

# Ethnicity and Gender: An Examination of Its Impact on Instructor Credibility in the University Classroom

Tracey Owens Patton

Department of Communication  
The University of Utah  
Salt Lake City, Utah, USA

*This study examined whether the ethnicity or gender of the instructor affects instructor credibility in the university classroom. Two hundred thirty-seven students rated an instructor's credibility in general, then evaluated one of four videotaped instructor's credibility (one each female and male instructor from an African American background and one each female and male instructor from a European American background).*

*A significant relationship was found between instructor ethnicity and credibility, which may be explained by immediacy, novelty, presensitization, social correctness, or all of these. Results showed no significant relationship between instructor gender and credibility, and the interaction between instructor ethnicity and gender and credibility was not significant.*

**KEYWORDS** African American, ethnicity, ethos/credibility, European American, gender, instructor credibility, university classroom.

**D**iversity is a reality in the multicultural classrooms of today. Our college classrooms are diverse in terms of both student and teacher populations and they come into the classroom with many differences, some of which are related to ethnicity and gender. Most instructors enter the classroom hoping to create an environment that maximizes learning. Because image can affect the credibility of instructors and how their students perceive them, the image an instructor presents is important. Student perceptions of instructors can impact learning. This study examines the affect of ethnicity, specifically African American and European American, and gender on instructor credibility in the university classroom. Numerous studies

This paper was originally a master's thesis written under the direction of Dr. Sue D. Pendell at Colorado State University in 1996. The paper was submitted to the Communication Theory and Research Interest Group, where it was presented at the Western States Communication Association convention, which was held in Monterey, CA, February 1997. I wish to thank Dr. Karen L. Dace, Dr. Sue Pendell, and Kara Joliff Gould for their suggestions and help.

Address correspondence to Tracey Owens Patton, Department of Communication, Room 2400 LNCO, 255 S. Central Campus Dr., The University of Utah, Salt Lake City, UT 84112, USA. E-mail: t.m.patton@m.cc.utah.edu

have analyzed teacher credibility; however, researchers have neglected to study what effect, if any, teacher ethnicity and gender may have on credibility.

The diversity of our university and college campuses is evident. For example, the number of ethnic minorities enrolled in college has increased to 2.5 million. There has been an increase in the number of female students attending universities. Further, the number of minority faculty members teaching at the university level also has begun to increase (Neuliep, 1995). According to Magner (1996) faculty members are European American (83.4%), Asian American (7.7%), African American (5.4%), Hispanic American (3.0%), and Native American (0.5%) (p. A17).

There are more female instructors teaching at the community college level than at the university level. "As the prestige factor dips, the proportion of women rises" (Sadker, 1994, p. 167), and women hold 47% of the community college faculty positions. Aside from the low number of African American female professors at the university level (only 1% of the university faculty), there has been a slow increase in the number of female faculty members teaching at the university level in the United States from 24.7% in 1975 to 31.75% in 1991 (Elmore & Balmert, 1995, p. 68; Sadker, 1994).

In recent years, there has been an increasing emphasis on the importance of the multicultural classroom. Much of the literature has focused on the ethnicity of students at the elementary and secondary school levels and on gender differences in the ways in which male and female instructors communicate. This research suggests that the issue of credibility is an essential variable in achieving and maintaining success in the university classroom. This study examined ethnicity and gender and its impact on teacher credibility from a constructivist model. The constructivist model is a newer approach which looks at source credibility (as opposed to the factor model, which believes credibility exists in the mind of the audience, a thought that dates back to Aristotle, or the functional model, which states that the more the needs are fulfilled by the speaker or instructor, the more credible the speaker or instructor is deemed to be (Infante, Rancer, & Womack, 1990)). The constructivist model "involves learning what it is about the source [instructor] that leads the receiver [student participant] to accept or reject the source's proposal [credibility]" (Infante et al., p. 176).

Therefore, the purpose of this research is to examine the effect of ethnicity and gender on instructor credibility in the university classroom. The following research question was posited:

RQ1: What is the effect of ethnicity and gender on instructor credibility in the university classroom?

Aristotle believed that ethos, speaker credibility, is maintained when the speaker exhibits goodwill, good moral character, and good sense (Whitehead, 1968). McCroskey's "Scales for the Measurement of Ethos" (1966) support Aristotle's definition of speaker credibility and focus on competence (authoritativeness) and character. After several years of study, McCroskey and his colleagues concluded that five basic dimensions compose credibility: competence, character, composure, sociability, and extroversion (dynamism) (Kearney, 1994, p. 352).

Much attention has been devoted to the characteristics of credibility but not to

how or in what ways an instructor can establish credibility. According to Hendrix (1995), "of [the] 95 studies with the term 'credibility' in the title, only five examined the ways in which teachers established, maintained, and lost credibility, or the effect of teacher credibility upon learning (Beatty & Behnke, 1980; Beatty & Zahn, 1990; Frymier & Thompson, 1992; McCroskey, Holdridge, & Toomb, 1974; McGlone & Anderson, 1973)" (p. 1).

In a major study of instructor credibility, McCroskey & Young (1981) sampled college students who were enrolled in basic communication classes. The results of the study indicate that students would rather take a course from a teacher who is perceived to be credible and avoid teachers who are deemed to be less credible (p. 32). Similarly, credibility can fluctuate over time, and McGlone and Anderson (1973) and Beatty and Zahn (1990) found that near the end of the course the expertness of the teacher is less important than if the teacher is in a good mood and whether there are any personal feelings toward the students.

Additionally, in-class behaviors used by effective instructors can positively affect an instructor's credibility. These behaviors include self-disclosure, humor, warmth, clarity, enthusiasm, verbal and nonverbal messages, teacher immediacy, and affinity-seeking (Andersen, 1979; Beatty & Behnke, 1980; Bryant, Crane, Comisky, & Zillmann, 1980; Christophel, 1990; Christophel & Gorham, 1995; Comstock, Rowell, & Bowers, 1995; Freitas, Myers, & Avtgis, 1998; Frymier & Thompson, 1992; Gorham, 1988; Gorham & Zakahi, 1990; Hart & Williams, 1995; Jordan, McGreal, & Wheelless, 1990; McCroskey, Sallinen, Fayer, Richmond, & Barraclough, 1996; Neuliep, 1995; Powell & Hartville, 1990; Sanders & Wiseman, 1990; Stanton-Spicer & Marty-White, 1981; Thweatt & McCroskey, 1998).

Clearly, teacher credibility has an impact in the classroom. Achieving credibility in the classroom is the instructor's goal because being perceived as a credible instructor produces positive outcomes, not only for the instructor but also for the student (Bennett, 1982; Comstock, Rowell, & Bowers, 1995; Jordan, McGreal, & Wheelless, 1990; Neuliep, 1995). However, the impact of ethnicity on teacher credibility is an area that has had little examination.

