STUDENTS' PERCEPTIONS OF INSTRUCTOR CREDIBILITY:

EFFECTS OF INSTRUCTOR SEX, GENDER ROLE,

AND COMMUNICATION STYLE

BY

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ABSTRACT

Instructor credibility, or the degree to which an instructor is perceived by his or her students to be competent, to have character, and to be caring, is one of the most important variables affecting teacher-student interaction. However, gender role stereotypes may place female instructors at a disadvantage when it comes to perceptions of their credibility, as students may have difficulty seeing women in positions of authority as both competent *and* feminine. The purpose of this study was to examine the relationships between students' perceptions of instructors' credibility, gender role, and communication style; to analyze ways students describe their instructors; and to assess how well male and female instructors meet the expectations for a good instructor.

This study found that good male instructors were more often considered credible and assertive, while good female instructors were more often considered caring and responsive. These findings are significant because they suggest students have different expectations for what constitutes good for a male instructor and what constitutes good for a female instructor.

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CHAPTER ONE

Introduction

Teacher credibility plays a critical role in the dynamics of today's college classrooms, and it is one of the most important variables affecting teacher-student interaction (Semlak & Pearson, 2008). Teacher credibility is conceptualized as the degree to which an instructor is viewed as being competent, having character, and demonstrating caring (McCroskey & Teven, 1999), and is based on students' impressions of instructors' verbal and nonverbal communication behaviors (Hendrix, 1997; Myers & Bryant, 2004).

Students' perceptions of their instructors' credibility have a profound influence on student learning and classroom communication. Thweatt and McCroskey (1998) contend teacher credibility is critical to the learning process, suggesting "the higher the credibility, the higher the learning" (p. 349). Instructors perceived as having high credibility are capable of increasing students' motivation, their drive to succeed, and their overall academic performance (Cooper & Simonds, 1999; Kougl, 1997; Teven & McCroskey, 1997). High teacher credibility has been linked to favorable teaching evaluations, positive course ratings, and the desire to take another course from the same instructor (Kearney, 1994), as well as ratings of student satisfaction (Teven & Herring, 2005). Speakers who have high credibility also are seen as more persuasive (Stiff, 1986) and as more effective communicators (Infante, 1985) when compared to speakers with low credibility.

Clearly, teacher credibility is necessary for effective instruction. Perceived teacher credibility also is crucial to an instructor's career advancement, as the majority of universities use student evaluations of professors' teaching as a primary qualification for hiring, tenure, retention, and promotion procedures (Cruse, 1987; Sandler, 1991). In fact, nearly 90% of academic deans report they always use student ratings of teaching in evaluating teachers (Seldin, 1999).

Due to the pervasive influence of credibility in the classroom, communication scholars have devoted substantial efforts to researching means by which credibility can be enhanced or lessened. For example, instructors can enhance their credibility by displaying affinity-seeking behaviors (Frymier & Thompson, 1992) and verbal and nonverbal immediacy behaviors (Johnson & Miller, 2002; Teven & Hanson, 2004), by engaging in out-of-class communication with their students (Myers, 2004), and by utilizing appropriate amounts of technology (Schrodt & Turman, 2005). However, research demonstrates the following seven factors may cause educators to lose their perceived credibility: the use of powerless language, insincerity, non-immediacy, casual appearance, poor presentation skills, verbal pauses, and speaking in a non-Midwestern dialect (Beatty, Behnke, & Henderson, 1980; Giles & Street, 1985; Haleta, 1996; Leathers, 1992; Morris, Gorham, Cohen, & Huffman, 1996).

In addition to these seven factors, recent scholarship has introduced an eighth variable that may cause a loss of credibility: marginalized status. Specifically, women may be at a disadvantage when it comes to perceptions of their credibility (e.g., Hargett, 1999; Aries, 1987; Smith, 1980). When women are equal to men in terms of

experience and competence, and even perform better in terms of focusing on and being concerned for their audience, receivers still perceive men as being more credible as message sources (Kenton, 1989). This may have particular implications for women in positions of power. For example, teachers who are female and/or members of minority groups may be more likely to be perceived as less credible than teachers who are not (Russ, Simonds, & Hunt, 2002). Some studies show student evaluations of teaching are gender biased, with males receiving higher ratings on overall teaching ability and competency (e.g., Sidanius & Crane, 1989; Basow & Silberg, 1987) and effectiveness (Kierstead, D'Agostino, & Dill, 1988), even while controlling for student's sex, GPA, expected grade, discipline, and course size. More recently, Hargett (1999) found that students rated male instructors as more credible than female instructors.

Perceptions about the lower credibility of female authority figures likely stem from stereotypical gender roles. When women communicate in ways typically expected of females, such as being friendly, nurturing, and compassionate, they may be seen as inadequate authority figures—as lacking confidence or even as incompetent. However, when they communicate in ways typically expected of authority figures, such as being assertive, self-assured, and challenging, they may be seen as too aggressive and not feminine enough. Social role theory (Eagly, 1987, 1997) suggests women in authority roles are judged by a double yardstick of gender appropriateness and managerial effectiveness, which places them in an unbreakable, untenable double bind (p. 60).

Past research on teacher credibility has tended to focus on the relationship between teacher sex and students' perceptions of teacher credibility, and findings have been mixed (e.g., Glascock & Ruggiero, 2006; Hargett, 1999; Nadler & Nadler, 2001). However, this line of research rarely has considered the various factors that comprise gender, including perceived gender identity. Gender identity, or the degree to which persons see themselves as masculine or feminine (Stets & Burke, 2000), is important to take into account because it is possible for a woman to see herself as masculine or for a man to see himself as feminine. Females with masculine attributes and males with feminine attributes may be assessed negatively and viewed as less credible, as there are pressures to maintain gender-stereotypical attitudes and behaviors (Hoffman, 2001).

In addition to perceived gender identity, another factor that contributes to perceptions of gender is communication style (Twenge, 1997). Because perceptions of teacher credibility are based on students' impressions of instructors' verbal and nonverbal communication behaviors (Hendrix, 1997; Myers & Bryant, 2004) and communication between faculty and students has been shown to influence student retention, academic performance, development of career plans, educational aspirations, and intellectual and personal development (Pascarella, 1980), this is a particularly important area for consideration. One measure of communication style is *socio-communicative style*, which refers to the way a person presents himself or herself to others and how others perceive that person's use of assertive and responsive behaviors (McCroskey & Richmond, 1996). Assertive behaviors, such as standing up

for your rights and making requests, have been theoretically equated with masculinity, while responsive behaviors, such as being understanding, sympathetic, and compassionate, have been theoretically equated with femininity (Bem, 1974; Richmond & McCroskey, 1995). Thus, socio-communicative style also may influence students' perceptions of teacher credibility.

Statement of the Problem

Are female instructors at a disadvantage when it comes to students' perceptions of their credibility? Can a female instructor, particularly one whom her students identify as a "good instructor," be seen by her students as both feminine *and* credible? How do perceived gender identity and socio-communicative style contribute to perceptions of credibility? To examine these issues, this study compares students' perceptions of the credibility, socio-communicative style, and gender role of a hypothetical good instructor to students' perceptions of the credibility, socio-communicative style, and gender role of male and female instructors they consider to be good instructors. This study explores (a) the influence of instructor sex and perceived instructor gender role on students' perceptions of teacher credibility; (b) the influence of instructor socio-communicative style on perceptions of male and female instructors' credibility; (c) ways students describe the qualities of good instructors; and (d) the extent to which female and male instructors meet the expectations for a good instructor.

Research Questions

Specifically, this study addresses the following research questions:

RQ1: Is a "good instructor" considered to be masculine, feminine, or androgynous?

RQ2a: Are there significant differences in students' ratings of instructor credibility for male and female instructors?

RQ2b: Are there significant differences in the ways male and female students rate their male and female instructors?

RQ2c: Are there significant differences in students' ratings of instructor credibility for "good" instructors as compared to their male and female instructors?

RQ2d: Are there significant differences in students' ratings along the three dimensions of competence, character, and caring for male instructors?

RQ2e: Are there significant differences in students' ratings along the three dimensions of competence, character, and caring for female instructors?

RQ3: Is there a relationship between students' ratings of instructor credibility and perceived gender identity?

RQ4: Are there significant differences in students' perceptions of the socio-communicative style of a "good instructor," their male instructors, and their female instructors?

RQ5: Do instructors with different socio-communicative styles differ in students' perceptions of their competence, character, and caring?

RQ6: How do students describe the qualities of a hypothetical "good instructor," a good female instructor, and a good male instructor?

Contribution

Although a great deal of research has been conducted on teacher credibility, there are several avenues of research worthy of further investigation. In *The Handbook of Instruction Communication,* Myers and Martin (2006) suggest that one such avenue is the degree to which teacher demographics affect students' perceptions of teacher credibility. Although previous studies have examined the influence of teacher sex on students' perceptions of teacher credibility (Glascock & Ruggiero, 2006; Hargett, 1999; Nadler & Nadler, 2001), the research conducted in this area is relatively sparse. Because it can be argued that students interact differently with their teachers based on teacher demographics (Bennett, 1982), Myers and Martin (2006) suggest conducting additional research in this area to gain a more comprehensive picture of the role teacher demographics play in students' perceptions of teacher credibility. In particular, this study investigates teacher sex and gender identity in the context of instructors whom students have identified as "good instructors," which theoretically should help to level the playing field.

This study also seeks to extend the application of social role theory by considering one particular occupation where women are in positions of authority: female instructors. It seeks to help build theory by considering the part perceived gender identity and communication behaviors play in creating perceptions of credibility.

Further, this study may offer practical implications for professors. As previously discussed, student evaluations of professors' teaching often are used as an

important qualification for hiring, tenure, retention, and promotion procedures (Cruse, 1987; Sandler, 1991). However, some studies show student evaluations of teaching can be gender biased, with females receiving lower ratings than males (e.g., Sidanius & Crane, 1989; Kierstead, D'Agostino, & Dill, 1988; Basow & Silberg, 1987). Frymier and Thompson (1992) suggest there is little research on teacher credibility that offers advice to help teachers increase their credibility in the classroom. This particular study may assist professors in better understanding students' perceptions of credibility and how they are influenced by communication style and gender identity. It also has the potential to help professors learn to communicate more effectively because they will better understand students' communication expectations. Teacher effectiveness ratings relate to perceptions of teachers' overall communicative ability (Nussbaum, 1992), so improving communication skills could help professors achieve higher student evaluations. This study also will familiarize female professors with the communication styles of those professors considered highly credible by students. Studying best practices and winning strategies can help individuals to accelerate their progress and to achieve superior performance (Bogan & English, 1996). Additionally, it may help deans, department chairs, and tenure committees to contextualize student evaluations of teaching and to consider using other methods to evaluate teaching.

Organization

This dissertation presents the following chapters. Chapter two consists of a review of the literature relevant to this study, including literature on social role theory, gender identity classification, gender stereotypes, students' expectations of

instructors, the gender gap in higher education, instructor credibility, and socio-communicative style. Chapter three describes the survey instrument and data collection procedures. Chapter four presents the research results and data analyses. Finally, chapter five includes a discussion of the research results, conclusions that can be drawn from the results, possible limitations of the study, and suggestions for future research.

CHAPTER TWO

Review of the Literature

To better understand what students expect from their instructors, this research

seeks to determine students' expectations regarding instructor credibility, perceived

gender identity, and socio-communicative style for a hypothetical, gender-neutral

"good instructor." Additionally, this research examines the extent to which female

and male instructors meet the expectations for a good instructor. Thus, it is important

to provide context for each of these areas. This chapter reviews the literature on social

role theory, gender identity classification, gender stereotypes, students' expectations

of instructors, the gender gap in higher education, instructor credibility, and socio-

communicative style.

Theoretical Perspective

Social role theory suggests gender roles, or shared collections of beliefs about

how women and men behave, are socially constructed stereotypes based on historical

differences in contributions to the economy (Eagly, 1987, 1997). This theory suggests

behavioral sex differences stem from the differential social roles inhabited by women

and men (Eagly, Wood, & Diekman, 2000). Social role theory evolved as a way to

understand the match between the ideas people have about women and men and

scientifically documented sex differences in social behavior and personality. Social

role theory argues that people's beliefs about the sexes constitute gender roles, which,

through a variety of mediating processes, foster real differences in behavior (Eagly, Wood, & Diekman, 2000).

Historically, the physical attributes of women and men determined their labor tasks (Wood & Eagly, 2002). Men's tasks typically required strength, speed, and the ability to be away from home for long periods of time. In contrast, women typically fulfilled tasks related to the home and family, as their primary responsibilities were bearing and caring for children. These social roles inhabited by men and women helped to foster the development of gender role expectations about the characteristics and behaviors of women and men.

Social role theory posits that these historical roles have carried over to our modern societies. Still today, women are expected to fulfill the feminine gender role that reflects *communal* qualities, and men are expected to fulfill the masculine gender role that reflects *agentic* qualities (Wood & Eagly, 2002). The communal role, characterized by attributes such as nurturance and emotional expressiveness, commonly is associated with domestic activities, and thus, with women. The agentic dimension, characterized by attributes such as assertiveness and independence, commonly is associated with public activities, and thus, with men. When societies endorse these gender stereotypes, cultural expectations strongly influence the behavior of men and women (Eagly, Wood, & Diekman, 2000). Thus, women are expected to fulfill the traditional notions of femininity, while men are expected to fulfill the traditional notions of masculinity.

Gender roles comprise both *injunctive norms*, which are expectations about what people should do or ideally would do, and *descriptive norms*, which are expectations about what people actually do (Cialdini & Trost, 1998). These two types of norms help to explain why gender roles have the power to influence behavior. Descriptive norms describe what is normal or typical, and thus help provide men and women with guidance, particularly in unfamiliar or ambiguous situations (e.g., what gender appropriate clothing should be worn to a barbeque). Deviations from descriptive norms may elicit surprise from others, which could threaten social interactions (Cialdini, Kallgren, & Reno, 1991). Conversely, injunctive norms help to provide guidance about what is desirable and proper (e.g., men are supposed to provide for their families), and thus provide both sexes with guidance about how to earn the approval of others. Injunctive norms are expectations about how people are supposed to behave, and deviation from these norms goes beyond mere surprise; deviation of injunctive norms is likely to elicit disapproval or shame (Cialdini et al., 1991). Violation of gender role injunctive norms likely will cause men and women to experience social disapproval. Descriptive and injunctive norms work together in influencing men and women to adhere to traditional gender roles, as deviations typically produce unpleasant social interactions.

Gender-role expectations permeate the social lives of men and women and can "spill over" into organizational settings, resulting in gender-based behavior differences and perceptions in the workplace (Nieva & Gutek, 1981). Researchers have used the term *spillover* to explain how gender role expectations influence the

ways people communicate and how they interpret the communication of others (Fairhurst, 1986; Nieva & Gutek, 1981; Powell, 1988). For example, men are expected to use more direct or assertive behavior than women (Johnson, 1976), as well as threats, jokes, and assertion to influence others, while women are expected to use appearance, charm, and compliments (DuBrin, 1991).

Gender role expectations help to explain, in part, why women make less money than men, are concentrated in different occupations, and rarely occupy the highest levels of their organizations, despite the fact that most women in the United States are employed in the paid workforce (Valian, 1998). Spillover is evident in both men and women, and can occur unconsciously even in those who support women's place in management (Baker, 1991).

Additionally, social role theory proposes that, in general, the stereotypical beliefs about women are generally incongruent with the beliefs about the roles of people with authority (Schein, Mueller, & Jacobson, 1989). For example, women may be stereotyped as agreeable, while authority figures are thought to be assertive, and these perceptions may be seen as incompatible. If women communicate like "authorities" (e.g., making demands and asserting power), they may violate culturally defined gender roles, and if they communicate like "women" (e.g., being compassionate and sympathetic), they may be socially accepted but perhaps seen as ineffective leaders (Jamieson, 1995). If women (or men) violate the expectations of their culturally defined gender roles, their supervisors, peers, or subordinates may negatively evaluate them (Eagly, 1987).

Gender Roles and Gender Stereotypes

Men and women constantly encounter gender-related issues in both their personal and professional lives, and researchers have long been interested in measuring masculinity and femininity. Terman and Miles (1936) developed the foundational bipolar masculinity-femininity (M-F) scale, which included items with large gender differences in normative populations. A number of other scales in this tradition followed, including the M-F scale of the Strong Vocational Interest Blank (Strong, 1943), the Fe scale of the California Psychological Inventory (Gough, 1987), and the Mf scale of the MMPI (Hathaway, 1980). These scales typically included a variety of questions that assessed personality traits, gender-related interests, emotional styles, occupational preferences, and sexual preferences (Lippa, 2001).

In the 1970s, a two-dimensional conception of masculinity and femininity emerged. Masculinity and femininity were conceptualized as separate dimensions, with masculinity defined in terms of *instrumental* personality traits (e.g., independence and dominance) and femininity defined in terms of *expressive* traits (e.g., compassion and warmth). The idea of androgyny, which suggested healthy men and women could possess similar characteristics (Hoffman, 2001), emerged and significantly influenced the development of measures of gender roles. The introduction of what would become the two most commonly used measures, the Bem Sex Role Inventory (BSRI; Bem, 1974, 1981) and the Personal Attributes Questionnaire (PAQ; Spence, Helmreich, & Stapp, 1974, 1975; Spence & Helmreich, 1978), fundamentally changed the examination of gender roles (Beere, 1990). These

instrumentality and expressiveness scales continue to be widely used in gender research (Lippa, 2001).

The most widely used scale is the BSRI, which assesses masculinity and femininity in terms of the respondent's self-reported possession of socially desirable, stereotypically masculine and feminine personality characteristics (Bem, 1974). However, Spence (1993) challenged the view that the BSRI measures global self concepts of masculinity and femininity, instead suggesting the scales measure narrower self-perceptions in relation to socially desirable instrumental/agentic and communal/expressive traits. Additionally, the BSRI has been criticized for its item-selection procedures, theoretical rational, construct validity, score interpretation, and outdated approach (Hoffman, 2001).

The PAQ was designed to measure femininity and masculinity by considering both instrumental traits that have been judged to be more characteristic of men and expressiveness traits judged to be more characteristic of women. The PAQ has fared better in the critiques than the BSRI and has been praised for its better control of social desirability and for holding up better over time (Twenge, 1997). Cook (1985) supports the use of the PAQ:

> In my view, Spence and Helmreich's work is especially notable in the androgyny literature for its careful distinctions among related terms, its explicit discussion of the theoretical and statistical implications of different ways to measure androgyny, masculinity, and femininity, and its coherent program of research (p. 31).

