)

The perception of gender in self and in others can affect communication effectiveness. If the sender were aware of his or her own limitations in communication, then the communication style could be adjusted appropriately (Wood, 2003). For example, if the sender were a linear thinker—typically a masculine communication trait – trying to communicate with someone who is not a linear thinker, the speaker could adjust the communication style used to help facilitate understanding on the receiver's part. In another setting, if the receiver were aware of his or her perception that the speaker demonstrates holistic, communal feminine communication traits, the receiver could take that into consideration when listening and not allow the speaker's communication style to result in a communication barrier. It is possible that understanding the gender perception of self and others could improve communication effectiveness.

Summary of Communication Effectiveness

The traditional definition of effective communication, modeled on the male communication standard, has evolved into a definition associated more with stereotypical female communication traits. Limitations to effective communication can occur at each element of communication, such as the sender, message, receiver, noise, or context. To achieve effective communication, people should be nonjudgmental while listening,

participate with and encourage the sender or receiver, and request feedback to gauge the success of the communication attempt.

Gender Theory

Definitions of Sex and Gender

Although the terms *sex* and *gender* are often used interchangeably, they have different meanings. Sex refers to biological differences between men and women (Fisher, 1999). Gender, in contrast to sex, is not a physical characteristic. Instead, it is a "complex set of inter-related cultural ideas that stipulate the social meaning of sex" (Wood, 2003). The perception of gender affects the assumptions, expectations, and behaviors of individuals (Scherer & Petrick, 2001; Wood, 2003). According to Wood (2003), "the theories you hold consciously or unconsciously influence how you see yourself as a woman or man, what you expect of women and men generally, and what kinds of changes you attempt to bring about in gendered behavior" (p. 38). Halpern (2000) found gender is often thought of as a grammatical term, specifically as a feminine or masculine distinction in languages. In this study, the term sex refers to the biological meaning, and the term gender refers to the psychological, cultural, and social definitions of male and female traits. The following section describes the gender theories known as early acquisition theories—those that claim gender-related behavior is acquired at an early age, such as social learning theory and cognitive development theory. In addition, sociological theories will be presented, including

social role theory, cultural influences, and standpoint theory, which propose that aspects of the social structure influence adult gender-related behavior (Deaux & Major, 1987).

Early Acquisition Theories

Social Learning Theory

According to Mischel's (1966) social learning theory, children unconsciously learn to be masculine or feminine through their observations and experiences. Wood (2003) found children learn by imitating their peers, family members, and others. Their learned gender behavior is reinforced by the positive responses they receive. These gendered behaviors continue into adulthood and affect how individuals see themselves, as well as how they interpret the behavior of others (Eagly & Wood, 1991). This creates a cycle of continuous reinforcement. "The social structure produces gendered personalities that reproduce the social structure" (Hare-Mustin & Marecek, 1988, p. 458). Social learning theory explains how learned behavior affects people's perspective and interpretation of behavior, including communication behavior.

Social learning theory states that boys learn to be aggressive, competitive, and goal-orientated, whereas girls learn to be patient, kind, and nurturing in everyday life and in communication (Fisher, 1999). Leman et al. (2005) found these traits in naturally occurring conversations between children. They found "boys' conversations are characterized by greater independence, competitiveness, and dominance, whereas girls' conversations are characterized by closeness, cooperation, and interpersonal exchange" (Leman et al., 2005, p.

64). From an early age, individuals learn what behavior, even in communication, is appropriate, which can lead to certain expectations in male and female roles.

Cognitive Development Theory

Another early acquisition theory is Kohlberg's (1966) cognitive development theory, which purports that children learn from others how to define themselves. This theory is different from social learning theory; cognitive development theory claims that children have an internal desire to be competent, which in children's eyes means aligning themselves with either a female or male gender role. Halpern (2000) compared cognitive development theory to social modeling and in the latter found,

> children conform to sex role stereotypes and acquire a sex role identity because they imitate sex role-consistent behaviors that are reinforced, whereas cognitive development theory assumes that children first develop an awareness of sex categories and then they form a sexual identity as part of their self-concept. (p. 300)

In addition, Deaux and Major (1987) found self-concepts have a significant influence on cognitive processing abilities. As children, individuals choose their gender self-concept on the basis of their understanding of competency; as adults, they continue to recommit to that choice in an effort to maintain a consistent gender identity.

Individuals have two dominant motives in defining their self-function in social interactions. The first, self-verification, is behavior guided by an internal need to ensure a stable self-concept. The second, self-presentation, is behavior that is purposefully monitored as needed to fit a public image (Deaux & Major, 1987). The motives pursued by individuals offer another perspective on the cognitive influences on gender-related behavior.

Consciously or unconsciously, individuals cognitively select their own gender behavior over time.

> People may experience tension between two needs: the need to routinize their behavior and cognition in accord with pre-established conceptualizations and behavioral patterns, and the need to contextualize their behavior and cognition to fit with immediate situational demands and interaction goals. (Deaux & Major, 1987, p. 370)

The need for identity stability may be in conflict with the desire to change as needed. Given cognitive development theory's assertion that children choose their gender to align themselves with competency and that throughout adulthood individuals continue to consciously and unconsciously declare their gender choice to self and to others (Halpern, 2000), the image of gender is a vital element of a person's self-concept. Individuals continue to refine and sharpen their behavior for either their own internal need to be affiliated with a male or female gender or for their presentation of self in public settings. The effect of the cognitive processes of self-verification and self-presentation can influence gender behavior and the interpretation of other's gender behavior.

Sociological Theories

Social Role Theory

Social role theory (Eagly, 1987) emphasizes shared expectations of male and female roles that apply differently to individuals on the basis of their socially identified gender. Society defines the roles; individuals internalize and fulfill the roles. Halpern (2000) found these sex role stereotypes, or beliefs about male and female expected roles in society, have a strong influence on gender-related behavior. Social roles have a different outcome on men

than they do on women. Whereas women are expected to be warm, nurturing, and caring, it is possible for them to cross over to the male side and become more aggressive or assertive. For men, the opposite social role effect typically occurs.

> These stereotypes seem to be narrower or to allow fewer options for males, leaving boys and men fewer choices and dispositional alternatives. Generally, it is far more deviant for a male to engage in traditionally female activities than it is for a female to enter the traditional man's world. (Halpern, 2000, p. 240)

However, recent trends in interpersonal communication have shown that it is increasingly possible for men to successfully exhibit communication traits usually associated with female communication behavior (Fisher, 1999).

Although Brewer et al. (2002) found that gender role expectations are often hard to avoid because certain behaviors are expected by men and women, their research on gender roles and conflict management found that the gender role view places masculinity and femininity on two independent scales on which individuals can score high or low levels of masculinity and femininity. In their research, the more successful study participants used an androgynous and integrated management style, suggesting that communication effectiveness may be more readily achieved by a person who can pull from both masculine and feminine traits. This finding supports Bem's (1975) research that a psychologically androgynous person, who can equally demonstrate masculine and feminine behavior, has greater flexibility and more choices in society.

Cultural Influences

Some theorists contend that culture is the predominant influence on gender. Michard and Viollet (1991) described gender as something that from the anthropological point of view

creates a sociocultural construction of male and female gender. Yet, if culture were accepted to be the predominant influence on gender orientation, it might be said that there is no individual choice in the matter. Bem (1993) offers another view:

> The assumption here may seem to be that a gendered personality is a static collection of masculine or feminine traits that has already been shaped by enculturation—that is a finished *product,* so to speak, rather than a psychological *process.* But a gendered personality is both a product and a process. It is both a particular collection of masculine or feminine traits and a way of construing reality that itself constructs those traits. (Bem, 1993, p. 152)

Bem's idea is that culture is a product or collection of male and female traits, whereas individuals choose the psychological process with which gender identities are created and defined.

If one were to rely on culture alone, then gender identities would be self-limiting in that people would look at themselves internally through the androcentric gender lenses that define the culture and determine what behavior translates to normal or abnormal for every possibility in life (Bem, 1993). When people begin to question their motives in behavior, they are actually questioning the culture that created them. According to Bem (1993), a gender nonconformist is one who rejects the gender scripts of the culture and creates a new gender identity in a society that consistently denies the identity's legitimacy. Some people live frustrated lives because culture forces them into categories to which they do not want to belong. Yet a majority of individuals conform to their assigned gender identities (Wood, 2003).

Standpoint Theory

A related theoretical perspective is that people see themselves from their own standpoint in culture (Barker & Zifcak, 1999). Standpoint theory claims that particular skills, attitudes, and understanding of life are developed by women and men because of their standpoint within society, specifically from their gender, race, and position in social hierarchies (Wood, 2003). Although people in power positions have only their own narrow perspectives, some groups have to consider more than one perspective.

> Marginalized groups have unique insights into the nature and workings of a society. Women, minorities, gays and lesbians, people of lower socioeconomic class, and others who are outside of the cultural center may see the society from a perspective that is less distorted, less biased, and more layered than those who occupy more central standpoints. (Wood, 2003, p. 55)

A person in a power position sees only his or her perspective, whereas a person in a subordinate position views his or her own perspective but has to also be aware of the power person's viewpoint.

Standpoint theory has implications for gender identity. For example, Pilcher (1998) reported that younger cohorts of women viewed gender in more liberal and egalitarian terms than did older cohorts of women. Standpoint theory could explain why younger men and women could recognize communication barriers, such as sexist language, more often then older men and women because the younger people were reared and educated in a culture that emphasizes equality.

Summary of Gender Theories

To summarize the prevalent gender theories, there are two overarching philosophies on how gender is constructed. The first philosophy is known as early acquisition theories. This philosophy includes social learning theory and cognitive development theory. Social learning theory (Mischel, 1966) claims children learn gendered behavior through observation, experimentation, and reinforcing responses from others. Social learning theory suggests children are rather passive in the selection of gender, whereas family members, peers, and society are more active in the gender identity process (Wood, 2003). Reinforcement of proper gender behavior continues to influence individuals throughout adulthood. By contrast, according to cognitive development theory (Kohlberg, 1966), children actively choose their gender identity and then adopt the appropriate gender behavior through observation. Children have an internal desire to be competent, which they equate to gender roles. Adults make decisions, whether consciously or unconsciously, to preserve these gender identities, either through self-verification or self-presentation (Deaux & Major, 1987).

The second philosophy is sociological theories, specifically social role theory, culture influences, and standpoint theory, all of which propose that aspects of the social structure influence adult gender-related behavior. Social role theory (Eagly, 1987) contends that shared expectations define social roles, and individuals internalize and thus fulfill the roles, whereas culture-based theories define accepted male and female roles and that individuals who neatly fall into these categories are rewarded and those that rebel against the defined roles are punished (Bem, 1993; Wood, 2003). According to standpoint theory (Barker & Zifcak, 1999), people define themselves and others through their positions in society,

whether that means gender, race, social standing, or a combination of all three as interpreted by the individuals. The similarity of these theories is that communication is the means by which gendered behavior is reinforced. Early acquisition and sociological theories explain the process of gender acquisition and the motives employed by society and self to define, develop, and interpret gender.

Gender Differences, Similarities, Androgyny, and Gender Schema Theory

Gender Differences

Another method of comparing and contrasting gender is to focus on gender differences, similarities, and androgyny. Halpern (2000) stated that the topic of sex differences has moved from a hot issue to a national preoccupation in the last three decades, and the focus on differences has evolved to an inflammatory fascination, with every reported difference affecting present and future societies. Historically, gender research increased significantly in the 1970s with the publication of Maccoby and Jacklin's (1974) book, *The Psychology of Sex Differences.* This book was described by Eagly (1995) as "an ambitious effort to synthesize all psychological research that had reported sex comparisons" (p. 145). Specifically, Maccoby and Jacklin found four basic and well-documented sex differences: mathematical ability, verbal ability, visual–spatial ability, and aggression (Hyde, 2005). Comparatively, in communication, stereotypical male traits are described as linear (Wood & Dindia, 1998), aggressive (Dobris, 1989), direct, instrumental, succinct (Mulac, 1998), and task oriented (Michaud & Warner, 1997). Stereotypical female communication traits are

described as intimate, expressive (Michaud & Warner, 1997), communal (Wood & Dindia, 1998), participative (Barker & Zifcak, 1999), empowering, and holistic (Fisher, 1999). A comparison of Maccoby and Jacklin's (1974) research findings with the stereotypical communication traits listed here indicates the male expertise in math corresponds with the linear and instrumental male communication traits, and the female advantage in verbal fluency matches with the expressive and communal female traits. The early focus on gender differences served to reinforce gender stereotypes (Fisher, 1999; Wood, 2003).

In a meta-analysis of gender theory, Eagly (1995) reported that after Maccoby and Jacklin's published work, the attempts of many researchers to measure sex differences yielded agreement that most differences were in social behavior and personality, which reflect status, social roles, and gender-based expectancies about self and others' behavior. Other theories cited by Eagly focused on evolutionary psychology, which claimed that principles of evolution aid in the prediction of male and female behavior adaptations. Generally, Eagly (1995) found the difference in biological and developmental theories versus social psychological theories is that the biological and developmental theories stated that (a) sex differences are rooted in essential qualities built into the person, and (b) social psychological theories regarded sex differences as coming from a construct of social interaction. Although the source of gender differences may have been debated, the research emphasis was on gender differences as opposed to similarities.

Conventional gender theory emphasized how different women were from men with the intent of supporting the norm of male superiority (Fisher, 1999). "Women have been a repository of non-masculine traits, an 'otherness' men assign to women" (Hare-Mustin &

Marecek, 1988, p. 458). Bem (1993) found male experiences have been treated as the norm or as a neutral standard as a whole, and female experiences have been classified as sex-specific deviations from that purportedly universal standard. Eagly (1995) reported a significant amount of feminist research on sex differences was conducted to shatter stereotypes about female traits and alter society's attitude by showing that men and women are equal in areas such as intellectual abilities, personalities, and behavioral tendencies. As a result, many theorists have begun to question using the male experience as the norm (Eagly, 1995; Fisher, 1999; Wood, 2003).

Gender Similarities

Research subsequent to the development of gender differences theories sought to minimize gender differences that were context dependent or inconsistent; instead, these theories emphasized gender similarities (Archer, 1987; Deaux, 1984; Matlin, 1993). The goal was to counter cultural stereotypes that forced women into traditional roles (Eagly, 1995). Some researchers claim that focusing on differences gives power to the male definition and supports inequality (Hare-Mustin & Maracek, 1988). According to Rodino (2005)—

> contrasting "male" and "female" language reifies differences between men and women. Such distinctions help rationalize women's oppression. Conceptualizing gender as a sum of performances allows researchers to better represent the ways individuals experience gender and communicate. Rethinking gender along these lines also helps expose biological essentialism, the binary gender system, and patriarchy as cultural constructions. (p. 7)

Barker and Zifcak (1999) reported that a focus on gender similarities removes persistent, inaccurate, and stereotypical conceptions often made when an emphasis is placed on sex differences. They also argued that a focus on gender differences, such as placing men and

women on opposite polar ends of a continuum, intimates the categories are equal, specifically classifying men and women as opposites and falsely inferring equality. Thus, Barker and Zifcak (1999) argued that a focus on similarities in men and women cancels out stereotypes, removes the false implication of equality, and instead focuses on the distinct similarities of men and women in a positive light.

This view is further enforced by Hyde (2005), whose gender similarities hypothesis holds that men and women are more alike than different on most psychological variables. Hyde also found "the scientific evidence does not support the belief that men and women have inherent difficulties in communicating across gender" (p. 590). Gender similarities theories were created, for the most part, to diffuse an emphasis on differences and to support equality (Wood, 2003). Yet these theories remain in the minority as the emphasis on gender differences continues. The debate on gender differences and similarities that began in the 1970s continues to the present where the media often portrays men and women as coming from two different cultures. Early on, Bem (1975) offered another perspective known as androgyny, from which the best of male and female gender traits can be used and the lesser traits discarded.

Androgyny and Gender Schema Theory

Some researchers (Maccoby & Jacklin, 1974; Fisher, 1999; Wood, 2003) supported a focus on gender differences to emphasize the value of female traits, others (Hyde, 2005) fought for an emphasis on gender similarities to highlight equality for both genders, and still others (Eagly, 1995) suggested a continuum of traits to minimize differences or similarities. Bem (1975), however, sought a different path. Bem (1975) found that traditionally sex-typed

people were socialized to have either a high level of masculine or feminine characteristics from two uncorrelated bipolar dimensions. Her initial work on sex roles led to her seminal research in psychological androgyny, which was a contradiction to the cultural views of sex identities at the time. Bem's concept was that an equal combination of masculine and feminine traits could lead to greater flexibility and psychological adjustment in society (Bem, 1993).

