

## GENDER EQUITY IN COMMUNICATION SKILL

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Teaching and learning are primarily communication processes that rely on interactions of students and teachers. Any factor that inhibits effective communication in the teaching and learning process therefore adversely affects the learning process; if communication is restricted or gender biased, then learning will be different for girls and boys. Because of the foundational role of communication in all learning, this chapter focuses primarily on teaching/learning of the basic skills of listening, reading, speaking, and writing. We attend to communication as a primary subject matter only briefly.<sup>1</sup>

Previous research has demonstrated gender bias in language and in its use (Borisoff & Merrill, 1998; Cameron, 1990, 1998; Eckert & McConnell-Ginet, 2003; Hellinger & Bussman, 2001; Hill, 1986; Holborow, 1999; Lakoff, 1990; McConnell-Ginet, 1975; Miller & Swift, 1991, 1976; Penelope, 1990; Schulz, 1990; Spender, 1985, among many others). Other research has shown extensive sex segregation in occupations and significant associated salary differentials (Freeman, 2004; Costello & Krimgold, 1996; Costello & Stone, 2001; Costello, Wight & Stone, 2003 as well as the material in the chapters in this book “Impact of Education on Gender Equity in Employment and Its Outcomes” and “Gender Equity in Career and Technical Education”). A primary concern in this chapter is to explore whether inequities or omissions in education affect persistence of these patterns of inequities, and more specifically to what extent students’ achievement of the varied communication skills reinforce these cultural patterns. Where inequities or omissions in communication education exist, we need to identify them in order to remedy some of the forces perpetuating societal patterns.

First, we discuss matters of definition. Next, we examine extant data to learn where differences in skills and competence in communication exist between girls and boys—and, when relevant, women and men—as groups. We then explore

the extent to which these differences relate to educational practices and structures, thus examining the processes of teaching and assessing communicating skills in diverse populations. We look briefly at communication in social patterns and structure using the status of women in journalism/communication education as illustrative of one factor in media literacy learning. Finally, we make recommendations for achieving equity in the materials and methods used in teaching communication skills.

Overall, this chapter raises more questions than it provides answers. Readers seeking definitive information or claims about how education “shortchanges” girls/women or boys/men will be dissatisfied. The scholarship reviewed shows that previous study of equity in communication education has only partially covered communication skills and assessed only in part achievement of those skills that have been measured. We argue that previous researchers and commentators have too quickly generalized about differences between girls and boys (or women and men) as population groups and have inadequately disaggregated data to study within-population differences. The primary contribution of the chapter is to show where more study is needed, what new assessment efforts are required, and where more careful analysis should preclude facile generalizations. We conclude with recommendations for policy and other changes needed to facilitate these changes.

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### UNDERSTANDING GENDER EQUITY IN COMMUNICATION SKILLS LEARNING

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This chapter focuses on gender issues in teaching and learning in the content areas of communication skills in English. Thus,

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\*The bold face names is the Lead Author.

<sup>1</sup>Other discussions related to communication education can be found in the chapters “Facts and Assumptions about the Nature of Gender Differences,” and “Implications for Gender Equity; Gender Equity in Coeducational and Single-Sex Educational Environments,” “Gender Equity in the Use of Educational Technologies,” and “Gender Equity in Foreign and Second-Language Learning.”

we use the term, communication, to refer to all its processes: listening, reading, speaking, and writing (including use electronic and print media). We begin with definitions to provide clarity, describing some of the terminologies common to each process as well as those that differentiate among them.

Communication skills are all grounded in knowledge about and use of *language* (sometimes referred to by communication theorists as a “message code.”) People are not equally skilled in using a particular language in all communication processes. For example, individuals may be able to read (or decode) English quite fluently, but not be able to speak or write it as fluently. Also, the reverse is often true. Further, individuals may find themselves differently restricted in what they think they can safely say, or even if they can safely say anything, in some settings. In addition, their skills vary as the medium used changes. Measurement of communication skills achievement is complicated not only by these situational aspects of language use, but also by the variants of language codes and communication customs in diverse cultures and subcultures in various institutions and regions. Prior research often did not attend to such cultural anomalies of language use or language communities, which leads to a requirement that all reported findings be interpreted cautiously.

Within the category of “language,” we must also distinguish between processes of verbal and nonverbal language. The term *verbal* refers primarily to the use of words, whether spoken or written. *Nonverbal* language relies on visual, auditory, kinesthetic, tactile, spatial, and other aspects of communication that stand in place of or complement verbal language. In interactive, spoken communication the nonverbal aspects of language are often more potent in carrying the intended message than are the verbal aspects.<sup>2</sup> Since English is not an overtly gendered language, nonverbal communication carries most of the gender messages among English speakers (Fivush, 1989; Gleason, 1989; Henley, 1986).