Due to the somewhat controversial nature of gender role scales, this study also examines instructors' perceived gender identity using Huddy and Terkildsen's (1993) instrumentality and expressiveness scale. This scale considers typical masculine traits and typical feminine traits. It originally was used to test the political impact of stereotypes by examining the relative importance of typical "male" personality traits (such as assertive, challenging, and rational) and typical "female" personality traits (such as warm, talkative, and gentle). College professors, like elected officials, hold positions of power in a traditionally male-dominated field. Thus, this scale has been adapted for this study and will further be referred to as the "Personality Traits Scale."

More recent theoretical work suggests that a multifaceted approach to masculinity and femininity more clearly describes gender roles (Twenge, 1997). The complexity of gender roles may be better appreciated by considering a combination of factors, including personality traits, communication behaviors, and physical appearance (Helgeson, 1994; Spence & Sawin, 1985). Thus, this study examines multiple dimensions of gender roles, including both personality traits and communication behaviors. In an effort to do this, this study first must establish the following research question:

RQ1:   Is a "good instructor" considered to be masculine, feminine, or androgynous?

As Eagly (1987) suggests, gender roles are closely linked with gender stereotypes. Stereotypes are "over-generalized beliefs about people based on their membership in one of many social categories" (Anselmi & Law, 1998, p. 195).

Stereotypes can serve to maintain and reinforce the power of the in-group while subordinating members of out-groups (Fiske, Xu, Cuddy, & Glick, 1999). Traditional gender stereotypes position men as the ideal or norm against which women are judged. Women become the "other," valued in terms of their relations to men (Donelson, 1999).

Research suggests gender stereotyping is one of the key contributors to the gender gap in today's workplaces (e.g., Eagly & Karau, 2002; Oakley, 2000; Ridgeway, 2001). In a study of women in management across the world, Berthoin Antal and Izraeli (1993) suggest, "Probably the single most important hurdle for women in management in all industrialized countries is the persistent stereotype that associates management with being male" (p. 63). Women consistently view gender stereotypes as a significant barrier to advancement (Catalyst, 2007), and the Glass Ceiling Commission concluded that the chief obstacle blocking women's advancement is prejudice and preconceptions that females are less able and less effective than their male counterparts (U.S. Department of Labor, 1995).

Historically, the stereotypical image of a professor has been masculine: objective, authoritarian, and critical (Martin, 1984). In a study of sex-stereotyped traits for a "great professor," students preferred masculine traits over feminine (Burns-Glover & Veith, 1995). This mirrors society's dominant image of an authority figure as male (Schein, 2001; Sczesny, 2003). Men are stereotypically perceived as dominant, demanding, aggressive, and unemotional, which are traits typically associated with successful authority figures (Berryman-Fink, 1982). Stereotypically

masculine-oriented behaviors, such as competitiveness, aggressiveness, and independence, often are considered the gold-standard when it comes to successful leaders (Berryman-Fink, 1987).

Women, in contrast, are more often perceived as compassionate, empathetic, supportive, passive, emotional, and submissive, which are traits that do not necessarily fit the authoritarian mold (Berryman-Fink, 1982). Nichols (1993) sums up this dilemma:

> Women who attempt to fit themselves into a managerial role by acting like men . . . are forced to behave in a sexually dissonant way. They risk being characterized as 'too aggressive,' or worse, just plain 'bitchy.' Yet women who act like ladies, speaking indirectly and showing concern for others, risk being seen as "ineffective' (p. 60).

Thus, women who want to succeed in today's workplaces may have to change their communication styles in an effort to adapt to male-dominated hierarchical organizations (Wood, 1997). For example, they may become more directive and less responsive to feelings (Wood, 1997). However, this can lead to negative evaluation, as these changes from a feminine style to a more masculine style are incongruent with sex role expectations (Lamude & Daniels, 1990).

The "think manager—think male" stereotype positions women as atypical authority figures who either go against the norms of femininity or against the norms of leadership (Sczesny, 2003). Women in positions of authority face a double bind, or a dilemma in which a person must choose between equally unsatisfactory alternatives

(Jamieson, 1995). When women communicate in ways typically expected of females, they may be seen as inadequate authority figures, and yet when they communicate in ways typically expected of authority figures, they may be seen as aggressive. Jamieson (1995) calls this the femininity/competence bind, where femininity is associated with incompetence, and competency can only be achieved by acting unfeminine.

A number of studies show that attitudes toward female leaders continue to be a major barrier to women's advancement in the workplace. Since 1953, when Gallup first asked respondents if they would prefer a male or a female boss, a strong preference for male bosses over female bosses has been shown by both sexes (Simmons, 2001). Women typically are viewed as possessing lower levels of status and power than men (Carli, 1999; Ridgeway, 2001). Studies of decision-making groups show that except in gender-stereotyped feminine tasks, people are less willing to be influenced by women and more likely to discount women's contributions, particularly women who fail to conform to traditional gender expectations (Carli, 1990). The Schein studies (e.g., 1973, 1975, 1994, 2001), which have examined managerial sex typing for three decades, suggest that managerial sex typing is a persistent and pervasive barrier to women's opportunities, and that the "think manager—think male" stereotype is a global phenomenon, especially among males.

Student Expectations of Instructors

This femininity/competence double bind can pose particular challenges for female instructors. Students may use different criteria for determining teaching

effectiveness dependent upon the instructors' sex, and a number of studies show students expect professors to adhere to the gender-appropriate model. For example, students expect male professors to be authoritative and decisive, and expect female professors to be responsive and friendly (Anderson & Miller, 1997). Female instructors are expected to be sociable and to smile often (Hall, Braunwald, & Mroz, 1982) and to demonstrate warmth and friendliness (Basow, 1995), while these factors are considered much less important for men. Women also must be friendly outside of class. A study of out-of-class socializing between students and instructors showed that while there were no differences in student ratings of nonsocial and social male instructors, nonsocial female instructors received lower student ratings than social female instructors (Kierstead, D'Agostino, & Dill, 1988). In the same study, irrespective of personal qualities, men were rated overall as more effective than women.

Stratham, Cook, and Richardson (1991) conducted a study on gender differences in teaching styles and student evaluations that combined classroom observations, student evaluations, and interviews with professors. Their sample included students and professors from a wide variety of disciplines as well as professors from different ranks. Overall, they found that while students rated men and women professors equally in terms of effectiveness, they also rewarded those professors who adhered to the norms of their gender with higher teaching evaluations. Women who interacted with students by responding to their requests, acknowledging their contributions, and bringing their own experiences and students' experiences into

the classroom received more positive evaluations. When women simply presented material without extensively interacting with students, they were judged as less likable. Conversely, men were rated higher in terms of their competence and likability when they used a "teacher as expert" style in the classroom, which included presenting material and admonishing and interrupting students.

Women also are expected to meet gender-appropriate expectations with regard to student contact and support and may be evaluated negatively if they do not; conversely, students do not necessarily appreciate men who give them greater time and attention (Bennett, 1982). Kierstead, D'Agnostino, & Dill (1988) suggested that female instructors must be both highly competent teachers and also careful to act in accordance with traditional sex role expectations if they want to earn the same student effectiveness ratings as their male counterparts.

However, other research contradicts this argument. Hall, Braunwald, and Mroz (1982) found that women whose classroom self-presentation is traditionally feminine were judged as less competent than women who do not exhibit feminine behaviors. Similarly, students may expect female instructors not only to display feminine qualities but to excel in both stereotypically masculine and feminine domains (Bray & Howard, 1980). For example, students may expect their female professors to display warmth and compassion, which are feminine-stereotyped characteristics, but also authority, competence, and rigor, which are masculine-stereotyped characteristics. Laube, Massoni, Sprague, and Berber (2007) suggest

students hold their female teachers to a higher standard and ask them to exhibit personalities that incorporate both masculine and feminine attributes in the classroom.

Gender Gap in Higher Education

When considering differences in students' perceptions of their male and female instructors, it is important to examine gender within the context of higher education. Examination of female professors' wages and career paths provides compelling evidence that there is a continuing gender gap in higher education. In 2007, women made up 60.6% of master's degrees, 57.4% of bachelor's degrees, and half of all U.S. Ph.D.s granted to American citizens (National Center for Education Statistics, 2008), and yet they represent only 26% of the associate and full professors in the United States (National Center for Education Statistics, 2003). Female faculty members earn less than male faculty members with comparable education, experience, and research productivity (e.g., Barbezat, 2002; Perna, 2001; Toutkoushian & Conley, 2005). Even after controlling for a number of individual characteristics, disciplinary labor market conditions, and structural characteristics, men earn 6.8% more than women (Umbach, 2007). Additionally, disciplines with high proportions of female faculty members offer lower salaries than disciplines with lower proportions of female faculty (Bellas, 1997; Perna, 2001).

In addition to differences in salary, research also shows gender differences in tenure and promotion procedures, even when men and women have the same credentials. Women are promoted and granted tenure more slowly than male faculty members in every academic field (Valian, 2006). For example, in the sciences, even

after controlling for a number of variables including discipline, years since degree, and parental status, men are more likely than women to be tenured (Long, 2001). In 2006, fifty-five percent of males compared to 41 percent of females had tenure at U.S. colleges and universities (National Center for Education Statistics, 2008). When comparing men and women on a year-to-year basis, men are 21% more likely to earn tenure than women (Wolfinger, Mason, & Goulden, 2008). Female assistant professors are 23% less likely than male assistant professors to become associate professors (Cook, 2004). Women are more likely than men to move into part-time teaching positions, are particularly underrepresented at top-tier institutions, and receive fewer awards and prizes than men (Valian, 2005).

Miller and Chamberlain (2000) examined college students' perceptions of the educational credentials of their instructors. They found students were much more likely to attribute the Ph.D. achievement to a male faculty member, including a male graduate instructor, than to a female faculty member, even a full professor. For many students, women were more likely to be perceived as "teachers," while the status of "professor" was reserved for male instructors. Miller and Chamberlain suggested this finding indicates that female faculty members are devalued, or their credentials and status are at least discounted, by undergraduate students. Benokraitis (1998) echoes this sentiment, suggesting female professors experience "professional dimunition" through a number of student behaviors, including terms of address, direct questions about credentials, and comments about personal appearance on course evaluations.

Because there is not a great deal of literature that specifically examines gender and teacher credibility, or the degree to which an instructor is viewed as being competent, having character, and demonstrating caring (McCroskey & Teven, 1999), it is important to consider the influence of gender in a larger context—student evaluations. In addition to the gender gap in professors' salaries and career paths, some studies show there also is gender bias in student evaluations of their instructors (e.g., Sidanius & Crane, 1989; Kierstead, D'Agostino, & Dill, 1988; Basow & Silberg, 1987). This area is of particular concern for researchers, as teaching evaluations are very important to faculty advancement in terms of hiring, salary, tenure, and promotion decisions. In a survey of 598 academic deans of undergraduate liberal arts colleges, 88.1% of academic deans reported that they "always used" student ratings of teaching in evaluating teachers, up from 80.3% in 1988 and 54.8% in 1978 (Seldin, 1999). In contrast, just 38.6% of deans reported using course syllabi and exams, and 40.3% reported using classroom visits in evaluating teachers (Seldin, 1999). Moreover, the use of student ratings is likely to increase as colleges and universities continue to emphasize good teaching and to honor and reward good teachers (Feldman, 2007).

The area of gender bias in evaluation of teaching is one that is rife with controversy, as research has produced conflicting results. Some studies show evidence of gender bias in student course evaluations, while others argue that gender bias does not exist or that the differences are not statistically significant. A number of studies suggest the differences in student ratings of male and female instructors are

negligible, with little to no evidence of gender bias (e.g., Cashin, 1988; Fernandez &

Mateo, 1997; Hancock, Shannon & Trentham, 1993; Marsh & Dunkin, 1992; Ory,

2001; Seldin, 1993). In meta-analyses of students' evaluations of their classroom

teachers, Feldman (1992, 1993) and Swim, Borgida, Maruyama, & Myers (1989)

suggested the average association between gender and overall evaluation was

insignificant.

However, after critically evaluating the research literature on teacher gender

and student evaluations, Sprague and Massoni (2005) concluded that the form gender

bias takes may not be easily detectible by quantitative scales. They argue that a

careful reading of the literature reveals that the evidence is mixed, and that meta-

analytic strategies may obscure more than they reveal due to methodology that

depresses findings of gender effects. As evidence of the limited ability of quantitative

scales to show gender differences, the researchers cite the research findings of

Bachen, McLoughlin, and Garcia (1999), whose study asked students to rate their

experience with a male or female professor. Male students' ratings on quantitative

scales did not vary by gender of professor, and yet when the same students answered

an open-ended question about gender differences in teaching, half said female

professors were less professional and less challenging than male professors. As

Sprague and Massoni (2005) note:

> Frankly, as sociologists who specialize in gender, we are puzzled by
>
> conclusions that gender has no impact on teaching evaluations. Three decades
>
> of scholarship has shown that gender is a significant factor in shaping

interactions, practices, and outcomes in every major realm of human social life: family, work, science, medicine, religion, sports, and popular culture—to mention just a few (see, for example, the reviews of research in Chafetz, 1999; Ferree, Lorber & Hess, 1999). Why would the classroom be any different? (p. 780).

The results of a number of studies lend support to Sprague and Massoni's argument that gender has an influence on teaching evaluations by showing female professors are given lower ratings than male professors, both by male and female students (Basow & Silberg, 1987; Kierstead, D'Agostino, & Dill, 1988). In their analysis of more than 9,000 course instructor surveys, Sidanius and Crane (1989) found male faculty were given significantly higher evaluations on global teaching effectiveness and academic competence than female faculty. Fandt and Stevens (1991) asked undergraduate students to evaluate two videotaped lectures: one delivered by a male professor and one delivered by a female professor (matched on race and age). They found the male professor was evaluated higher on a measure of global teaching effectiveness and was perceived to be more credible, effective, enthusiastic, and organized than the female professor.

Some research shows that student evaluations of teaching may be influenced by homosociability, or the idea that people seek, enjoy, and/or prefer the company of the same sex and feel an affinity toward those who are similar to themselves (Lipman-Blumen, 1976). While the findings are mixed, a number of studies show male students rate male instructors higher and female students rate female instructors

higher (e.g., Das & Das, 2001; Lueck, Endres, & Caplan, 1993). Further, male students show a bias in favor of male professors and perceive male professors as more competent (Kaschak, 1978; Lombardo & Tocci, 1979). For example, a study of male engineering students found evidence of a pro-male bias regarding students' ratings of a hypothetical teacher's personal attitudes and interpersonal behavior (Haemmerlie & Highfill, 1991). On the other hand, Basow (1995) found that while male professors' ratings are unaffected by student gender, female professors tend to receive their highest ratings from female students and their lowest ratings from male students. Still other studies suggest female students rate female faculty higher than male faculty, whereas male students do not evaluate male and female professors as significantly different (e.g., Bachen, McLoughlin, & Garcia, 1999; Centra & Gaubatz, 2000).

Teacher Credibility

Another area of importance to this study is the literature on teacher credibility. A speaker's credibility has long been considered perhaps the most critical element of his or her persuasive strategy, and thus it is crucial to better understand how students assign credibility to their instructors. In the *Rhetoric*, Aristotle conceptualized credibility (or ethos) as a receiver's perception of a speaker's intelligence, character, and goodwill (Cooper, 1932). In terms of persuading an audience, Aristotle argued that a speaker's credibility is the most powerful rhetorical strategy a speaker has. Since that time, source credibility has been defined in a variety of ways. In the last century, the following characteristics have been used to define credibility: caring,

dynamism, expertness, composure, sociability, emotional stability, and

trustworthiness (Myers & Martin, 2006).

One form of source credibility of particular interest to communication

scholars is teacher credibility. Throughout the last 35 years, the development of the

measurement of the teacher credibility construct has advanced steadily. The study of

teacher credibility began in 1974 after *Speech Teacher* published an article written by

McCroskey, Holdridge, and Toomb. Past research on source credibility had focused

solely on the perceived credibility of public figures, and these researchers wanted to

develop a measure of source credibility designed specifically to measure students'

perceptions of their teachers. Their research identified five dimensions of teacher

credibility: competence, extroversion, character, composure, and sociability.

Competence refers to the degree to which a teacher is perceived to be knowledgeable

about a given subject matter, *extroversion* refers to the degree to which a teacher is

perceived to be outgoing, *character* refers to the degree to which a teacher is trusted

by students, *composure* refers to the degree of emotional control exhibited by a

teacher, and *sociability* refers to the degree to which a teacher is considered to be

warm and friendly (McCroskey, 1992).

A 1981 study by McCroskey and Young published in the *Central States*

Speech Journal further refined the construct of source credibility. McCroskey and

Young argued that the McCroskey, Holdridge, and Toomb (1974) study used

instruments that were never intended to measure source credibility to identify the

dimensions of source credibility. McCroskey and Young sought to identify the

dimensions of source credibility that closely paralleled source credibility theoretical research. These researchers argued that only competence and character were viable representations of source credibility as they were the only two dimensions that were theoretically grounded in the source credibility literature. McCroskey and Young suggested that although sociability, composure, and extroversion make impressions on other people, they do not measure source credibility. They concluded future researchers should use the 12-item, two-factor measure they developed to conceptualize source credibility. While McCroskey and Young's study was not originally intended to develop a measure of teacher credibility, this source credibility measure has been used by many instructional communication researchers (Frymier & Thompson, 1992; Johnson & Miller, 2002; Patton, 1999; Schrodt, 2003).

However, while McCroskey's and Young's source credibility measure considered competence and character, it left out the third part of Aristotle's conceptualization of *ethos*, goodwill. Upon reexamining Aristotle's teachings, McCroskey (1992) hypothesized that in addition to competence and character, goodwill (later re-conceptualized as caring) was an important dimension of teacher credibility. McCroskey suggested "caring" was a combination of behaviors that display empathy, understanding, and responsiveness. *Empathy* refers to a teacher's ability to identify with students' feelings; *understanding* refers to a teacher's success in identifying the ideas and needs of students; and *responsiveness* refers to a teacher's attentiveness and perceived ability to listen. Teven and McCroskey (1997) examined the dimension of caring and concluded that caring was a dimension of teacher

credibility to which students respond. McCroskey and Teven (1999) refined the measure of source credibility, which is now an 18-item, three-dimension measure. Six items measure competence, six items measure character, and six items measure caring.

Teacher credibility, now most frequently conceptualized as the degree to which an instructor is viewed as being competent, having character, and demonstrating caring (McCroskey & Teven, 1999), is fundamental to teacher-student interaction (Myers, 2001; Semlak & Pearson, 2008). A teacher must be perceived as possessing all three to be viewed as believable. It is possible for an instructor to be higher in one dimension than the other two, but research shows students view their teachers as most credible when they are perceived as possessing competence, having character, and being capable of caring (McCroskey, 1998).