In 1975, Bem developed a psychological measurement known as the Bem Sex Role Inventory (BSRI). This tool can be used to assess adherence to sex-typed personality traits to determine whether an individual is highly masculine, highly feminine, androgynous, or undifferentiated. The BSRI treats masculinity and femininity as separate scales, rather than opposite ends of the same scale. Thus, androgynous men can be mostly masculine yet demonstrate feminine characteristics, such as caring and nurturing. Likewise, androgynous women can exhibit feminine characteristics as well as masculine traits. Benefits of androgyny include a greater flexibility in dynamic situations (Kim & Aune, 1997), broader communication effectiveness (Wood, 2003), and the ability to bridge sex-role stereotypes without recrimination (Fisher, 1999).

Bem (1993) also acknowledged the critics of this concept who claimed that androgyny is a genderless word that erases all traces of gender or, by contrast, that androgyny reifies the gender polarization the scale hoped to remove. In response to her critics, Bem suggested a gender schema theory wherein people sort information into categories on the basis of specific gender-related dimensions.

> Specifically, gender schema theory argues that because American culture is so gender polarizing in its discourse and its social institutions, children come to be gender schematic (or gender polarizing) themselves without even realizing it. Gender schematicity, in turn, helps lead children to become conventionally sex-typed. That is, in imposing a gender-based classification on reality, children evaluate different ways of behaving in terms of the cultural definitions of gender appropriateness and reject any way of behaving that does not match their sex. (Bem, 1993, p. 125–126)

Gender schema theory is similar to social learning theory in that children learn about gender behavior early in life. The difference in these two theories is that in gender schema theory, individuals have the opportunity to experience more sides to their personality and change their gender orientation as well as their views of others (Bem, 1993). In her research, Bem classified participants as either schematics (highly sex-typed) or aschematics (androgynous). Her conclusion was that highly sex-typed people harbor self-fulfilling gender stereotypes, whereas androgynous individuals have greater freedom in self-expression and in conceptualizing reality (Bem, 1993).

In addition, Bem (1993) argued against the suggestion that children are born with a certain gender orientation. Specifically, Bem found that although male and female humans have distinct sex differences, culture is not innate; rather, it is a culmination of experiences like a "surface, or phenotypic, variability on top of what is a deeper, or genotypic, universality" (p. 21). Bem's theories hold that individuals can experience greater psychological satisfaction in their own lives as well as how they interpret interaction with others if they can remove the layers of culture imposed on them.

Summary on Gender Differences, Similarities, Androgyny, and Gender Schema

Research on gender differences may emphasize those differences to the point that women are seen as inferior to men, or it may create a continuum of male and female behavior

that falsely implies equality. The benefit of an emphasis on sex differences is that society in general can learn more about the causes and consequences of differences and how to improve interpersonal and organizational relationships. For example, Eagly (1995) found that

> women who learn about the specific behaviors that mediate male dominance and the causal factors that underlie these behaviors may be prepared to find the points in the sequence of processes where they can intervene to produce a more equal sharing of power. (p. 155)

Gender similarities hypothesis (Hyde, 2005) purports that men and women have more similarities than differences. An emphasis on gender similarities may help to remove damaging stereotypes yet also may imply a sense of equality that is not found in society. Bem argued that polarization of men and women produces an environment that causes "men to construct identities around dominance and women to construct identities around deference" (Bem, 1993, p. 195). It also punishes those individuals who deviate from these mutually exclusive identities. An alternate perspective is androgyny, which provides a person with an opportunity to demonstrate both masculine and feminine behavior, as well as to interpret others' gender orientation without the "lenses of gender" or the culture-bound expectations of male and female behavior (Bem, 1975). Although gender theorists differ in the way they view gender differences and similarities, such as the use of a continuum (Eagly, 1995) or of two independent scales of masculinity and femininity (Bem, 1993), they do agree that gender is the predominant influence on behavior rather than biological sex.

Gender-Related Communication Differences

Gender-related communication differences may stem from a number of influences, one of which is biological differences in men and women. The major biological distinctions include chromosomes, hormonal fluctuations, and brain size and activity, all of which affect communication behaviors such as listening, aggression, and translation of data (Fisher, 1999; Phillips et al., 2001; Wood, 2003). Another major influence on gender-related communication behavior is the gender orientation of the communicators. The way individuals perceive their own gender affects their communication behavior as well as their interpretation of others' communication behavior (Kim & Aune, 1997). Both biological differences and gender orientation may have a direct impact on the ability of individuals to recognize and participate in effective communication.

Biological Influences

Chromosomal Influences

Biological differences in men and women are caused in part by chromosomal differences (Wood, 2003). Generally, men have XY chromosomes, with the X coming from the mother and the Y coming from the father. Women have XX chromosomes; they inherit an X from both their mother and their father. The X chromosome for genetic intelligence in men is inherited from the mother, whereas women inherit the X chromosome and their genetic intelligence from both parents.

Wood (2003) reported that one reason women are more adept at social activity, which is related to the X chromosome, is because they have contributions of this chromosome from both the father and the mother. Fisher (1999) reported the X chromosome holds a cluster of genes that influences the formation of the prefrontal cortex; and this gene cluster in women creates an advantage for web thinking or the ability to consider more details. The absence of this gene cluster in men enhances their ability to encode data in serial order, think in a linear fashion, plan sequentially, and construct hierarchical plans of action (Fisher, 1999). Thus, chromosomes affect the way men and women organize their thoughts, a key factor in communication.

Hormonal Influences

Distinct hormonal differences in men and women shape sex-related behaviors. Testosterone, the primary male hormone, is responsible for the male tendency toward aggression. This hormone has also been linked with the male ability to excel in spatial visualization and rotation (Frantz, 2007). The primary female hormone, estrogen, plays many roles in a female body. As hormone levels in women change, particularly as they age and their levels of estrogen decrease and levels of testosterone increase, women become less patient in their communication and more aggressive (Fisher, 1999). Maccoby and Jacklin (1974) reported sex hormones in experimental administrations can affect aggression, which suggests that behavior caused by hormonal influences can be manipulated. Fluctuations in male and female hormones can affect sex-related behavior.

Brain Size and Activity

The final element of the biological theory concerns the differences in the male and female brains. Although there are no gross differences in the male and female brains, many sex-related differences are evident (Fisher, 1999; Halpern, 2000; Wood, 2003). Researchers (Halpern, 2000) have begun using new imaging techniques that allow observation of functioning brain activity as participants perform cognitive tasks. Results indicate male brains are more active in the left hemisphere, whereas female brains are active in both the left and right hemispheres. "By using different types of verbal tasks while viewing brain activity, the researchers were able to isolate the specific components of language that are used in reading, map verbal tasks onto regions of the brain, and see how male and female brains respond in different places to the same task" (Halpern, 2000, p. 193). The left side of the brain controls linear thoughts, sequential information, analytical thinking, and mental manipulation of spatial information (Halpern, 2000). The right side of the brain controls intuitive thinking, artistic ability, perceptual processing, and language skills (Fisher, 1999; Halpern, 2000). Although men usually use only their left side when listening, women use both sides (Wood, 2003; Phillips et al., 2001). Wood (2003) reported this indicates that women have greater listening abilities in general compared to men, which can affect communication effectiveness.

Brain sizes differ in women and men—brain size and weight are positively correlated with body size (Halpern, 2000). Yet size does not equate to capacity.

> Consider the fact that male and female brains differ along several dimensions, with the smaller female brain composed of more densely packed neural units, a higher level of neural activity (as recorded on EEGs), and higher regional cerebral blood flow. Size cannot be considered without reference to all of the other systems and structures that reflect brain action. (Halpern, 2000, p. 223)

In addition, a tissue bridge connects the hemispheres of the brain; this bridge bulges toward the rear of the female brain and is more evenly cylindrical in male brains (Fisher, 1999). Some individuals, usually women, with larger posterior bulges in the corpus callosum area of the brain excel in verbal fluency tests, whereas those with brains with the more cylindrical section, usually men, excel in spatial activities (Hines, Chiu, McAdams, Bentler, & Lipcamon, 1992).

Although the brain has many genetic and architectural influences, environmental influences, such as stress, nutrition, drug use, and lead exposure, among others, affect the brain (Halpern, 2000). Biological influences have a direct effect on gender-related communication behavior, such as the effect of chromosomal gene clusters on thought patterns, the effect of hormones on aggression, and the male and female brain activity effect on verbal and spatial skills. Although the biological theories purport that male and female sex differences affect behavior, some theorists believe social conditioning has much more influence on behavior. "In summary, biological theories of gender attribute masculine and feminine qualities and abilities to genetics and biology . . . biology is most accurately understood as an influence on, not a determinant of, gender" (Wood, 2003, pp. 42–43). In other words, although there are documented biological differences in men and women, such as listening aptitude and thought processes, that affect communication behavior, the effect of these biological influences on gender is mitigated by other factors.

Gender Orientation

Gender orientation is the manner in which people define themselves and how they act in accordance with stereotypical masculine and feminine characteristics (Wood, 2003). As previously discussed, the concept of gender is more complicated than biological sex in that it is not given to individuals, it is acquired through self-selection or learning (Eagly, 1995). Gender is not an absolute; it can change or evolve over time (Bem, 1993). Wood (2003) found individuals are not passive recipients of gender; the choices they make to accept or reject cultural prescriptions affect the definition of gender within society. "Some of the social constructions of sex are so ingrained in our society that we have come to think of them as 'natural,' that is, part of the nature, not the nurture, of being male or female" (Halpern, 2000, p. 232). People who accept cultural definitions of gender and live within them reinforce the very definitions that define them.

Individuals who reject cultural definitions affect society's definitions of gender as well. Some individuals do not want to cling to cultural gender definitions, choosing instead to be androgynous.

> Androgynous individuals reject rigid sex roles and embody qualities that the culture considers feminine and masculine. For example, androgynous women and men are both nurturing and assertive, both strong and sensitive. Many of us don't want to be restricted to the social prescriptions of a single gender, as we cultivate both masculine and feminine qualities in ourselves. (Wood, 2003, pp. 24–25)

Individuals have a choice in that they can accept society's definitions of gender or they can select their own gender orientation.

In communication, gender orientation is an important element in conceptualizing gender-related communication behavior. Kim and Aune (1997, p. 937) found researchers in

the "social sciences, and communication researchers in particular, are abandoning the use of biological sex as the sole predictor or antecedent variable in the studies attempting to uncover 'gender differences' in communication behaviors and cognitive activity." Researchers (Fisher, 1999; Presnell, 1989; Wood, 2003) are instead turning to the gender orientation of the communicators and finding that people with a feminine gender orientation or an androgynous orientation are more inclined to recognize communication barriers than are male-oriented individuals. This finding is important because recognition of communication barriers is an essential step in removing them.

Awareness of Gender-Related Communication Barriers

Diversity Training and Awareness of Communication Barriers

Benefits of Diversity Training

Organizations have a vested interest in the benefits of diversity training, one of which is an improvement in the awareness of gender-related attitudes and behaviors. Studies (Hand & Slocum, 1972; Smith, 1998) have shown that learning about or becoming aware of an issue improves the recognition of the issue when surveyed. Specifically, Hand and Slocum (1972) found in their research project that training participants, compared with control group participants, became "more aware of themselves, more sensitive to the needs of others, and were more oriented toward developing mutual trust" (p. 415). Training on gender-related attitudes and behaviors could increase the awareness of them.

An added benefit of diversity training is the possibility of changing gender-related behavior. Hersey et al. (2001) reported knowledge of and attitude toward a certain issue can change when presented with training or education. In addition, Hersey et al. found participants make individual choices as to their individual degree of attitudinal acceptance and that subsequent training and organizational modeling can increase the attitudinal acceptance of the training. In other words, training participants are responsible for their own acceptance and demonstration of the learned behavior. Modeling of the correct behavior by others could positively influence the participants' acceptance of the behavior. Thus, a benefit of diversity training is that it can change gender attitudes and behaviors.

The effectiveness of the diversity training can improve if the benefits of the training to the participants are promoted (Smith, 1998). Smith's research on gender and learning ability found that providers of management educational training who emphasized the benefits and impact of gender-inclusive language training perceived improved communication skills in participants. Smith suggested that training in appropriate skills and monitoring of practices improves the relationship between gender and learning. Awareness of issues, specifically gender issues, can affect the response when presented with the issues in the future. Smith's findings are relevant to the current study in that participants' responses may change after receiving specific training, intervention, or educational materials.

Another benefit of organizational diversity training is the greater understanding of cross-gender perceptions. For example, Eagly (1995) reported that gender-informed programs that train women in spatial tasks, a skill at which men usually excel, have an important effect on women's understanding and experience on related tasks, which could

translate into a better understanding of the male pattern of thinking. Stereotypes affect the way we communicate and the manner in which we comprehend and interpret the language of others (Baker, 1991). In other words, awareness of the communication motives and strategies of the opposite gender could improve interpersonal communication. Gender role behaviors can explain behavioral differences and provide a framework for understanding how learning and socialization experiences influence behavior and thought (Scherer & Petrick, 2001). Thus, diversity training in how each gender thinks and communicates could improve awareness of gender-related communication barriers.

Awareness of Communication Barriers

Diversity training that emphasizes gender-related communication barriers could affect communication effectiveness. A communication barrier is an element that may inhibit or impede communication between two or more people (Golen & Grasso, 1995). Recognition of communication barriers in interpersonal or organizational communication can be affected by the biological sex or by the gender orientation of the communicators (Wood, 2003). It is possible that people whose gender orientation is at one of the extremes (highly masculine or ultra feminine) will not perceive communication barriers because they are simply unaware of a problem with communication (Fisher, 1999). Alternatively, they may have been influenced by society or a patriarchal organizational culture to accept the male standard of communication as the norm. Rodino (2005) reported that women work harder to facilitate conversation than do men, thus, it is also possible that female-orientated or androgynous people will recognize communication barriers more often than male-oriented people. Communication behavior, influenced by biological sex differences and gender orientation,

can influence the training participants' responses to the training. Therefore, diversity training on communication behavior needs to emphasize the gender-related communication barriers while considering the biological sex and gender orientation of the targeted audience.

Diversity training often focuses on sexual harassment and prevention or on cultural differences rather than the recognition of gender-related communication barriers (Egodigwe, 2005). In particular, diversity education fails to discuss four common barriers to communication. The first is that men have been encouraged to interrupt in conversations because of their competitive and aggressive social cues (Butler & Geis, 1990). By contrast, women have been socialized to take turns. The second barrier is individualistic versus inclusive language. Men speak in terms of "I," whereas women communicate in terms of "we" (Wood & Dindia, 1998). The third barrier is gendered language, which is language that unnecessarily reinforces male and female stereotypes (Blaubergs, 1980). The fourth barrier is the differences in thought patterns in men and women (Fisher, 1999). If diversity training focused on these four gender-related communication barriers, awareness of communication might improve and communication barriers could be eliminated. The next section of this chapter explores the four gender-related communication barriers.

Communication Barriers

Interrupting Versus Taking Turns

The first communication barrier, interrupting versus taking turns, stems from lessons learned in childhood. Boys are taught to be competitive and aggressive, and as adults, men continue such traits in sports and at work (Wood & Karten, 1986). According to Fisher

(1999), girls are taught to be patient and to take turns, and as adults, women feel they should continue to take turns. Although men do not see their behavior as unusual, women are beginning to question their own behavior. Some women respond to interruptions by adopting a "silent protest" (Maltz & Borker, 1982, p. 198), whereas others adopt male communication behavior and begin interrupting also. The latter reaction can result in negative feedback as peers, subordinates, and superiors often harshly judge women who demonstrate masculine styles (Butler & Geis, 1990; Fisher, 1999). The lessons learned early in life by boys and girls affect their adult communication behavior.

Wood and Karten (1986) found that in groups, men talk more than women and are thus often labeled as de facto leaders. This results in men having more power within the group. Because power is often equated with success in communication, Gentile (1998) asserted that this creates a double bind for women, as they are evaluated on their ability in groups as well as women in general. Gentile's term "double bind" means that if women in groups take turns in conversation, they are seen as passive. Yet if women speak out more than men in groups, they are seen as crossing over an invisible boundary of acceptable behavior. Men who use less dominating linguistic styles also may be affected by this unequal interpretation (Smith, 1998). Thus, the early lessons of interrupting or dominating conversation versus taking turns can affect the perception of communication success.