Nonverbal communication also occurs within the processes of reading and writing, although these seldom involve the message potency, constancy, and interpretive complexities of interactive spoken communication. However, for very young children, the pictures in books (a nonverbal language form), even more than the words, carry a great deal of meaning, as do the vocal tones and intensities or body language of the adults who read to them. Pictures in texts for older children also serve as nonverbal communication, as do visual images in all media; all these usually carry messages about gender, as does the verbal text. The topics we ask children to write about, the pictures we ask them to draw, or the points we award for writing neatly, provide communicative information beyond the verbal language. When any of these messages, verbal or nonverbal, vary according to the sex of the sender or the intended recipient, they con-

stitute gender messages. The question for this chapter is to what extent such differences promote gender inequity in educational settings and desired outcomes.

Finally, it must be understood that communication, especially in oral forms, involves meanings beyond the cognitive. Communication involves affective, expressive, relational, and instrumental messages. Thus, not only do oral messages seek to accomplish goals of understanding or persuasion (cognitive and instrumental), they express feelings (affective and expressive), seek to achieve, change, or maintain relationships (relational and instrumental). The gender ramifications in such multiple interactions add complexity since messages involve gender in values, expectations, and cultural prescriptions, all usually unstated. The point here is that interest in equity in learning/teaching communication skills requires attention, at all times, to the multifaceted and interactive nature of sender skills and intentions, receiver values and expectations, as well as other factors of the situation.

### The Importance of Communication Skills

Complicated as our topic is, it especially needs attention because communication skills (listening, reading, speaking, and writing via a variety of media) are arguably the most important academic skills for later success in life (Morreale, Osborn, & Pearson, 2000; Poole & Walther, 2002; Stump & Selz, 1982). The business community has for many years expressed dissatisfaction with the quality of reading, writing, and oral communication skills of both high-school and college graduates (National Alliance for Business, 1996; Rodriguez & Ruppert, 1996). Success in business and in most professions, as well as in family and social life, correlates highly with communication competence (Carnevale, 1996; Endicott, 1978; Daly, 1994; reAmaze, 2005; Van Horn, 1995). Yet, national and international test data show that a large percentage of American students do not achieve acceptable levels of reading and writing proficiency as defined by our national and local standards, and do not compare favorably with their peers from other nations. Such deficiencies not only can limit access to further education but can also affect later employment and life outcomes. For example, low literacy skills are associated with a number of other negative factors such as poverty and incarceration. Barton and Lapointe (1995), discussing findings from the National Center for Educational Statistics (NCES) National Adult Literacy Survey (NAAL), report that measured levels of document literacy strongly predict wages both across education level (high-school graduate, two-year degree, four-year degree) and within each of these levels.<sup>3</sup> Literacy levels also positively correlate with indicators of engaged citizenship (Barton, 1994). Clearly, acquiring competence in communication is critical to many other achievements.

<sup>2</sup>This claim is supported in a considerable recent history of research dealing with nonverbal communication. The work ranges from that completed in the 1970s by scholars such as Ekman, Friesen and Pheobe (e.g., 1969, 1972), Birdwhistell (e.g., 1968, 1970); to current scholarship exemplified by that of Peter Andersen and colleagues (e.g., 1998, 1999, 2001) as well as ongoing work by Ekman and colleagues (2005). Thousands of research studies have explored the varieties of nonverbal communication.

<sup>3</sup>Literacy is broadly defined as ability to read and write, and is often defined according to scaled ability levels. Document literacy as defined in the NCES survey is ability to use documents, such as short forms or graphically displayed information found in everyday life, including job applications, payroll forms, transportation schedules, maps, tables, and graphs. Measured document literacy tasks included, among many others, locating a particular intersection on a street map, using a schedule to choose the appropriate bus, or entering information on an application form (NCES, 2005). See also Venezky, Kaestle, and Sum, 1987; and Tuijman, 2000.