In the classroom, source credibility is viewed as "the attitude of a receiver that references the degree to which a source is seen to be believable" (McCroskey, 1998, p. 80). It is important to note that source credibility rests in the minds of students. Teachers may engage in communication behaviors that they believe exhibit competence, character, and caring, but unless students perceive and respond to these behaviors accordingly, teachers will not be considered to be credible. In fact, "teacher credibility is a perception on the part of the student, and does not necessarily correspond to reality" (Hurt, Scott, and McCroskey, 1977, p. 199). Thus, students' perceptions of a teacher's credibility can have far-reaching implications.

Source credibility is critical to the learning process, with a positive correlation between perceived teacher credibility and student learning (Deluchi & Pelowski, 2000; Teven & McCroskey, 1997; Thweatt & McCroskey, 1998). Teacher credibility has been linked to ratings of student satisfaction (Teven & Herring, 2005), course ratings, teaching evaluations, and the desire to take another course from the same instructor (Kearney, 1994). Teachers who are perceived as credible have a great deal of influence in the classroom. Students who view their teachers as credible can recall course information (Wheeless, 1975), are motivated to perform well academically (Frymier & Thompson, 1992; Martin, Chesebro, & Mottet, 1997), and report gains in affective and cognitive learning (Johnson & Miller, 2002; Russ, Simonds, & Hunt, 2002; Teven & McCroskey, 1997). Credible teachers inspire students to have respect for them (Martinez, Egger & Powers, 2002), evaluate them highly (Teven & McCroskey, 1997), contribute to class discussions (Myers, 2004), and recommend them to their friends (Nadler & Nadler, 2001).

Clearly, teacher credibility is influential in the classroom, and it is essential for prospective teachers and current educators and administrators to grasp an understanding of the pervasive role it plays in teacher-student interaction. However, although the importance of teacher credibility has been well documented, there is no baseline for what constitutes perceived credibility for a "good professor." Additionally, there is a lack of consensus regarding whether there are sex differences and/or gender differences in student perceptions of instructor credibility. Thus, this study advances the following questions:

RQ2a: Are there significant differences in students' ratings of instructor credibility for male and female instructors?

RQ2b: Are there significant differences in the ways male and female students rate their male and female instructors?

RQ2c: Are there significant differences in students' ratings of instructor credibility for "good" instructors as compared to their male and female instructors?

RQ2d: Are there significant differences in students' ratings along the three dimensions of competence, character, and caring for male instructors?

RQ2e: Are there significant differences in students' ratings along the three dimensions of competence, character, and caring for female instructors?

RQ3: Is there a relationship between students' ratings of instructor credibility and perceived gender identity?

Communication Style

Communication scholars are particularly interested in teacher credibility, as it is based on students' impressions of instructors' verbal and nonverbal communication behaviors (Hendrix, 1997). A number of communication scholars have noted the positive relationship between teacher credibility and communication behaviors. For example, teachers who demonstrate competence, character, and/or caring are considered to be verbally and nonverbally immediate (Johnson & Miller, 2002; Teven, 2001; Thweatt, 1999) and to use affinity-seeking strategies (Frymier & Thompson, 1992; Thweatt, 1999). Myers and Bryant (2004) identified a number of

instructor communicative behaviors students describe as conveying instructor credibility. They suggest instructors convey *competence* through content expertise, affect for students, and verbal fluency; instructors convey *character* through immediacy, flexibility, promotion of understanding, and trustworthiness; and instructors convey *caring* through responsiveness, accommodation, and accessibility.

One important factor that may mediate an instructor's communication behaviors is his or her socio-communicative style, which refers to an individual's tendency to react, associate, and adapt to another in communication situations (Richmond & McCroskey, 1990). Assertiveness and responsiveness are the two major dimensions of *socio-communicative style*, which is based primarily on observed communication behaviors (Richmond & McCroskey, 1990).

Assertiveness is defined as the "capacity to make requests, actively disagree, express positive or negative personal rights and feelings, initiate, maintain or disengage from conversations, and stand up for oneself without attacking another" (McCroskey & Richmond, 1996, p. 92). Assertive people, who are described as dominant, competitive, and independent, stand up for their rights and make requests (Klopf, 1991; Richmond & McCroskey, 1995).

Responsiveness is defined as the "capacity to be sensitive to the communication of others, to be a good listener, to make others comfortable in communicating, and to recognize the needs and desires of others" (McCroskey & Richmond, 1996, p. 93). Responsive people, who are described as helpful, empathic,

gentle, and friendly, respond to others by being understanding and sympathetic and by exhibiting compassion (Klopf, 1991; Richmond & McCroskey, 1995).

Assertive individuals are considered extroverted and powerful, while responsive individuals are considered trustworthy and sociable (Lamke, Sollie, Durbin, & Fitzpatrick, 1994). The fundamental difference between assertiveness and responsiveness is that assertive individuals insist that their own rights are respected, whereas responsive individuals recognize the rights and needs of others (Richmond & McCroskey, 1995). A combination of both assertiveness and responsiveness appears to be most valuable. Being both appropriately assertive and appropriately responsive is considered to be a component of effective communication (McCroskey & Richmond, 1996).

In an educational setting, perceived instructor assertiveness and responsiveness influence student perceptions of a variety of communication behaviors. Instructors who display both assertiveness and responsiveness are considered to be nonverbally immediate (Wanzer & Frymier, 1999) and clear (Sidelinger & McCroskey, 1997). Instructors who are responsive are viewed as understanding and sensitive (Kearney, 1984), as verbally receptive to students (Robinson, 1993), and as contributing to perceived student learning (Robinson, 1993; Wanzer & Frymier, 1999).

Richmond and McCroskey (1992) classify individuals as having one of four different socio-communicative styles. Those who have both assertive and responsive skills are labeled as *competent*. People who are assertive but not responsive are

labeled as *aggressive*, and people who are responsive but not assertive are labeled as *submissive*. Those who are neither assertive nor responsive are labeled as *noncompetent*. Richmond and McCroskey (1992) found differentiation among competent, aggressive, submissive, and noncompetent individuals. They found that competent people are open to communication and stand up for themselves, unlike aggressive communicators, who are control-oriented and display fewer immediacy and attentiveness behaviors. Submissive communicators are self-sacrificing and yielding, but do not stand up for themselves. Noncompetent individuals lack either assertive or responsive behaviors and, perhaps unsurprisingly, are the least successful communicators.

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Gender Differences in Communication

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Theoretically, men and women often are believed to communicate differently, which begs the question of whether there are real differences in their communication styles. From self-help books to magazine articles to talk shows, pop culture suggests that men and women are very different—perhaps even from different planets. Leadership guides for women, including, *The Difference "Difference" Makes: Women and Leadership* (Rhode, 2002), *Why the Best Man for the Job is a Woman: The Unique Female Qualities of Leadership* (Book, 2001), *The Female Advantage: Women's Ways of Leadership* (Helgesen, 1990), and *Why Women Should Rule the World* (Myers, 2009) embrace the idea that there are significant differences between men and women in the workplace. However, the scientific literature suggests the differences might not be as large as pop culture tells us. Two meta-analytic reviews

that report average differences between the sexes suggest men and women behave similarly more than 98% of the time (Canary & Hause, 1993; Wilkins & Anderson, 1991).

Considering credibility is based on impressions of verbal and nonverbal communication behaviors (Hendrix, 1997; Myers & Bryant, 2004), it is important to consider the much-debated issue of whether there are differences in the communication behaviors of male and female authority figures. Some researchers argue there are no significant differences between the communication of male and female managers (e.g., Birdsall, 1980; Kipnis, 1983; Szilagyi, 1980). Wilkins' and Andersen's (1991) meta-analysis of gender differences and similarities in management communication found inconsistent conclusions from 25 primary studies of managerial gender communication. Based on the quantitative findings they used for their study, the researchers concluded there is no meaningful difference in the communication behaviors of male and female managers.

Other researchers suggest there are, in fact, significant differences in the communication of male and female managers (e.g., Baird & Bradley, 1979; Berryman-Fink, 1982; Staley & Shockley-Zalabak, 1986). For example, some research shows women tend to use more communal behaviors than men, even when their role as a leader calls for agentic behaviors (Moskowitz, Suh, & Desaulniers, 1994). Research also has shown women in organizational settings to be more relationship-oriented (Fairhurst, 1993), to use a more democratic style of communication (Eagly & Johnson, 1990), to use more affiliative/depowering

communication strategies (Baker, 1991), and to communicate with their supervisors for affection and relaxation more often than males (Anderson & Martin, 1995). Women have been shown to be more expressive of certain emotions (Manstead, 1998) and are better at sending and decoding nonverbal messages (Brody, 1996; Brody & Hall, 2000). Men have been shown to be better at controlling their nonverbal expressions (Brody, 1996; Brody & Hall, 2000) and are more instrumental or task-oriented (Stuhlmacher & Walters, 1999; Walters, Stuhlmacher, & Meyer, 1998).

As this research shows, when men and women exhibit differences in communication, they typically fit stereotypic expectations, with women behaving in traditionally feminine ways and men behaving in traditionally masculine ways. Social role theory helps to explain this phenomenon by suggesting people's beliefs about the sexes constitute gender roles, which help to foster real differences in behavior (Eagly, Wood, & Diekman, 2000).

Socio-communicative style, as previously discussed, conceptually equates assertive behaviors with masculinity, and responsive behaviors with femininity (Bem, 1974; Richmond & McCroskey, 1995). Some research has shown that assertiveness is associated with instrumental competence, and responsiveness is associated with expressive competence (Lamke, Sollie, Durbin & Fitzpatrick, 1994). However, little research has examined students' expectations for socio-communicative style. It would be useful to determine how students classify the socio-communicative style of a hypothetical good instructor to better understand students' communication preferences and expectations. It also is important to consider the similarities and

differences in male and female instructors' perceived socio-communicative style and how both compare to the socio-communicative style of a "good instructor." This is an important area for consideration because conceptually, assertiveness equates with masculinity and responsiveness equates with femininity, but little research exists to confirm this conceptualization. Moreover, it could be helpful for instructors to model the socio-communicative styles of the instructors described in this study, as they have been identified by students as good instructors. Thus, this research seeks to examine the following research question:

> RQ4: Are there significant differences in students' perceptions of the socio-communicative style of a "good instructor," their male instructors, and their female instructors?

Additionally, this study seeks to examine whether the professors deemed most credible exhibit more stereotypically masculine, assertive communication styles, or more stereotypically feminine, responsive styles. A previous study examined the link between socio-communicative style and instructor credibility and found that instructors who exhibit both assertiveness and responsiveness (competent communicators) were found to be most credible (Martin, Chesebro, & Mottet, 1997). However, this is the only study that links socio-communicative style with instructor credibility. Through examination of students' perceptions of good instructors, the present study seeks to support and extend Martin, Chesebro, and Mottet's findings by examining the following research question:

RQ5: Do instructors with different socio-communicative styles differ in students' perceptions of their instructor credibility (competence, character, and caring)?

Characteristics of Effective College Teachers

A further area of inquiry for this study is an examination of the ways students describe their male and female instructors, and thus it is important to consider previous research on characteristics of effective college instructors. Sheehan's (1999) study of characteristics of effective teaching indicated that students linked the following factors to teacher effectiveness: informative lectures, papers that evaluated course content, interesting lectures, instructor preparedness, and degree to which the course was perceived as challenging. In their study of student perceptions, Crumbley, Henry, and Kratchman (2001) identified the following instructor traits students reported as likely to positively influence instructor evaluations: teaching style, presentation skills, enthusiasm, preparation and organization, and fairness related to grading.

Spencer and Schmelkin (2002) found that instructors who demonstrated concern for students, valued student opinions, were clear in their communication, and were open toward varied opinions were considered effective teachers. Schaeffer, Epting, Zinn, and Buskit (2003) looked at both the perspectives of faculty and students in their study of the most important qualities representing effective college teaching. They found that both groups agreed on eight of the top ten traits:

knowledgeable, encouraging and caring, approachable, creative and interesting, realistic expectations and fair, enthusiastic, flexible and open-minded, and respectful.

Greimel-Fuhrmann and Geyer's (2003) study indicated that clear explanations of subject content, responsiveness to students' questions and viewpoints, creative approaches toward instruction, a sense of humor, and a balanced or fair approach toward classroom discipline positively influenced students' perceptions of their instructors. Okpala and Ellis (2005) found that caring for students and their learning, teaching skills, content knowledge, dedication to teaching, and verbal skills were key components of students' perceptions of teacher quality.

Much of the research on characteristics of effective college instructors employs a quantitative framework. Additionally, five of this study's research questions use a quantitative approach to examine how instructor sex, perceived gender identity, and communication style influence students' perceptions of instructor credibility. However, as previously discussed, Sprague and Massoni (2005) suggest the form gender bias takes may not be easily detectible by quantitative scales. Thus, in addition to quantitative methods, this study will use open-ended questions to examine how students describe their instructors. The following research question will be considered:

RQ6: How do students describe the qualities of a hypothetical "good instructor," a good female instructor, and a good male instructor?

Conclusion

By reviewing the literature on social role theory, gender role classification, gender stereotypes, students' expectations of instructors, the gender gap in higher education, instructor credibility, and socio-communicative style, this chapter helps to provide context for the study of the relationships between students' perceptions of instructors' credibility, perceived gender identity, and communication style. The next chapter outlines the methods used for this study.

CHAPTER THREE

Method

The present study examines the relationship between students' perceptions of instructors' credibility, perceived gender identity, and communication style. This chapter outlines the methodology involved in this research. It is organized as follows: research design, participants and data collection, instruments, and statistical tools used to analyze the data.

Research Design

This study used a mixed methods approach with a cross-sectional design. Data were collected using both closed-ended and open-ended survey questions. The closed-ended responses were analyzed through quantitative methods, whereas the open-ended responses were analyzed through content analysis. This mixed-method approach was selected because combining methods can provide a better understanding of a research problem, offer more comprehensive evidence for a study, and provide strengths that offset the weaknesses of both types of research (Creswell & Plano-Clark, 2006).

One of the study's objectives was to analyze students' perceptions of a hypothetical good instructor and if students' gender role expectations for this person are masculine, feminine, or both. While some past research has considered "ideal" traits for professors (Rubin, 1981), the researcher instead decided to ask about the traits of a good professor: a person students consider to be good at his or her job and

whose class they would like to take. This was done to avoid the potential of a uniformly glowing view of an "ideal" professor. The term "good" was used throughout the survey: a hypothetical good instructor, "a female instructor you've had in college who you'd consider a good instructor," and "a male instructor you've had in college who you'd consider a good instructor."

Participants and Data Collection

The sample consisted of 461 undergraduate students (35.8% male and 64.2% female) enrolled in communication courses at two large research institutions: the University of Kansas and the University of Oklahoma; three mid-sized institutions: James Madison University, Missouri Western University, and the University of Missouri—Kansas City; and two smaller universities: Washburn University and Rockhurst University. Participants for this study were randomly selected (convenience sampling). The participants were sophomores, juniors, and seniors in college, and the mean age of the participants was 21.37 (*SD*= 4.98).

Participants were invited to participate on a voluntary basis and with the permission of appropriate university personnel. Participants completed an online survey that took approximately one half hour to complete. All procedures for the study, including participant consent and confidentiality protection, were expressed in written format (see Appendix A). The survey explicitly stated that participants could end their participation at any time. There was no monetary compensation associated with this study.

An online questionnaire (see Appendix B) was administered to all consenting students. The questionnaire consisted of demographic items, questions regarding a hypothetical "good instructor," and questions regarding two previous instructors: a good female instructor and a good male instructor. This method provided data regarding instructors from various academic disciplines. For each of the three instructors, students completed a Teacher Credibility Scale, an Assertiveness-Responsiveness Measure, a Personality Traits Scale, and a Personal Attributes Questionnaire. To control for potential bias, two different versions of the survey were administered: one version listed the section for a "good female instructor" first, and the other version listed the section for a "good male instructor" first.

Prior to administering the survey, it was pilot tested with 32 students enrolled in communication courses at the University of Kansas. This sample was selected because these students were members of the target population. After students completed the survey, they were asked whether any questions seemed vague or confusing. The students did not raise any significant issues. However, analysis of this data showed that one item caused the Instrumentality—Expressiveness Scale to fail to achieve reliability. This will be further discussed in the "Instruments" section.

Instruments

This section describes each of the instruments used in this study. The following instruments are described: McCroskey and Teven's Teacher Credibility Scale, Huddy and Terkildsen's Personality Traits Scale, Spence and Helmreich's Personal Attributes Questionnaire, and McCroskey and Richmond's Assertiveness-

Responsiveness Measure, as well as the open-ended survey questions used in the study.

Teacher Credibility Scale

Students' attitudes toward or evaluation of their professors was assessed with the Teacher Credibility Scale (McCroskey & Teven, 1999). This scale uses 18 items to measure perceptions of credibility across three dimensions: competence (six items), character (six items), and caring (six items). The competence subscale consists of the following six traits: intelligent, trained, expert, informed, competent, and bright. The character subscale comprises these six traits: honest, trustworthy, honorable, moral, ethical, and genuine. The caring subscale consists of the following six traits: cares about me, has my interests at heart, not self-centered, concerned with me, sensitive, and understanding. The instrument uses a seven-point bipolar semantic differential scale, with pairs of descriptors for each dimension (i.e., intelligent versus unintelligent; trained versus untrained; moral versus immoral).

This three-dimension scale is a modified version of the Perceived Teacher Credibility Scale developed by McCroskey and Young in 1981. As previously discussed, the most important change to the scale was replacing the original dimension of "goodwill" with the "caring" dimension (Teven & McCroskey, 1997). Teven & McCroskey (1997) reported alpha reliabilities for the three dimensions of credibility as .89 for competence, .83 for trustworthiness, and .93 for caring. In a reexamination of the instrument, the researchers reported consistent results: .85 for competence, .92 for trustworthiness, and .92 for caring (McCroskey & Teven, 1999).

Cronbach's alpha for this study's data indicated acceptable reliability on all three

dimensions for each of the three categories of instructors. For the good instructors,

competence = .81; character = .86; and caring = .78; for the male instructors,

competence = .85; character = .88; and caring = .84; and for the female instructors,

competence = .90; character = .92; and caring = .86.