Generally, scholars who have studied ethnicity in the classroom have concentrated on ethnicity at the primary and secondary levels with a concentration on the effects of ethnicity and socioeconomic class (Banks, 1988; Burns, 1970; Ramirez & Price-Williams, 1974; Rychlak, 1975). However, one study examined university professors. Hendrix (1995) addressed three research questions relative to student and professor perceptions, including (1) how credibility is communicated in the classroom, (2) how race influences perceptions of professor credibility, and (3) "When the professor's race is not the same as the majority of the students' in the class, what verbal and nonverbal communication cues do [*sic*] the professor view as leading to student perceptions of credibility?" (p. 3).

The Hendrix study involved six male professors (three African American and three European American). The results show that the African American professors believed it was important to establish that they were credible professors because they believed that their "white students were not likely to use the same criteria for judging them as credible or would likely apply more stringent standards" (Hendrix, 1995, p. 14). The African American professors believed that establishing their academic and field qualifications became "critical to their credibility" (p. 22).

The three European American professors indicated that they tried “not to conceptualize [their] students in terms of race anymore than [they] would gender or age” (Hendrix, 1995, p. 18). Moreover, the three European American professors acknowledged the different and difficult credibility issues the three African American professors must face.

In addition to the possible effect of ethnicity on teacher credibility in the classroom, gender may have an effect on teacher credibility as well. Research has examined a number of factors of credibility and their relation to gender, including attractiveness, gender stereotyping, and power strategies (Buck & Tiene, 1989; Jordan, McGreal, & Wheelless, 1990; Nadler & Nadler, 1990; Rubin, 1981; Treichler & Kramarae, 1983; Wheelless & Dierks-Stewart, 1981; Wheelless & Potorti, 1989; Wheelless & Wheelless, 1981). The results are inconsistent, and there is no evidence to support conclusions that one gender is better at teaching than the other or that one gender is more credible in teaching than the other (Nadler & Nadler, 1990; Rubin 1981; Wheelless & Potorti, 1989).

In studies on attractiveness, Bell & Daly (1984), Buck & Tiene (1989), and Frymier (1994) explored the impact of teacher attractiveness and direct effects with learning, gender, and teaching philosophies. They found that attractiveness itself did not have an effect on the ratings of teacher effectiveness, but attractiveness did have an effect when combined with other variables. For example, if an instructor was an attractive authoritarian the students tended to overlook the authoritative aspect of the teaching style and rated the instructor based on attractiveness qualities rather than on the teaching methods used. The unattractive instructor was seen as less credible and less believable.

Many researchers have asserted that there are “female” accepted forms of communication in the classroom and “male” accepted forms of communication (Bernard, 1964; Rubin, 1981; Wheelless & Dierks-Stewart, 1981; Wheelless & Potorti, 1989; Wheelless & Wheelless, 1981). The female teaching qualities have been described as warm, concerned, passive, interested, caring, and nondominant. The male teaching qualities have been described as independent, objective, logical, and aggressive. However, it would seem that in some instances the stereotypical sexist lines between female and male instructors is changing. Wheelless and Potorti (1989) found in their study that androgynous teachers showed the highest levels of teacher credibility for all types of learning. The results also showed that there were no effective interaction results between sex role orientation and teacher gender. Based on this study, attitudes toward learning are not related to the instructor’s gender. Even the gender of the student was not a significant variable. Instead, the quality of effective teaching seemed to impact the student’s attitudes toward learning.

Moreover, the use of power strategies in the classroom does not seem to be restricted to one’s gender. Treichler and Kramarae (1983) argue that women find the classroom an inhospitable environment and their talk is more centered around the way a man communicates. Thus students may see “power” as typically associated with male instructors. While these findings support the conclusions that there may be a difference in the way males and females communicate in the classroom, this study did not indicate whether or not teacher gender has any overall effect upon teacher credibility in the classroom. Boersma, Gay, Jones, Morrison, and Remick (1981); Jordan, McGreal, and Wheelless (1990); and Nadler and Nadler (1990) found that

the perception of power tends to be in the classroom regardless of gender. The students involved in the study indicate that they do not believe that they were treated differently by instructors because of their gender, nor are they concerned with power strategies in the classroom or with the gender of their instructor. Instead, students are more concerned with the personal characteristics of their instructor and how their instructor teaches.

The inconsistency found in the results of gender research may indicate that the results changed depending on when the study was conducted or the number of male or female students who participated in the study. Some studies tend to support gender stereotypes; i.e., male instructors are better lecturers and more credible lecturers, whereas the female instructors are better nurturers, less critical, and more supportive (Bernard, 1964; Rubin, 1981; Treichler & Kramarae, 1983; Wheelless & Dierks-Stewart, 1981; Wheelless & Potorti, 1989; Wheelless & Wheelless, 1981). Other studies show that students are more concerned with the personal characteristics of their instructor and how the instructor teaches, regardless of the instructor's gender (Boersma, Gay, Jones, Morrison, & Remick, 1981; Jordan, McGreal, & Wheelless, 1990; Nadler & Nadler, 1990). This variation in results may also be due to compounding or intervening variables not noted in these studies, such as inexperience or experience with instructors whose gender may be different from the students. Other variations may include gender bias and teacher immediacy behaviors that are employed.

As the literature indicates, there may be a change in perception and attitudes the students hold regarding instructor's gender and ethnicity. The perception of African American instructors and education may have also changed in mainstream society. The racist stereotypes about African American intellectual inferiority that resonated within the European American communities have been challenged by civil rights legislation and enforcement. According to Berry (1982), in the early 1970s, "blacks held about 3 percent of faculty positions in higher education in 1972-73" (p. 289). About half of these positions were held in historically Black colleges. By 1975 the numbers rose to 4.4% of African Americans in faculty positions at universities, but again half of the numbers were teaching at historically Black colleges. "Only 2.2 percent of full professors and 2.9 percent of associate professors were black. Blacks at white institutions were clustered at the bottom of the tenure ladder or in positions with no possibility for tenure" (p. 290). As previously indicated, the number of African American professors at the university level has consistently risen each decade. Although the number may not be large when compared with the number of European American professors at the university level, it can be argued that the African American presence on the university campus in terms of instructors and students is changing the stereotypical perception of African Americans. This change can have positive impacts for today's university student, the university campuses, and the debunking of racist stereotypes.