Other research (Michard & Viollet, 1991) on the communication barrier of interrupting versus taking turns reported that men interrupt women in mixed dyads, they talk longer than women when taking turns, and they use interruptions to offer more viewpoints. In addition, Michard and Viollet (1991) found the rate of interruptions and the length of

conversation time increased in proportion to the professional hierarchal rank. Miller (1987) offered another view of interrupting: "Interruptive questions, for example, may function to support and encourage the speaker, rather than to take the floor away from him/her" (p. 109). Miller concluded that most studies show that men, however, do interrupt their partners more than women and for longer periods. Although interrupting may sometimes be an effective method to facilitate communication, in general, interrupting can be described as aggressive, dominating, and counterproductive. Thus the male communication behavior of interruption, which stems from early childhood lessons, may have negative results in adulthood. Although the female tendency to take turns in conversation may infer passive behavior, which may be negatively judged in organizational settings, it may improve listening ability (Fisher, 1999). Depending on the context, the flexibility of communication androgyny, which is a blending of male and female communication behaviors, may serve to resolve the conflict of interruptions versus taking turns.

Individualistic Versus Inclusive Communication

Another gender-related communication barrier is that women prefer inclusive communication, whereas men demonstrate individualistic communication behavior. Women generally use communication to ensure understanding and to establish relationships, using words of inclusion, such as "we" and "our."

> Women appear to use communication as a means to develop or reinforce a relationship, by establishing a common ground, to a greater extent than men. Men, more than women, were found to use communication to transmit factual information and to establish or signal their place in the power structure. (Gentile, 1998, p. 32)

Men seek that which gives them power and use individualistic communication to state their rank, identify themselves as powerful, and establish hierarchal order (Fisher, 1999). They do these things because they are socialized to be competitive and aggressive. Smith (1998) reported inclusion of both male and female perspectives positively influenced learning experiences. Inclusive language could alter the effects of socialization and improve the ability of individuals to work together. Recognition of individualistic and inclusive communication behavior in interpersonal communication efforts could enhance communication effectiveness by improving the interpretation of others' communication messages.

Women use their inclusive communication traits to connect with people through talking, listening, and empathizing (Wood and Karten, 1986). Fisher (1999, p. 98) found that women smile more than do men when talking, which provides a sort of social glue that "relieves tension, synchronizes moods, punctuates thoughts, and solidifies social bonds." This ability to connect with people is a key attribute of today's successful leaders (Fisher, 1999; Helgeson, 1990; Wood, 2003) and further evidence that female-oriented communication skills are more effective in today's information-driven society. Awareness of this communication barrier may lead to increased communication success.

Gendered Language

Awareness of the communication barrier of gendered versus nongendered language may influence communication effectiveness. Dobris (1989) reported that the concept of a male-centered universe in speech communication is documented in literature, anthropology, history, and sociology, and, therefore, language is inherently sexist. Sexist language, also

known as gendered language, is defined as "words, phrases, expressions that unnecessarily differentiate between women and men or exclude, trivialize, or diminish either gender" (Parks & Roberton, 2002, p. 455). The use of gendered language can be offensive in interpersonal or organizational communication. Else and Sanford (1987, p. 53) stated, "Sex bias demonstrates that sexist language demeans, excludes, stereotypes, and misrepresents women. It is confusing and inaccurate, and it violates the rules of good scholarship." The use of sexist or gendered language can have negative consequences for the communicator and the organization. Barker and Zifcak (1999) concluded that organizations should invest in preventing gendered language, not only among employees but also among customers. Awareness of gendered language could lead to the removal of this barrier and improve communication effectiveness.

Sexist or gendered language includes some subcategories, such as false generics. False generics—"he," "mankind"—are words that evoke a disproportionate number of male images and often do not sound as generic as the word was intended. When a speaker or writer uses "man" to mean men and women, there is no assurance that the listener or reader will know the communicator's intent. Else and Sanford (1987, p. 53) reported

> Women become invisible when masculine pronouns are used in gender-neutral circumstances when the referents are clearly female, male pronouns prevail. For example "When we get abortion law repealed, everyone will be able to decide for himself whether to have an abortion."

The term "himself" cannot be interpreted as a generic term. The term "salesman" should not be used when salesperson is more appropriate. Titles can lose their neutrality by indicating gender, such as "male nurse," "woman lawyer," or "female doctor" (Daily & Finch, 1993).

Avoiding the use of false generics could aid in removing the barrier of gendered language and increasing communication effectiveness.

Another element of gendered language is the use of terms that subtly infer power, known as hierarchic or separatist terms. Some terms, such as "man and wife," "waiter/waitress," imply gender when it is not necessary. For example, "man and wife" should either be "man and woman" or "husband and wife." Man is not the opposite of wife, whereas husband and wife are equal terms. Another example is the use of unparallel structures, such as introducing two men and a woman as "Dr. Jones, Mr. Smith, and Debbie Johnson." Titles should be used for both genders in this case. Communicators may employ these methods because of self-esteem or identity issues, such as withholding adulthood by using "girl" to refer to an adult woman. Men may unconsciously use this term to describe their female associates as a way to keep women in their place. The term "little lady" also implies a less-than adult status (Merrick, 2002). Appendix A provides other examples of gendered and nongendered language.

Gendered language, through the use of false generics and hierarchic or separatist terms, may negatively affect communication effectiveness. Smith (1998) found nongendered language creates a more equitable and effective learning environment for women. An emphasis on nongendered language might also have a positive effective on the learning experiences of men through exposure to a different perspective. An additional long-term benefit of the use of nongendered language is an individual's ability to communicate and perform effectively in the future within gender-diverse groups.

The negative effects of gendered language include the suggestion that masculine is the norm and feminine is the exception. It creates masculine images or confusion in the mind of the listener. An individuals' use of gendered language can limit career opportunities because of its offensive nature and effect on communication effectiveness (Parks & Roberton, 2002). The benefits of nongendered language include putting an emphasis on job roles instead of gender, helping people reach their full potential, creating a supportive work climate, and unifying the work force instead of dividing it (Daily & Finch, 1993). The use of nongendered language can help facilitate effective communication. In addition, the awareness of gendered and nongendered language can affect a person's own communication as well as the interpretation of other's communication efforts.

Differences in Thought Patterns

The fourth barrier to effective communication is the differences in male and female thought patterns. Male thought patterns, which have influenced the world for many years, include a "concept of creativity, literary history, or literary interpretation based entirely on male experience and put forward as universal" (Dobris, 1989, p. 148). Men dominate history books, partially because the authors were men. Men created organizational structures based on their own socialization, and male thought patterns have been considered the norm (Fisher, 1999). Male thought patterns are ingrained in society.

Generally, men think and speak in a logical, linear manner (Halpern, 2000). In a study of oral narrative styles, Presnell (1989) found that men "argue linearly" and tend to arrive at definitive conclusions. He also found that men promote objectivity to "distance themselves from personal involvement" in decision making (Presnell, 1989, pp. 128–129). The narrative

styles Presnell described parallel male thought processes. Fisher (1999, pp. 5–6) described male thought patterns as compartmentalized, channeled, focused, and a progression down a "straightforward, linear, causal path." These patterns describe the epitome of thought patterns found in traditional business leaders.

However, contemporary definitions of successful leadership take into account the thought patterns of female leaders, such as the female tendency to bring in more details and to make decisions based on additional facts (Fisher, 1999; Wood, 2003). Dobris (1986, p. 141) found women have more sought-after communication skills, such as a "willingness to listen, a sensitivity to emotional nuance, an ability to empathize with and yet, judge . . . resulting in interpretative powers which have not yet been sufficiently appreciated." Fisher (1999) noted women demonstrate web thinking, which is a more holistic view, one that integrates details of their environment. Fisher (1999) found that women

> tend to approach business issues from a broader perspective than do their male colleagues. Women tend to gather more data that pertains to a topic and connect these details faster. As women make decisions, they weigh more variables, consider more options and outcomes, recall more points of view, and see more ways to proceed. They integrate, generalize, and synthesize. And women, on average, tolerate ambiguity better than men do—probably because they visualize more of the factors involved in any issue. (p. 5)

The benefits of female thought patterns are now acknowledged as adding to communication effectiveness.

The differences in male and female thought processes influence communication behavior. One example is the manner in which men and women perceive communication. Dobris (1989) described a research project that studied students' reactions to written passages. Students were asked to retell the story in their own words. Men recited the story as

a chain of information, a step-by-step account of what they read. Dobris found that the male students removed themselves from the emotional attachment of immersing themselves in the details and concluded that men and women perceive language differently and according to their gender-linked traits. Kramer (1977) as cited by Dobris (1989) indicated, "women perceive four times the amount of [gender] differences in communication as do men" (p. 143). Whereas male thought patterns are linear and logical, female thought patterns bring in more details and social cues. This attention to detail and extraneous information demonstrated by women could add to their ability to recognize communication barriers.

Summary of Communication Barriers

Communication barriers are prevalent in interpersonal and organizational communication. Gender communication training provides a framework through which individuals can learn to understand the barriers that can negatively affect communication effectiveness. Effective training on communication barriers enhances awareness and can improve the recognition of effective communication going forward (Hand & Slocum, 1972; Smith, 1998).

Summary of Literature Review

The definition of communication effectiveness is evolving because of changes in organizations and society, such as the increase in the power of women and minorities. Specifically, in organizations, effective communication is required to confront the rapidly changing technological advances, globalization of marketplaces, and increased need for

faster decision making. Traditional hierarchal leadership and communication styles have evolved to emphasize understanding and empowerment and spur innovation and synergy (Fisher, 1999; Gentile, 1998). Stereotypical male traits in communication, such as aggressiveness and linear thinking, are still needed in certain contexts. Overall, however, the stereotypical female traits of holistic, communal, and inclusive communication lead to greater communication success (Fisher, 1999). Effective communication is essential in everyday life, yet there are persistent communication barriers caused by gender-related communication differences and a lack of awareness of communication barriers, that can influence communication success.

This chapter provided theories on communication effectiveness and gender. The overarching gender theories of early acquisition and sociological influences on gender and communication behavior were presented, as well as an analysis of theories on gender differences, gender similarities, and androgyny as they relate to communication effectiveness, biological sex, and gender orientation. Although there is much contention about the emphasis on gender differences or similarities, the literature review suggests that individuals who can pull from both masculine and feminine traits possess the androgynous ability of flexibility and can communicate more successfully in varied and dynamic environments. Chapter 3 describes the methodology for this study, specifically the design protocol and data analysis procedures.

CHAPTER 3: METHODOLOGY

Introduction

This chapter addresses the methodological issues of the study, including research design and methodology, population and sample, data measures and instrumentation, data collection procedures, and data analysis methods. As a review, the purpose of the study is to examine the role of gender-related communication differences and awareness of gender-related communication barriers in communication effectiveness. With regard to gender-related communication differences, this study focused on both biological sex and gender orientation. This study assessed communication effectiveness via a recognition score derived from participant responses to a series of gender-related communication statements. The following research questions and hypotheses guided this study:

Research Question 1: To what extent are gender-related communication differences due to biological sex differences related to communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements?

H_o1: There is no statistically significant relationship between biological sex differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Research Question 2: To what extent are gender-related communication differences due to gender orientation related to communication effectiveness as measured by a

recognition score derived from participant responses to a series of gender-related communication statements?

H_o2: There is no statistically significant relationship between gender orientation differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Research Question 3: To what extent is awareness of gender-related communication barriers related to communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements?

H_o3: There is no statistically significant relationship between awareness of gender-related communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Research Question 4: To what extent do certain participant demographics impact the relationships between gender-related communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements?

H_o4: Certain participant demographics do not have a statistically significant impact on the relationships between gender-related communication differences due to biological sex differences and gender orientation, awareness of gender-related communication barriers, and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Research Design and Methodology

The research design for this study was a combination of two types of research. The first type was an experimental posttest-only design used to test causal relationships. This design was chosen because one purpose of the study was to determine whether awareness of communication barriers, or the cause in the causal relationship, affected the recognition of communication effectiveness in gender-related communication statements. A posttest-only design was preferred to a pretest–posttest design because the pretest may "sensitize" participants in both the control group and treatment group and thus influence their posttest scores (Shadish, Cook, & Campbell, 2002, p. 116). The dependent variable of recognition of communication effectiveness was operationalized by a recognition score, which was derived from participant responses to gender-related communication statements. The second type of research included in the study research design involved quantitative sets of clear-cut comparisons using *t* tests of independent samples (Field, 2005). Specifically, the mean recognition score of male respondents was compared with the mean recognition score of female respondents via a *t* test. Likewise, the mean recognition score of each type of gender orientation was compared with the other types of gender orientation.

Survey methodology was used to collect data to address the study research questions and hypotheses. The use of survey methodology was appropriate because it was a systematic process of data collection designed to measure specific aspects of experiences or opinions (Church & Waclawski, 1998), such as the relationship of gender-related differences of biological sex and gender orientation, as well as the awareness of gender-related communication barriers, on communication effectiveness. Efforts to enhance survey validity

and reliability are discussed later in this chapter. The data collected was quantitative. Instrument-based questions were used to objectively gather demographic and attitude data, which was analyzed using statistical methods (Creswell, 2003). Thus, survey methodology in this study provided the advantage of an objective, systematic approach of data collection for statistical analysis.

Population and Sample

The research participants were members of business organizations, educational institutions, or other organizations. Formal inquiries were made with potential organizations after approval of the dissertation proposal by the dissertation committee and the Capella University reviewer. Eight organizations agreed to participate in this study and provided the researcher with waivers of signed consent. Table 1 shows the distribution of the participant pool (N = 631). Church and Waclawski (1998, p. 143) stated, "a response rate can range, theoretically, from 0 to 100 percent, but in practice a response rate of somewhere between 30 and 85 percent can be expected." For this study, the targeted response rate was 30 percent.

Table 1
Participant Pool Distribution (N = 631)

Description of Organization	Participant Pool
Real estate agency	39
Financial investment firm	47
Bible study group	92
Rotary club	63
School district	156
Accounting consulting firm	84
Sunday school class	87
University	63

Data Measures and Instrumentation

Creswell (2003) described surveys as a method to develop knowledge and to use strategies of inquiry, to generalize from a sample to a population, and to test attitudes both before and after a treatment. Given the study research questions, a quantitative, three-part survey instrument was created to measure (a) awareness of gender-related communication barriers, (b) gender orientation via the Bem Sex Role Inventory, and (c) demographic variables, including biological sex.

Awareness of Gender-Related Communication Barriers

The first part of the survey measured awareness of gender-related communication barriers. Because no existing survey specifically measured this construct, a new instrument was created for this study. The instrument included 6 statements to measure each of the four following communication barriers, for a total of 24 statements: (a) men interrupt more in

conversations, whereas women take turns (Butler & Geis, 1990); (b) women tend to be inclusive in their communication, whereas men exhibit individualistic behavior (Wood & Dindia, 1998); (c) women model nongendered language more often than do men (Blaubergs, 1980); and (d) men are prone to linear thought patterns, whereas women favor web thinking or the cognitive process of bringing in more details for consideration (Fisher, 1999). An example of a statement that measured the interrupting-versus-taking-turns communication barrier might be: "Before you finish that thought, let me say this . . . " A 6-point Likert scale was used to evaluate the degree to which respondents believed effective or ineffective communication was demonstrated by each statement. The 6-point scale, rather than a 5-point scale, was used to help avoid central tendency bias in which respondents tend to choose the middle point of a scale (Church & Waclawski, 1998) or to "artificially force respondents to make a positive or negative selection" (p. 73) to provide more "poignant data." The scale anchors ranged from *highly effective* (1) to *highly ineffective* (6). Some statements were reverse scored to prevent response set bias, which is defined as a tendency of participants to respond to questions independent of the content of the questions (Rennie, 1982).

Results of this first portion of the survey yielded a recognition score. Each point on the scale represented a particular score from which the total score was determined. Thus, higher scores equated to higher awareness of gender-related communication barriers, and lower scores equated to lower awareness of gender-related communication barriers. For example, there are six statements for each communication barrier (24 statements total) and the highest score per item is 6 given the 6-point Likert scale. Thus, the highest score possible was 144 (24 × 6). Likewise, the lowest score possible, given that the low-point on the scale

was 1, was 24 (24 × 1). The recognition score was derived from participant responses to gender-related communication statements.