Huddy and Terkildsen's Personality Traits Scale

Instructors' perceived masculinity (instrumentality) and femininity

(expressiveness) were assessed using Huddy and Terkildsen's (1993) personality

traits scale. This 16-item instrument considers typical masculine traits and typical

feminine traits, and was created by selecting traits from Best and Williams' (1990)

list of masculine and feminine traits. The masculine traits (assertive, coarse, tough,

aggressive, stern, masculine, active, rational, and self-confident) are combined to

construct an *instrumentality* scale. Seven typical feminine traits (warm, gentle,

feminine, sensitive, emotional, talkative, and cautious) are combined to form a

warmth and expressiveness scale. Traits are rated from one (not well at all) to four

(very well), and both scales are converted to a metric that ranges from 1 to 20 for

comparison purposes. Reliability coefficients from .74 to .77 were reported for the

instrumentality measure and .73 for the warmth and expressiveness measure (Huddy

& Terkildsen, 1993).

Pilot testing of this scale for this particular study revealed that the trait

"coarse" from the instrumentality scale caused the scale to fail to achieve reliability.

Thus, a focus group with 12 undergraduate students was conducted to determine

student perceptions of this particular trait in reference to college instructors. Discussion revealed that the word did not have a consistent meaning for students. Some students felt that coarse meant "challenging," while others felt that the word was more closely related to "demanding." Because both of these terms also express instrumentality, they were added to the scale.

Cronbach's alpha for this study's data indicated unacceptable reliability on both dimensions. For the good instructors, instrumentality = .65 and expressiveness = .61; for the male instructors, instrumentality = .75 and expressiveness = .66; and for the female instructors, instrumentality = .80 and expressiveness = .77. Therefore, the data collected using Huddy & Terkildsen's scale will not be analyzed for this study.

Personal Attributes Questionnaire

The Personal Attributes Questionnaire (PAQ) was used to assess students' perceptions of masculine, feminine, and androgynous personality traits of their male and female instructors. The scale includes eight items from each of three subscales: masculinity (M), femininity (F), and masculinity-femininity (M-F) (which is included but not scored). The masculine scale is comprised of instrumental behavior traits that stereotypically are more characteristic of males than females (i.e., independence, self-confidence). The feminine scale contains items that are associated with interpersonally oriented behavior or expressiveness and are more stereotypical of females (i.e., gentle, helpful, kind). Traits are rated using a seven-point Likert scale ranging from one (never or almost never true) to seven (always or almost always true).

The original form of the PAQ (Spence, Helmreich, & Stapp, 1974) contained 55 items, but later was reduced to a shortened form with 24 items (Spence, Helmreich, & Stapp, 1975). Spence & Helmreich (1978) reported alpha reliabilities for short form of this instrument as .85 for masculinity and .82 for femininity.

The PAQ is scored using the median split method. First, median scores for the entire sample are determined on the M and F scales. Then, individuals are classified according to their position above or below the median on the two scales into four categories. Subjects are considered masculine (a score that is above the median on the M scale but below the median on the F scale), feminine (a score that is above the median on the F scale but below the median on the M scale), androgynous (a score that is above the median on both the M and F scales), or undifferentiated (a score which is below the median on both the M and F scales).

For this study, an internal consistency estimate of reliability was computed for the PAQ. Values for coefficient alpha were as follows: for a hypothetical good instructor, .59 for the masculinity scale and .74 for the femininity scale; for female instructors, .60 for the masculinity scale and .88 for the femininity scale; and for male instructors, .71 for the masculinity scale and .85 for the femininity scale. Unfortunately, satisfactory reliability was not obtained for the masculinity scale for the hypothetical good instructors or the female instructors, and therefore research question one, which asks whether a good instructor is considered to be masculine, feminine, or androgynous, cannot be analyzed. Additionally, the third research question, which asks if there is a relationship between students' ratings of instructor

credibility and perceived gender identity, relies on scores from the PAQ, and

therefore this question cannot be analyzed. Implications of the PAQ's unsatisfactory

reliability for this study will be further considered in the discussion section.

Socio-communicative style

      Socio-communicative style was assessed using the Assertiveness-

Responsiveness Measure, a 20-item instrument that asks participants to report their

perceptions of an individual's use of assertive (10 items) and responsive (10 items)

behaviors. Assertive items include defends own beliefs, independent, has strong

personality, assertive, dominant, willing to take a stand, acts as a leader, aggressive,

competitive, and forceful. Responsiveness items include helpful, responsive to others,

sympathetic, compassionate, sensitive to the feelings of others, sincere, gentle, warm,

tender, and friendly. This instrument is used both as a self-report and as a report of

perceptions concerning another individual. A seven-point Likert scale ranging from

strongly agree (7) to strongly disagree (1) was used. Items for assertiveness and

responsiveness were randomly intermingled in the survey. Reliability coefficients

from .87 to .91 have been reported for the assertiveness measure and from .91 to .93

for the responsiveness measure (Myers & Avtgis, 1997; Wanzer & McCroskey, 1998;

Wooten & McCroskey, 1996). Cronbach's alpha for this study's data indicated

acceptable reliability on both the assertiveness and the responsiveness measure for

each of the three categories of instructors. For the good instructors, assertiveness =

.77 and responsiveness = .90; for the male instructors, assertiveness = .82 and

responsiveness = .90; and for the female instructors, assertiveness = .84 and
responsiveness = .93.

The Assertiveness-Responsiveness measure is scored using the median split
method. First, median scores for the entire sample are determined on the assertiveness
and responsiveness scales. Then, individuals are classified according to their position
above or below the median on the two scales into four categories. Subjects are
considered competent (a score that is above the median on both the assertiveness
scale and the responsiveness scale), aggressive (a score that is above the median on
the assertiveness scale but below the median on the responsiveness scale), submissive
(a score that is below the median on the assertiveness scale but above the median on
the responsiveness scale), or noncompetent (a score that is below the median on both
the assertiveness scale and the responsiveness scale).

To identify each instructor's socio-communicative style, median splits were
made for each of the three groups. For good instructors, an assertiveness score
(participants with a score of 33 or lower were considered low while participants with
a score 34 or higher were considered high) and a responsiveness score (participants
with a score of 39 or lower were considered low while participants with a score of 40
or higher were considered high) were calculated. The scores were then used to
classify instructors for each socio-communicative style: noncompetents (n = 81),
submissives (n= 108), aggressives (n = 90), and competents (n = 182).

For male instructors, an assertiveness score (participants with a score of 36 or
lower were considered low while participants with a score 37 or higher were

considered high) and a responsiveness score (participants with a score of 39 or lower were considered low while participants with a score of 40 or higher were considered high) were calculated. The scores were then used to classify instructors for each socio-communicative style: noncompetents (n = 102), submissives (n= 112), aggressives (n = 122), and competents (n = 125).

For female instructors, an assertiveness score (participants with a score of 35 or lower were considered low while participants with a score 36 or higher were considered high) and a responsiveness score (participants with a score of 40 or lower were considered low while participants with a score of 41 or higher were considered high) were calculated. The scores were then used to classify instructors for each socio-communicative style: noncompetents (n = 81), submissives (n= 96), aggressives (n = 122), and competents (n = 162).

Open-ended survey questions

Three open-ended questions also were included. The first, "When you think about a good instructor, what comes to mind?" was designed to assess the characteristics students consider important to good instructors. The other two questions were "Think about a male instructor you've had in college who you'd consider to be a good instructor. What made this person a good instructor?" and "Think about a female instructor you've had in college who you'd consider to be a good instructor. What made this person a good instructor?" These questions were designed to gain an understanding of the characteristics students use to describe their

male and female professors to determine whether there are similarities and differences.

Statistical Tools

A variety of statistical procedures were used to analyze the data in this investigation. For each of the five parts of the second research question, which consider students' ratings of instructor credibility for good instructors, male instructors and female instructors, a one-way repeated-measures ANOVA was conducted with follow-up paired-sample t tests to compare mean scores. To analyze research question four, which asks whether there are significant differences in students' perceptions of the socio-communicative style of a "good instructor," their male instructors, and their female instructors, a one-way repeated measures ANOVA with follow-up paired-sample t tests was used. For research question five, which considers whether instructors with different socio-communicative styles differ in students' perceptions of their competence, character, and caring, a one-way multivariate analysis of variance (MANOVA) was conducted to see if there were significant differences between the four socio-communicative styles. The four styles served as the independent variables while the three dimensions of credibility served as the dependent variables.

To analyze the open-ended questions, content analysis was used. This procedure was followed for each of three questions: "When you think about a good instructor (a person you'd consider to be good at his or her job and whose class you'd like to take), what comes to mind?" "What made your female instructor a good

instructor?" and "What made your male instructor a good instructor?" To analyze the data, the student responses on the questionnaires were open coded to develop categories of information by providing conceptual labels for each example provided (Creswell, 1998). Then, the labels were compared to determine the themes that emerged from each question. This method provides a systematic way to generate an integrated, consistent coding scheme while still allowing themes to emerge from the data. A new category was added each time an example was perceived as different from a previous example. Categories were added, combined, and revised in an emergent manner until the set of categories did not require further modification with additional data cases. To illustrate the interrelationship of categories, axial coding was then used to link categories into unifying themes.

CHAPTER FOUR

Results

The purpose of this study is to examine the relationships between students' perceptions of instructors' credibility, perceived gender identity, and communication style; to analyze ways students describe their instructors; and to assess how well good male and good female instructors meet the expectations for a hypothetical good instructor. This chapter presents instructor demographic information as well as data analysis for each of the research questions.

Participant Demographics

Demographic information was collected from students regarding their age, sex, ethnicity, and major. The sample consisted of 461 undergraduate sophomores, juniors, and seniors in college, and the mean age of the participants was 21.37 (*SD*= 4.98). Regarding sex, 35.8% of students were male and 64.2% were female. Students' ethnicity was as follows: a majority (81.1%) of students identified themselves as Non-Hispanic/White, 4.8% as Spanish/Hispanic Origin, 4.8% as Asian/Pacific Islander, 3.5% as African-American, 1.9% as Multiracial, 0.9% Native American, and 3.0% as "other." Of the 403 students who listed their academic major, 43.4% of students listed a liberal arts and science major, 31.0% were business majors, 6.9% were journalism majors, 4.5% were enrolled in allied health programs, 4.5% were nursing majors, 3.7% were education majors, 2.0% were in social welfare programs, and 4.0% were undecided about their major.

Instructor Demographics

Demographic information was collected from students regarding their male and female instructors' age, ethnicity, and department. Ages were reported as categories. Male instructors' ages were reported as follows: 25-34 = 23.4%; 35-44 = 31.7%; 45-54 = 23.9%; 55-64 = 15.0%; 65-74 = 5.2%; and older than 75 = 0.9%. Female instructors' ages were reported as follows: 25-34 = 43.0%; 35-44 = 27.5%; 45-54 = 19.7%; 55-64 = 9.1%; 65-74 =.2%; and older than 75 = 0.4%. Regarding ethnicity, a majority (85.9%) of male instructors were identified as Non-Hispanic/White, 3.3% as African-American, 2.2% as Spanish/Hispanic Origin, 1.7% as Multiracial, 1.3% Asian/Pacific Islander, 1.3% Native American, and 4.3% as "other." A majority (88.9%) of female instructors also were identified as Non-Hispanic/White, 3.0% as African-American, 2.4% as Spanish/Hispanic Origin, 2.0% as Multiracial, 1.1% Native American, 0.7% Asian/Pacific Islander, and 2.0% as "other." Fifty-two academic areas of study were represented.

Instructor Credibility for Good Instructors,

Male Instructors, and Female Instructors

As discussed in the literature review, the second research question has five parts. Research question 2a considers whether students rate good male and good female instructors differently in terms of their credibility. Research question 2b compares the credibility ratings of these male and female instructors to the credibility ratings of the hypothetical good instructors. Research question 2c considers whether male and female students rate their male and female instructors differently. Research

question 2d analyzes whether there are differences in the ways students rate male

instructors in terms of their competence, character, and credibility, and research

question 2e analyzes whether there are differences in the ways students rate female

instructors in terms of their competence, character, and credibility.

Instructor Credibility for male and female instructors

To analyze research question 2a, which asks if there are significant differences

in students' ratings of instructor credibility for male instructors and for female

instructors, a one-way repeated measures ANOVA was conducted with the factor

being instructor sex and the dependent variable being the instructor credibility scores:

competence, character, and caring. The means and standard deviations for the male

and female instructor credibility scores are presented in Table 1. The results for the

ANOVA were significant, Wilks's $\Lambda = .56$, $F(1, 460) = 71.14$, $p<.05$, multivariate η^2

$= .44$.

Three follow-up paired-sample *t* tests were conducted to evaluate whether

male or female instructors were rated higher in terms of competence, character, and

caring. Familywise error was controlled for across the three tests at the .05 level using

the Holm's sequential Bonferroni procedure. For the dimension of competence, the

results indicated that the mean score for male instructors' competence ($M = 39.27$,

$SD = 4.07$) was not significantly different from the mean score for female instructors'

competence ($M = 38.80$, $SD = 4.78$), $t(460) = 2.219$, $p>.025$, but did approach

significance ($p=.027$). For the dimension of character, the mean score for male

instructors' character ($M = 38.98$, $SD = 4.30$) and the mean score for female

instructors' character ($M = 39.03$, $SD = 4.77$) were not significantly different. For the dimension of caring, the mean score for male instructors' caring ($M = 35.22$, $SD = 5.77$) was significantly lower than the mean score for female instructors' caring ($M = 36.72$, $SD = 5.53$), $t(460) = -5.15$, $p<.017$.

Table 1

Instructor Credibility Scores for Male and Female Instructors

Instructor credibility subscale	Male instructors		Female instructors	
	Mean score	Standard deviation	Mean score	Standard deviation
Competence	39.27	4.07	38.80	4.78
Character	38.98	4.30	39.03	4.77
Caring	35.22*	5.77	36.72*	5.53

Note: Sample size = 461.

*p<.01

The influence of student sex on ratings

Considering previous research has found that male students rate male instructors higher than female instructors and female students rate female instructors higher than male instructors, it is important to consider whether there are significant differences in the ways male and female students rated their male and female instructors. Overall, a comparison of the mean scores of male students and female

students shows that female students rated instructors higher than male students, whether male or female instructors.

To analyze research question 2b, which asks if there are significant differences in male students' ratings of instructor credibility for male instructors and for female instructors, a one-way repeated measures ANOVA was conducted with the factor being instructor sex and the dependent variable being the instructor credibility scores: competence, character, and caring. The means for the male and female instructor credibility scores are presented in Table 2. The results for the ANOVA were significant, Wilks's Λ = .56, $F(1, 460)$ = 25.07, $p<.05$, multivariate η^2 = .44.

Three follow-up paired-sample t tests were conducted to evaluate whether male students rated male or female instructors higher in terms of competence, character, and caring. None of the three tests were significant, controlling for familywise error rate across the three tests at the .05 level using the Holm's sequential Bonferroni procedure.

To determine if there are significant differences in female students' ratings of instructor credibility for male instructors and for female instructors, a one-way repeated measures ANOVA was conducted with the factor being instructor sex and the dependent variable being the instructor credibility scores: competence, character, and caring. The means for the male and female instructor credibility scores are presented in Table 2. The results for the ANOVA were significant, Wilks's Λ = .56, $F(1, 460)$ = 46.52, $p<.05$, multivariate η^2 = .44.

Three follow up paired-sample *t* tests were conducted to evaluate whether female students rated male or female instructors higher in terms of competence, character, and caring. Only the test for caring was significant, controlling for familywise error rate across the three tests at the .05 level using the Holm's sequential Bonferroni procedure.

For the dimension of competence, the results indicated that female students' mean score for male instructors' competence (*M* = 39.36, *SD* = 3.77) and the mean score for female instructors' competence (*M* = 39.15, *SD* = 4.09) were not significantly different. For the dimension of character, the mean score for male instructors' character (*M* = 39.13, *SD* = 3.97) and the mean score for female instructors' character (*M* = 39.38, *SD* = 4.20) were not significantly different. For the dimension of caring, the mean score for male instructors' caring (*M* = 35.48, *SD* = 5.76) was significantly lower than the mean score for female instructors' caring (*M* = 37.14, *SD* = 5.05), *t*(460) = -4.85, *p* =.017.

Table 2

Students' Mean Scores for Male and Female Instructors on Instructor Credibility (Competence, Character, and Caring)

Student sex	Male instructors			Female instructors		
	Competence	Character	Caring	Competence	Character	Caring
Male	39.12	38.73	34.74	38.18	38.39	35.97
Female	39.36	39.13	35.48*	39.15	39.38	37.14*

Note: Sample size = 461.

*p<.01

Comparing the credibility of good instructors to male and female instructors

  Research question 2c asks if there are significant differences in students' ratings of instructor credibility for hypothetical good instructors compared to their male instructors and to their female instructors. To analyze this question comparing good instructors to male instructors, a one-way repeated measures ANOVA was conducted with the factor being instructor sex and the dependent variable being the instructor credibility scores (along the three dimensions of competence, character, and caring). The means and standard deviations for the good instructor and the male instructor credibility scores are presented in Table 3 below. The results for the ANOVA were significant, Wilks's Λ = .54, $F(1, 460)$ = 78.72, $p<.05$, multivariate η^2 = .46.

Three follow-up paired-sample *t* tests were conducted to evaluate whether students rated good instructors or male instructors higher in terms of competence, character, and caring. Two of the three tests were significant, controlling for familywise error rate across the three tests at the .05 level using the Holm's sequential Bonferroni procedure.

The results indicated that for the dimension of competence, the mean score for male instructors' competence (*M* = 39.27, *SD* = 4.07) was significantly higher than the mean score for good instructors' competence (*M* = 38.26, *SD* = 4.53), Wilks's Λ = .95, *F(1, 460)* = 23.52, *p*<.017, multivariate η^2 = .05. For the dimension of character, the mean score for male instructors' character (*M* = 38.98, *SD* = 4.30) and the mean score for good instructors' character (*M* = 38.85, *SD* = 4.30) were not significantly different. For the dimension of caring, the mean score for male instructors' caring (*M* = 35.22, *SD* = 5.77) was significantly lower than the mean score for good instructors' caring (*M* = 36.38, *SD* = 4.56), Wilks's Λ = .96, *F(1, 460)* = 20.68, *p*=.017, multivariate η^2 = .04.

Table 3

Instructor Credibility Scores for Male Instructors and Good Instructors

Instructor credibility subscale	Male instructors		Good instructors	
	Mean score	Standard deviation	Mean score	Standard deviation
Competence	39.27*	4.07	38.26*	4.53
Character	38.98	4.30	38.85	4.56
Caring	35.22*	5.77	36.38*	4.56

Note: Sample size = 461.

*$p<.01$.