Therefore, the rise in the number of women and ethnic minorities on campuses warrants further study in understanding the critical role ethnicity and gender play in the classrooms of today. Although research on the credibility, ethnicity, and gender of teachers has made a significant contribution to our understanding of how these variables affect one another, there remains a gap in our knowledge. What is missing is the link between ethnicity and gender and how these variables affect speaker cred-

ibility, alone and in interaction. The positive or negative effects of credibility that ethnicity or gender or both can produce is an important variable to study because these are factors one cannot control. There is a lack of research on ethnicity and gender and its effects on credibility at a college level. The one study I found was done by Hendrix (1995), and her study focuses on African American and European American professors and their perceptions of the classroom. Hendrix's study shows how little work has been done on ethnicity and credibility. This research tries to fill the gap of knowledge that exists. Although Hendrix tries to fill the gap of knowledge by focusing on professors' views of credibility, this study fills in another gap by analyzing the effect of ethnicity and gender upon the classroom and the *student* response to credibility; i.e., does the instructor's credibility change (according to the student) due to ethnicity or gender? How students view the effect of ethnicity and gender in the classroom is crucial. Therefore, this study extends the research on the effect of ethnicity and gender on instructor credibility by examining the university classroom, by updating the research on ethnicity and gender, and by investigating the interaction of these factors in credibility.

## Method

Existing research on the affect of ethnicity and gender and its affect upon credibility in the university classroom is limited. However, no research has empirically examined the aforementioned factors. Therefore, this study used quantitative methods to determine the effect of ethnicity and gender on instructor credibility in the university classroom. For this study, the term ethnicity was used in place of race (due to its historical complexities) to indicate African American or European American. A  $2 \times 2$  experimental design with a pre- and postmeasure was employed. Four instructors who are all trained public speakers—two female (one African American and one European American) and two male (one African American and one European American)—were studied.

The instructors gave identical lectures on the nature of public speaking, the causes of nervousness, and the importance of listening skills. The four instructors' lectures were videotaped and played for students enrolled in a basic public speaking course at a large European American dominated Western university (European American students, 89.7%; ethnic minorities, 10.3%). Students completed a premeasure and a postmeasure of instructor credibility and a demographic information sheet (Appendixes A, B). McCroskey's "Scales for the Measurement of Ethos," which focuses on two dimensions of ethos: teacher competence and teacher character (McCroskey, 1966; McCroskey & Young, 1981), was used. Respondents evaluated the instructor based on a total of 12 adjective pairs. The first 6 adjective pairs measure teacher competence; the second set of pairs assesses teacher character (Kearney, 1994, p. 355).

Four intervening variables were controlled in this study: premeasure sensitization, the dress of the instructors, the age of the instructors, and teaching quality (see Appendix C for a discussion of these controls).

A total of 237 students participated. One hundred eighteen were males (49.8%) and 119 (50.2%) females. Seventy-nine (33.3%) were freshman; 97 (40.9%) were

sophomores; 36 (15.3%) were juniors; 21 (8.9%) were seniors; 2 (.8%) were others (continuing education, graduate student, or second bachelor’s degree); and 2 (.8%) did not indicate a year. There were 3 American Indian or Alaskan Natives (1.3%), 1 African American not of Hispanic origin (.4%) and 6 of Hispanic origin (2.5%), 4 Asian or Pacific Islanders (1.7%), 214 Caucasian/White not of Hispanic origin (90.3%), and 9 (3.8%) who did not provide that information.

The data was analyzed using Statistical Package of Social Sciences (SPSS) Analysis of Variance and Cell Means.

### Results

The effect of an instructor’s ethnicity and gender on credibility are presented in Table 1.

The covariate summary of the premeasure indicates that there was a significant relationship between how students evaluated instructors in general and how they evaluated the instructors on videotape.

Examination of main effects shows that, when controlling for evaluation of instructors in general, there was no significant relationship between the gender of the instructor shown on videotape and her or his credibility. However, the *p*-value (.068) approached significance. There was a significant relationship between instructor ethnicity and credibility. The two-way interaction between instructor ethnicity and instructor gender was not statistically significant. However, it approached significance (*p* = .072).

As indicated in Table 2, female instructors were rated slightly (but not significantly) more credible than male instructors. African American instructors were seen as more credible than European American instructors. The African American

**Table 1 Analysis of Variance. Summary of the Postmeasure**

Source of Variation	Sum of Squares	Mean DF	Square	F	Sig of F
Covariates	3924.048	1	3924.048	56.259	.000
Summary of premeasure	3924.048	1	3924.048	56.259	.000
Main effects	724.803	2	362.401	5.196	.006
Instructor gender	234.532	1	234.532	3.362	.068
Instructor ethnicity	520.223	1	520.223	7.458	.007
Two-way interactions	227.487	1	227.487	3.261	.072
Instructor gender and ethnicity	227.487	1	227.487	3.261	.072
Explained	4876.337	4	1219.084	17.478	.000
Residual	15972.779	229	69.750		
Total	20849.115	223	89.481		

*Covariate raw regression coefficient; SUMPRE .575; 237 cases were processed, .3 cases (1.3 pct) were missing.*

**Table 2 Cell Means. Summary of the Postmeasure**

		<i>Instructor Ethnicity and Gender</i>	
		<i>Black</i>	<i>White</i>
Total Population	Male	61.62 (84)	61.87 (38)
62.76 (234)			
Instructor Gender	Female	65.75 (72)	60.60 (40)
Male	Female		
61.70 (122)	63.91 (112)		
Instructor Ethnicity			
Black	White		
63.53 (156)	61.22 (78)		

female instructor had higher instructor credibility than any of the other videotaped instructors. Finally, the African American male and the European American male and female instructors were evaluated similarly.

Table 3 reports the significance level of the relationship of instructor ethnicity and gender with each of the 12 adjective pairs of the credibility measure.

The main effect of ethnicity was significantly related to 5 adjective pairs: "expert" (Black instructors with cell means of 5.12 and White instructors with 4.46), "competent" (Black instructors 5.48 and White instructors .40), "trained" (Black instructors 5.47 and White instructors 5.15), "bright" (Black instructors 5.59 and White instructors 5.24), and "trustworthy" (Black instructors 5.18 and White instructors 4.81).

**Table 3 Postmeasure Credibility Scores**

<i>Credibility</i>	<i>Main Effects Instructor</i>		<i>Interaction Between Instructor</i>
	<i>Adjectives</i>	<i>Ethnicity</i>	<i>Gender</i>
			<i>Ethnicity and Gender</i>
Intelligent	.164	.847	.014*
Informed	.251	.110	.150
Expert	.000*	.251	.149
Competent	.025*	.143	.149
Trained	.012*	.009*	.113
Bright	.014*	.889	.133
Honest	.087	.400	.941
Of high character	.683	.439	.192
Virtuous	.898	.311	.419
Unselfish	.510	.063	.855
Trustworthy	.009*	.315	.369
Sympathetic	.334	.000*	.008*

\* ≤ .05.