Reliability and Validity of the Current Instrument

Construction of Survey

A review of literature on gender and communication theory revealed there are gender-related barriers in communication (Fisher, 1999; Gentile, 1998; Helgesen, 1990; Wood, 2003). Twelve gender-related communication statements were compiled for each of the four communication barriers explored in the study. A subject matter expert panel was convened to test the gender-related communication statements for content validity and psychometric item construction. Content validity is defined as the extent to which the gender-related communication statements cover the relevant survey items; that is, the four communication barriers (Cooper & Schindler, 2003). The subject matter expert panel consisted of an expert in communication, a director of marketing, and an educator with a government agency. The scores of each panel member were evaluated using a content validity ratio (Cooper & Schindler, 2003). The panel also evaluated the statements for wording, clarity, and appropriateness (Gillbride, Vandergoot, Golden, & Stensrud, 2006). From the 48 statements, those that received the highest rating by the panel were used in the pilot study survey. Subsequently, reliability was measured by interrater agreement, which correlated the extent to which two or more panel members agreed, demonstrated by an index of consistency (Cooper & Schindler, 2003). Specifically, each member of the subject matter expert panel rated the individual statements on the basis of content validity and psychometric item

construction. If interrater correlation existed, the statements were eligible for use in the survey. The subject matter expert panel also evaluated the reading materials on communication barriers to be provided to the treatment group before taking the survey and found them to be satisfactory.

Pilot Study

The pilot study was conducted with a group of men and women of varying ages, levels of education, years in their respective professions, and marital status. Coworkers of the researcher were asked to participate in the pilot study. The names of the 25 men and women were entered into a Microsoft Excel spreadsheet, and the random number generator function was used to randomly select participants for the control group and treatment group. All respondents were asked to meet with the researcher in a conference room at the researcher's workplace, at which time the researcher thanked the participants for their participation and provided a brief overview of the research project, without revealing the research questions or hypotheses. The treatment group consisted of nine randomly selected men and five randomly selected women. Treatment group members were given the survey packet, which included the intervention reading materials. The treatment group members were asked to follow the instructions on the first page of the packet, which directed them to read the materials and then take the survey. The control group was made up of seven randomly selected men and four randomly selected women. Control group members received a packet that included only the instructions and the survey. After completion, the survey was discussed (as described in the next paragraph) and then gathered for data entry into the pilot study database in SPSS.

Although this pilot study was used to further validate and test reliability for the newly created survey that measured awareness of gender-related communication barriers, reliability also was retested for the BSRI. The pilot study sought to verify that each section of the survey and treatment group reading materials on gender-related communication barriers were content relevant, easily interpreted, and viewed as realistic by the respondents (Gillbride et al., 2006). To ascertain pilot group participant reactions to the full survey, participants were invited to discuss the layout of the survey and treatment group reading materials with the researcher, as well as their interpretations of the gender-related communication statements to help ensure face validity (Church & Waclawski, 1998). In addition, pilot study participants were asked to complete an evaluation form of the survey (see Appendix B). The results of the pilot study were analyzed using the same methods as described in the data analysis section of this chapter. The survey instrument was further refined after reviewing the results of the pilot study.

Gender Orientation

The next section of the survey measured the gender orientation of the respondents using the Bem Sex Role Inventory (BSRI, Bem, 1974). The BSRI grouped respondents into one of four gender groups—masculine, feminine, androgynous, and undifferentiated—based on participants' responses on a seven-point Likert-type scale to particular adjectives. There were 60 items total on the BSRI, an example of which is shown in Figure 1.

The following is a list of adjectives that form a personality trait inventory. Please indicate beside each adjective the degree to which you possess the specified trait. You are to indicate on a scale from 1 to 7 how true of you these various characteristics are. Please do not leave any characteristics unmarked.

Example_____ friendly
Mark a 1 if it is never or almost never true that you are friendly.
Mark a 2 if it is usually not true that you are friendly.
Mark a 3 if it is sometimes but infrequently true that you are friendly.
Mark a 4 if it is occasionally true that you are friendly.
Mark a 5 if it is often true that you are friendly.
Mark a 6 if it is usually true that you are friendly.
Mark a 7 if it is always or almost always true that you are friendly.

Figure 1. Example of BSRI items.

Twenty of the BSRI items were male-oriented, 20 were female-oriented, and the final 20 were empty adjectives that were not used in the BSRI calculation. Bem (1993) included the 20 empty adjectives in the BSRI so the male and female adjectives used would not be obvious. The BSRI score was determined by averaging the male-orientation score and comparing it with a median score of the population. The female-orientation score was calculated in the same way. The androgynous score was found when a respondent's score was higher than the mean on both the masculine and feminine groups, whereas the undifferentiated was classified as scoring below the mean on both male and female orientation.

Reliability and Validity of BSRI

The BSRI, an instrument used in psychology and other fields to measure gender role perceptions, has been found to have adequate psychometric properties, high internal consistency, and test–retest reliability (Holt and Ellis, 1998, pp. 929–930). Since its creation more than three decades ago, the BSRI has consistently been used to measure gender role

identity in American society. Although the reliability and validity of the BSRI has been sufficiently established (Zhang, Norvilitis, and Jin, 2001), the BSRI was again successfully tested for reliability and validity in the pilot study.

Biological Sex and Other Demographic Variables

The last part of the survey measured biological sex and other demographic variables to address Research Questions 1 and 4. Specifically, the demographic variables beyond biological sex that were measured were age, level of education, profession, years in profession, and marital status. The demographic variables of biological sex, level of education, profession, and marital status were forced choice. The demographic variables of age and years in profession were written in by respondents and later grouped by range during the analysis phase as described later in this chapter.

Intervention Reading Materials

The intervention in this study was in the form of reading materials on the impact of gender-related communication differences on communication effectiveness. The one-page document described the importance of communication and presented the four gender-related communication barriers described in Chapter 2 (the literature review). In addition, the reading materials offered methods to improve interpersonal and organizational communication.

Data Collection Procedures

After completion of the pilot study and the subsequent refinement of the full survey instrument, the researcher prepared to administer the final survey to the study population.

Selection of Participants

The lists of names from the participating organizations were examined. The biological sex of the participants with neutral first names, such as Pat or Terry, and names with initials only were clarified with the respective organizations. The only name dropped from the list of potential names was the name of a person that appeared on two separate lists. The remaining names were divided into male and female names, and each name was labeled as male or female, respectively.

From this pool of names, a stratified sample was randomly drawn for the control group and the treatment group; that is, an equal number of men and women for each group. Stratified random sampling is a method used to divide a population into certain exclusive subpopulations or strata, in this case men and women, from which participants were randomly selected to ensure representation from each stratum in the control group and treatment group (Cooper & Schindler, 2003; Shadish, Cook, & Campbell, 2002). The names chosen for the control group and the treatment group were randomly selected using the random number generator function in Microsoft Excel. Random selection of names allowed for an equal chance of selection into the control or treatment group (Cooper & Schindler, 2003).

Contact with Participants

A brief letter of introduction was sent via mail to the 631 study participants with an endorsement from their organization as a notification that a survey instrument was forthcoming (Appendix C). Approximately three business days later, participants received in the mail a survey packet, with instructions and an agreement to participate on the cover page. The agreement to participate stipulated that participation was voluntary and that all responses would be kept anonymous and confidential (Appendix D). This is important because Cooper and Schindler (2003) reported mail surveys are perceived by respondents as more impersonal and anonymous than other types of distribution mode. The distinction in the survey packet that the treatment group received is that the cover page instructions included information about the reading material and that this material should be read before taking the survey (see Appendix E for an example of this modified cover page). The reading material was placed between the instructions and survey. The treatment group was asked to read the materials or treatment before taking the survey. The treatment group had the opportunity to refer to the material while taking the survey. The control group did not receive any reading material (or treatment).

Data Collection

Study participants had 14 business days to complete and return the surveys via mail. To facilitate the return of research data, members of each group were provided self-addressed, stamped return envelopes and were asked to mail their completed surveys to the researcher. Each group's surveys were printed on different color paper (the treatment group was goldenrod and the control group was yellow) to identify the group to which they

belonged. The individual responses of the participants were kept confidential. To ensure confidentiality, an alphanumeric code was assigned to the surveys upon receipt. Although this code was used to identify to the researcher which groups' participants returned surveys and whether they are in the control or treatment group, the participant responses were kept anonymous. After seven days from the original mailing, postcards were mailed to all respondents. The postcards thanked those participants who had already returned their surveys to the researcher. In addition, the postcards served as a reminder to those who have not returned the surveys, as well as reinforced that results would be kept anonymous and confidential. All correspondence, including the letters, surveys, treatment group reading materials, and postcards, were printed on similar-colored paper (i.e., cream, yellow, and goldenrod). Using the similarly colored paper helped the respondents associate all of the research documents to the study (Fanning, 2005).

Data Analysis Procedures

SPSS, the statistical analysis software, was used to analyze the study data collected. Upon receipt of the surveys, the answers were coded and recorded in the SPSS database. The response rate was determined by the total number of completed surveys returned divided by the total number of individuals that were sampled less the survey packets returned by the U.S. Postmaster as undeliverable and surveys returned blank or incomplete (Church & Waclawski, 1998). Incomplete surveys were retained, but not used in the data analysis. A descriptive analysis of data will be provided in Chapter 4 for the demographic variables, including biological sex, as well as gender orientation. This analysis will include the standard

deviations, means, and the scale ranges for the appropriate variables (Cooper & Schindler, 2003; Creswell, 2003).

To address the study hypotheses, the following data analysis plan was followed:

H_o1: There is no statistically significant relationship between biological sex differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Regarding the first hypothesis, the recognition score was determined as indicated in the section of this chapter on data measures and instrumentation. The next step was to compare the mean recognition score of the male respondents to the mean recognition score of the female respondents using a *t* test (Field, 2005).

H_o2: There is no statistically significant relationship between gender orientation differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

To address the second hypothesis, the respondents' scores on the BSRI were evaluated using the interpretive methods provided with the BSRI test. Of the 60 adjectives on the BSRI, 20 were masculine, 20 were feminine, and the remaining 20 were filler adjectives that were not considered. Respondents self-described themselves by selecting from a 1- to 7-point Likert-type scale for each adjective. For each respondent, the median of the masculine and feminine adjective scores was determined. A high masculine score–low feminine score or a high feminine score–low masculine score indicated a person who is highly sex-typed, meaning they described themselves as either highly masculine or highly feminine. A person with a high masculine–high feminine score was considered androgynous. An undifferentiated

person scored below the mean for masculine and for feminine. Each respondent fell into one of the four groups of masculine, feminine, androgynous, or undifferentiated. An analysis of variance (ANOVA) was performed on the data by gender orientation group to determine how the mean scores interacted with each other (Field, 2005).

H_o3: There is no statistically significant relationship between awareness of gender-related communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

In response to the third hypothesis, a comparison of the mean recognition score of the control group and the mean recognition score of the treatment group was conducted via a *t* test, which was used to compare two independent samples (Field, 2005).

H_o4: Certain participant demographics do not have a statistically significant impact on the relationships between gender-related communication differences due to biological sex differences and gender orientation, awareness of gender-related communication barriers, and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

To address the fourth hypothesis, the mean recognition score of the demographic data was compared to each variable. Regarding age, the survey requested each respondent to write in his or her age. Age ranges were not provided because it is more efficient to gather the exact ages and later group them than to try to break out ages from age ranges (Church & Waclawski, 1998). During analysis, the ages were divided into the age-range groups, such as 20s age group, 30s age group, and the like. An ANOVA was used to compare the mean ages of each age group.

The respondents' recognition scores were correlated to their levels of education, which included high school, some college, bachelor's degree, post bachelor's degree, and master's degree and above. Each level of education had a score; that is, 1 = high school, 2 = some college, and so forth. Every respondent had a recognition score and an education score, which formed a case. A correlation was run on the sets of cases to determine, for example, whether the recognition score increased as the level of education increased, meaning they were positively correlated (Field, 2005).

Three additional demographic categories included profession, years in profession, and marital status. Participants were asked to choose their profession from a checklist, or select "other" if their profession was not listed. An ANOVA was used to compare the mean scores of respondents in different categories with each other. Because the list of professions was broad and some professions had small numbers, the professions were later grouped (Cooper & Schindler, 2003). The years in profession were written in by the respondents and later grouped by the researcher into ranges. An ANOVA was performed to compare the mean years of each group. The marital status question was grouped as married, never been married, or no longer married, which included divorced or widowed respondents. The mean recognition score of these groups were compared to determine whether married, never been married, or no longer married respondents had a higher or lower rate of recognition. Results of the study will be reported in Chapter 4 and then discussed in Chapter 5. Table 2 details the expected timeline for this study.

Table 2
Timeline

Action	End Date
Submit proposal to committee for review, respond to comments and questions; complete institutional review board application	09/06–10/06
Proposal conference call	11/06
Pilot study	11/06
Data collection	
Contact potential study population	11/06
Mail out letters of introduction and endorsement	12/06
Determine control group and intervention group	12/06
Mail out survey packets	12/06
Mail out reminder postcards	12/06
Receive data from study sample	12/06
Complete data collection and database entries	12/06
Write Chapters 4 and 5, submit to mentor for approval	01/07–03/07
Submit dissertation to committee and respond to comments and questions. Prepare final copy and schedule conference call.	05/07
Complete final conference call and submit final dissertation copy for grammatical review and printing.	05/07

CHAPTER 4: DATA ANALYSIS AND RESULTS

Introduction

This study examined the impact of gender-related communication differences caused by biological sex and gender orientation and awareness of gender-related communication barriers on communication effectiveness. Two types of research were used in the research design. The first type, an experimental posttest-only design, was chosen because one purpose of the study was to test a causal relationship; that is, to determine whether awareness of communication barriers affected the recognition of communication effectiveness in gender-related communication statements. The use of quantitative sets of clear-cut comparisons using *t* tests of independent samples was selected as the second type of research in the research design (Field, 2005). A three-part survey was constructed to quantitatively measure the effects of certain variables on awareness of communication barriers. The data were collected over a 30-day period from a diverse pool of participants representing eight organizations. The data were analyzed using SPSS, the results of which are presented and discussed in the following sections.

Response Rate

The study sample included (a) a real estate agency (39 participants), (b) a financial investment firm (47 participants), (c) a Bible study group (92 participants), (d) a Rotary Club

(63 participants), (e) teachers from a small school district ranging from prekindergarten to high school (156 participants), (f) an accounting consulting firm (84 participants), (g) a Sunday School class from a large church (87 participants); and (h) professors and staff from a university (63 participants) (see Figure 2).

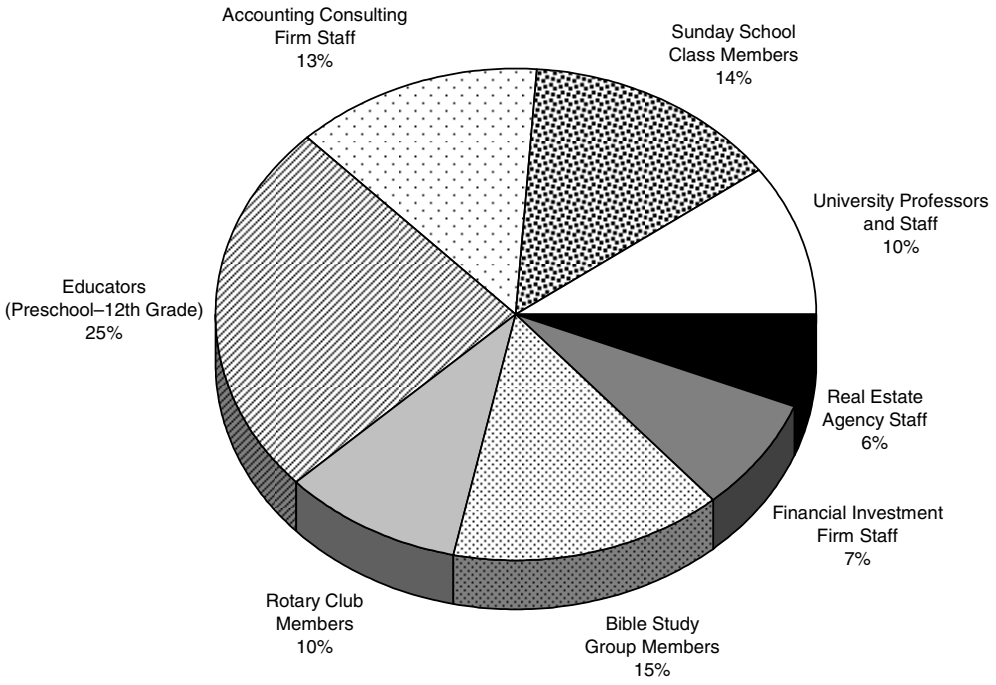

Figure 2. Distribution of potential participant pool.