To examine whether there are significant differences in students' ratings of instructor credibility for hypothetical good instructors compared to their female instructors, a one-way repeated measures ANOVA was conducted with the factor being instructor sex and the dependent variable being the instructor credibility scores (along the three dimensions of competence, character, and caring). The means and standard deviations for the good instructor and the female instructor credibility scores are presented in Table 4 below. The results for the ANOVA were significant, Wilks's $\Lambda = .63$, $F(1, 460) = 53.23$, $p<.05$, multivariate $\eta^2 = .37$.

Three follow-up paired-sample *t* tests were conducted to evaluate whether students rated good instructors or male instructors higher in terms of competence, character, and caring. None of the three tests is significant, controlling for familywise

error rate across the three tests at the .05 level using the Holm's sequential Bonferroni

procedure.

Table 4

Instructor Credibility Scores for Female Instructors and Good Instructors

Instructor credibility subscale	Female instructors		Good instructors	
	Mean score	Standard deviation	Mean score	Standard deviation
Competence	38.80	4.78	38.26	4.53
Character	39.03	4.77	38.85	4.56
Caring	36.72	5.53	36.38	4.56

Note: Sample size = 461.

Male instructors' competence, character, and caring

　　　　Research question 2d asks whether there are there significant differences in

students' ratings of male instructors among the three dimensions of credibility

(competence, character, and caring). To analyze this question a one-way repeated

measures ANOVA was conducted with the factor being instructor sex and the

dependent variable being the instructor credibility scores (along the three dimensions

of competence, character, and caring). The means and standard deviations for the

male instructor credibility scores are presented in Table 5. The results indicated that

there are significant differences on the three dimensions of instructor credibility for male instructors, Wilks's Λ = .62, *F(1, 460)* = 1.41, *p*<.05, multivariate η^2 = .38.

Follow-up paired-sample *t* tests were conducted to evaluate whether the mean scores were higher for competence, character, or caring. Using the Bonferroni method each paired sample *t* test was tested at the .017 level. The results indicated that the mean score for male instructors' competence (*M* = 39.27, *SD* = 4.07) was significantly higher than the mean score for male caring (*M* = 35.22, *SD* = 5.77), *t*(460) = 15.90, *p*<.01, but not significantly higher that the mean score for male character (*M* = 38.99, *SD* = 4.30). The mean score for male instructors' character (*M* = 38.99, *SD* = 4.30) was significantly higher than the mean score for male caring (*M* = 35.22, *SD* = 5.77), *t*(460) = 16.26, *p*<.01.

Table 5

Instructor Credibility Scores for Male Instructors

Male instructor credibility subscale	Mean	Standard deviation
Competence	39.27_a	4.07
Character	38.98_a	4.30
Caring	35.22_b	5.77

Note: Sample size = 461. Means sharing a common subscript do not differ from each other significantly.

Female instructors' competence, character, and caring

Research question 2e asks whether there are there significant differences in students' ratings of female instructors among the three dimensions of credibility (competence, character, and caring). To analyze this question, a one-way repeated measures ANOVA was conducted with the factor being instructor sex and the dependent variable being the instructor credibility scores (along the three dimensions of competence, character, and caring). The means and standard deviations for the female instructor credibility scores are presented in Table 6 below. The results indicated that there are significant differences on the three dimensions of instructor credibility for female instructors, Wilks's Λ = .76, *F(1, 460)* = 74.37*, p<*.05, multivariate η^2 = .25.

Follow up paired-sample *t* tests were conducted to evaluate whether the mean scores were higher for competence, character, or caring. Using the Bonferroni method each paired-sample *t* test was tested at the .017 level. The results indicated that the mean score for female instructors' competence (*M* = 38.8, *SD* = 4.78) was significantly higher than the mean score for female instructors' caring (*M* = 36.72, *SD* = 5.53), *t*(460) = 9.53, *p<*.01. The mean score for female instructors' character (*M* = 39.03, *SD* = 4.77) also was significantly higher than the mean score for female instructors' caring (*M* = 36.72, *SD* = 5.53), *t*(460) = 12.21, *p<*.01. There was not a significant difference between the mean score for female instructors' competence (*M* = 38.8, *SD* = 4.78) and the mean score for female instructors' character (*M* = 39.03, *SD* = 4.77).

Table 6

Instructor Credibility Scores for Female Instructors

Female instructor credibility subscale	Mean	Standard deviation
Competence	38.80_a	4.78
Character	39.03_a	4.77
Caring	36.72_b	5.53

Note: Sample size = 461. Means sharing a common subscript do not differ from each other significantly.

Socio-Communicative Style and Instructor Sex

The fourth question asks if there are significant differences in students' perceptions of the socio-communicative style of a "good instructor," their male instructors, and their female instructors. To analyze whether there are differences in perceived socio-communicative style between good instructors and male instructors, a one-way repeated measures ANOVA was conducted with the dependent variables being the assertiveness and responsiveness scores. The means and standard deviations for good instructor and male instructor socio-communicative scale scores are presented in Table 7 below. The results for the ANOVA indicated a significant difference between good instructors' and male instructors' socio-communicative styles, Wilks's $\Lambda = .54$, $F(5, 460) = 1.31$, $p < .0125$, multivariate $\eta^2 = .46$.

A paired-samples *t* test was conducted to evaluate whether males or good instructors scored higher on assertiveness. The results indicated that the mean assertiveness score for males ($M = 37.03$, $SD = 5.91$) was significantly higher than the mean assertiveness score for the hypothetical good instructors ($M = 34.75$, $SD = 5.10$), $t(460) = -8.3$, $p < 0.05$. An additional paired-samples *t* test was conducted to evaluate whether males or good instructors scored higher on responsiveness. The results indicated that the mean responsiveness score for males ($M = 39.17$, $SD = 6.24$) was significantly lower than the mean responsiveness score for the hypothetical good instructors ($M = 40.56$, $SD = 5.88$), $t(460) = 4.62$, $p < 0.05$.

Table 7

Assertiveness-Responsiveness Scale Scores for Male and Good Instructors

Socio-communicative subscale	Male instructors		Good instructors	
	Mean score	Standard deviation	Mean score	Standard deviation
Assertiveness	37.03*	5.91	34.75*	5.10
Responsiveness	39.17*	6.24	40.56*	5.88

Note: Sample size = 461.

*p<.001.

To analyze whether there are differences in perceived socio-communicative style between good instructors and female instructors, a one-way repeated measures

ANOVA was conducted with the dependent variables being the assertiveness and responsiveness scores. The means and standard deviations for the good instructor and female instructor socio-communicative scores are presented in Table 8 below. The results for the ANOVA indicated a significant difference between good instructors' and female instructors' socio-communicative styles, Wilks's $\Lambda = .52$, $F(5, 460) = 1.42$, $p < .0125$, multivariate $\eta^2 = .48$.

A paired-samples t test was conducted to evaluate whether females or good instructors scored higher on assertiveness. The results indicated that the mean assertiveness score for females ($M = 36.36$, $SD = 6.14$) was significantly higher than the mean assertiveness score for the hypothetical good instructors ($M = 34.75$, $SD = 5.10$), $t(460) = -5.74$, $p < 0.025$. An additional paired-samples t test was conducted to evaluate whether males or good instructors scored higher on responsiveness. The results indicated that the mean responsiveness score for females ($M = 41.18$, $SD = 6.61$) was not significantly different from the mean responsiveness score for the hypothetical good instructors.

Table 8

Assertiveness-Responsiveness Scale Scores for Female and Good Instructors

Socio-communicative subscale	Female instructors		Good instructors	
	Mean score	Standard deviation	Mean score	Standard deviation
Assertiveness	36.36*	6.14	34.75*	5.10
Responsiveness	41.18	6.61	40.56	5.88

Note: Sample size = 461.

*p<.001.

To analyze whether there are differences in perceived socio-communicative style between male and female instructors, a one-way repeated measures ANOVA was conducted with the dependent variables being the assertiveness and responsiveness scores. The means and standard deviations for the male and female instructor socio-communicative scores are presented in Table 9 below. The results for the ANOVA indicated a significant difference between male instructors' and female instructors' socio-communicative styles, Wilks's Λ = .71, $F(5, 460)$ = 62.37, $p < .0125$, multivariate η^2 = .29.

A paired-samples *t* test was conducted to evaluate whether females or good instructors scored higher on assertiveness and responsiveness. Holm's sequential Bonferroni procedure was used to control for familywise error rate across the three tests at the .05 level. The results indicated that the mean assertiveness score for females (M = 36.36, SD = 6.14) was not significantly different from the mean

assertiveness score for the male instructors (M = 37.03, SD = 5.91), but approached

significance (p=.026). The results for responsiveness indicated that the mean

responsiveness score for females (M = 41.18, SD = 6.61) was significantly higher

than the mean responsiveness score for the male instructors (M = 39.17, SD = 6.24),

t(460) = -6.00, p <.025.

Table 9

Assertiveness-Responsiveness Scale Scores for Male and Female Instructors

Socio-communicative subscale	Male instructors		Female instructors	
	Mean score	Standard deviation	Mean score	Standard deviation
Assertiveness	37.03	5.91	36.36	6.14
Responsiveness	39.17*	6.24	41.18*	6.61

Note: Sample size = 461.

* p<.05

Socio-communicative style and instructor credibility

Research question five considers whether instructors with different socio-

communicative styles differed in students' perceptions of their competence, character,

and caring. First, the data will be presented for good instructors, followed by male

instructors and female instructors.

Good instructors' socio-communicative styles

To analyze this question for the good instructors, a one-way multivariate analysis of variance (MANOVA) was conducted to see if there are significant differences between the four socio-communicative styles. The four styles served as the independent variables while the three dimensions of credibility served as the dependent variables. For good instructors, the MANOVA was significant ($F(3,457) =$ 8.73, $p < .0125$, Wilks's $\Lambda = .85$). The multivariate η^2 based on Wilks's Λ was low, .05. Separate analysis of variance found significant differences for character (F $(3,457) = 3.74$, $p < .05$) and caring (F $(3,457) = 4.13$, $p < .05$), but not for competence ($F(3,457) = .65$, $p > .05$).

On the character dimension of credibility, good instructors with the socio-communicative style competent were perceived to have the highest character, followed by submissive, aggressive, and noncompetent instructors. Competent instructors differed significantly from noncompetent and aggressive instructors but not submissive instructors. Instructors low in assertiveness and low in responsiveness were perceived to have the lowest credibility.

On the caring dimension of credibility, competent instructors were perceived to have the highest caring, followed by submissive, noncompetent, and aggressive instructors. Competent instructors differed significantly from aggressive and noncompetent instructors but did not differ significantly from submissive instructors. Instructors high in assertiveness and low in responsiveness were perceived to be the lowest in caring.

Table 10

Differences in Good Instructors' Credibility Based on Socio-Communicative Styles

Variables	Competent		Aggressive		Submissive		Noncompetent	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Competence	38.74_a	4.51	37.69_a	4.50	38.40_a	3.68	37.60_a	5.48
Character	39.64_a	4.08	37.91_b	5.24	39.25_{ab}	3.35	37.58_b	5.64
Caring	37.78_a	4.09	33.80_b	3.96	37.46_a	3.39	34.64_b	5.69

Note: Sample size = 461. Means sharing a common subscript (in the rows) do not differ from each other significantly.

Male instructors' socio-communicative styles

To analyze research question six for the male instructors, a one-way multivariate analysis of variance (MANOVA) was conducted to see if there were significant differences between the four socio-communicative styles. The four styles served as the independent variables while the three dimensions of credibility served as the dependent variables. For male instructors, the MANOVA was significant ($F(3,457) = 13.87$, $p < .0125$, Wilks's $\Lambda = .77$). The multivariate η^2 based on Wilks's Λ was low at .08. Separate analysis of variance found significant differences for competence ($F(3,457) = 12.39$, $p > .05$), character ($F (3,457) = 7.99$, $p < .05$), and caring ($F (3,457) = 6.82$, $p < .05$).

On the competence dimension of credibility, male instructors with the socio-communicative style competent were perceived to have the highest competence,

followed by submissive, aggressive, and noncompetent instructors. Noncompetent instructors differed significantly from competent, submissive, and aggressive instructors. Competent, submissive, and aggressive instructors did not differ significantly from each other. Instructors low in assertiveness and low in responsiveness were perceived to have the lowest credibility.

On the character dimension of credibility, competent male instructors were perceived to have the highest character, followed by submissive, aggressive, and noncompetent instructors. Competent instructors differed significantly from noncompetent instructors, but did not differ significantly from submissive or aggressive instructors. Instructors low in assertiveness and low in responsiveness were perceived to be the lowest in character.

On the caring dimension of credibility, submissive male instructors were perceived to have the highest caring, followed by competent, noncompetent, and aggressive instructors. Again, competent instructors differed significantly from aggressive and noncompetent instructors, but did not differ significantly from submissive instructors. Instructors high in assertiveness and low in responsiveness were perceived to be the lowest in caring.

Table 11

Differences in Male Instructors' Credibility Based on Socio-Communicative Styles

Variables	Competent		Aggressive		Submissive		Noncompetent	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Competence	40.08_a	3.75	39.55_a	3.15	39.71_a	3.10	37.48_b	5.60
Character	39.97_a	4.02	38.57_{ab}	4.05	39.78_a	3.34	37.40_b	5.30
Caring	37.50_a	4.82	32.41_b	6.33	37.83_a	3.90	32.91_b	5.42

Note: Sample size = 461. Means sharing a common subscript (in the rows) do not differ from each other significantly.

Female instructors' socio-communicative styles

To analyze research question six for the female instructors, a one-way multivariate analysis of variance (MANOVA) was conducted to see if there were significant differences between the four socio-communicative styles. The four styles served as the independent variables while the three dimensions of credibility served as the dependent variables. For female instructors, the MANOVA was significant ($F(3,457) = 19.53$, $p < .0125$, Wilks's $\Lambda = .70$). The multivariate η^2 based on Wilks's Λ was low at .11. Separate analysis of variance found significant differences for competence ($F (3,457) = 19.77$, $p > .05$), character ($F (3,457) = 19.43$, $p < .05$), and caring ($F (3,457) = 18.28$, $p < .05$).

On the competence dimension of credibility, female instructors with the socio-communicative style competent were perceived to have the highest competence,

followed by submissive, aggressive, and noncompetent instructors. Competent instructors differed significantly from aggressive and noncompetent instructors, but not submissive instructors. Instructors low in assertiveness and low in responsiveness were perceived to have the lowest credibility.

On the character dimension of credibility, submissive female instructors were perceived to have the highest character, followed by competent, aggressive, and noncompetent instructors. Competent instructors differed significantly from aggressive and noncompetent instructors, but not submissive instructors. Aggressive, submissive, and noncompetent instructors all differed significantly from one another. Instructors low in assertiveness and low in responsiveness were perceived to be the lowest in character.

On the caring dimension of credibility, submissive female instructors were perceived to have the highest caring, followed by competent, aggressive, and noncompetent instructors. Again, competent instructors differed significantly from aggressive and noncompetent instructors, but did not differ significantly from submissive instructors. Instructors low in assertiveness and low in responsiveness were perceived to be the lowest in caring.

Table 12

Differences in Female Instructors' Credibility Based on Socio-Communicative Styles

Variables	Competent		Aggressive		Submissive		Noncompetent	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Competence	40.27$_a$	3.32	38.71$_b$	4.55	39.17$_{ab}$	3.32	35.58$_c$	7.04
Character	40.29$_a$	3.90	38.33$_b$	4.33	40.48$_a$	2.58	35.81$_c$	6.85
Caring	39.02$_a$	3.96	34.07$_b$	5.38	39.25$_a$	3.08	33.12$_b$	6.86

Note: Sample size = 461. Means sharing a common subscript (in the rows) do not differ from each other significantly.

Attributes Students Use to Describe Instructors

Content analysis was used for the sixth research question, which asks how students describe the qualities of a hypothetical good instructor, a good female instructor, and a good male instructor. The attributes students used to describe their instructors formed the basis for this analysis.

Good instructor

For the hypothetical good instructor, 483 students used 1,415 qualities to describe their instructors. In analyzing these qualities, clusters were created to combine words that meant the same thing or close to the same thing. Each cluster was labeled with a word that seemed to best capture the shared meaning among the words. For example, the cluster *kind* includes kind, thoughtful, nice, kind-hearted, and gentle. The cluster *intelligent* includes intelligent, smart, wise, intellectual, and smart. The cluster *available* includes available, easy to each, accessible, responsive,

attentive, there for office hours, and responds to emails. The cluster *caring* includes

caring, cares about students, cares about students' success, compassionate, has

students' best interests at hearts, and sensitive. These clusters were then combined

with other clusters to form nine themes: helpful, caring, friendly, knowledgeable,

focused on student learning, skilled communicator, engaging, ethical, and

professional. Table 13 on the next two pages lists the themes and how frequently

students mentioned each.

Table 13

Attributes Students Used to Describe Instructors

ATTRIBUTE	G.I.		Male		Female	
	f	%	*f*	%	*f*	%
HELPFUL						
Helpful	122	8.6	92	6.9	113	8.8
Available	36	2.5	47	3.5	42	3.3
Flexible	14	1.0	21	1.6	11	0.9
	172	**12.2**	**160**	**11.9**	**166**	**12.9**
CARING						
Caring	56	4.0	70	5.2	90	7.0
Understanding	41	2.9	32	2.4	44	3.4
Encouraging	20	1.4	10	0.7	9	0.7
	117	**8.3**	**112**	**8.3**	**143**	**11.1**
FRIENDLY						
Friendly	99	7.0	77	5.7	88	6.8
Kind	22	1.6	15	1.1	38	3.0
Relates well to students	49	3.5	44	3.3	65	5.0
	170	**12.0**	**136**	**10.1**	**191**	**14.9**
KNOWLEDGEABLE						
Knowledgeable	116	8.2	109	8.2	89	6.9
Intelligent	13	0.9	22	1.6	23	1.8
Experienced	9	0.6	16	1.2	15	1.2
	138	**9.8**	**147**	**11.0**	**127**	**9.9**
FOCUSED ON STUDENT LEARNING						
Makes sure students understand	93	6.6	82	6.1	79	6.1
Multiple teaching methods	45	3.2	33	2.5	29	2.3
Gets class involved	26	1.8	44	3.3	35	2.7
Challenging	19	1.3	42	3.1	35	2.7
Real-world application	17	1.2	35	2.6	34	2.6
Provides feedback	19	1.3	13	1.0	8	0.6
Encourages critical thinking	6	0.4	10	.7	9	0.7
	225	**15.9**	**259**	**19.3**	**229**	**17.8**

ATTRIBUTE	G.I.		Male		Female	
	f	%	*f*	%	*f*	%
SKILLED COMMUNICATOR						
Good communication	39	2.8	11	0.8	12	0.9
Clear	85	6.0	64	4.8	47	3.6
Good presenter	34	2.4	15	1.1	9	0.7
Good listener	11	0.8	25	1.9	36	2.8
	169	**11.9**	**115**	**8.6**	**104**	**8.1**
ENGAGING						
Interesting	69	4.9	81	6.0	56	4.3
Passionate	104	7.3	93	6.9	66	5.1
Makes class fun	45	3.2	36	2.7	48	3.7
Sense of humor	22	1.6	58	4.3	27	2.1
	240	**17.0**	**268**	**20.0**	**197**	**15.3**
ETHICAL						
Fair	36	2.5	34	2.5	12	0.9
Respectful	18	1.3	15	1.1	17	1.3
Honest	8	0.6	7	.5	10	0.8
	62	**4.4**	**56**	**4.2**	**39**	**3.0**
PROFESSIONAL						
Realistic expectations	17	1.2	11	0.8	14	1.1
Professional	28	2.0	5	0.4	10	0.8
Organized	55	3.9	34	2.5	38	3.0
Clear expectations	12	0.8	23	1.7	11	0.9
In control	10	0.7	15	1.1	19	1.5
	122	**8.6**	**88**	**6.6**	**92**	**7.1**

The first theme, helpful, centers on students' perceptions of how easy it is to reach an instructor, and how likely that instructor is to be perceived as willing to help his or her students. This theme includes the attributes helpful, available, and flexible. When describing what makes someone a good instructor, 12.2% of student responses mentioned the theme responsive.