**Table 4 Analysis of Variance. Effects of Student Characteristics on Instructor Credibility**

Source Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Covariate	3872.673	1	3872.673	54.871	.000
Summary of premeasure	3872.673	1	3872.673	54.871	.000
Main effects	1212.445	15	80.830	1.145	.318
Instructor gender	233.112	1	233.112	3.303	.071
Instructor ethnicity	482.557	1	482.557	6.837	.010
Gender	6.470	1	6.470	.092	.762
College	228.487	8	28.561	.405	.917
Year	270.344	4	67.586	.958	.432
Explained	5085.118	16	317.820	4.503	.000
Residual	15174.106	215	70.577		
Total	20259.224	231	87.702		

Note: 237 cases were processed; 5 cases (2.1 pct) were missing.

The main effect of gender was significantly related to “trained” and “sympathetic.” Significant differences in cell means were found between female instructors (5.56) and male instructors (5.18) for trained, and between female instructors (5.41) and male instructors (4.84) for sympathetic.

The two-way interaction between instructor ethnicity and gender was significantly related to “intelligent” and “sympathetic.” Significant differences in the two-way cell means were found between the Black male (5.35) and the White male (5.55) and the Black female (5.64) and the White female (5.03) for intelligence and between the Black male (4.69) and the White male (5.18) and the Black female (5.47) and the White female (5.30) for sympathy. Factor analysis of adjective pairs indicated that the adjectives most highly correlated with credibility were intelligent, competent, bright, honest, of high character, and trustworthy.

Analysis of variance examining the effects of student characteristics on instructor credibility (see Table 4) showed that there was no significant effect of student gender, college, or year on instructor credibility.

## Discussion and Conclusions

The purpose of this study was to determine the effect, if any, of ethnicity and gender on instructor credibility in the university classroom. A significant relationship was found between instructor ethnicity and credibility. However, the results did not show a significant relationship between instructor gender and credibility. The interaction between ethnicity and gender and credibility also was not significant.

### *Ethnicity*

Ethnicity was significantly related to credibility, with the African American instructors seen as more credible than the European American instructors. Buck and Tiene (1989) found that ethnicity influenced attractiveness ratings, which in turn influenced credibility (p. 174).

In this study, the adjectives most highly correlated with credibility (intelligent, competent, bright, honest, of high character, and trustworthy) included 3 of the 5 adjectives significantly related to ethnicity—competent, bright, and trustworthy. In addition, the other 2 adjectives significantly related to ethnicity—trained and expert—were included in the teaching quality characteristics found by the educational panel and the research on teacher immediacy (Andersen, 1979; Beatty & Behnke, 1980; Bryant, Crane, Comisky, & Zillmann, 1980; Burgoon, Birk, & Pfau, 1990; Christophel, 1990; Christophel & Gorham, 1995; Comstock, Rowell, & Bowers, 1995; Freitas, Myers, & Avtgis, 1998; Frymier & Thompson, 1992; Gorham, 1988; Gorham & Zakahi, 1990; Hart & Williams, 1995; Jordan, McGreal, & Wheelless, 1990; McCroskey, Sallinen, Fayer, Richmond, & Barraclough, 1996; Neuliep, 1995; Powell & Hartville, 1990; Sanders & Wiseman, 1990; Stanton-Spicer & Marty-White, 1981; Thweatt & McCroskey, 1998). African American instructors had the highest ratings in those adjectives most highly correlated with credibility, and the African American male had the lowest rating from the educational panel yet was seen as more credible than the European American instructors by the respondents (see appendices D–F). The significant relationship of ethnicity to credibility in this study may be attributable to a number of possibilities, including immediacy, novelty, presensitization, and social correctness.

One reason ethnicity was significantly related to credibility may be due to teacher immediacy. Neuliep (1995) found that a positive relationship between teacher immediacy and teacher effectiveness exists (p. 268), and although all ethnicities of instructors use teacher immediacy behaviors, Neuliep found that African American instructors tend to use more immediacy behaviors than the European American instructors (p. 275). Neuliep found that “African American and Euro-American students associated immediacy with more positive affect [*sic*] toward the teacher, the course content, their intentions to enroll in another class with the same teacher, and their likelihood of engaging in the behaviors taught in the class” (p. 275).

Novelty may be an additional explanation as to why ethnicity was significantly related to credibility. The student population in this study is largely homogeneous. Furthermore, the percentage of European American students who participated in this study was even greater (90.3%) with non-European American students composing only 5.9%. At the university studied, European American instructors were 92.3% of the total, with non-European American instructors being 7.7%: Native American (.8%), African American (.5%), Asian American (4.8%), Hispanic American (1.6%).

Despite the changes that are occurring in the ethnicity and gender of instructors on college campuses, it is still more common for a college student to have a male European American instructor than a non-European American male or female instructor of any ethnicity. Therefore, since students may be more accustomed to their instructors being European American males, they may have evaluated the African American instructors higher due to the novelty or “uniqueness” of the situation and, perhaps, the perception that the African American instructors must be superior to have attained their present position.

Presensitization is another possible explanation for the results. Students who participated are required to take an undergraduate cross-cultural awareness course to

become more sensitive to the diversity issues that surround them. These students may be sensitized to diversity issues through their education and experience and therefore may not judge their instructors by the color of their skin but rather on their teaching qualities.

In addition, diversity issues are constantly in the news and are the subject of numerous campus workshops, lectures, and discussions. In relation to presensitization, students may have been trying to be socially correct in providing the answers they thought would be acceptable. The students may have been trying to give the answer they thought the researcher would want—the answer that is socially acceptable and “politically correct”—rather than indicating their true feelings. However, this impact, as well as any possible presensitization, is difficult to gauge or interpret, barring further research.

### **Gender**

Since the present study found female instructors to be somewhat, although not significantly, more credible than male instructors (Table 2), perhaps the sex-role stereotypes may not have been seen by students as important as the qualities associated with effective teaching (Wheless & Potorti, 1989, p. 261) or, as the literature indicates, the gender of the instructor may indeed not be significant (Bennett, 1982; Boersma et al., 1981; Isenhart, 1980; Jordan, McGreal, & Wheless, 1990; Nadler & Nadler, 1990; Treichler & Kramarae, 1983; Wheless & Potorti, 1989).

Although gender was not a significant variable in this study, there were two adjectives affected by gender: trained and sympathetic. According to Bennett (1982), students demand that women have a higher standard of formal preparation and organization (p. 176). Additionally, “if her students are to accept her intellectual authority and judgment in this respect, it is doubly important for a female instructor to be seen as compelling, self-assured, and professional in instructional approach” (p. 176).