From this diverse pool of 631 people, there were 271 responses. Church and Waclawski (1998) defined a response rate as the result of the number of completed, usable survey responses divided by the total number of survey instruments distributed, less the number of surveys deemed undeliverable because of bad addresses or other reasons. The response rate was 43%, which was higher than the targeted response rate of 30%. The higher

response rate could be due to the high number of female respondents and educated participants, as discussed later (Green, 1996). The diverse organizations provided a rich pool of participants from different backgrounds, marital statuses, and ranges of age, levels of education, professions, and years in professions.

Recognition Score

The initial statistical test was to determine the recognition score for the 271 respondents. The mean recognition score was 71.17, with a standard deviation of 11.104 and a range of 30 to 136. For the recognition score, the skewness, defined as a shape that indicates the distribution's deviation from symmetry (Cooper & Schindler, 2003), was 0.581, meaning the curve of the bell curve was upright and did not lean over (see Figure 3). The other description of shape, kurtosis, was high at 5.461. This indicated a peaked or leptokurtic distribution, meaning there were a few scores, known as outliers, that were so varied from the bulk of the scores there was a peak (Cooper & Schindler, 2003), in other words, the vast majority of the scores were located the middle of the distribution.

Initial Recognition Score

The corrective action for the result of high kurtosis was to filter the outliers from the respondent group. Outliers in this case were individuals who scores differed significantly from the scores of the other respondents (Gall, Borg, & Gall, 1996). Specifically, the range of the initial respondent recognition scores was 30 to 136. Five respondents were identified as

outliers. Because of their scores' impact on the overall recognition scores, they were filtered from the respondent pool in SPSS. Thus, the adjusted range of recognition scores became 47 to 94. The decision to not take into account the outliers was made after careful consideration

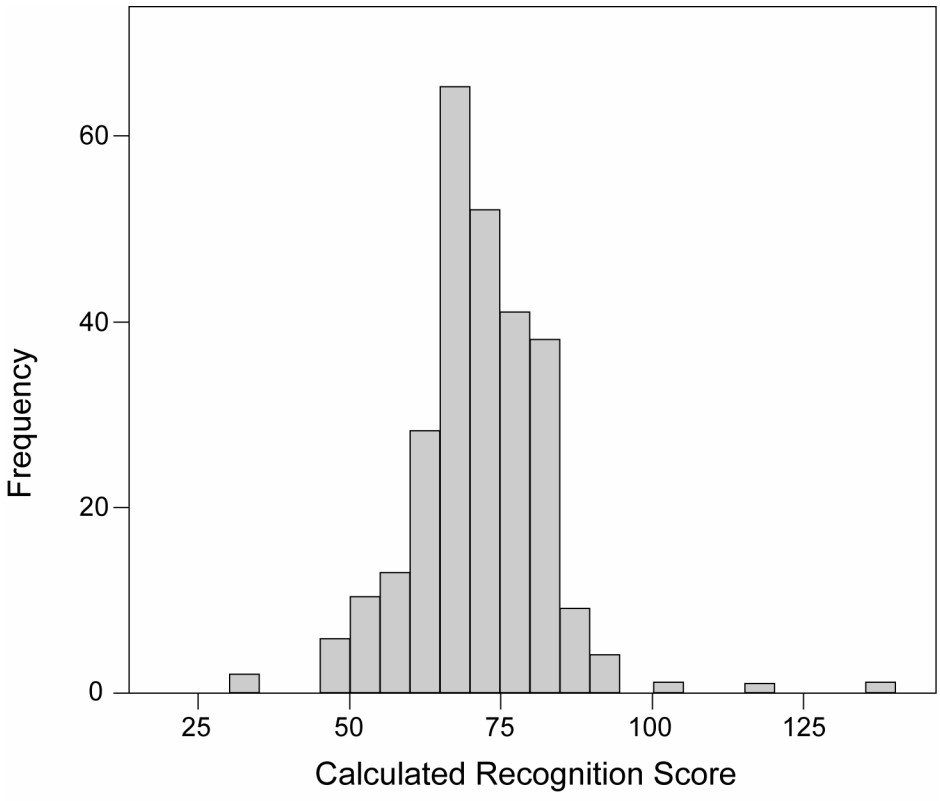

Figure 3. Initial recognition score. Mean = 71.17; *SD* = 11.104; *N* = 271.

of the effect of their influence and the effect of their removal. Figure 4 is a histogram of the recognition scores with the outliers removed.

Recognition Score With Outliers Filtered Out

After removing the outliers from consideration, the results for the remaining 266 respondents were a mean of 70.94 (previously a mean of 71.17), with a standard deviation of 9.296 (versus a standard deviation of 11.104 before) and a range of 47 to 94. The skewness was –0.231, meaning the frequent scores were "clustered at the higher end and the tail points towards the lower more negative scores" (Field, 2005, p. 9). The kurtosis, formerly 5.461,

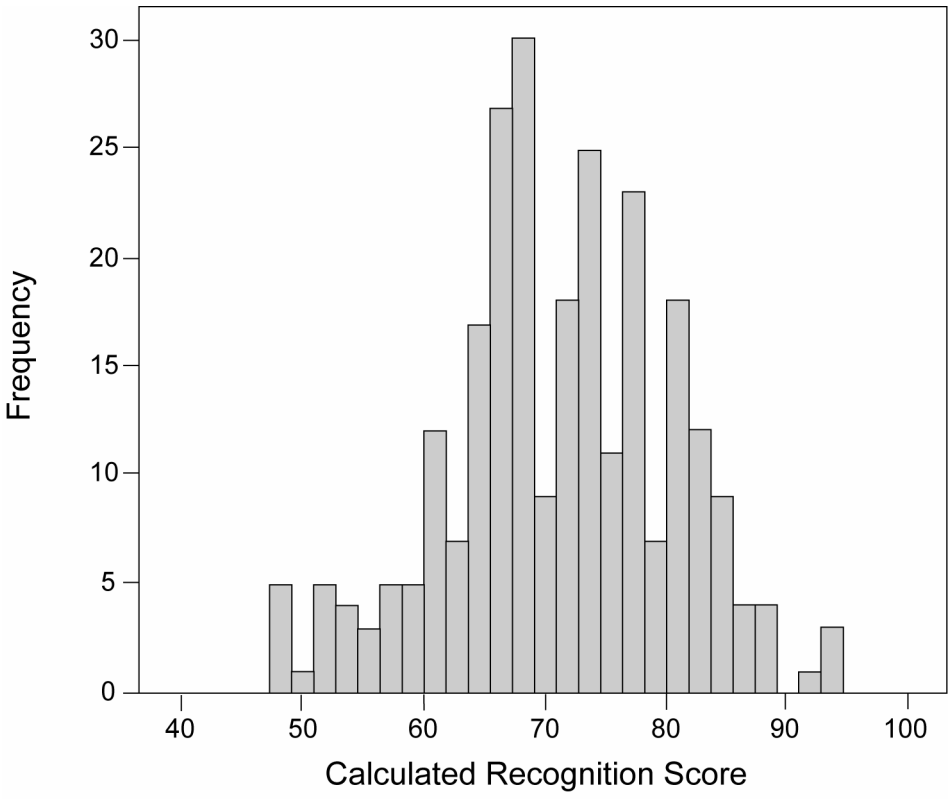

Figure 4. Recognition score with outliers filtered out. Mean = 71.03; *SD* = 9.195; *N* = 265.

equaled 0.012, which indicated the distribution was less peaked after filtering the outliers (see Figure 4).

Descriptive Analysis of Data

As described in Chapter 3, a stratified random sample was used to divide the participant pool into the control and intervention groups. Control group members made up 53% (141) of the study population, and intervention group members made up 47% (125) of

the study population (see Table 3). Responses were received from 110 male participants (41.4%) and 156 female participants (58.6%) (see Table 4).

Table 3
Respondents by Research Group ($N = 266$)

Research Group	*n*	%
Control group	141	53.0
Intervention group	125	47.0

Table 4
Respondents by Biological Sex ($N = 266$)

Biological Sex	*n*	%
Male	110	41.4
Female	156	58.6

The gender orientation was determined for each respondent by his or her answers to the second part of the survey, the BSRI. Based on the BSRI results, 27.4% of the participants scored as masculine, 30.5% as feminine, 19.5% as androgynous, and 22.6% of the respondents were classified as undifferentiated (see Table 5).

Table 5
Respondents by BSRI

BSRI Classification	*n*	%
Masculine	73	27.4
Feminine	81	30.5
Androgynous	52	19.5
Undifferentiated	60	22.6

The respondents' ages ranged from 22 to 78 years. Table 6 shows the distribution of ages. The greatest number of responses was received from respondents age 30 to 39 (25.2%), 40 to 49 (23.7%) and 50 to 59 (33.5%).

Table 6
Respondents by Age Group

Age Group (years)	*n*	%
20–29	18	6.8
30–39	67	25.2
40–49	63	23.7
50–59	89	33.5
>60	29	10.9

The education levels of the respondents ranged from high school to post master's degree work. The results indicated that the majority of respondents had a bachelor's degree or more (see Table 7).

Table 7
Respondents by Level of Education

Level of Education	*n*	%
High school	3	1.1
Some college	23	8.6
Bachelor's degree	100	37.6
Post bachelor's degree	23	8.6
Master's degree	66	24.8
Post master's degree	51	19.2

Each respondent selected from a pick list of professions on the survey. To determine recognition of communication effectiveness by type of profession (discussed later in this

chapter), the professions were grouped into four main types: (a) business, which represented accounting, finance, human resources, and information technology; (b) professional, which was made up of members of the engineering, legal, and medical professions; (c) education, which represented educators from prekindergarten through college; and (d) sales and other, which consisted of sales, nonprofit, civic, clergy, and the self-employed. The number of respondents from these four groups, as shown in Table 8, indicated a large number of respondents were in the education (36.8%) and business (27.1%) professional groups.

Table 8
Respondents by Professional Grouping

Professional Grouping	*n*	%
Business	72	27.1
Professional	27	10.2
Education	98	36.8
Sales and other	69	25.9

"Years in profession" was also provided by each respondent. This factor ranged from 1 to 60 years and was grouped into 10-year increments (Table 9). The results indicated most of the respondents were in their profession 10 years or less (33.5%), with the next highest group at 21 to 30 years (26.7%).

Table 9
Respondents by Years in Profession

Years in profession	*n*	%
<10	89	33.5
11–20	50	18.8
21–30	71	26.7
>30	56	21.1

Table 10 shows marital status of the participants. A large number of the respondents were married (63.2%). Just more than 22% had never been married, and 14.6% were no longer married. No longer married includes both widowed and divorced.

Table 10

Respondents by Marital Status

Marital Status	*n*	%
Married	168	63.2
Never been married	59	22.2
No longer married	39	14.6

Gender Orientation by Demographic Variables

Because one purpose of this study was to determine the impact of gender orientation on communication effectiveness, it was helpful to break out the gender orientation of the respondents by demographic variables. As indicated by the results presented in Table 11, most of the male respondents scored highest in the masculine gender orientation category of

BSRI gender orientation (43%). Most of the female respondents scored highest in the feminine category (43%). Five percent of the males crossed over into the feminine gender orientation. By contrast, 17% of the biologically female respondents crossed over to the masculine group. Exactly 20% of the male and female respondents were classified as androgynous. A higher-than-expected number of the male (10%) and female (12%) respondents were classified as undifferentiated.

Table 11
Gender Orientation by Biological Sex

Biological Sex	*n*	Masculine	Feminine	Androgynous	Undifferentiated
Male	110	47	13	22	28
Female	156	26	68	30	32

In Table 12, the greatest number of respondents in the masculine and feminine gender orientation categories was 50 to 59 years old. Likewise, most of the androgynous and undifferentiated respondents were 50 to 59 years old.

Table 12
Gender Orientation by Age Group

Age Group (years)	Masculine	Feminine	Androgynous	Undifferentiated
20–29	2	10	3	3
30–39	18	22	13	14
40–49	15	19	11	18
50–59	27	27	15	19
>60	11	3	10	6

The majority of the respondents classified within the feminine, androgynous, or undifferentiated gender orientation groups had a bachelor's or master's degree (Table 13). The majority of respondents classified as masculine had a bachelor's or post master's degree (Table 13).

Table 13
Gender Orientation by Level of Education

Level of Education	Masculine	Feminine	Androgynous	Undifferentiated
High school	0	1	2	0
Some college	7	7	7	2
Bachelor's degree	21	33	19	27
Post bachelor's degree	5	8	5	5
Master's degree	19	17	13	17
Post master's degree	21	15	6	9

A high number of the respondents classified in the masculine gender orientation were in the business professional group (Table 14). A high number of feminine respondents were in education. The highest frequency in the androgynous group was in the sales and other professions. A large number of the undifferentiated respondents fell into the business and education groups.

Table 14
Gender Orientation by Professional Group

Professional Group	Masculine	Feminine	Androgynous	Undifferentiated
Business	22	17	10	23
Professional	12	5	5	5
Education	18	39	18	23
Sales and other	21	20	19	9

The respondents' years in profession were cross-tabulated with the gender orientation categories. The results (Table 15) indicate that most of the masculine respondents were in their professions 21 to 30 years. A large number of respondents classified as feminine, androgynous, and undifferentiated were in their professions up to 10 years.

Table 15
Gender Orientation by Years in Profession

Years in Profession	Masculine	Feminine	Androgynous	Undifferentiated
1–10	21	32	16	20
11–20	19	25	8	14
21–30	23	14	15	17
>30	10	10	13	9

Table 16 presents the BSRI results by marital status. As indicated, the majority of participants in all gender categories were married.

Table 16
Gender Orientation by Marital Status

Marital Status	Masculine	Feminine	Androgynous	Undifferentiated
Married	50	52	32	34
No longer married	8	11	11	9
Never been married	15	18	9	17

Major Findings

The research questions and hypotheses are listed here with the corresponding statistical results. Discussions of these results are in Chapter 5.

Research Question 1: To what extent are gender-related communication differences due to biological sex differences related to communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements? H_o1: There is no statistically significant relationship between biological sex differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

To answer the first research question, a two-sample *t* test was used to compare the means of the male and female respondents. The *p* value, or probability, of the *t* test was used to determine whether the hypothesis could be rejected. The mean recognition score of the 110 male respondents was 70.21, and the mean recognition score of the 156 female respondents was 71.45 (Table 17). The two-tailed significance level of .285 is well above the .05 necessary to establish statistical significance (Gall, Borg, & Gall, 1996). The hypothesis could not be rejected. Although the female respondents scored higher on the recognition score than the male respondents, there is no statistically significant relationship between the recognition score and the biological sex of the respondents.

Table 17
Mean Recognition Score and Independent Samples Test of Male and Female Respondents

Sex Group	*n*	Mean	*SD*	*t*	*df*	Significance (2-tailed)
Male	110	70.21	9.267	–1.071	264.000	.285
Female	156	71.45	9.322	–1.072	235.505	.285

Research Question 2: To what extent are gender-related communication differences due to gender orientation related to communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements? H_o2: There is no statistically significant relationship between gender orientation differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

To answer the second research question, the recognition scores of the respondents were compared to their gender orientation classification as determined by the BSRI. The mean scores and standard deviations are listed in Table 18. The recognition score was highest in the undifferentiated group and lowest for the androgynous group. A one-way ANOVA indicated the significance at .213, meaning there was no significant difference in the recognition scores across the four gender orientations. The second hypothesis could not be rejected because there is no statistically significant relationship between the gender orientation and communication effectiveness as measured by a recognition score derived from participant responses.

Table 18
Mean Recognition Score by BSRI Gender Orientation

BSRI Gender Orientation	Mean	*n*	*SD*
Masculine	71.08	73	9.227
Feminine	71.20	81	9.259
Androgynous	68.60	52	9.492
Undifferentiated	72.43	60	9.103

Research Question 3: To what extent is awareness of gender-related communication barriers related to communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements? H_o3: There is no statistically significant relationship between awareness of gender-related communication barriers related to communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

To answer the third research question, a *t* test was performed on the mean recognition scores of the control group versus the intervention group. The control group of 141 respondents had a mean recognition score of 70.71, and the intervention group of 125 respondents had a similar mean recognition score of 71.19. Although the intervention group had a higher mean recognition score compared to the control group, the difference was not significant (Table 19).