The second theme, caring, is concerned with students' perceptions of how much their instructors show that they care about their students and understand their students' lives. This theme includes the attributes caring, understanding, and encouraging. When describing what makes someone a good instructor, 8.3% of student responses mentioned the theme caring.

The third theme, friendly, relates to how friendly and approachable their instructor appears to their students. This theme includes the attributes friendly, kind, and relates well to students. Twelve percent of student responses mentioned the theme friendly when describing what makes someone a good instructor.

The fourth theme, knowledgeable, relates to students' perceptions of how much an instructor knows about the subject he or she teaches. This theme includes the attributes knowledgeable, intelligent, and experienced. When describing the attributes that makes someone a good instructor, 9.8% of student responses mentioned the theme knowledgeable.

The fifth theme, focused on student learning, centers on students' perceptions of how much they believe their instructor values student learning and utilizes a variety of teaching methods. This theme includes the attributes makes sure students

understand, utilizes multiple teaching methods, gets the class involved, is challenging, applies what they are teaching to the real world, provides feedback, and encourages critical thinking. When asked to describe what makes a person a good instructor, 15.9% of student responses mentioned a focus on student learning.

The sixth theme, skilled communicator, relates to students' perceptions of an instructor's abilities to communicate, whether interpersonally or while lecturing. This theme includes the attributes good communication, clear, good presenter, and good listener. Communication skills were mentioned by 11.9% of student responses describing what makes a person a good instructor.

The seventh theme, engaging, is concerned with students' perceptions of how well an instructor keeps students' attention. This theme includes the attributes interesting, passionate, makes class fun, and has a sense of humor. Attributes from the theme engaging were discussed by 17.0% of student responses describing what makes a person a good instructor.

The eighth theme, ethical, relates to students' perceptions of an instructors honesty and ethical behavior. This theme includes the attributes respectful, fair, and honest, and 4.4% of student responses mentioned one of these attributes when describing what makes a person a good instructor.

The ninth theme, professional, centers on students' perceptions of those behaviors that help an instructor seem prepared and proficient. This theme includes the attributes professional, organized, in control, clear expectations, and realistic expectations. When describing what makes someone a good instructor, 8.6% of

student responses mentioned the importance of instructors displaying professional behaviors.

Good male and female instructors

The student responses regarding the good male and good female instructors were coded according to the attributes students identified for the hypothetical good instructor. For the male instructors, 436 students used 1,341 qualities to describe their instructors. For the female instructors, 453 students used 1,288 qualities to describe their instructors. When describing their good female and good male instructors, students frequently used theme one, the attribute helpful (which includes helpful, available, and flexible). Eleven point nine percent of student responses mentioned the attribute helpful, and slightly more student responses (12.9%) mentioned the attribute helpful when describing their female instructors. These were both very similar to the amount of times students mentioned helpful for the hypothetical good instructor (12.2% of responses).

A number of students used the second theme, caring (which includes caring, understanding, and encouraging), to describe their instructors as well. The same percentage of student responses (8.3%) used caring to describe both their male instructors and hypothetical good instructors. However, students used this term more frequently to describe their female instructors – almost 3% more student responses (11.1%) used caring to describe females.

Similarly, students more frequently used the third theme, friendly (which includes friendly, kind, and relates well to students) to describe their female

instructors than their male instructors. Almost fifteen percent (14.9%) of student responses mentioned the attribute friendly when describing what made their female instructor a good instructor, whereas only 10.1% of student responses mentioned the attribute friendly when describing what made their male instructor a good instructor. Twelve percent of student responses mentioned this attribute when describing what makes someone a good instructor, which is less than the female instructors but more than the male instructors.

Regarding the fourth theme, knowledgeable (which includes knowledgeable, intelligent, and experienced), 9.9% of student responses for a good female instructor mentioned knowledgeable, which was virtually identical to the responses for a hypothetical good instructor. Slightly more student responses (11%) described their good male instructors as knowledgeable.

Perhaps unsurprisingly, the fifth theme, focused on student learning (which includes makes sure students understand, utilizes multiple teaching methods, gets the class involved, challenges students, applies course concepts to the real world, provides feedback, and encourages critical thinking), was mentioned by a large number of students when they described their good male and good female instructors. When describing their female instructors, 17.8% of student responses mentioned this category, and 19.3% of student responses mentioned this category when describing the male instructors. Both of these were higher than the percentage of student responses that mentioned this attribute for the hypothetical good instructor (15.9%).

The sixth theme, skilled communicator, which includes the attributes good communication, clear, good presenter, and good listener, was mentioned more frequently by students when describing what qualities make someone a good instructor (11.9% of responses) than by students who were describing their actual instructors. When describing their male instructors, 8.6% of student responses mentioned communication skills. Similarly, 8.1% of student responses mentioned communication skills when describing their female instructors.

The seventh theme, engaging, includes the attributes interesting, passionate, makes class fun, and has a sense of humor. One-fifth of all student responses (20%) mentioned this theme when describing what made their male instructor a good instructor. Fewer students (15.3% of responses) mentioned engaging when describing what made their female instructor a good instructor. Seventeen percent of student responses mentioned this attribute when describing what makes someone a good instructor, which is more than the female instructors but less than the male instructors.

The eighth theme, ethical, includes the attributes fair, respectful, and honest. Ethical behaviors were mentioned by 4.2% of student responses when describing what helped to make their male instructor a good instructor. Similarly, 4.4% of student responses said that fairness, respect for students, and honesty were important for a hypothetical good instructor. Slightly fewer (3.0%) student responses mentioned that ethical behaviors helped to make their female instructor a good instructor.

The ninth and final theme, professional, includes the attributes is professional, has realistic expectations, organized, clear expectations, and in control. When describing what made their male instructor a good instructor, 6.6% of student responses described the importance of professional behaviors. Similarly, 7.1% of student responses described the importance of professional behaviors when discussing what made their female instructor a good instructor. When discussing the qualities students expect from "good instructors," slightly more student responses (8.6%) mentioned professional behaviors.

Overall, for male instructors, students more frequently mentioned the attributes engaging, focused on student learning, knowledgeable, and ethical when describing their male instructors than when describing their female instructors. Female instructors were more frequently described as caring, helpful, and friendly than their male counterparts. The attributes skilled communicator and professional were used almost equally to describe both the male and female instructors.

CHAPTER FIVE

Discussion

The purpose of this study was to examine the relationships between students' perceptions of instructors' credibility, perceived gender identity, and communication style; to analyze ways students describe their instructors; and to assess how well good male and good female instructors meet the expectations for a hypothetical good instructor. Importantly, the overall findings of this study suggest that students have gendered expectations for their instructors. Good male instructors were rated significantly higher on competence and assertiveness than the hypothetical good instructor, overall as more competent than caring, and yet rated lower than either female instructors or good instructors on responsiveness. Good female instructors were rated higher than male instructors in terms of caring, higher on competency than caring overall, higher than male instructors on responsiveness, and higher than the hypothetical good instructor on assertiveness. These findings are significant because they help confirm that students have different expectations for what constitutes good for a male instructor and what constitutes good for a female instructor. Good male instructors were more often considered credible and assertive, while good female instructors were more often considered caring and responsive.

This chapter provides a discussion of the specific conclusions drawn from the research findings, offers implications of the findings, suggests possible limitations, and proposes directions for future research. The data are divided into three different

areas for the purposes of discussion: the influence of instructor sex, perceived gender identity, and socio-communicative style on students' perceptions of teacher credibility; the ways students describe the qualities of good instructors; and the extent to which female and male instructors meet the expectations for a good instructor.

Review of Findings

Influence of instructor sex on perceptions of credibility

One of the central areas of investigation for this study was the influence of instructor sex on students' perceptions of the competence, character, and caring of their instructors. Although previous studies have examined the influence of teacher sex on students' perceptions of teacher credibility (Glascock & Ruggiero, 2006; Hargett, 1999; Nadler & Nadler, 2001), the research conducted in this area is relatively sparse, and the findings have been mixed. In particular, this prior work has not examined the extent to which perceptions of credibility differ between good male instructors and good female instructors as identified by the students.

While there are important findings emerging from this study in regard to the influence of instructor sex on credibility, the results of this study indicate mixed findings for the dimensions of competence, character, and caring. For instance, on the dimension of competence, the male instructors' mean score ($M = 39.27$, $SD = 4.07$) was not significantly different from the female instructors' mean score ($M = 38.80$, $SD = 4.78$), although it did approach significance ($p=.027$). This finding is somewhat surprising, as social role theory (Eagly, 1987, 1997) would suggest that men and

women in these positions of power would be rated significantly differently in terms of competence.

Granted, a lack of significant difference between the ratings of good female instructors and good male instructors could mean that college students perceive their good female instructors and as their good male instructors similarly in terms of competence. Today's college students have been raised in a society where the majority of women work outside the home, many in fields once dominated by men. Ideally, conceptions about the competence of female instructors has changed, and this study may provide evidence of that shift in thinking. Additionally, considering students were selecting instructors they considered to be good at their jobs and that they would want to take another class from, perhaps this "good instructor" distinction helps to level the playing field when it comes to perceptions of competence.

However, bearing in mind that the mean score for male instructors' competence was higher than the mean score for female instructors' competence and very closely approached significance, it is important to consider another possible explanation for the lack of clear-cut findings in this study. One such explanation is the phenomenon of *shifting standards*, which suggests that when individual members of stereotyped groups are evaluated on stereotyped dimensions, people compare them to within-category judgment standards (Biernat & Fuegen, 2001). For example, gender stereotypes suggest men are better leaders than women. When people judge the leadership competence of a woman, it is relative to (lower) standards of competence for women, whereas the leadership competence of a man is judged

relative to (higher) standards of competence for men. Therefore, it may not be possible to directly compare evaluations of men and women: "Good" for a woman may not mean the same thing as "good" for a man (Biernat & Fuegen, 2001).

Similar to the findings for competence, the lack of significant difference between male instructors' mean score on the dimension of character ($M = 38.98$, $SD = 4.30$) and the female instructors' mean score ($M = 39.03$, $SD = 4.77$) is somewhat unexpected, as past research suggests women are judged to have higher character than men (Boldry, Wood, & Kashry, 2001). For example, research suggests women are perceived to be more honest (Alexander & Andersen, 1993), more trustworthy (Bronlow & Zebrowitz, 1990), and more ethical than men (e.g., Dawson, 1995; Ferrell and Skinner, 1988; Jones and Gautschi, 1988; Lane, 1995; Whipple and Swords, 1992).

A possible explanation for the lack of significant difference between male and female instructors' mean score for character is the specific profession of teaching. A recent Gallup poll found that the American public considers college teachers to be among the top seven most honest and ethical professions (Gallup, 2006). Clearly, college instructors in general are regarded as having strong character, and it is likely students chose to rate those instructors who fit well with the expectations for the field. The public perception that college teachers are honest and ethical helps to explain why male instructors' and female instructors' mean score for character was virtually identical.

Unlike the dimensions of competence and character, there were significant differences between male and female instructors for the dimension of caring. The female instructors' mean score for caring ($M = 36.72$, $SD = 5.53$) was significantly higher than the male instructors' mean score for caring ($M = 35.22$, $SD = 5.77$). This significant difference is in accordance with gender role expectations, which suggests that in our society women are supposed to be – and expected to be – caring, while society does not necessarily have the same expectation for men. Prior research also indicates that students expect female professors to be responsive and friendly (Anderson & Miller, 1997), to be sociable and to smile often (Hall, Braunwald, & Mroz, 1982), and to demonstrate warmth and friendliness (Basow, 1995), while these factors are considered much less important for men.

However, it is interesting to note that while male students did not rate male and female instructors significantly differently in terms of caring, female students rated female instructors significantly higher on the dimension of caring. It is likely that female students chose those female professors whom they considered to be caring as their good instructor because they place a higher value on their female instructors being caring than do the male students. Further, the traits associated with the dimension caring (cares about me, has my interests at heart, not self-centered, concerned with me, sensitive, and understanding) are female-stereotyped traits and perhaps more likely to resonate with female students.

For each of the three instructor categories (male instructors, female instructors, and good instructors), students rated instructors significantly higher on

competence and character than on caring. Students rating hypothetical good instructors gave them higher marks for competence and character, suggesting these traits are more important for an instructor to display than caring. This same emphasis on competence and character over caring also played out for the male and female instructors, whose displays of competence and character were more important and/or evident to students than were their caring behaviors. This suggests that while caring may be desirable, competence and character are more closely associated with the profession of college teaching. This is an important finding, as there is nothing in the instructor credibility literature that says caring is less important to students than competence or character.

Theoretically, this finding fits with both previous research as well as gender role stereotypes, as the traits that comprise the competence subscale (intelligent, trained, expert, informed, competent, and bright) are more stereotypically masculine while the traits that comprise the caring subscale (cares about me, has my interests at heart, not self-centered, concerned with me, sensitive, and understanding) are more stereotypically feminine. In their study of sex-stereotyped traits for a "great professor," Burns-Glover and Veith (1995) found that students preferred masculine traits over feminine traits. This matches the historical, stereotypical image of a professor, which is masculine, objective, and authoritarian (Martin, 1984) and also mirrors society's dominant image of an authority figure as male (Schein, 2001; Sczesny, 2003).

Influence of perceived gender identity on perceptions of credibility

In addition to the influence of instructor sex on perceptions of credibility, this study sought to examine the influence of instructor perceived gender identity on perceptions of credibility. Gender identity, or the degree to which persons see themselves as masculine or feminine (Stets & Burke, 2000), is important to take into account because it is possible for a woman to see herself as masculine or for a man to see himself as feminine. However, because females with masculine attributes and males with feminine attributes may be assessed negatively and viewed as less credible, there are pressures to maintain gender-stereotypical attitudes and behaviors (Hoffman, 2001).

Both research question one and research question three inquired about students' perceptions of their instructors' perceived gender identity. Specifically, research question one asked whether students consider a good instructor to be masculine, feminine, or androgynous, and research question three asked if there is a relationship between students' ratings of instructor credibility and perceived gender identity. The Personal Attributes Questionnaire (PAQ) and Huddy and Terkildsen's Personality Traits Scale were used to measure students' perceptions of their instructors' perceived gender identity. Unfortunately, neither the PAQ nor the Personality Traits Scale achieved reliability for this study, and therefore this study was unable to examine research questions one and three.

One possible explanation for the lack of reliability in the PAQ and the Personality Traits Scale is the changing concept of gender. Gender is socially

constructed (see, for example, Lorber, 1994; Turner, 2006; West & Zimmerman, 1987), and thus this approach would suggest that what it means to be male and female can change throughout time. Since the PAQ was first published in 1974, more and more women have entered the work force, have returned to work after the birth of their children, and have waited longer to marry. Additionally, there has been a generational shift, as today's typical undergraduate student was born at least 15 years after the PAQ was written.

However, despite these changes, both the PAQ and Instrumentality-Expressiveness Scale continue to measure very traditional concepts of gender (i.e., male dominance and female nurturance). Men and women today may be moving away from these traditional definitions, making the PAQ less relevant than it was when it was created in 1974. For example, today's college students may not see women's roles as "able to devote self completely to others" or to be "helpful to others," which are two of the expressive traits on this list. Additionally, current undergraduates may not agree that being "active" and "self-confident" are traits that are more characteristic of men (and yet these are among the traits on the instrumental scale). While the PAQ is still one of the most widely used scales of gender identity, research suggests women's scores on the PAQ masculine and androgyny subscales show a clear, linear increase over time (Twenge, 1997). Therefore, perhaps the PAQ is no longer as reliable a measure of gender identity as it once was.

Another possible explanation for the poor reliability of this scale in this study is the lack of fit between some of the traits and the ways students view their

professors. For example, the masculine scale includes "competitive" and "superior," and yet these seem to be atypical traits for college instructors. The trait "competitive" begs the question of with whom instructors would compete. It seems unlikely students would expect their instructors to compete either with other instructors or with students. Similarly, the trait "superior" may cause students to wonder if instructors believe they are superior to students and in what specific ways they are superior.

The feminine scale also includes traits that could be problematic, including "emotional" and "gentle." While "emotional" may be a stereotypically feminine trait, and in certain circumstances it is socially acceptable to be emotional (i.e., crying at a wedding), it seems unlikely students would expect their instructors to frequently display highly aroused or agitated feelings. Much the same way, the trait "gentle" may have negative connotations. While at its best, gentle can mean calm and kind, it also could be perceived as a weak trait used to describe a pushover or a doormat. In this study, it may have been difficult for students to conceptualize a number of these terms in reference to their instructors, leading to poor reliability.

Yet another explanation for the poor reliability of the PAQ is that there may be a publication bias problem: researchers whose results do not achieve reliability may either fail to submit their research for publication or fail to have it published. So researchers who find populations with whom the scale has reliability have their results published and the others do not, and scholarship suffers accordingly. A 2009 study by Whatley (published after data was collected for this study) reports that while

the PAQ is generally a reliable and valid measure of an individual's gender identity, the reliability of the PAQ's scales ranges from .51 to .85 for the masculinity subscale and .65 to .92 for the femininity subscale. While this does not necessarily explain the low reliability found in this study, it does help substantiate it.