The higher ratings of female instructors regarding sympathy support the gender stereotype that female instructors are empathetic, feminine, and emotionally supportive. However, the adjectives sympathetic and trained, although significant, were not strong indicators of credibility overall. The adjectives most highly correlated with credibility were intelligent, competent, bright, honest, of high character, and trustworthy, not trained or sympathetic. These results support the finding that gender is not significantly related to credibility, nor are the “feminine” stereotypes.

The educational panel rated the female instructors highest regarding clarity of presentation and delivery style/enthusiasm, which may have contributed to the overall ratings the female instructor received from the participants (see appendices D–F).

### **Interaction Effects**

While the interaction effect of ethnicity and gender was not significantly related to credibility, it did approach significance, due to the significant relationship between ethnicity and credibility and the relationship between gender and credibility that approached significance.

The African American female instructor had the highest credibility ratings, not only among the participants but also from the educational panel. Even though the

lecture material was identical for all of the instructors, the African American female had the highest rating from the panel in the following areas of nonverbal teacher immediacy behaviors: poise/confidence, clarity of presentation, eye contact, vocal projection, and enthusiasm. The results from the educational panel show that the African American male instructor has the lowest ratings in poise, clarity, eye contact, and style, while the African American female and the European American male and female instructors were similar in ratings. According to Lucas (1995), "a speaker's credibility is strongly affected by his or her delivery" (p. 372). Based on these findings, ethnicity per se may not have made the African American female seem more credible; better oral performance may have led to higher ratings in credibility.

A credible instructor in this study was one who has 6 characteristics: intelligence, competence, brightness, honesty, high character, and trustworthiness. The African American female instructor had the highest mean for these credibility characteristics. Additionally, the adjective scores showed the interaction of ethnicity and gender significantly related to intelligence and sympathy.

The participants may have identified the African American female instructor as being more intelligent due to the perception of more teacher immediacy strategies or a better oral performance or both, and being perceived as intelligent contributes to a higher rating in credibility.

In addition, the participants may have identified with the African American female instructor as being more sympathetic due to a perception of the powerlessness of African American women. According to Michelle Wallace, African American women have been the most powerless group in our society. The perceived "powerlessness" may make African American women seem more attuned to the students' powerlessness in a classroom situation or make the African American female instructor seem more sensitive to students.

## ***Implications***

Based on the students' responses, the data indicate instructor ethnicity and credibility were significantly related. An instructor's ethnicity may affect her or his credibility in the university classroom. However, if an instructor is not an African American female, she or he should not believe she or he will no longer be credible in the university classroom. Rather, we need to teach instructors how to build their credibility to lessen the effects of their ethnicity. I do not mean that one should be forced to assimilate. Rather, lessening the racist, sexist, and stereotypical notions associated with one's ethnicity or gender through building knowledge and competence or through utilizing androgynous or teacher immediacy behaviors.

There are three different stages of credibility: initial, derived, and terminal (Lucas, 1995, p. 370). This study looked at an instructor's initial credibility, and most instructors and individuals in general tend not to have initial credibility (Lucas, p. 370).

What will reduce the impact of an instructor's ethnicity in the classroom is derived credibility, credibility built over a period of time. The student is exposed to her or his instructor on a daily basis, and her or his initial impressions of an instructor may change as the student becomes used to the instructor, the class, and the classroom environment. The instructor, over the course of the class, can use imme-

diacy behaviors to increase student involvement in the course and enhance her or his own credibility in the process. The instructor can strengthen her or his oral performance by becoming more fluent and using greater vocal variety, leading to higher credibility. Additionally, an instructor can show that she or he has high character and is intelligent, competent, bright, honest, and trustworthy, characteristics highly correlated with credibility. By improving credibility in the classroom, the instructor will reduce the effect of ethnicity on credibility.

### ***Limitations***

As with any study, there were limitations. First, the instructor was not actually in the classroom. The lecture was communicated to the students via electronic medium. Students did not experience the instructor's presence, which may have had an impact on the students' evaluation of credibility. In addition, there was no interaction between students and the instructor such as questions and answers, no verbal give and take, or verbal feedback. This lack of interaction could have impacted the results. Although having the videotaped lecture allowed for greater consistency and control of intervening variables, this use of media may have created a barrier between the student and the videotaped instructor. Although there was no evidence found in this study that students perceived a barrier, one may have existed since the transactional nature of communication and learning was not present in the classroom.

Second, only one type of class was used, a basic public speaking course that is required for almost all students at the university. Using different courses would provide information as to whether credibility issues are consistent across classes or whether students rate an instructor's credibility differently depending on the type of class (for example, lecture, discussion) or whether or not the class is required. Courses dealing with issues such as race, ethnicity, gender, or class should also be examined.

Third, the higher credibility of the African American female instructor may have been due to being more familiar with the lecture material. Due to the lack of ethnic minority instructors at the university, particularly African American female instructors, the African American female instructor in this study was the researcher and the person who wrote and edited the lecture script, with minor input and suggestions from the other three instructors involved in this study. Therefore, the African American female instructor may have been that much more familiar with the lecture than the other instructors. Also, because the African American female instructor was the researcher, she may have been more concerned with the credibility implications and the results of this study than the other instructors involved.

Finally, this study only used two instructor ethnicities: African American and European American. Credibility and other issues an instructor may face may differ depending upon type of ethnicity; i.e., the credibility issues of a European American may differ from those of a Hispanic American, Asian American, or African American.

### ***Suggestions for Future Research***

This study needs to be replicated to correct for the limitations discussed above. First, future studies should be expanded to include other ethnicities besides African

American and European Americans. Second, a repeated measuring of this study should be conducted to better understand when or if credibility changes at various times during the semester. Third, future studies could benefit from examining the impact of the instructor's ethnicity and gender and the effect upon credibility via videotaped lectures versus lecturing in the classroom. This would be particularly interesting given the push for mediated courses and universities. The Western Governor's University or telecourses are examples of a university that is conducted via mediated measures. Fourth, no one researcher in the study should have more familiarity with the material than other researchers involved in the project. Fifth, using a variety of courses (humanities and science) would yield a nice comparison between the effect of credibility and the impact of ethnicity and gender across various disciplines. Finally, the characteristics of instructor credibility need to be examined further. Kearney (1994) reports that the "Scales for the Measurement of Ethos" include two dimensions of credibility: teacher competence and teacher character (p. 355). This study found that, of the 6 adjectives highly correlated with credibility, 3 were "competence" characteristics and 3 were "character" characteristics. Considering that the scales were developed over 20 years ago, we recognize that the characteristics of instructor credibility may have shifted.

## Conclusion

A new generation of professors is changing the face of academe, which has been largely European American male. Many students have yet to encounter a class taught by an ethnic minority; however, this is slowly changing. The new instructors are more likely to be members of minority groups (Magner, 1996, p. A17). Despite this increase in ethnic minority instructors, a significant relationship between instructor ethnicity and credibility exists: an instructor's ethnicity may have an impact on their credibility in the classroom.