Table 19
Mean Recognition Score and Independent Samples Test of Control and Intervention Groups

Research Group	*n*	Mean	*SD*	*t*	*df*	Significance (2-tailed)
Control	141	70.71	9.782	–.422	264.000	.673
Intervention	125	71.10	8.746	–.425	263.979	.671

Thus, the third hypothesis could not be rejected. There was not a statistically significant relationship between awareness of gender-related barriers and communication effectiveness communication effectiveness, as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Research Question 4: To what extent do certain participant demographics impact the relationships between gender-related communication differences due to biological sex differences and gender orientation, awareness of gender-related communication barriers, and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements? H_o4: Certain participant demographics do not have a statistically significant effect on the relationships between gender-related communication differences due to biological sex differences and gender orientation, awareness of gender-related communication barriers, and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

The mean recognition scores of the demographic data were compared for each variable. Regarding respondent age groups, a one-way ANOVA revealed that although the

recognition scores were close, the recognition score was highest among respondents in the greater than 60 age group and the lowest in the 20 to 29 age group (Table 20).

Table 20
Mean Recognition Score by Age Group

Age Group	*n*	Mean	*SD*
20–29	18	69.22	06.217
30–39	67	72.66	09.461
40–49	63	71.00	14.794
50–59	89	70.07	09.758
>60	29	73.63	11.389

The examination of the levels of education revealed respondents with post bachelor's degree education had a higher recognition score than the other respondents. The respondents with a high school level of education received the lowest recognition score (Table 21). The Pearson correlation of the recognition score and the levels of education was –.028, with a two-tailed significance of .651, meaning the recognition score of the respondents was not consistently positively correlated with the level of education.

Table 21
Mean Recognition Score by Level of Education

Level of Education	*n*	Mean	*SD*
High school	3	67.33	2.517
Some college	23	72.83	8.747
Bachelor's degree	100	70.22	10.001
Post bachelor's degree	23	74.13	7.677
Master's degree	66	71.56	8.986
Post master's degree	51	69.45	9.177

A comparison of the mean recognition scores of the professional groupings revealed that respondents in the business profession had a slightly higher recognition score at 71.96 than the sales and other grouping at 71.74 (Table 22). The lowest mean recognition score was the professional group, made up of engineering, legal, and medical professionals. An ANOVA determined the difference between all groups was not significant at .133, confirming the hypothesis.

Table 22
Mean Recognition Score by Professional Group

Professional Group	*n*	Mean	*SD*
Business	72	71.96	9.407
Professional	27	68.59	9.250
Education	98	70.27	9.586
Sales and other	69	71.74	8.716

The mean recognition scores for the years in profession groups were very close (Table 23), and no significant difference between the groups was found. The Pearson correlation of the recognition score and the years in profession was .372 with a two-tailed significance of .773.

Table 23
Recognition Score by Years in Profession

Years in Profession	*n*	Mean	*SD*
<10	89	71.29	8.595
11–20	50	70.96	10.097
21–30	71	70.11	9.551
>30	56	71.39	9.482

An analysis of the final demographic, marital status, indicated married respondents have a significantly higher mean recognition score at 72.14 than respondents who have never married (69.93) or who were no longer married (67.72; Table 24). There was a robustly significant difference between the three groups, p =.013 (Table 25).

Table 24
Recognition Score by Marital Status

Marital Status	*n*	Mean	*SD*
Married	168	72.14	9.416
No longer married	39	67.72	8.760
Never been married	59	69.63	8.735

Table 25
ANOVA of Marital Status

	Sum of Squares	*Df*	Mean Square	*F*	*p*
Between groups	749.648	2	374.824	4.451	.013
Within groups	22148.265	263	84.214		

Although there was a slight difference in the mean recognition scores of the married and never been married respondents that bordered on significant, the largest difference was between the married respondents and those no longer married. As indicated in Table 26, the *p* value was .007 when the mean recognition score of the married respondents was compared with the mean recognition score of the no longer married.

Table 26
Post Hoc Tests of Marital Status

Marital Status	Marital Status	Mean Difference	*SE*	*p*
Married	No longer married	4.425	1.631	.007
	Never been married	2.516	1.389	.071
No longer married	Married	–4.425	1.631	.007
	Never been married	–1.909	1.894	.314
Never been married	Married	–2.516	1.389	.071
	No longer married	1.909	1.894	.314

A Cohen's d for the effect size of the difference between the married and the never married rounded to 0.50, a healthy moderate effect size (Field, 2005). The significance size between the other groups was .29 for the married to no longer married group and .22 for the no longer married to never been married group.

A multiple regression of the dependent and independent variables was not warranted because only one independent variable, marital status, revealed a significant difference in the means of the recognition scores. None of the correlations was significant.

Chapter Summary

The analyses described the respondents by biological sex, gender orientation, and various demographic groupings. The analysis of gender orientation established the BSRI scores by demographic variables. The major findings indicated that through the use of *t* tests, ANOVAs, and correlations, Hypotheses 1, 2, and 3 could not be rejected. The fourth hypothesis was partially rejected because respondents who were married had a statistically significant higher recognition score of communication barriers than the respondents who were never married or no longer married. However, the ages, levels of education, professional groups, and years in profession did not have a statistically significant effect on the recognition of gender-related communication effectiveness as derived by participant responses to gender-related communication statements. Implications of the major findings will be discussed in Chapter 5.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of the study was to examine the role of gender-related communication differences and awareness of gender-related communication barriers in communication effectiveness. A mixture of paired-samples *t* tests and ANOVAs was used to determine whether statistically significant differences existed between the means of the respondents' recognition scores and the independent variables of biological sex, gender orientation, and other demographic variables. Statistically significant differences were not predicted to exist. The statistical results of the study are presented in Chapter 4. The research sample demographics of biological sex, gender orientation, control and intervention groups, and other demographic variables are discussed in this chapter. The implications of the research findings are presented, as well as the conclusions and recommendations for the current and future studies.

Research Sample Demographics

Biological Sex

An examination of the response rate by biological sex revealed a greater number of responses were received from the female (n = 156) respondents at 58.6% compared with the male (n = 110) respondents at 41.4%. Green (1996) found in a summary of sociodemographic factors on mail survey responses that women are more likely to respond to

mail surveys than men. The higher response rate of female respondents was also a reflection of the larger number of women (n = 375) compared with men (n = 267) in the potential participant pool. Two effects of the higher number of female respondents were a high frequency of respondents with a feminine orientation (n = 81) as classified by the BSRI and a greater number of female respondents in the education profession (female = 73, male = 25). The high number of responses from female participants influenced the results of the study.

Gender Orientation

An analysis of the respondents' gender orientation as determined by their responses to the BSRI revealed that a high number of the respondents fell into the feminine group (n = 81) for 30.5%, as discussed earlier. The remainder of the respondents were masculine (n = 73) at 27.5%, androgynous (n = 52) at 19.5%, and undifferentiated (n = 60) at 22.6%. These findings varied from Bem's (1978) original BSRI results of feminine (25.5%), masculine (27.20%), androgynous (24.90%), and undifferentiated (22.4%) as depicted in Table 27.

Table 27
Percentage of Respondents' BSRI in Current Study Versus Bem's Original Research

BRSI Category	Current Study	Bem's Original Research
Masculine	27.5%	27.2%
Feminine	30.5%	25.5%
Androgynous	19.5%	24.9%
Undifferentiated	22.6%	22.4%

The difference indicated the current study's participants were more feminine-oriented and less androgynous-oriented than the original BSRI participants' orientations, with the masculine and undifferentiated percentages almost the same in both studies. This could be another effect of a higher percentage of female respondents.

Control and Intervention Groups and Other Demographic Variables

Responses from the control group (n = 141) were greater (at 53%) than the intervention group (*n* = 125, 47%). The greatest number of respondents were in the 50 to 59 years old age group (*n* = 89, 33.5%) with at least a bachelor's degree (*n* = 100, 37.6%). Green (1996) reported respondents with higher education levels have a high response rate. A large number of respondents fell into the education profession (*n* = 98, 36.8%). These high numbers affected the study because most respondents were mostly female, older, and in an education profession, which is a traditionally female field. Most respondents were in their professions 10 years or less (*n* = 89, 33.5%). The majority of the participants were married (*n* = 168, 63.2%). The effect of these response rates on the research results are examined further in the discussion of the individual hypotheses.

Discussion and Implications of the Study Research Findings

Hypothesis 1

H_o1: There is no statistically significant relationship between biological sex differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Results of this study indicated the hypothesis could not be rejected. Green (1996) reported that a response rate "is the key index of how confident we can be of our results, or conversely, of how much bias we think may exist in our data" (p. 172). The fact that the number of female respondents in this study exceeded the number of male respondents affected the outcome of the study. As discussed in the literature review, feminine-oriented communicators are more apt to recognize effective communication because of their superb abilities in listening (Phillips, Lowe, Lurito, Dzemidzic, & Matthews, 2001) and reading subtle communication cues (Fisher, 1999; Wood, 2003). It is possible that the higher number of female respondents created a bias in the results, meaning a higher mean recognition score for the female respondents compared with the male respondents.

However, the difference between the recognition scores of the biologically male and biologically female respondents was not statistically significant. Possible causes of the similar mean recognition score of the male respondents compared with the female respondents included the occurrence that the male respondents in the study tended to be older. As shown in Table 20 in Chapter 4, the older respondents had a high recognition score. Fifty-one percent of the entire male population was 50 years of age and older.

An additional cause for the similar mean recognition scores between the male and female respondents was that the communication statements used to measure the recognition of effective communication may have been too apparent. As Kim and Aune (1997) found, the image men and women have of themselves affected the choices they made in their own communication as well as that in others. In this age of political correctness, the respondents, both male and female, may have chosen the more obvious and socially acceptable answers.

An analysis of the sentences chosen by the respondents as the highest-ranking sentences of effective communication behavior may lead to some insight into their impressions of the communication sentences used in the survey.

The two sentences that received the highest scores for effective masculine-oriented communication were both examples of the male trait of linear thinking (Fisher, 1999; Wood & Dindia, 1998). Specifically, the sentences were as follows: "There are three steps in the process," and "I want to know how to get from Point A to Point B." The percentage of male respondents who regarded these two statements as effective or highly effective was 74% and 67%, respectively. Comparatively, the percentage of female respondents who regarded these two statements as effective or highly effective was 79% and 67%, respectively. The male and female scores for these sentences were almost equal, which could reinforce the gender similarities hypothesis offered by Hyde (2005) who found no inherent difference in communication in men and women.

The feminine traits of taking turns in conversation (Gentile, 1998) and inclusiveness (Wood & Karten, 1986) were found in the sentences with the highest scores for typically feminine-oriented communication statements. The top two sentences were "Please tell me more about that; I'm listening" and "Our individual strengths really complement each other to make for a great team." The percentage of male respondents who regarded these two statements as effective or highly effective was 87% and 84%, respectively. The percentage of female respondents who regarded these two statements as effective or highly effective was 87% and 89% respectively. Again, the male and female scores for these sentences were

similar which could reinforce Fisher's (1999) findings that male communicators now incorporate traditionally feminine traits into their own communication patterns.

The lowest ranking examples of typically masculine-oriented communication sentences were examples of gendered language (Dobris, 1989) and individualistic behavior (Gentile, 1998). Specifically, the sentences were "The new gal does not run things the normal way," and "Thanks to me, sales were much higher than projected for this quarter." The percentage of male respondents who regarded these two statements as ineffective or highly ineffective was 74% and 67%, respectively, which was very close to the female respondents' percentages of 79% and 67% on the same two sentences—an indication that both men and women recognized the communication barriers in these sentences.

The lowest ranking examples of typically feminine-oriented communication were examples of nongendered language and taking turns in conversation. The top two ineffective feminine-oriented sentences were as follows: "We'll find out which staff person can go on this business trip," and "Let's go around the table and hear from everyone." The percentages of male respondents who ranked these sentences as ineffective or highly ineffective were 87% and 84%, respectively, whereas the female respondents' percentages were 87% and 89%, respectively. Again, the male and female respondents' scores were close.

On the first hypothesis, the recognition score difference between the biologically male and biologically female respondents was very small. It was difficult to determine with absolute certainty why the biological sex differences of this particular population resulted in such a small variance in the recognition of communication effectiveness. This finding possibly reinforced the gender similarities theory offered by Hyde (2005) or supported the

research of Fisher (1999) who found that men and women can exhibit traits that cross over traditional lines. Biological influences, such as hormonal changes or cognitive differences (Halpern, 2000), could explain the similar mean recognition scores given the prevalence of older respondents.

The small variance in mean recognition scores could also indicate the fear of stereotype threat, which Steele and Aronson (1995) defined as a tendency to avoid confirming a negative stereotype about male or female characteristics. The respondents could have rated as effective the sentences they felt were safe. Frantz (2007) reported "teasing out direct evidence of purely social or biological causes of sex differences is a daunting task given the complexity of our society and the difficulty of definitively inferring any cause for observable phenomena" (p. 29). Although the female respondents had a slightly higher mean recognition score of 71.45 compared with the male respondents' mean recognition score of 70.21, the difference was not statistically significant, and, therefore, the hypothesis could not be rejected.

Hypothesis 2

H_o2: There is no statistically significant relationship between gender orientation differences and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Regarding the second hypothesis, the data analysis revealed that this hypothesis could not be rejected, because a statistically significant relationship between gender orientation and communication effectiveness could not be determined. One possible explanation for this result was that there were a greater number of highly sex-typed respondents versus

androgynous respondents in this study than in Bem's (1978) original research. Specifically, 43% of the biologically male respondents fell into the masculine gender orientation group, and 43% of the biologically female respondents fell into the feminine gender orientation group. Of these two groups, the mean recognition scores were 70.06 and 70.93, respectively. Comparatively, 20% of the biologically male and 20% of the biologically female respondents fell into the androgynous BSRI category. Their recognition scores were 67.18 for the male androgynous respondents and 69.63 for the female androgynous respondents. The importance of this finding was that the higher percentage of highly sex-typed respondents affected the mean recognition scores. The scores were impacted by the gender-polarized points of view. If the population had a greater number of androgynous respondents, meaning those that scored high on both the masculine orientation and the feminine orientation, a statistically significant difference in the mean recognition scores might have been found.

In Bem's (1978) original BSRI research, the percentage of biologically male respondents who scored as masculine was 42% compared with the 43% in the current study, whereas the number of biologically female respondents in the original BSRI research who scored as feminine was 39.4% compared with the 43% in the current study. The current research population had a greater percentage of highly sex-typed female respondents. Comparatively, the original BSRI research had 19.5% of the male respondents and 30.3% of the female respondents who scored as androgynous, compared with the 20% for each biological sex in the current study. In the original research, Bem had a greater number of females who scored as androgynous.

Through the BSRI, the gender orientation of respondents was determined by their self-description of 60 adjectives. The choices made by the respondents suggested how they sorted information about themselves into gender-related dimensions (Bem, 1993). Table 28 presents the top five masculine adjectives with the number of respondents who scored themselves as usually or almost always true of the specific term by BSRI gender orientation.

Table 28
Top Five BSRI Masculine-Oriented Adjectives by Gender Orientation

Masculine Adjective	Rank	Masculine	Feminine	Androgynous	Undifferentiated
Self-sufficient	1	62	57	48	34
Independent	2	65	48	49	32
Self-reliant	3	63	46	44	35
Defends own beliefs	4	56	52	43	22
Has leadership abilities	5	61	37	49	20

The high number of masculine-oriented persons in the top five masculine adjectives compared with the number of biologically male and female respondents who fell into the masculine orientation on these words as presented in Table 29 indicated a much larger number of biologically male respondents fell into the masculine orientation for the top five adjectives.

Table 29
Top Five BSRI Masculine-Oriented Adjectives by Biological Sex

Masculine Orientation by Masculine Adjective	Male	Female	Total
Self-sufficient	36	26	62
Independent	40	25	65
Self-reliant	38	25	63
Defends own beliefs	33	23	56
Has leadership abilities	39	22	61

Table 30 presents the top five feminine adjectives on the BSRI with the number of respondents who scored themselves as usually or almost always true of the specific term by BSRI gender orientation. The high number of feminine-oriented respondents who scored high on these adjectives stood out from the respondents who fell into the other gender orientation groups.