For our interests here, however, the most relevant issues are those related to gender, especially the possible interactions among gender, literacy, and wages. We need to know not only whether literacy levels vary by sex, but also if being literate makes a bigger difference in life outcomes for either women or men. Data to answer this question are hard to find, but we do know that many skilled labor jobs are still more open to men than women, that the first level of skilled work for many women is clerical, and that wages differ substantially between those two classes of employment. We also know that men's wages and salaries outstrip women's at all levels of literacy. Hence, it may be true that literacy matters more for women than for men (Rosser, 2005). In addition, if it is accurate, as research suggests, schools must do a better job of preparing girls for verbal literacy as currently defined, and then it is possible that differences in educational literacy outcomes do not present an inequitable situation for men. These differences may be, instead, a counterforce to what otherwise would be an inequity for women.<sup>4</sup>

It is also possible that the tools used to measure educational performance are inadequate. An analysis of the scores on both major university admissions testing tools, the SAT and the ACT, demonstrated that in spite of claims to the contrary (Alperstein, 2005) boys' average scores are higher than girls' (ACT, 2005; SAT, 2005; Rosser, 2005). These widely used tests sizably underpredict women's performance in college, where females continue to earn higher grades than males (Rosser, 2005, 1989, 1990).<sup>5</sup> While discussion of testing issues is elaborated in the chapter "Gender Equity in Testing and Assessment" in this *Handbook*, the issue is relevant here because we raise questions about the validity of currently used literacy outcome measures. For example, in reviewing 20 of research on composition, Chapman (2006) pointed out that while most states conduct writing exams "very few studies have been done to determine the effectiveness of these assessments" (fr. 2). Pending the thorough analysis of writing results in the National Assessment of Educational Progress (NAEP) to be conducted in 2007 and conclusions to be learned from the addition of writing samples in SAT testing, we have few concrete data about any K–12 students' learning outcomes in writing, much less knowledge about gender differences within those outcomes.

What the research reviewed in this chapter shows clearly is that analysis of data regarding equity issues in communication education supports few definitive statements about the critical questions just posed; considerable additional study is needed. The questions also show clearly that the task of assessing edu-

cational equity in communication-skills learning goes beyond identifying inequities in outcomes by broad difference categories such as sex. It encompasses questions related to class, race, ethnicity, and social attitudes toward usefulness of communication and literacy skills. It involves attending to what role schools need to play in preparing students to recognize and cope with inequities that may continue throughout their lives (AAUW, 2001).

#### Gender Gaps in Communication Skills: Examining the Complexity of Data Analysis

Our discussion emphasizes the multifaceted nature of gender and equity issues in communication and communication learning. Communication skills are not unitary; nor are gender or equity unidimensional concepts. Moreover, even when average differences between girls and boys or women and men are found, it is usually the case that even larger differences exist within those groups. As discussed in the chapter "Examining the Achievement of Gender Equity in and through Education" equity is not a simple matter of treating every child the same. Moreover, gender equity cannot be explored simply by identifying whether females and males are treated equally or achieve equal outcomes. Educational experiences vary widely as race, ethnicity, socioeconomic status, and degree of physical ability (among other things) vary.<sup>6</sup> Not only do each of these factors (communication skills, gender, equity) have much internal complexity, but the factors interact. To understand the communication competencies of students and teachers, we must recognize gendered social and cultural structures in which their communication occurs as well as the differently valued aspects of communication when enacted by or attributed to females or males.

Most common assumptions about the communication skills and competence of females and males vastly oversimplify the complex set of behaviors that constitute such competence. We grow up learning that some behaviors and attributes are male identified (hence thought of as masculine) and some behaviors and attributes that are female identified (hence considered feminine). Moreover, the male-identified and female-identified behaviors are differently valued (Bem, 1993; Blair, Brown, & Baxter, 1994; Broverman, 1970; Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972). To truly achieve gender equity in communication requires, first, that female identified (associated) behaviors are valued and responded to in the same ways as male identified (associated) ones; and second, that commu-

<sup>4</sup>Given that the entry-level jobs most open to women have higher need for literacy than those jobs that are male-identified and less open to women, if schools were to treat girls and boys in ways to try to insure no differences in literacy outcomes occur, then such treatment would, in its effect, be inequitable.

<sup>5</sup>ACT Average scores for 2005 were 20.9 for females; 21.1 for males, with females constituting 56% of the 1.19 million test takers (ACT, ACT High-School Profile Report 2005). SAT scores for 2005 on the verbal portion of the exam were 505 for females, 513 for males, with females constituting 53% of the 1.48 million test takers. FairTest calculated averages from: College Board, College-Bound Seniors 2005: Total Group Profile Report. The College Board, in August 2006, reported that for 2006 test takers, the verbal scores (now termed critical reading) were 505 for males and 502 for females, while the new writing portion of the exam showed an 11-point advantage for females, 502 to 491 for males (<http://www.collegeboard.com/press/releases/150054.htm>).

<sup>6</sup>These subgroups are not mutually exclusive and reporting of gender differences within subgroups would provide a finer grained picture of the impact of the new elementary and secondary accountability system on student performance.

nication behaviors are similarly valued whether the person doing them is female or male. In relating education and communication skills, such equity would mean that interruptions, aggressiveness, silence, talkativeness, preferring action to talk, liking to read books, preferring violent video games to reading a book, writing, talking logically or emotionally, displaying empathy or lack of it, would each be equally valued and encouraged, or considered inappropriate and discouraged, whether engaged in by girls or boys.