Credibility is a concern for all instructors because it affects how their students view them. If credibility is impacted due to ethnicity, then steps must be taken to reduce and eventually eliminate ethnicity as a factor. This increase in ethnic minority faculty will lead to a time when ethnicity may no longer be an issue or a focal point for students. Instead, students will judge an instructor based upon her or his skills.

## References

- Andersen, J. F. (1979). Teacher immediacy as a predictor of teaching effectiveness. *Communication Yearbook*, 3, 543-559.
- Banks, J. A. (1988). Ethnicity, class, cognitive, and motivational styles: Research and teaching implications. *Journal of Negro Education*, 48, 452-466.
- Beatty, M., & Behnke, R. (1980). Teacher credibility as a function of verbal content and paralinguistic cues. *Communication Quarterly*, 28, 55-59.
- Beatty, M., & Zahn, C. (1990). Are student ratings of communication instructors due to "easy" grading practices?: An analysis of teacher credibility and student-reported performance levels. *Communication Education*, 39, 275-282.
- Bell, R., & Daly, J. (1984). The affinity-seeking function of communication. *Communication Monographs*, 51, 91-115.
- Bennett, S. K. (1982). Student perceptions of and expectations for male and female instructors: Evidence relating to the question of gender bias in teaching evaluation. *Journal of Educational Psychology*, 74, 170-179.
- Bernard, J. (1964). *Academic women*. University Park, PA: The Pennsylvania State University.

- Berry, M. (1982). Twentieth-century Black women in education. *Journal of Negro Education*, 51, 288–300.
- Boersma, P., Gay, D., Jones, R., Morrison, L., & Remick, H. (1981). Sex differences in college student-teacher interactions: Fact or fantasy? *Sex Roles*, 7, 775–784.
- Bryant, J., Crane, J., Comisky, P., & Zillmann, D. (1980). Relationship between college teachers' use of humor in the classroom and students' evaluations of their teachers. *Journal of Educational Psychology*, 72, 511–519.
- Buck, S., & Tiene, D. (1989). The impact of physical attractiveness, gender, and teaching philosophy on teacher evaluations. *The Journal of Educational Research*, 82, 172–177.
- Burgoon, J., Birk, T., & Pfau, M. (1990). Nonverbal behaviors, persuasion, and credibility. *Human Communication Research*, 17, 140–169.
- Burns, K. (1970). Patterns of WISC scores for children of two socioeconomic classes and races. *Child Development*, 41, 493–499.
- Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation, and learning. *Communication Education*, 39, 323–341.
- Christophel, D. M., & Gorham, J. (1995). A test-retest analysis of student motivation, teacher immediacy, and perceived sources of motivation and demotivation in college class. *Communication Education*, 44, 292–306.
- Comstock, J., Rowell, E., & Bowers, J. (1995). Food for thought: Teacher nonverbal immediacy, student learning, and curvilinearity. *Communication Education*, 44, 251–266.
- Elmore, G., & Balmert, M. (1995). A profile of college and university faculty: Minorities and women in advertising, communication, journalism, media studies, public relations, and related fields. *Journal of the Association for Communication Administration*, 2, 66–81.
- Feldman, K. A. (1983). Seniority and experience of college teachers as related to evaluations they receive from students. *Research in Higher Education*, 18, 3–124.
- Freitas, F., Myers, S., & Avtgis, T. (1998). Student perceptions of instructor immediacy in conventional and distributed learning classrooms. *Communication Education*, 47, 366–372.
- Frymier, A. (1994). The use of affinity-seeking in producing liking and learning in the classroom. *Journal of Applied Communication Research*, 22.
- Frymier, A., & Thompson, C. (1992). Perceived teacher affinity-seeking in relation to perceived teacher credibility. *Communication Education*, 41, 388–399.
- Gorham, J. (1988). The relationship between verbal teacher immediacy behaviors and student learning. *Communication Education*, 37, 40–53.
- Gorham, J., & Zakahi, W. R. (1990). A comparison of teacher and student perceptions of immediacy and learning: Monitoring process and product. *Communication Education*, 39, 354–368.
- Hart, R., & Williams, D. (1995). Able-bodied instructors and students with physical disabilities: A relationship handicapped by communication. *Communication Education*, 44, 140–154.
- Hendrix, K. G. (1995, February). *Professor perceptions of the influence of race on classroom dynamics and credibility*. Paper presented at the annual meeting of the Western States Communication Association, Portland, OR.
- Infante, D., Rancer, A., & Womack, D. (1990). *Building communication theory*. IL: Waveland.
- Isenhardt, M. W. (1980). An investigation of the relationship of sex and sex role to the ability to decode nonverbal ones. *Human Communication Research*, 6(4), 309–318.
- Jordan, F., McGreal, E., & Wheelless, V. (1990). Student perceptions of teacher sex-role orientation and use of power strategies and teacher sex as determinants of student attitudes toward learning. *Communication Quarterly*, 38, 43–53.
- Kearney, P. (1994). Teacher credibility. In R. Rubin, P. Palmgreen, & H. Sypher, (Eds.), *Communication research measures: A sourcebook* (pp. 352–355). New York: Guilford.
- Lucas, S. (1995). *The art of public speaking*. New York: McGraw-Hill.
- Magner, D. K. (1996, February 2). The new generation: Study shows proportions of female and minority professors are growing. *The Chronicle of Higher Education*, pp. A17–18.
- McCroskey, J. (1966). Scales for the measurement of ethos. *Speech Monographs*, 33, 65–72.
- McCroskey, J., Holdridge, W., & Toomb, J. (1974). An instrument for measuring the source credibility of basic speech communication instructors. *The Speech Teacher*, 23, 26–33.
- McCroskey, J., Sallinen, A., Fayer, J. M., Richmond, V. P., Barraclough, R. A. (1996). Nonverbal immediacy and cognitive learning: A cross-cultural investigation. *Communication Education*, 45, 200–201.
- McCroskey, J., & Young, T. (1981). Ethos and credibility: The construct and its measurement after three decades. *Central States Speech Journal*, 32, 24–34.
- McGlone, E., & Anderson, L. (1973). The dimensions of teacher credibility. *The Speech Teacher*, 22, 196–200.
- Nadler, L., & Nadler, M. (1990). Perceptions of sex differences in classroom communication. *Women's Studies in Communication*, 13, 46–65.