Influence of socio-communicative style on perceptions of credibility

Research question four asked whether there are significant differences in students' perceptions of the socio-communicative style (assertiveness and responsiveness) of a "good instructor," their male instructors, and their female instructors. Theoretically, assertiveness is equated with masculinity and includes the following traits: defends own beliefs, independent, has strong personality, assertive, dominant, willing to take a stand, acts as a leader, aggressive, competitive, and forceful. Responsiveness, which is associated with femininity, includes the following traits: helpful, responsive to others, sympathetic, compassionate, sensitive to the feelings of others, sincere, gentle, warm, tender, and friendly.

A comparison of male and female instructors on assertiveness shows that while the male instructors' mean assertiveness score ($M = 37.03$, $SD = 5.91$) was not significantly different from the female instructors' mean assertiveness score ($M = 36.36$, $SD=6.14$), it did approach significance ($p=.026$). The results for responsiveness indicated that the mean responsiveness score for female instructors ($M = 41.18$, $SD = 6.61$) was significantly higher than the mean responsiveness score for male instructors ($M = 39.17$, $SD = 6.24$). This is an interesting finding because conceptually, assertiveness equates with masculinity and responsiveness equates with

femininity, but little research exists to confirm this conceptualization. The results of this study suggest that both male and female instructors are expected to display assertive behaviors (i.e., defend own beliefs, take a stand, act as a leader). However, the female instructors are also expected to display responsive behaviors (i.e., be helpful and responsive to others, be sensitive to the feelings of others, be gentle and warm, tender), while students have lower expectations regarding responsiveness for their male instructors. Thus, female instructors' jobs may be more demanding than male instructors' jobs, as students expect more from female instructors in terms of their time and energy.

Research question five asked whether instructors with different socio-communicative styles differ in students' perceptions of their competence, character, and caring. Richmond and McCroskey (1992) classify individuals as having one of four different socio-communicative styles. Those who have both assertive and responsive skills are labeled as *competent*. People who are assertive but not responsive are labeled as *aggressive*, and people who are responsive but not assertive are labeled as *submissive*. Those who are neither assertive nor responsive are labeled as *noncompetent*. Past research shows that instructors who exhibit both assertiveness and responsiveness (competent communicators) were found to be most credible (Martin, Chesebro, & Mottet, 1997).

For male instructors, the noncompetent socio-communicative style had the weakest relationship with perceptions of teacher credibility. For male instructors, there were no significant differences between the socio-communicative styles of

competent, aggressive, or submissive for the dimensions of competence and character. Those with the style of competent or submissive were perceived highest in caring. This contrasts Martin, Chesebro, and Mottet's (1997) previous findings, where the researcher found the competent style was significantly different from all other styles. In this study, there were no significant differences between the competent, aggressive, and submissive styles for male instructors on competence or character, and no significant difference between the competent and submissive styles for caring.

This discrepancy likely stems from students' selection of good instructors, which made the split median method somewhat problematic for this study. Instructors one point above the split are in one group while those one point below the split are in the other. Therefore, instructors who are only two points apart are in different groups despite the fact that they are closer to each other than they are to most members of their own group. This is evident in the similarity of mean scores for the four styles of communicators.

For female instructors, the competent and submissive socio-communicative styles had the strongest relationship with perceptions of teacher credibility in all three dimensions (competence, character, and caring). Female instructors with the socio-communicative style of noncompetent were perceived as lowest in competence and character, and those with the style of noncompetent or aggressive were perceived as lowest in caring. Again, this contrasts Martin, Chesebro, and Mottet's (1997) previous findings, perhaps because they did not split their results by gender.

Overall, these findings suggest female instructors are expected to communicate in ways that fit with gender role stereotypes. Females who displayed higher levels of assertiveness and lower levels of responsiveness (aggressives) were seen as less competent, having less character, and being less caring than those who displayed higher levels of responsiveness. Thus, female instructors were "punished" for failing to display typical feminine traits (i.e., being helpful, gentle, friendly, and warm). However, the male instructors who displayed lower levels of responsiveness were only rated lower in terms of caring, not competence or character. This supports previous findings that suggest women who want to be seen as credible must display feminine qualities, but also must excel in both stereotypically masculine and feminine domains (Bray & Howard, 1980; Kierstead, et al, 1988; Laube, Massoni, Sprague, & Berber, 2007).

Expectations for a good instructor

This study also examined students' expectations for and evaluations of good instructors in an effort to better understand students' perceived requirements for what it means to be "good." The researcher was not interested in learning the characteristics of students' most exemplary instructors but rather the qualities of qualified, above-average instructors from whom students would enjoy taking another class. While past research has asked about "best" or "ideal" instructors, this study followed the recommendation of Huddy and Terkildsen (1993) in asking about a good individual, so as not to receive uniformly glowing views of instructors.

One of the goals of this study was to determine the extent to which female and male instructors meet the expectations for a good instructor. The first area of investigation was instructor credibility. Students rated good instructors lower than male instructors on the dimension of competence but higher than male instructors in terms of caring. Good instructors and female instructors did not differ significantly on any of the three dimensions. While this suggests female instructors better meet students' expectations for good instructors, it also suggests students have gendered expectations. Male instructors who were rated highly by students are supposed to be competent, but there is not an expectation that they will be as caring as female instructors. However, students expect their female instructors to be both competent and caring, leading to additional pressure on women to perform *emotional labor*, a psychological process that involves regulating emotions to project an organizationally expected demeanor (Hochschild, 1983). Hochschild (1989) argues women are expected to do more emotion management than men both at work and at home. In their review of the consequences of emotional labor, Morris and Feldman (1996) note that emotional labor can lead to a host of issues, including stress, emotional exhaustion, burnout, and decreased productivity.

The second area of investigation was socio-communicative style. Students rated good instructors lower than male instructors on the dimension of assertiveness, but higher than male instructors in terms of responsiveness. They rated good instructors lower than female instructors on assertiveness, but not significantly different on responsiveness. Again, this evidence points to students' gendered

expectations. Male instructors who were rated highly by students are supposed to be assertive, but there is less of an expectation that they will be responsive. However, to be rated highly by students, female instructors must demonstrate both assertiveness and responsiveness. This mirrors the findings for competence and caring, and further strengthens the argument that female instructors are being called upon to perform more emotional labor than male instructors. As previously discussed, this unequal expectation for the work contributed by men and women could have negative consequences for female instructors.

Ways students describe good instructors

Previous research has identified a number of characteristics of effective instructors, including demonstrating strong presentation skills, enthusiasm, preparation and organization, and fairness related to grading (Crumbley, Henry, & Kratchman, 2001); presenting informative and interesting lectures (Sheehan, 1999); being clear in their communication (Spencer & Schmelkin, 2002); having a sense of humor (Greimel-Fuhrmann & Geyer, 2003); and being knowledgeable, encouraging, caring, approachable, creative, fair, enthusiastic, flexible, open-minded, and respectful (Schaeffer, Epting, Zinn, & Buskit (2003).

This study asked students to think about a good instructor (a person you'd consider to be good at his or her job and whose class you'd like to take) and to describe what made that person a good instructor. The traits students used to describe these hypothetical instructors were helpful, caring, friendly, knowledgeable, focused

on student learning, engaging, ethical, professional, and skilled communicators. None of these characteristics was unexpected, given past research.

What is interesting, however, is the difference in the ways students describe their instructors. For the hypothetical good instructor, students most frequently mentioned engaging, followed by focused on student learning and helpful. For male instructors, the top attribute also was engaging, followed by focused on student learning and knowledgeable. For female instructors, the top attribute was focused on student learning, followed by engaging and friendly. For all three types of instructor, engaging and focused on student learning were very important. However, when asked to describe what made their instructor a good instructor, males were described as knowledgeable, while females were described as friendly. This provides further evidence that students expect their instructors to fit the stereotypic norms of their gender: men are expected to be competent, while women are expected to be caring.

When comparing the descriptions of male and female instructors, students more frequently described their male instructors as engaging, focused on student learning, knowledgeable, and ethical than their female instructors. Female instructors were more frequently described as caring, helpful, and friendly than their male counterparts. The ways students perceive their good male and female instructors differs with the instructors' gender. Clearly, when students describe instructors who they consider to be good instructors, they have selected instructors who meet gender-appropriate expectations.

Summary

Overall, these results indicate students have gendered expectations for their instructors. Male instructors who were identified as good instructors were rated highly on competence and character, but were rated lower in terms of caring. They were rated highly in terms of assertiveness but lower in responsiveness. Female instructors, however, were rated slightly lower on competence but higher on caring. However, caring was deemed less important to students that displays of competence and character. Female were rated similarly to male instructors on assertiveness but higher on responsiveness. This suggests that male instructors are expected to conform to the norms of their gender: to be knowledgeable, demanding, and unemotional. Female instructors, too, are expected to conform to the stereotypical norms of their gender – to be caring, friendly, and nurturing – but they must also be assertive, knowledgeable, and competent. This study suggests students expect female instructors not only to display feminine qualities, but to excel in both stereotypically masculine and feminine domains.

Implications

Theoretical implications

Myers and Martin (2006) suggest the degree to which teacher demographics affect students' perceptions of teacher credibility is an avenue of research worthy of further investigation. Although previous studies have examined the influence of teacher sex on students' perception of teacher credibility (Glascock & Ruggiero, 2006; Hargett, 1999; Nadler & Nadler, 2001), the research conducted in this area is

relatively sparse. This study contributes to the literature by examining the influence of teacher sex on credibility in the context of instructors students have identified as good instructors. The results of this study indicate that even when comparing good instructors, male instructors are considered to be somewhat more competent (results approached significance) and female instructors are considered to be more caring.

This study also helps to extend social role theory by considering one particular occupation where women are in positions of authority: female professors. While the quantitative data from this study shows that good female instructors are considered to have virtually the same degree of character, to have slightly less competence, and to be more caring than male instructors, this does not reveal the whole picture. The open-ended survey data from this study confirms that gendered expectations are still very much in play. Not only do students expect their good female instructors to be competent, but also to be caring, helpful, and friendly. However, students do not hold their male instructors to the same standard. For example, students might expect a female instructor to meet with them during office hours to carefully explain an assignment, but a male professor might be expected only to briefly explain the directions during class. These findings lend support to the social role theory by providing evidence that female instructors must be both caring *and* competent.

This study also contributes to the discussion on measuring gender. Neither the PAQ nor the Personality Traits Scale was found to be a reliable measure in this study. As previously discussed, this may be due to a number of factors, including changing conceptions of gender. Both the PAQ and Instrumentality-Expressiveness Scale seem

to measure very traditional concepts of gender, and yet men and women today could be moving away from these traditional definitions, making these scales less relevant. Another explanation could be the lack of fit between some of the traits and the ways people view individuals in positions of authority.

Practical implications

In addition to theoretical implications, this study could have very practical implications. Past research shows student evaluations of professors' teaching often are used as an important qualification for hiring, tenure, retention, and promotion procedures (Cruse, 1987; Sandler, 1991). However, Frymier and Thompson (1992) suggest little research on teacher credibility helps teachers to increase their credibility in the classroom. While this study does not offer specific advice, it does help instructors to better understand students' perceptions of credibility and how they are influenced by instructor sex and communication style.

One key takeaway is an understanding of students' expectations for a good instructor. One way for people to accelerate their progress and to achieve superior performance is by studying best practices and winning strategies (Bogan & English, 1996). Thus, by helping instructors to understand what students expect from a good instructor, this study has the potential to help teachers become more effective. For example, recognizing that the most frequently mentioned attribute that makes someone a good instructor is being engaging, instructors may be inspired to work to make their lectures and class discussions more interesting and fun.

This study also helps instructors recognize that these expectations vary by gender. If the findings from this study are accurate, then students' gendered expectations place burdens on both male and female instructors. However, the burdens placed on women may be more consuming for women, as being caring, helpful, and responsive can take a considerable amount of time and energy. Female instructors likely will be asked to perform more emotional labor. It is important for faculty and administrators to recognize that over time, performing emotional labor can lead to emotional exhaustion and burnout and may reduce female instructors' job satisfaction.

This study may help deans, department chairs, and tenure committees to contextualize student evaluations of teaching. Recognizing that students have different expectations for their good male instructors and their good female instructors could help those with the power to make more informed decisions about promotion and tenure for male and female instructors. This study could also convince administrators who are evaluating instructors to consider using additional methods to evaluate teaching (other than just student evaluations of teaching).

Additionally, this study underscores the importance of socio-communicative style in the classroom. This research shows that instructors who are considered competent communicators have high scores on scales of credibility, so therefore instructors who want to improve their credibility should consider working to improve both their assertiveness and their responsiveness in the classroom.

Limitations and Directions for Future Research

Certain factors limit the interpretation of this study's results. First, this study attempted to examine the influence of instructors' perceived gender identity on students' perceptions of instructor credibility. Neither the PAQ nor the Personality Traits scale was found to be a reliable measure and could not be used for purposes of this analysis. Future research should investigate more up-to-date ways to measure gender identity.

As previously discussed, the split median method is somewhat problematic for this study, as instructors who are only two points apart are in different groups (despite the fact that they are closer to each other than they are to most members of their own group). This study's findings regarding socio-communicative style should be considered in light of this fact.

The use of subjective rating scales (Likert-type scales) may also be a limiting factor for this study, as these rating scales are more susceptible to stereotype-based standard shifts. The shifting standards model suggests subjective ratings scales are less likely to reveal the influence of stereotypes than objective or externally anchored judgments (i.e., standardized scores or rank orderings) (Biernat & Fuegen, 2001). The use of these types of scales may have hidden gender stereotypes, as male and female instructors may have been judged relative to sex-specific standards.

An additional limiting factor is the discrepancy in male and female instructors' ages. When selecting female instructors they considered to be good instructors, 43.0% of students selected an instructor who was between 25 and 34

years of age. However, only 23.4% of the male instructors were in this same age group. Two key factors may have contributed to this. First, female instructors under age 34 may be perceived as even more friendly, helpful, and caring than older female professors, leading students to select them as good instructors. Second, as discussed in the literature review, women are underrepresented at higher levels in colleges and universities. Thus, students may be exposed to more younger female instructors than older female instructors.

There are several additional areas that warrant future research. First, while this project was intended to study student perceptions of instructor credibility, it would be beneficial to consider instructors' experiences as well. Future research could examine strategies instructors use to establish and enhance their credibility in the classroom and how their experiences have been shaped by their sex, gender identity, and/or communication style.

A second area that could be beneficial is the study of credibility lessening strategies. This study asked students about the behaviors that made their instructors "good" instructors, and thus provides attributes instructors can model. Future research could ask students about instructors' communicative behaviors that lessen instructor credibility. This information could be helpful to instructors by suggesting behaviors they may want to work to work to avoid.

Third, this research builds on past research that suggests assertive and responsive communication is extremely important in the classroom. Future investigations could explore specific ways instructors exhibit assertive and responsive

communication. Assertive instructors likely use specific strategies to communicate their competence and authority, while responsive instructors likely use specific strategies in the classroom to develop connections with their students. Recognizing these strategies could be useful to teachers concerned with fostering stronger relationships with their students.

A fourth area worthy of future research is an examination of the ways instructors display the attributes students mentioned as those that make them good instructors. For example, students described their good instructors as being engaging. But how, specifically, do they communicate that with their students? Is it by telling stories and jokes? By incorporating a large number of interesting examples? By discussing their love for their field? While it is helpful for instructors to recognize the attributes students value most in their instructors, it would be even more insightful to learn the specific ways these attributes are communicated to students.

Conclusion

This study took a closer look at (a) the influence of instructor sex on students' perceptions of teacher credibility, (b) the influence of instructor socio-communicative style on perceptions of male and female instructors' credibility; (c) ways students describe the qualities of good instructors; and (d) the extent to which female and male instructors meet the expectations for a good instructor.

Overall, the results indicated students have gendered expectations for their instructors. This study showed evidence that women may be deemed just as competent as and even more caring than their male counterparts, but this may be a

double-edged sword. While male instructors bear the burden of gendered expectations – they are expected to be knowledgeable, demanding, and unemotional – the burden may be even greater for female instructors. Women in academia are expected not only to conform to the stereotypical norms of their gender (to be nurturing, warm, and friendly) but also to be assertive, knowledgeable, and competent. To be considered effective teachers, female instructors must excel in both stereotypically masculine and feminine domains, which means women and men may be exerting very different levels of effort to achieve comparable results.

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Appendix A

Informed Consent

Information Statement – Agreement to Participate
Research Conducted at the University of Kansas – Lawrence Campus

Sponsor: Department of Communication Studies
Principal Investigator: Katie Fischer
Faculty Advisor: Mary Banwart, Ph.D.

This form represents the subject's informed consent to participate voluntarily in a research project on instructional communication. Participants will respond to questions via an online survey. The research will require from 20 to 30 minutes of time. You must be 18 years of age or older to participate.

The Department of Communication Studies at the University of Kansas supports the practice of protection for human participants participating in research. You may refuse to participate in this study. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time; however, completion of the survey is required in order to receive participation points. If you do withdraw from this study, it will not affect your relationship with this unit, the services it may provide to you, or the University of Kansas.

This research involves no risk to participants. Benefits of the study may involve new information regarding instructional communication.

All records and data related to this research shall be confidential, and participants or their responses will not be identified by name. It is possible, however, with internet communication, that through intent or accident someone other than the intended recipient may see your response.

For any additional information or questions regarding this study, you may contact Mary Banwart, Department of Communication Studies, 864-5681.

PARTICIPATION CERTIFICATION:
Completion of this survey indicates that you are a willing participant, at least 18 years old, and have read this Information Statement. You have had the opportunity to ask, and have received answers to, any questions you had regarding the study and the use and disclosure of information about me for the study. If you have any additional questions about your rights as a research participant, you may call (785) 864-7429 or write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, email dhann@ku.edu.

Appendix B

Survey

1. Informed Consent

Information Statement – Agreement to Participate
Research Conducted at the University of Kansas – Lawrence Campus

Sponsor: Department of Communication Studies
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2. A GOOD INSTRUCTOR

This survey asks a variety of questions about your perceptions of your educational experience. There is no right or wrong answer for any question. Please work quickly and record your first impressions.

The following series of questions inquires about your perceptions of a "good" instructor — a person you'd consider to be good at his or her job and whose class you'd like to take.