Table 30
Top Five BSRI Feminine-Oriented Adjectives by Gender Orientation

Feminine Adjective	Rank	Masculine	Feminine	Androgynous	Undifferentiated
Loyal	1	62	73	52	47
Loves children	2	47	71	45	32
Cheerful	3	39	69	41	27
Sensitive to others' needs	4	31	65	58	18
Compassionate	5	29	69	46	27

The high number of feminine-oriented persons in the top five feminine adjectives compared with the number of biologically male and female respondents who fell into the feminine orientation on these words as presented in Table 31 again indicated a much larger

number of biologically female respondents who fell into the feminine orientation for the top five adjectives.

Table 31
Top Five BSRI Feminine-Oriented Adjectives by Biological Sex

Feminine Orientation by Feminine Adjective	Male	Female	Total
Loyal	12	61	73
Loves children	12	59	71
Cheerful	11	58	69
Sensitive to others' needs	8	57	65
Compassionate	9	60	69

A comparison of the male and female respondents who fell into the highly sex-typed gender orientation categories demonstrated the strong effect of the highly sex-typed respondents on the mean recognition scores. Bem (1993) reported that people continue to define themselves and others by gender-polarized behavior unless they have the ability to break free. It is probable that the respondents in this study have not deviated from their self-fulfilled gender stereotypes.

Another explanation of the lack of statistically significant difference in gender orientation and recognition scores was the high number of older respondents who were in accord with highly sex-typed gender orientation traits. The highest frequency of masculine-oriented and feminine-oriented respondents was in the 50 to 59 years old age group. The highest frequency of androgynous and undifferentiated respondents was in the 30 to 39, 40 to 49, and some in the 50 to 59 years old age groups. Therefore, the respondents whose gender-orientation was highly sex-typed fell into the 50 to 59 years old group. The effect of the older

respondents skewed the results toward highly sex-typed responses and away from androgynous responses.

The difference in the mean recognition scores of the four categories of gender orientation as determined by the respondents' choices in the BSRI was not statistically significant. Therefore, the second hypothesis could not be rejected.

Hypothesis 3

H_o3: There is no statistically significant relationship between awareness of gender-related communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

To assess the effect of the intervention material on the individual recognition scores, a *t* test for independent samples was performed at the 5% significance level. Responses in the intervention group did not significantly differ from the responses in the control group. Although there was a small difference in the recognition scores of the two groups, it was not statistically significant. These results contradicted the assertion made by Hand and Slocum (1972) that the training on gender-related behavior would affect the responses of the treatment group compared with the control group.

A possible explanation for the lack of statistical significance in the recognition scores was that the communication statements in the survey used to operationalize the dependent measure of recognition of communication effectiveness were too obvious to the participants. If the communication statements were too obvious, the intervention material had little effect on the recognition scores of the intervention group compared with the control group. Although Hersey et al. (2001) found a treatment could create a change in attitude, the control

group successfully chose the more effective communication sentences without receiving the intervention material. The top two examples of male and female communication sentences chosen by the control group and intervention group as effective or highly effective are listed in Table 32.

Table 32
Top Effective Sentences Chosen by Control and Intervention Groups

Group	Rank	Gender (Behavior)	Sentence
Control	1	Masculine (linear)	There are three steps in the process.
Control	2	Masculine (linear)	I want to know how to get from Point A to Point B.
Intervention	1	Masculine (linear)	There are three steps in the process.
Intervention	2	Masculine (linear)	I want to know how to get from Point A to Point B.
Control	1	Feminine (taking turns)	Please tell me more about that; I'm listening
Control	2	Feminine (inclusive)	Our individual strengths really complement each other to make for a great team.
Intervention	1	Feminine (inclusive)	The sales team deserves a pat on the back for this quarter's higher-than-projected sales.
Intervention	2	Feminine (inclusive)	The business development group is supportive and works well together.

The fact that the control group and intervention group members selected the exact two sentences as the top two masculine-oriented effective communication sentences was an indication that the intervention material may not have had an effect on the respondents.

For the feminine-oriented sentences, the members of the two groups chose completely different sentences. It is possible the masculine sentences were more easily identified by the group members, whereas the choices for the feminine-oriented sentences were influenced more by the intervention material. Table 33 presents the top ineffective sentences chosen by the control and intervention group members.

Table 33
Top Ineffective Sentences Chosen by Control and Intervention Groups

Group	Rank	Gender (Behavior)	Sentence
Control	1	Masculine (gendered)	The new gal does not run things the normal way.
Control	2	Masculine (individualistic)	Thanks to me, sales were much higher than projected for this quarter.
Intervention	1	Masculine (gendered)	The new gal does not run things the normal way.
Intervention	2	Masculine (gendered)	I think the new blonde lady engineer is going to work out really well.
Control	1	Feminine (nongendered)	We'll find out which staff person can go on this business trip.
Control	2	Feminine (inclusive)	Let's go around the table and hear from everyone.
Intervention	1	Feminine (inclusive)	Let's go around the table and hear from everyone
Intervention	2	Feminine (inclusive)	We'll find out which staff person can go on this business trip.

The members of the control group and the intervention group both chose the same top-rated masculine-oriented communication statement that demonstrated ineffective behavior. Their second choices were different. For the sentences demonstrating ineffective feminine-oriented communication behavior, the two groups chose the same two sentences, although the ranking was slightly different. Because there was not a statistically significant difference in the mean recognition scores of the control group and the intervention group, this hypothesis could not be rejected. In this particular study, awareness of communication barriers did not have an effect on the respondents' recognition of communication effectiveness, probably because of the obvious nature of the communication sentences and the lack of effect of the treatment material on the intervention group.

Hypothesis 4

H_o4: Certain participant demographics do not have a statistically significant impact on the relationships between gender-related communication differences due to biological sex

differences and gender orientation, awareness of gender-related communication barriers, and communication effectiveness as measured by a recognition score derived from participant responses to a series of gender-related communication statements.

Survey participants were asked to provide certain demographic information. The following is a discussion of the statistical results (as presented in Chapter 4) of the mean recognition scores by demographic variable. The first demographic variable to be collected was the age of the respondents. A higher percentage of respondents were found to be in the 50 to 59 years old age group (33.5%) compared with the 20 to 29 years age group (6.8%), 30 to 39 years age group (25.2%), 40 to 49 years age group (23.7%), and the 60s and older age group (10.9%). In addition, the respondents who fell into the 50 to 59 years age group were highly sex typed in their gender orientation, meaning that the majority of male respondents fell into the masculine orientation gender category and the majority of female respondents fell into the feminine orientation gender classification. The mean recognition score of the 50 to 59 years age group was 70.07, toward the lower end of the recognition score scale. This finding confirmed the standpoint theory (Pilcher, 1998) described in Chapter 2, which suggested that older respondents could have a lower recognition score than the younger respondents. The fact that younger people were reared and educated in a culture that emphasized equality compared with the older respondents affected their recognition of communication effectiveness. The combination of older, highly sex-typed respondents affected the mean recognition scores; specifically, the combination created a lack of statistical difference. It is probable that greater diversity in age and gender orientation would have provided different research findings.

Level of education was the second demographic variable collected from the respondents. An analysis of the mean recognition scores of the various levels of education indicated that the respondents with the lowest level of education, specifically a high school degree, had the lowest mean recognition score of communication effectiveness. Respondents with a post bachelor's degree had the highest mean recognition score of communication effectiveness. An examination of the respondents' biological sex distribution by levels of education (as seen in Table 34) revealed that the majority of participants with a post bachelor's degree and above levels of education were the female respondents. As Cooper and Schindler (2003) reported, although statistical significance may not exist, the cross-tabulation of variables "can provide insight into important data patterns" (p. 225). The occurrence of higher levels of education in this sample corresponded to reports of a greater pursuance of higher education by women compared with men (Freeman, 2004). An extrapolation of this trend suggested the influence of highly educated women could affect the accepted communication behavior in society and in organizations.

Table 34
Level of Education by Biological Sex

Level of Education	Male	Female
High school	3	0
Some college	11	12
Bachelor's degree	37	63
Post bachelor's degree	9	14
Master's degree	28	38
Post master's degree	22	29

Although the differences in levels of education of the respondents were influential on the mean recognition scores, there was no statistically significant difference in the mean recognition scores of the levels of education in the respondents. Therefore, this particular part of Hypothesis 4 could not be rejected.

Regarding the profession of the respondents, which was the third demographic variable collected, there was no statistically significant difference in the mean recognition scores of the respondents. The mean recognition scores of the professional groups of business and sales and other were the highest at 71.96 and 71.74, respectively, compared with the mean recognition scores of the professional (68.59) and education (70.27) groups.

Members of the sales and other professional group were made up of respondents who chose sales, nonprofit, civic, clergy, and self-employed from the pick list of professions in the survey. Miles, Arnold, and Nash (1990, p. 24) found

> Personal selling is not static but it is a dynamic, interactive process. Successful personal selling requires that the selling center possess the ability to "flex" or adapt his or her communication style to the situation and the requirements of the buying center.

This requirement for flexibility in communication could explain the high recognition score of the sales and other group. Another interesting element of the sales and other group was that this professional group had the highest frequency of androgynous respondents. As Bem (1993) concluded, people who had an androgynous gender orientation had greater freedom in self-expression and in dynamic situations compared with highly sex-typed people who embraced self-fulfilling gender stereotypes. The findings in the current study suggest that people in the sales profession benefit from a higher recognition of communication

effectiveness. In addition, these findings could influence organizational training material for the sales industry.

An analysis of the most effective communication sentences chosen by the different professional groups indicated the differences in communication style. See Table 35 for the most effective and most ineffective sentences by group.

An examination of the top-ranked effective and ineffective communication sentences revealed similar tendencies for the business, professional, and education groups. The sales and other professional group tended to choose different sentences. All four groups chose a sentence that demonstrated linear thinking as the top-ranked masculine communication sentence. All four groups chose feminine-oriented sentences that emphasized taking turns and inclusiveness in conversation as highly effective. The groups equally agreed on gendered and individualistic sentences as examples of highly ineffective masculine communication sentences. It was interesting to note the sales and other professional group chose a sentence that emphasized team work as highly effective and one that pointed to individualistic behavior in sales as ineffective behavior in communication. Although the examination of the individual choices made by the professional groups indicated some differences, the mean recognition scores were not statistically significant. Thus, this portion of the hypothesis could not be rejected.

Table 35
Most Effective and Ineffective Communication Sentences by Professional Group

Group	Type	Behavior	Sentence
Business	Effective	Masculine	There are three steps in the process.
Business	Effective	Feminine	Please tell me more about that; I'm listening.
Professional	Effective	Masculine	There are three steps in the process.
Professional	Effective	Feminine	Please tell me more about that; I'm listening.
Education	Effective	Masculine	There are three steps in the process.
Education	Effective	Feminine	Our individual strengths really complement each other to make for a great team.
Sales and Other	Effective	Masculine	There are three steps in the process.
Sales and Other	Effective	Feminine	The business development group is supportive and works well together.
Business	Ineffective	Masculine	The new gal does not run things the normal way.
Business	Ineffective	Feminine	Let's go around the table and hear from everyone.
Professional	Ineffective	Masculine	I think the new blonde lady engineer is going to work out well.
Professional	Ineffective	Feminine	Let's go around the table and hear from everyone.
Education	Ineffective	Masculine	Thanks to me, sales were much higher than projected for the quarter.
Education	Ineffective	Feminine	Let's go around the table and hear from everyone.
Sales and Other	Ineffective	Masculine	Thanks to me, sales were much higher than projected for the quarter.
Sales and Other	Ineffective	Feminine	We'll find out which staff person can go on this business trip.

The next demographic variable explored was years in profession. Most respondents (33.5%) were in their professions less than 10 years. The mean recognition scores for groupings of years were very close, and a statistical analysis revealed no significant difference. This particular part of the hypothesis could not be rejected.

The final demographic variable explored was marital status. Marital status was the only demographic variable to demonstrate a statistically significant difference in the mean recognition score of the three groups. The mean recognition score of the respondents who were married was 72.14, compared with those who have never been married at 69.63 and

who were no longer married at 67.72. Although the difference in the mean recognition scores between the married and never been married respondents bordered on significant, the greatest amount of difference was between those respondents who were married and those who were no longer married (p = .013). Even though these results were statistically significant, perhaps they would not be surprising to the respondents who are married, because communication may be viewed as an essential element of a successful marriage. Table 36 displays the top effective and ineffective masculine and feminine communication sentences chosen by the respondents in the different marital status groups.

Table 36
Most Effective and Ineffective Communication Sentences by Marital Status

Group	Type	Behavior	Sentence
Married	Effective	Masculine	There are three steps in the process.
Married	Effective	Feminine	The sales team deserves a pat on the back for this quarter's higher-than-projected sales.
Never been married	Effective	Masculine	There are three steps in the process.
Never been married	Effective	Feminine	Our individual strengths really complement each other to make for a great team.
No longer married	Effective	Masculine	There are three steps in the process.
No longer married	Effective	Feminine	What are some different ways of accomplishing this goal?
Married	Ineffective	Masculine	The new gal does not run things the normal way.
Married	Ineffective	Feminine	We'll find out which staff person can go on this business trip.
Never been married	Ineffective	Masculine	I think the new blonde lady engineer is going to work out really well.
Never been married	Ineffective	Feminine	Let's go around the table and hear from everyone.
No longer married	Ineffective	Masculine	I think the new blonde lady engineer is going to work out well.
No longer married	Ineffective	Feminine	Let's go around the table and hear from everyone.

It was remarkable to note the respondents who were married chose linear yet inclusive and supporting statements as effective, specifically, "The sales team deserves a pat

on the back for this quarter's higher-than-projected sales." Those who had never been married also chose a linear statement as the most effective, yet their top feminine-oriented communication statement demonstrated web-thinking, a behavior that brings in more details (Fisher, 1999). Specifically, their top sentence was "Our individual strengths really complement each other to make for a great team." The no-longer-married group selected exactly the same linear statement as the first two groups, "There are three steps in the process." Yet for their most effective feminine-oriented statement, they chose "What are some different ways of accomplishing this goal?" This last statement is also an example of web-thinking or the tendency to bring in more data for consideration. These polar opposite choices for the never been married and no longer married compared with the married respondents suggested an indication for a desire for improvement in communication effectiveness. More research is needed to further dissect the implications of marital status and the perception of communication effectiveness. The important finding was that this particular portion of the fourth hypothesis was rejected, meaning there was a statistically significant difference in the mean recognition scores of the different marital status groups.

Conclusions

This study was conducted to determine the effect of biological sex on the recognition of communication effectiveness. As discussed in the literature review in Chapter 2, documented evidence (Fisher, 1999; Wood, 2003) exists that distinguishes between the male and female thought processes and communication strategies. Biological forces related to chromosomes, hormonal influences, and brain size and activity affect how people listen and

communicate (Halpern, 2000; Phillips et al., 2001; Wood, 2003). Although the statistical results in this study indicated there was no effect of biological sex on the recognition of communication effectiveness, it was likely that biological sex influences affected the survey results. It was probable these natural biological tendencies were suppressed by the survey respondents who chose to answer in a benign, socially acceptable manner. It was possible the participants did not respond to the communication statements with complete candor because of a phenomenon known as "stereotype threat" (Steele & Aronson, 1995). This threat occurs when there is a risk of confirming a negative stereotype about a group characteristic. This threat may have influenced the male respondents to represent views they judged were "safe" and for the female respondents to make choices that were contrary to their true opinions. As Eagley (1995) reported, people learn rules about expected gender behavior as children. It is probable that the participant responses' were predicated by their prior social conditioning.

Another purpose of this study was to determine the effect of gender orientation on the recognition of communication effectiveness. The respondents in this study exhibited a higher feminine orientation and less androgynous orientation than the original Bem (1978) BSRI research. These results were puzzling because Bem's (1978, 1993) research intimated that men and women would exhibit more androgynous behavior over time. Yet this study—conducted almost 30 years after Bem's original research—provided evidence that the female respondents were more closely aligned to the feminine gender orientation and less in sync with the androgynous gender orientation. These findings support the standpoint theory reported by Wood (2003), which suggested that gender views are determined by one's standpoint in time and society. Specifically, the standpoint of the older, female respondents

had an effect on the results. It is possible that this same study conducted on a different population would reveal different results.