- Neuliep, J. W. (1995). A comparison of teacher immediacy in African American and Euro-American college classrooms. *Communication Education, 44*, 265–277.
- Powell, R. G., & Hartville, B. (1990). The effects of teacher immediacy and clarity on instructional outcomes: An intercultural assessment. *Communication Education, 39*, 369–379.
- Ramirez, M., & Price-Williams, D. R. (1974). Cognitive styles of children of three ethnic groups in the United States. *Journal of Cross-Cultural Psychology, 5*, 212–219.
- Rubin, R. B. (1981). Ideal traits and terms of address for male and female college professors. *Journal of Personality and Social Psychology, 41*, 966–974.
- Rychlak, J. (1975). Affective assessment, intelligence, social class, and racial learning style. *Journal of Personality and Social Psychology, 32*, 989–995.
- Sadker, M. (1994). *Failing at fairness: How America's schools cheat girls*. New York: C. Scribner's Sons.
- Sanders, J. A., & Wiseman, R. L. (1990). The effects of verbal and nonverbal teacher immediacy on perceived cognitive, affective, and behavioral learning in the multicultural classroom. *Communication Education, 39*, 341–353.
- Stanton-Spicer, A., & Marty-White, C. (1981). A framework for instructional communication theory: The relationship between teacher communication concerns and classroom behavior. *Communication Education, 30*, 354–366.
- Thweatt, K., & McCroskey, J. (1998). The impact of teacher immediacy and misbehaviors on teacher credibility. *Communication Education, 47*, 348–358.
- Treichler, P., & Kramarae, C. (1983). Women's talk in the ivory tower. *Communication Quarterly, 31*, 118–132.
- Wheless, L., & Wheelless, V. (1981). Attribution, gender orientation, and adaptability: Reconceptualization, measurement, and research results. *Communication Quarterly, 30*, 56–66.
- Wheless, V., & Dierks-Stewart, K. (1981). The psychometric properties of the BEM sex-role inventory: Questions concerning reliability and validity. *Communication Quarterly, 29*, 173–186.
- Wheless, V., & Potorti, P. (1989). Student assessment of teacher masculinity and femininity: A test of the sex role congruency hypothesis on student attitudes toward learning. *Journal of Educational Psychology, 81*, 259–262.
- Whitehead, J. (1968). Factors of source credibility. *The Quarterly Journal of Speech, 54*, 59–63.

## Appendix A

### Premeasure

Instructions: The following is a series of attitude scales. You are asked to evaluate instructors in general, not a specific instructor you have had, in terms of the adjectives on each side. For example, if you think instructors in general are very tall, you might mark the following scale below:

Tall  $x$  \_\_\_\_\_ Short

Of course, if you consider instructors in general to be shorter, you would mark your “X” nearer the “short” adjective. The middle space on each scale should be considered “neutral.” Mark this space if you feel neither adjective on the scale applies to instructors in general or if you feel both apply equally.

Instructors in general are:

Intelligent \_\_\_\_\_ Unintelligent  
 Untrained \_\_\_\_\_ Trained  
 Expert \_\_\_\_\_ Inexpert  
 Uninformed \_\_\_\_\_ Informed  
 Competent \_\_\_\_\_ Incompetent  
 Stupid \_\_\_\_\_ Bright



Sinful \_\_\_\_\_ Virtuous  
 Dishonest \_\_\_\_\_ Honest  
 Unselfish \_\_\_\_\_ Selfish  
 Sympathetic \_\_\_\_\_ Unsympathetic  
 High character \_\_\_\_\_ Low character  
 Untrustworthy \_\_\_\_\_ Trustworthy

Adapted from Rubin, R., Palmgreen, P., & Sypher, H. (Eds.). (1994). *Communication research methods: A sourcebook*. New York: Guilford.

## Appendix B

### Postmeasure

Instructions: The following is a series of attitude scales. You are asked to evaluate the specific videotaped instructor in terms of the adjectives on each side. For example, if you think the instructor on videotape is very tall, you might mark the following scale as below:

Tall  $x$ \_\_\_\_\_ Short

Of course, if you consider the instructor on videotape to be shorter, you would mark your "X" nearer the "short" adjective. The middle space on each scale should be considered "neutral." Mark this space if you feel neither adjective on the scale applies to the instructor on videotape or if you feel both apply equally.

The instructor on videotape is:

Intelligent \_\_\_\_\_ Unintelligent  
 Informed \_\_\_\_\_ Uninformed  
 Expert \_\_\_\_\_ Inexpert  
 Incompetent \_\_\_\_\_ Competent  
 Trained \_\_\_\_\_ Untrained  
 Bright \_\_\_\_\_ Stupid  
 Honest \_\_\_\_\_ Dishonest  
 Low Character \_\_\_\_\_ High Character  
 Virtuous \_\_\_\_\_ Sinful  
 Unselfish \_\_\_\_\_ Selfish  
 Untrustworthy \_\_\_\_\_ Trustworthy  
 Sympathetic \_\_\_\_\_ Unsympathetic

Adapted from Rubin, R., Palmgreen, P., & Sypher, H. (Eds.). (1994). *Communication research methods: A sourcebook*. New York: Guilford.

## Appendix C

### ***Intervening Variable Controls***

Four intervening variables were controlled in this study: premeasure sensitization, the dress of the instructors, the age of the instructors, and teaching quality.

Controlling for premeasure sensitization was necessary because the premeasure might have made the respondents sensitive to the questions asked in the postmeasure. Therefore, the measures of credibility were modified from premeasure to postmeasure by changing around some of the adjective pairs. Another intervening variable that was controlled was the dress of the instructors who participated in the experiment. The clothes worn by both male and female instructors were the same; i.e., navy blue blazer, white dress shirt, and slacks. This eliminated clothes as a possible factor in determining which instructor was seen as more credible, because a better-dressed instructor could be perceived as more credible.

The age of the instructors was another intervening variable of concern. The instructors involved in this study were between 24 and 30 years old. Some researchers think that age may be a contributing factor in credibility; i.e., the older one is, the more credible one appears (Feldman, 1983). Feldman found the academic rank, age, and extent of instructional experience of college teachers to be unrelated to their students' overall evaluation of them (p. 3). However, when a relationship was found between a teacher's age or experience and their students' evaluation, it was an inverse relationship, i.e., "the older the teacher or the more experienced the teacher, the somewhat lower the students' overall evaluation of the teacher" (p. 11). As a teacher grows older, she or he may find it harder to "reach" the young people in their classes, thus promoting a generation gap, whereas one would not typically exist between students and younger instructors or graduate teaching assistants (pp. 48–49). Based on these results, age effecting the reliability and validity of the study should not be a concern.

Teaching quality, the last intervening variable that needed to be addressed, had four internal control concerns. First, to control for teaching quality a lecture script was produced. All of the videotaped instructors participated in writing the script; however, the African American female instructor in this study was the primary producer and editor of the script. Additionally, once the script was in its final form, the director of the public speaking course approved the script before the videotaped lectures were produced.