1. When you think about a good instructor, what comes to mind?

3. Good instructor scale

1. How well do each of the following adjectives describe a good instructor: (4) extremely well, (3) quite well, (2) not too well, or (1) not well at all.

	not well at all	not too well	quite well	extremely well
Assertive	◯	◯	◯	◯
Warm	◯	◯	◯	◯
Emotional	◯	◯	◯	◯
Stern	◯	◯	◯	◯
Talkative	◯	◯	◯	◯
Cautious	◯	◯	◯	◯
Coarse	◯	◯	◯	◯
Masculine	◯	◯	◯	◯
Tough	◯	◯	◯	◯
Sensitive	◯	◯	◯	◯
Active	◯	◯	◯	◯
Aggressive	◯	◯	◯	◯
Feminine	◯	◯	◯	◯
Gentle	◯	◯	◯	◯
Challenging	◯	◯	◯	◯
Rational	◯	◯	◯	◯
Self-confident	◯	◯	◯	◯
Demanding	◯	◯	◯	◯

4. Good instructor PAQ

The items below inquire about what kind of a person you think a good instructor is. Each item consists of a specific characteristic, with the numbers 1 - 5 in between. For example:

Not at all artistic 1 2 3 4 5 Very artistic

Each pair describes contradictory characteristics—that is, you cannot be both at the same time, such as very artistic and not at all artistic. The numbers form a scale between the two extremes. Select a number that describes where a good instructor would fall on the scale. For example, if you think a good instructor would have no artistic ability, you would choose 1. If you think he or she would be pretty good, you might choose 4. If he or she is only medium, you might choose 3, and so forth.

1. Please rate how well the following characteristics describe a hypothetical "good instuctor."

	Not at all (1)	(2)	(3)	(4)	Very (5)
Aggressive	◯	◯	◯	◯	◯
Independent	◯	◯	◯	◯	◯
Emotional	◯	◯	◯	◯	◯
Dominant	◯	◯	◯	◯	◯
Excitable in a major crisis	◯	◯	◯	◯	◯
Active	◯	◯	◯	◯	◯
Able to devote self completely to others	◯	◯	◯	◯	◯
Gentle	◯	◯	◯	◯	◯
Helpful	◯	◯	◯	◯	◯
Competitive	◯	◯	◯	◯	◯
Worldly	◯	◯	◯	◯	◯
Kind	◯	◯	◯	◯	◯
Needful of others' approval	◯	◯	◯	◯	◯
Has difficult making decisions	◯	◯	◯	◯	◯
Never gives up easily	◯	◯	◯	◯	◯
Cries easily	◯	◯	◯	◯	◯
Self-confident	◯	◯	◯	◯	◯
Feels superior	◯	◯	◯	◯	◯
Aware of feelings of others	◯	◯	◯	◯	◯
Understanding of others	◯	◯	◯	◯	◯
Warm in relations with others	◯	◯	◯	◯	◯
Strong need for security	◯	◯	◯	◯	◯
Stands up well under pressure	◯	◯	◯	◯	◯

5. Good instructor credibility scale

For the pairs of adjectives below, please indicate your impression of a hypothetical "good instructor" by choosing the appropriate button between the pairs. The closer the button is to an adjective, the more certain you are of your evaluation.

1. Intelligence

Intelligent ○ ○ ○ ○ ○ ○ ○ Unintelligent
1

2. Training

Untrained ○ ○ ○ ○ ○ ○ ○ Trained
2

3. Expertise

Inexpert ○ ○ ○ ○ ○ ○ ○ Expert
3

4. Informed

Informed ○ ○ ○ ○ ○ ○ ○ Uninformed
4

5. Competence

Incompetent ○ ○ ○ ○ ○ ○ ○ Competent
5

6. Bright

Bright ○ ○ ○ ○ ○ ○ ○ Stupid
6

7. Honesty

Honest ○ ○ ○ ○ ○ ○ ○ Dishonest
7

8. Trustworthiness

Untrustworthy ○ ○ ○ ○ ○ ○ ○ Trustworthy
8

9. Honor

Honorable ○ ○ ○ ○ ○ ○ ○ Dishonorable
9

10. Morality

Moral ○ ○ ○ ○ ○ ○ ○ Immoral
10

11. Ethics

Unethical ○ ○ ○ ○ ○ ○ ○ Ethical
11

12. Genuine

Phony ○ ○ ○ ○ ○ ○ ○ Genuine
12

13. Cares

	Cares about me						Doesn't care about me
13	◯	◯	◯	◯	◯	◯	◯

14. Interests

	Has my interests at heart						Doesn't have my interests at heart
14	◯	◯	◯	◯	◯	◯	◯

15. Self-centered

	Self-centered						Not self-centered
15	◯	◯	◯	◯	◯	◯	◯

16. Concern

	Concerned with me						Unconcerned with me
16	◯	◯	◯	◯	◯	◯	◯

17. Sensitivity

	Insensitive						Sensitive
17	◯	◯	◯	◯	◯	◯	◯

18. Understanding

	Understanding						Not understanding
18	◯	◯	◯	◯	◯	◯	◯

6. Good Instructor Socio-Communicative Scale

1. Please indicate the degree to which you believe each of these characteristics applies to a good instructor while interacting with others. Mark whether you strongly agree that it applies, agree that it applies, are undecided, disagree that it applies, or strongly disagree that it applies.

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Helpful	○	○	○	○	○
Defends own beliefs	○	○	○	○	○
Independent	○	○	○	○	○
Responsive to others	○	○	○	○	○
Forceful	○	○	○	○	○
Has strong personality	○	○	○	○	○
Sympathetic	○	○	○	○	○
Compassionate	○	○	○	○	○
Assertive	○	○	○	○	○
Sensitive to the needs of others	○	○	○	○	○
Dominant	○	○	○	○	○
Sincere	○	○	○	○	○
Gentle	○	○	○	○	○
Willing to take a stand	○	○	○	○	○
Warm	○	○	○	○	○
Tender	○	○	○	○	○
Friendly	○	○	○	○	○
Acts as a leader	○	○	○	○	○
Aggressive	○	○	○	○	○
Competitive	○	○	○	○	○

7. Best female instructor

The following series of questions inquires about your perceptions of a female instructor you've had in college who you'd consider to be a good instructor. Think about this specific instructor as you complete this set of questions.

1. Which of the following best represents your female instructor's age:

◯ 25-34

◯ 35-44

◯ 45-54

◯ 55-64

◯ 65-74

◯ Older than 75

2. In which department does she teach?

[   ]

3. Approximately how many students were enrolled in the class you took with this professor?

◯ Fewer than 15

◯ 15-30

◯ 30-50

◯ 50-100

◯ 100-200

◯ More than 200

4. Which of the following best represents your instructor's ethnic background?

◯ Asian or Pacific Islander

◯ Non-Hispanic White (Caucasian)

◯ African-American

◯ Spanish or Hispanic origin

◯ Multi-racial or mixed race

◯ Native American

◯ Other

8. Female open ended

1. What made this person a good instructor?

9. Female good instructor scale

1. How well do each of the following adjectives describe your female instructor?

	Not well at all	Not too well	Quite well	Extremely well
Assertive	○	○	○	○
Warm	○	○	○	○
Emotional	○	○	○	○
Stern	○	○	○	○
Talkative	○	○	○	○
Cautious	○	○	○	○
Coarse	○	○	○	○
Masculine	○	○	○	○
Tough	○	○	○	○
Sensitive	○	○	○	○
Active	○	○	○	○
Aggressive	○	○	○	○
Feminine	○	○	○	○
Gentle	○	○	○	○
Challenging	○	○	○	○
Rational	○	○	○	○
Self-confident	○	○	○	○
Demanding	○	○	○	○

10. Female PAQ

The items below inquire about what kind of a person you think your female instructor is. Each item consists of a specific characteristic, with the numbers 1 - 5 in between. For example:

Not at all artistic 1 2 3 4 5 Very artistic

Each pair describes contradictory characteristics—that is, you cannot be both at the same time, such as very artistic and not at all artistic. The numbers form a scale between the two extremes. Circle a number that describes where a good instructor would fall on the scale. For example, if you think a good female instructor would have no artistic ability, you would choose 1. If you think she would be pretty good, you might choose 4. If she is only medium, you might choose 3, and so forth.

1. Please rate how well the following characteristics describe your female instructor (the one you previously identified as a good instructor).

	Not at all (1)	(2)	(3)	(4)	Very (5)
Aggressive	○	○	○	○	○
Independent	○	○	○	○	○
Emotional	○	○	○	○	○
Dominant	○	○	○	○	○
Excitable in a major crisis	○	○	○	○	○
Active	○	○	○	○	○
Able to devote self completely to others	○	○	○	○	○
Gentle	○	○	○	○	○
Helpful	○	○	○	○	○
Competitive	○	○	○	○	○
Worldly	○	○	○	○	○
Kind	○	○	○	○	○
Needful of others' approval	○	○	○	○	○
Has difficult making decisions	○	○	○	○	○
Never gives up easily	○	○	○	○	○
Cries easily	○	○	○	○	○
Self-confident	○	○	○	○	○
Feels superior	○	○	○	○	○
Aware of feelings of others	○	○	○	○	○
Understanding of others	○	○	○	○	○
Warm in relations with others	○	○	○	○	○
Strong need for security	○	○	○	○	○
Stands up well under pressure	○	○	○	○	○

13. Cares

	Cares about me						Doesn't care about me
13	◯	◯	◯	◯	◯	◯	◯

14. Interests

	Has my interests at heart						Doesn't have my interests at heart
14	◯	◯	◯	◯	◯	◯	◯

15. Self-centered

	Self-centered						Not self-centered
15	◯	◯	◯	◯	◯	◯	◯

16. Concern

	Concerned with me						Unconcerned with me
16	◯	◯	◯	◯	◯	◯	◯

17. Sensitivity

	Insensitive						Sensitive
17	◯	◯	◯	◯	◯	◯	◯

18. Understanding

	Understanding						Not understanding
18	◯	◯	◯	◯	◯	◯	◯

12. Female Socio-Communicative Scale

1. Please indicate the degree to which you believe each of these characteristics applies to your female instructor while interacting with others. Mark whether you strongly agree that it applies, agree that it applies, are undecided, disagree that it applies, or strongly disagree that it applies.

	Stongly disagree	Disagree	Undecided	Agree	Strongly agree
Helpful	○	○	○	○	○
Defends own beliefs	○	○	○	○	○
Independent	○	○	○	○	○
Responsive to others	○	○	○	○	○
Forceful	○	○	○	○	○
Has strong personality	○	○	○	○	○
Sympathetic	○	○	○	○	○
Compassionate	○	○	○	○	○
Assertive	○	○	○	○	○
Sensitive to the needs of others	○	○	○	○	○
Dominant	○	○	○	○	○
Sincere	○	○	○	○	○
Gentle	○	○	○	○	○
Willing to take a stand	○	○	○	○	○
Warm	○	○	○	○	○
Tender	○	○	○	○	○
Friendly	○	○	○	○	○
Acts as a leader	○	○	○	○	○
Aggressive	○	○	○	○	○
Competitive	○	○	○	○	○

13. Your best male instructor

The following series of questions inquires about your perceptions of a male instructor you've had in college who you'd consider to be a good instructor. Think about this specific instructor as you complete this set of questions.

1. Which of the following best represents your male instructor's age:

◯ 25-34

◯ 35-44

◯ 45-54

◯ 55-64

◯ 65-74

◯ Older than 75

2. In which department does he teach?

[   ]

3. Approximately how many students were enrolled in the class you took with this professor?

◯ Fewer than 15

◯ 15-30

◯ 30-50

◯ 50-100

◯ 100-200

◯ More than 200

4. Which of the following best represents your instructor's ethnic background?

◯ Asian or Pacific Islander

◯ Non-Hispanic White (Caucasian)

◯ African-American

◯ Spanish or Hispanic origin

◯ Multi-racial or mixed race

◯ Native American

◯ Other

14. Male instructor - open-ended

1. What made this person a good instructor?

15. Male instructor PAQ

The items below inquire about what kind of a person you think your male instructor is. Each item consists of a specific characteristic, with the numbers 1 - 5 in between. For example:

Not at all artistic 1 2 3 4 5 Very artistic

Each pair describes contradictory characteristics—that is, you cannot be both at the same time, such as very artistic and not at all artistic. The numbers form a scale between the two extremes. Circle a number that describes where a good instructor would fall on the scale. For example, if you think a good male instructor would have no artistic ability, you would choose 1. If you think he would be pretty good, you might choose 4. If he is only medium, you might choose 3, and so forth.

1. Please rate how well the following characteristics describe your male instructor (the one you previously identified as a good instructor).

	Not at all (1)	(2)	(3)	(4)	Very (5)
Aggressive	○	○	○	○	○
Independent	○	○	○	○	○
Emotional	○	○	○	○	○
Dominant	○	○	○	○	○
Excitable in a major crisis	○	○	○	○	○
Active	○	○	○	○	○
Able to devote self completely to others	○	○	○	○	○
Gentle	○	○	○	○	○
Helpful	○	○	○	○	○
Competitive	○	○	○	○	○
Worldly	○	○	○	○	○
Kind	○	○	○	○	○
Needful of others' approval	○	○	○	○	○
Has difficult making decisions	○	○	○	○	○
Never gives up easily	○	○	○	○	○
Cries easily	○	○	○	○	○
Self-confident	○	○	○	○	○
Feels superior	○	○	○	○	○
Aware of feelings of others	○	○	○	○	○
Understanding of others	○	○	○	○	○
Warm in relations with others	○	○	○	○	○
Strong need for security	○	○	○	○	○
Stands up well under pressure	○	○	○	○	○

16. Male instructor - good instructor scale

1. How well do each of the following adjectives your male instructor?

	Not well at all	Not too well	Quite well	Extremely well
Assertive	◯	◯	◯	◯
Warm	◯	◯	◯	◯
Emotional	◯	◯	◯	◯
Stern	◯	◯	◯	◯
Talkative	◯	◯	◯	◯
Cautious	◯	◯	◯	◯
Coarse	◯	◯	◯	◯
Masculine	◯	◯	◯	◯
Tough	◯	◯	◯	◯
Sensitive	◯	◯	◯	◯
Active	◯	◯	◯	◯
Aggressive	◯	◯	◯	◯
Feminine	◯	◯	◯	◯
Gentle	◯	◯	◯	◯
Challenging	◯	◯	◯	◯
Rational	◯	◯	◯	◯
Self-confident	◯	◯	◯	◯
Demanding	◯	◯	◯	◯

17. Male instructor credibility scale

For the pairs of adjectives below, please indicate your impression of your male instructor by selecting the appropriate button between the pairs. The closer the button is to an adjective, the more certain you are of your evaluation.

1. Intelligence

Intelligent   Unintelligent

1   ◯ ◯ ◯ ◯ ◯ ◯ ◯

2. Training

Untrained   Trained

2   ◯ ◯ ◯ ◯ ◯ ◯ ◯

3. Expertise

Inexpert   Expert

3   ◯ ◯ ◯ ◯ ◯ ◯ ◯

4. Informed

Informed   Uninformed

4   ◯ ◯ ◯ ◯ ◯ ◯ ◯

5. Competence

Incompetent   Competent

5   ◯ ◯ ◯ ◯ ◯ ◯ ◯

6. Bright

Bright   Stupid

6   ◯ ◯ ◯ ◯ ◯ ◯ ◯

7. Honesty

Honest   Dishonest

7   ◯ ◯ ◯ ◯ ◯ ◯ ◯

8. Trustworthiness

Untrustworthy   Trustworthy

8   ◯ ◯ ◯ ◯ ◯ ◯ ◯

9. Honor

Honorable   Dishonorable

9   ◯ ◯ ◯ ◯ ◯ ◯ ◯

10. Morality

Moral   Immoral

10   ◯ ◯ ◯ ◯ ◯ ◯ ◯

11. Ethics

Unethical   Ethical

11   ◯ ◯ ◯ ◯ ◯ ◯ ◯

12. Genuine

Phony   Genuine

12   ◯ ◯ ◯ ◯ ◯ ◯ ◯

13. Cares

	Cares about me						Doesn't care about me
13	◯	◯	◯	◯	◯	◯	◯

14. Interests

	Has my interests at heart						Doesn't have my interests at heart
14	◯	◯	◯	◯	◯	◯	◯

15. Self-centered

	Self-centered						Not self-centered
15	◯	◯	◯	◯	◯	◯	◯

16. Concern

	Concerned with me						Unconcerned with me
16	◯	◯	◯	◯	◯	◯	◯

17. Sensitivity

	Insensitive						Sensitive
17	◯	◯	◯	◯	◯	◯	◯

18. Understanding

	Understanding						Not understanding
18	◯	◯	◯	◯	◯	◯	◯

18. Male instructor socio-communicative scale

1. Please indicate the degree to which you believe each of these characteristics applies to your male instructor while interacting with others. Mark whether you strongly agree that it applies, agree that it applies, are undecided, disagree that it applies, or strongly disagree that it applies.

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Helpful	◯	◯	◯	◯	◯
Defends own beliefs	◯	◯	◯	◯	◯
Independent	◯	◯	◯	◯	◯
Responsive to others	◯	◯	◯	◯	◯
Forceful	◯	◯	◯	◯	◯
Has strong personality	◯	◯	◯	◯	◯
Sympathetic	◯	◯	◯	◯	◯
Compassionate	◯	◯	◯	◯	◯
Assertive	◯	◯	◯	◯	◯
Sensitive to the needs of others	◯	◯	◯	◯	◯
Dominant	◯	◯	◯	◯	◯
Sincere	◯	◯	◯	◯	◯
Gentle	◯	◯	◯	◯	◯
Willing to take a stand	◯	◯	◯	◯	◯
Warm	◯	◯	◯	◯	◯
Tender	◯	◯	◯	◯	◯
Friendly	◯	◯	◯	◯	◯
Acts as a leader	◯	◯	◯	◯	◯
Aggressive	◯	◯	◯	◯	◯
Competitive	◯	◯	◯	◯	◯

19. Demographics

Now we'd like to get a little information about you:

1. Please mark one

◯ Male

◯ Female

2. Age

[   ]

3. Major

[   ]

4. Which of the following best represents your ethnic background?

◯ Asian or Pacific Islander

◯ Non-Hispanic White (Caucasian)

◯ African-American

◯ Spanish or Hispanic origin

◯ Multi-racial or mixed race

◯ Native American

◯ Other (name)

5. If you are completing this survey for course credit or extra credit, please type your name in the following space. Your name will be separated from your answers, and will only be used to make sure you receive credit from your instructor.

[   ]

6. Please select your university from the following list.

	Select one
Your university	[▾]

7. Please type the name of your instructor in the following space:

[   ]

8. Please type your course name here.

[   ]

20. End

Thank you for completing this survey! Don't forget to close out of your Internet browser.