The final purpose of this study was to determine whether awareness of certain gender-related communication behaviors would affect the recognition of communication effectiveness. Although the intervention material did not have a significant effect on the mean recognition score of the intervention group compared with the control group, it is probable there was an effect. Smith (1998) found that awareness of gender issues presented in organizational training can affect the communicator's response to the situation when presented with a similar issue in the future. As Gentile (1998) noted it is through confrontation and interaction of differences that people recognize their own limitations. It is likely that additional organizational training in gender-related communication barriers could improve individual communication effectiveness.

The only demographic variable that exhibited a statistically significant difference in the mean recognition score was the marital status of the respondents. Married respondents had a significantly higher mean recognition score versus those that had never married or were no longer married. This finding suggested that married people have a greater awareness of communication effectiveness.

An examination of biological sex, gender orientation, and awareness of gender-related communication barriers provided evidence that the standard of effective communication has evolved from a male standard to one that demonstrates balance between male and female communication traits. This change can be linked to higher education in women (Fisher, 1999; Helgesen, 1990), greater involvement of women in the decision-

making roles in society (Fisher, 1999; Wood, 2003), and an influx of diverse managers in organizations (Gentile, 1998). An implication of this study is that the synergy created by the differences and similarities in men and women can be captured by recognizing the effect of diversity on communication behavior. The conclusion is that each communicator should evaluate his or her own traits and determine those that lead to communication success and those that do not. In addition, communicators should evaluate those with whom they communicate and try to reach a middle ground wherein effective communication can be reached.

If the recognition of communication effectiveness of this particular population were to be generalized to the entire population, the suggestion would be that acceptance of highly sex-typed feminine communication behavior has increased while acceptance of traditional masculine communication traits has remained the same. This advancement of effective communication behavior has created an environment in which a successful communicator will select communication behavior by pulling from both sets of gender-related traits to excel in a variety of dynamic contexts.

Recommendations

On the basis of the descriptive results of the data and the analysis of the mean recognition scores and BSRI results, the following recommendations for the current study, as well as future studies, are presented:

1. The lack of statistical significance in the difference of the male and female respondents' mean recognition scores formed the basis for the first recommendation, which was that the gender-related communication statements

used to measure communication effectiveness should be less obvious. Documented evidence indicated that biological males and females differ in their thought processes and communication behavior due to biological influences (Fisher, 1999; Halpern, 2000; Wood, 2003). Because the differences in the mean recognition scores were so small, the suggestion was that the effective and ineffective sentences were too easy to discern. Perhaps dialogue sentences could be taken from real conversations in a personal or organizational context and used as the gender-related communication statements. There also was a need for more rigorous testing of the content validity and psychometric construction of the gender-related communication sentences.

2. The lack of statistical significance in the difference of the mean recognition scores of the gender orientation categories suggested the respondents were not frank in their ratings of effectiveness and self-description of gender-related traits. Perhaps more encouragement from the researcher to answer in an honest manner and more emphasis on the anonymous nature of the survey would provide more candid responses. The close results also provided evidence that the development of organizational training material needs to address the importance of honesty in a self-analysis of communication or gender traits.

3. The higher number of female respondents, older participants, and highly educated members of the survey pool affected the results of the study. It suggested that a more diverse group participate in a replication of the study, especially with regard to age, occupation, and level of education. An equal distribution of male and female respondents could provide greater variance in the gender-orientation classifications. Future studies could also include other demographic variables, such as ethnicity.

4. Although the results of this study were indicative of a change in the standard of effective communication, the definition of "effective" will continue to evolve as society and organizations change. Frequent measurements of a population could help develop explanations of the changes and even help to predict the future standard of effective communication.

5. Development of organizational training in communication should include a close examination of gender-related communication behavior. Specifically, training could present the barriers caused by biological influences and gender orientation differences and offer solutions for removing the barriers. A pre and post-test study could measure the effect of this emphasis in training content.

6. Future studies could examine the communication effectiveness of different types of organizational communication, such as annual reports, corporate documents, media releases, and internal communications, such as email. Corporate culture is

often demonstrated in formal and informal written communication attempts. A future study could establish the communication health of the entity.

7. A final recommendation is for a study that would observe and measure the influence of modeling effective communication behavior on a classroom or organization.

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APPENDIX A: EXAMPLES OF GENDERED AND NONGENDERERD LANGUAGE

Gendered Language	Nongendered Language
The client is usually the best judge of his counseling.	The best judge of the value of counseling is usually the client.
Much has been written about the effect that a child's positioning among his siblings has on his intellectual development.	Much has been written about the relationship between sibling positions and intellectual development in children.
We need to man the project.	We need to staff the project.
The girls in the office greeted the clients.	The office assistants greeted the clients.
Research scientists often neglect their wives and children.	Research scientists often neglect their families.
The men sit to the right and girls to the left.	Men sit to the right and women to the left.

Note. Reprinted from "Guidelines for Nonsexist Language in APA Journals," by APA Publication Manual Task Force, 1978, *Personnel and Guidance Journal, 56*, 374–377.

APPENDIX B: PILOT STUDY EVALUATION

1. What did you think was the purpose of the survey?

   _____
   _____

2. If you received the educational material entitled "Effective Communication," what did you think of the one-page information on effective communication?

   _____
   _____

3. What do you think about the length of the survey?

   _____
   _____

4. What do you think of the format? Was it easy to read and easy to interpret?

   _____
   _____

5. Do you have any suggestions for improvements on the survey?

   _____
   _____
   _____

6. If you received this survey in the mail from an organization to which you belong, would you fill it out and return it?

   _____
   _____
   _____

7. Do you have any additional comments?

   _____
   _____
   _____
   _____

APPENDIX C: LETTER TO PARTICIPANTS

The following is an example of the introductory letter that was sent to the participants in the research project.

Jenny Schneider
xxxxxxxxxxxxxxxx
xxxxxxxxxxx, XX xxxxx

November 27, 2006

Dear xxxxxxxxx::

I am a doctoral student at Capella University. My dissertation topic concerns possible barriers in interpersonal and organizational communication. I contacted xxxxxxxxxxx of xxxxxxxxxxxxxxxxxx, to request your group's participation in my dissertation research project. He provided your name and address to me.

Communication is an essential element in interpersonal and organizational success. Because there are differences in the way each gender communicates, thinks, and makes decisions, it would be beneficial to determine whether awareness of communication barriers can help improve effective communication. Your participation in this research project would provide information for this theory.

Your participation will consist of completing a survey, which will take about 25 minutes of your time. On the first page of the survey, your consent to participate will be requested.

Your participation in this research project is completely voluntary. Measures have been taken to ensure the anonymity of all participants. Upon completion of the survey, you can simply mail it back to me in the self-addressed, stamped envelope that will be provided. If you would like more information about this research project, please contact me at 703-347-2740 or by email at jenny.schneider@usa.net.

Please watch for the survey packet in the mail. It should arrive in about 3 days. Thank you for your participation in this timely and important research project.

Sincerely,

Jenny Schneider
Capella University

APPENDIX D: CONSENT TO BE A RESEARCH PARTICIPANT

Survey Questionnaire

The following is a questionnaire that measures the perception of effective communication, conducts a personality trait inventory, and requests demographic information. All responses will be anonymous, and your participation is completely voluntary.

Please indicate below your agreement to participate in this survey.

☐ By checking this square, the participant acknowledges understanding of the instructions and agrees to participate in this survey.

APPENDIX E: MODIFIED COVER PAGE

Survey Questionnaire

The following is a questionnaire that measures the perception of effective communication, conducts a personality trait inventory, and requests demographic information. All responses will be anonymous, and your participation is completely voluntary.

Please follow these survey instructions:

1. Read the next 2-page reading material that introduces the idea of gender-related communication behavior.
2. Indicate below your agreement to participate in the survey.
3. Complete the 3-part survey.
4. Mail back to researcher in the enclosed self-addressed, stamped envelope.

Please indicate below your agreement to participate in this survey.

☐ By checking this square, the participant acknowledges understanding of the instructions and agrees to participate in this survey.

APPENDIX F: LITERATURE INTERVENTION

The following material is the proposed text for the intervention material.

EFFECTIVE COMMUNICATION

Although effective communication is important in personal relationships and at work, it can be difficult to achieve. To improve communication it would be helpful if the barriers to effective communication were known. Several potential gender-related communication barriers are outlined in the following sections. Take a moment to read through them carefully while thinking about your own experiences with communication. Although the descriptions below reference male and female communication behavior, this does not necessarily mean that all men or all women communicate in this way. It is possible for men and women to successfully vacillate between masculine and feminine communication traits.

Interrupting Versus Taking Turns

As children, boys are taught to be aggressive and competitive and to interrupt each other in an attempt to be "king of the hill." Girls are socialized to be patient and to take turns with each other. These early lessons carry over into adulthood. Statistically, men interrupt in groups more than women in an attempt to seize the floor or to reinforce their points. Women still attempt to take turns. Although interrupting can serve to facilitate conversation in some cases, interrupting is generally seen as aggressive, counter-productive behavior . . . in effect saying "What I have to say is more important than what you have to say" whether you mean it that way or not.

Individualistic Versus Inclusive Language

Men tend to refer to themselves more when speaking, whereas women tend to include others. Women often use words of inclusion, such as "we" and "our." Whereas women prefer to use communication to connect with people while delivering factual information, men use communication to establish their rank and deliver facts. For example, if asked to describe their roles on a former team, a women might say, "We worked together to produce the solution to the problem," whereas a man might say, "As the project manager, I came up with the answer, with the help of my group." Individualistic people often take credit for someone else's idea or describe their own efforts as pivotal.

Gendered Versus Nongendered Language

Gendered language is that which unnecessarily specifies male or female persons or traits with the intention of excluding or trivializing. One should not say "male nurse" or "lady lawyer." Those are not neutral titles. Language should demonstrate equality instead of hierarchic or separatist terms. What is wrong with the phrase "man and wife"? Man and wife are not equal words; man is not the opposite of wife. Man and woman, or husband and wife, are equal terms. Another example of gendered language is "All managers and their wives will attend." The proper nongendered version is "All managers and their spouses will attend." The use of nongendered language in communication could potentially remove a barrier to effective communication.

Linear Thought Processes Versus Web Thinking

Men are known to think in a linear, sequential method. One thought follows the other in a logical, objective, distancing manner. Women demonstrate "web thinking", which is the ability to pull in more information and consider a holistic view that integrates more details. A man might walk away from a team meeting thinking "that woman's thoughts were all over the place," whereas the woman might think "that man is so narrow minded. Why can't he see the big picture?" These different thought patterns create a communication barrier.

Bringing About Change

Improving interpersonal and organizational communication is the responsibility of all communicators. Understanding your own gender perception as well as others' perception and modeling correct behavior, such as not interrupting, improving listening skills, using inclusive terms and gender-neutral language, are effective ways to create change. Diversity training, communication training, or team-building seminars also might improve communication. Each communicator should remember to value the contributions and distinctiveness of other communicators.

For further information, contact Jenny Schneider at jenny.schneider@usa.net

APPENDIX G: SURVEY FORMAT *SURVEY QUESTIONNAIRE*

The following is a questionnaire that measures the perception of effective communication, conducts a personality trait inventory, and requests demographic information. All responses will be anonymous, and your participation is completely voluntary.

Please follow these survey instructions:

1. Read the reading material located on the next page that introduces the idea of gender-related communication behavior.
2. Indicate below your agreement to participate in the survey.
3. Complete the 3-part survey.
4. Mail back to researcher in the enclosed self-addressed, stamped envelope.

Please indicate below your agreement to participate in this survey.

☐ By checking this square, the participant acknowledges understanding of the instructions and agrees to participate in this survey.

PART 1

*Read through each communication statement and **circle** the degree to which you found effective communication demonstrated.*

1. "Yes, yes, I get the point, keep going."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

2. "Let's go around the table and hear from everyone."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

3. "Thanks to me, sales were much higher than projected for this quarter."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

4. "The sales team deserves a pat on the back for this quarter's higher-than-projected sales."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

5. "The new gal does not run things the normal way."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

6. "We'll find out which staff person can go on this business trip."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

7. "I want to know how to get from Point A to Point B."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

8. "I'm glad you are talking through so many aspects of the situation with me."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

9. "Wait a minute; I have to stop you here because you are not telling the whole story."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

10. "I have some thoughts on the issue, but I'll wait and speak after hearing your ideas."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

11. "I had the responsibility for making sure everyone got the work done on time, and so we did."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

12. "The business development group is supportive and works well together."

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

13. “We’ve got some good men working for us in that branch office.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

14. “The administrative staff will be able to get it done.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

15. “I define success only by how much money we make.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

16. “The problem isn’t easy to define; we need to look at all of the factors that may be involved.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

17. “Excuse me; let me say this before you continue.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

18. “Please tell me more about that; I’m listening.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

19. “I’m the head of marketing, and this is how I like to do things.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

20. “Our individual strengths really complement each other to make for a great team.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

21. “I think the new blonde lady engineer is going to work out really well.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

22. “We should send our letters to all the local business owners.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

23. “There are 3 steps in the process.”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

24. “What are some different ways of accomplishing this goal?”

1	2	3	4	5	6
Highly Effective	Effective	Slightly Effective	Slightly Ineffective	Ineffective	Highly Ineffective

---

PART 2

Personality Trait Inventory

The following is a list of adjectives that form a personality trait inventory. Please indicate beside each adjective the degree to which you possess the specified trait. You are to indicate on a scale from 1 to 7 how true of you these various characteristics are. Please do not leave any characteristics unmarked.

Example _____***friendly***

Mark a 1 if it is never or almost never true that you are friendly.
Mark a 2 if it is usually not true that you are friendly.
Mark a 3 if it is sometimes but infrequently true that you are friendly.
Mark a 4 if it is occasionally true that you are friendly.
Mark a 5 if it is often true that you are friendly.
Mark a 6 if it is usually true that you are friendly.
Mark a 7 if it is always or almost always true that you are friendly.

_____	01.	self-reliant	_____	31.	makes decisions easily
_____	02.	yielding	_____	32.	compassionate
_____	03.	helpful	_____	33.	sincere
_____	04.	defends own beliefs	_____	34.	self-sufficient
_____	05.	cheerful	_____	35.	eager to soothe hurt feelings
_____	06.	moody	_____	36.	conceited
_____	07.	independent	_____	37.	dominant
_____	08.	shy	_____	38.	soft-spoken
_____	09.	conscientious	_____	39.	likable
_____	10.	athletic	_____	40.	masculine
_____	11.	affectionate	_____	41.	warm
_____	12.	theatrical	_____	42.	solemn
_____	13.	assertive	_____	43.	willing to take a stand
_____	14.	flatterable	_____	44.	tender
_____	15.	happy	_____	45.	friendly
_____	16.	has strong personality	_____	46.	aggressive
_____	17.	loyal	_____	47.	gullible
_____	18.	unpredictable	_____	48.	inefficient
_____	19.	forceful	_____	49.	acts as a leader
_____	20.	feminine	_____	50.	childlike
_____	21.	reliable	_____	51.	adaptable
_____	22.	analytical	_____	52.	individualistic
_____	23.	sympathetic	_____	53.	does not use harsh language
_____	24.	jealous	_____	54.	unsystematic
_____	25.	has leadership abilities	_____	55.	competitive
_____	26.	sensitive to others' needs	_____	56.	loves children
_____	27.	truthful	_____	57.	tactful
_____	28.	willing to take risks	_____	58.	ambitious
_____	29.	understanding	_____	59.	gentle
_____	30.	secretive	_____	60.	conventional

PART 3

Demographic Information

Please answer the following questions by indicating the letter that matches your response or filling in the blank as indicated.

1. What is your gender? Male _____ Female _____

2. What is your age? _____

3. What is your level of education? _____

A. High school
B. Some college
C. Bachelor's degree
D. Post bachelor's degree
E. Master's degree
F. Post master's degree

4. Choose your profession from the checklist below or select 'Other'. _____

A. Business (Accounting, Finance, HR)
B. Clerical
C. Civic/Community
D. Education
E. Engineering/Operations/Production
F. Food Service
G. Information Technology
H. Legal
I. Medical/ Research
J. Non-Profit
K. Sales/Marketing
L. Self-Employed
M. Other (list: _____)

5. How many years have you worked in your profession? _____

6. What is your marital status? _____

A. Married
B. No longer married
C. Never been married