Second, teaching quality was controlled for in making the videotaped lecture. In order to ensure consistency among the instructors in their teaching, multiple takes of each instructor were made until the desired level of quality and consistency was achieved: the African American male four takes, the African American female two takes, the European American male four takes, and the European American female two takes.

Third, once the videotaped lectures were in their final form, the director of the public speaking courses reviewed them for consistency in presentation.

Fourth, following approval of the videotapes by the course director, a panel of three educational specialists reviewed the tapes for teaching quality (see Appendixes D–F for results). However, despite all of the steps taken to ensure teacher consistency and quality, the African American male was seen as less credible than the other three instructors by the educational panel.

## Appendix D

### *Instructor Quality Ratings by the Educational Panel*

(Scoring: 1 = Worst, 3 = Best)

	<i>African American Female</i>		
	<i>Rater 1</i>	<i>Rater 2</i>	<i>Rater 3</i>
Poise/confidence	3	3	3
Clarity of presentation	3	3	3
Eye contact	3	3	3
Voice projection	3	3	3
Delivery style/enthusiasm	3	2	3

*Mean: 44.*

	<i>African American Male</i>		
	<i>Rater 1</i>	<i>Rater 2</i>	<i>Rater 3</i>
Poise/confidence	2	1	3
Clarity of presentation	2	2	3
Eye contact	1	1	2
Voice projection	3	3	3
Delivery style/enthusiasm	2	2	2

*Mean: 32.*

	<i>European American Female</i>		
	<i>Rater 1</i>	<i>Rater 2</i>	<i>Rater 3</i>
Poise/confidence	3	3	3
Clarity of presentation	3	3	3
Eye contact	2	2	1
Voice projection	3	3	3
Delivery style/enthusiasm	3	3	3

*Mean: 41.*

	<i>European American Male</i>		
	<i>Rater 1</i>	<i>Rater 2</i>	<i>Rater 3</i>
Poise/confidence	3	3	3
Clarity of presentation	3	3	2
Eye contact	3	3	3
Voice projection	3	3	3
Delivery style/enthusiasm	2	3	3

*Mean: 43.*

## Appendix E

### *Analysis of Variance for Educational Panel Results*

#### **Poise**

<i>Source Variation</i>	<i>Sum of Squares</i>	<i>DF</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig of F</i>
Main effects	1.500	2	.750	3.000	.107
Ethnicity	.750	1	.750	3.000	.122
Gender	.750	1	.750	3.000	.122
Two-way interactions					
Ethnicity	.750	1	.750	3.000	.122
Gender	.750	1	.750	3.000	.122
Explained	2.250	3	.750	3.000	.095
Residual	2.000	8	.250		
Total	4.250	11	.386		

*12 cases were processed; 0 cases (.0 pct) were missing.*

#### **Clarity**

<i>Source Variation</i>	<i>Sum of Squares</i>	<i>DF</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig of F</i>
Main effects	.833	2	.417	2.500	.143
Ethnicity	.083	1	.083	.500	.500
Gender	.750	1	.750	4.500	.067
Two-way interactions					
Ethnicity	.083	1	.083	.500	.500
Gender	.083	1	.083	.500	.500
Explained	.917	3	.306	1.833	.219
Residual	1.333	8	.167		
Total	2.250	11	.205		

*12 cases were processed; 0 cases (.0 pct) were missing.*

**Eye Contact**

<i>Source of Variation</i>	<i>Sum of Squares</i>	<i>DF</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig of F</i>
Main effects	.167	2	.083	.500	.624
Ethnicity	.083	1	.083	.500	.500
Gender	.083	1	.083	.500	.500
Two-way interactions					
Ethnicity	6.750	1	6.750	40.500	.000
Gender	6.750	1	6.750	40.500	.000
Explained	6.917	3	2.306	13.833	.002
Residual	1.333	8	.167		
Total	8.250	11	.750		

12 cases were processed; 0 cases (.0 pct) were missing.

**Style**

<i>Source of Variation</i>	<i>Sum of Squares</i>	<i>DF</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig of F</i>
Main effects	1.500	2	.750	4.500	.049
Ethnicity	.750	1	.750	4.500	.067
Gender	.750	1	.750	4.500	.067
Two-way interactions					
Ethnicity	.083	1	.083	.500	.500
Gender	.083	1	.083	.500	.500
Explained	1.583	3	.528	3.167	.085
Residual	1.333	8	.167		
Total	2.916	11	.265		

12 cases were processed; 0 cases (.0 pct) were missing.

**Voice**

<i>Source of Variation</i>	<i>Sum of Squares</i>	<i>DF</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig of F</i>
Main effects	.000	2	.000		
Ethnicity	.000	1	.000		
Gender	.000	1	.000		
Two-way interactions					
Ethnicity	.000	1	.000		
Gender	.000	1	.000		
Explained	.000	3	.000		
Residual	.000	8	.000		
Total	.000	11	.000		

12 cases were processed; 0 cases (.0 pct) were missing.

## Appendix F

### Cell Means for Educational Panel Adjectives

#### Poise

Total Population 2.75 (12)	Instructor Ethnicity		Instructor Gender		Instructor Ethnicity and Gender		
	Black	White	Male	Female	Male	Black	White
	2.50 (6)	3.00 (6)	2.50 (6)	3.00 (6)		2.00 (3)	3.00 (3)
					Female	3.00 (3)	3.00 (3)

#### Clarity

Total Population 2.75 (12)	Instructor Ethnicity		Instructor Gender		Instructor Ethnicity and Gender		
	Black	White	Male	Female	Male	Black	White
	2.67 (6)	2.83 (6)	2.50 (6)	3.00 (6)		2.33 (3)	2.67 (3)
					Female	3.00 (3)	3.00 (3)

#### Eye Contact

Total Population 2.25 (12)	Instructor Ethnicity		Instructor Gender		Instructor Ethnicity and Gender		
	Black	White	Male	Female	Male	Black	White
	2.17 (6)	2.33 (6)	2.17 (6)	2.33 (6)		1.33 (3)	3.00 (3)
					Female	3.00 (3)	1.67 (3)

#### Style

Total Population 2.58 (12)	Instructor Ethnicity		Instructor Gender		Instructor Ethnicity and Gender		
	Black	White	Male	Female	Male	Black	White
	2.33 (6)	2.83 (6)	2.33 (6)	2.83 (6)		2.00 (3)	2.67 (3)
					Female	2.67 (3)	3.00 (3)

#### Voice

Total Population 3.00 (12)	Instructor Ethnicity		Instructor Gender		Instructor Ethnicity and Gender		
	Black	White	Male	Female	Male	Black	White
	3.00 (6)	3.00 (6)	3.00 (6)	3.00 (6)		3.00 (3)	3.00 (3)
					Female	3.00 (3)	3.00 (3)