To provide a concrete illustration of the disregard for complexity in interpreting the available data, we discuss one example of one widespread stereotype: that girls excel in verbal skills and boys excel in mathematics. Close analysis of research findings shows how the generalization vastly oversimplifies the reality. (See, for example, Barnett & Rivers, 2004; and the careful summary of meta-analytic reviews of empirical studies given by Hyde and Lindberg in their chapter in this book, "Assumptions about the Nature and the Implications for Gender Equity.") In sum, the data show that most of the differences between boys and girls as a group, when observed across a wide range of verbal skills, are small and that the male and female distributions overlap substantially. Small effects found across many studies can be important; if they show small but pervasive differences, the collective impact can be substantial. What is dangerous, however, is that focusing on these relatively small overall differences between girls and boys in arithmetic and verbal skills often leads to failure in attending to other variables. While boys predominate in the highest levels of math skills, many girls also score high in math; and it is also true that many boys are found in the lowest math achievement groups. Most assessments show the reverse to be true in verbal skills. Too often ignored is that even when average skills of girls and boys are found to differ, bigger differences are found within groups. To achieve equity for all will require attention to all kinds of differences, especially race, ethnicity, and socioeconomic class, and the ways in which these interact. This does, of course, vastly complicate the matter of exploring and providing educational equity, but attending to the complexity is essential if we are to avoid both replicating social stereotypes and expending effort on the least important inequities.

Another complexity in assessing communication outcomes (and hence possible inequities) is that gaps found between girls and boys differ by the subskill that is being measured. Different subskills are taught and measured at different age levels, or rarely measured at all in the case of oral communication skills and competence (with the notable exception of English language learners in U.S. schools, whose oral language and literacy performance in English and some other languages are taught and measured explicitly in schools). Specific discussion of testing issues can be found in "Gender Equity in Testing and Assessment" and, for English as a foreign language, in "Gender Equity in Foreign and Second-Language Learning and Instruction." Attention to writing occurs throughout the school levels, but typically, in the United States, direct instruction in reading comprehension is limited to the first three grades of elementary school.

For the vast majority of students, direct instruction in speaking focuses on public speaking, which is available as elective courses in most high schools. Unified instruction in interper-

sonal communication, use of nonverbal messages, and listening skills is minimal, and explicit attention to the ways in which all of these are gendered is slight. In their discussion of teaching to support emergent literacy, Soderman, Gregory, and O'Neill (1999) pointed out the importance of the links between oral language, the home environment, and literacy. They remarked on the irony of how usually, "as children mature . . . more emphasis is placed on reading and writing and less time and energy is spent during the school day engaged in oral language . . . [with] reduced amounts of time spent in meaningful conversation with peers and expressing ideas" (28).

Given major differences in amounts of instruction and types of measurements, up to and including virtually no systematic teaching or assessment of oral communication skills, all conclusions about gender differences in this domain must be regarded with caution and interpreted with great care. Evidence of gender gaps in reading should be considered with reference to the source of data: test results, course grades (often highly overlapping with test scores), diagnosed dysfunction (such as dyslexia), participation in remedial courses at the elementary/secondary and postsecondary levels, and life outcomes such as career success, educational attainments, earnings, etc. With respect to test results, some sources such as the NAEP, deal with carefully constructed representative samples of the population. Other indicators such as the SAT provide data based on "volunteer" self-selected samples, since students can decide (or be guided by others) to take the test or not. The resulting group data thus reflect more than what the test itself measures. They also reflect the composition of the subgroups, which may differ in significant ways regarding motivation, social, and material rewards (or lack thereof) for high achievement, quality of prior educational experiences, subject-matter interests, and so on (College Board, 2004a; also see Pennock-Roman, 1994).

Some findings seem clear, although their implications for either the existence of, or remedy for, gender inequities are far from clear. Data from the National Household Education Surveys Program (NHES), for example, show that boys are almost twice as likely as girls to be diagnosed as having learning disabilities, including dyslexia, and are more than twice as likely to be diagnosed as having speech impediments (Freeman, 2004). What we do not have are data to demonstrate that these outcomes mean there is inequity; such a conclusion would require showing that remedial services are not available or inequitably provided. We do not have such data although some discussion of related issues can be found in the chapter "Gender Equity for Populations with Disabilities."

Influences on reading and communication skills include both in-school *and* out-of-school factors. For example, among three- to five-year-olds, boys are not read to or told a story at home as often as girls, and boys' families are less likely to report having taken their children to a library within the past month than are girls' families (Freeman, 2004). NCES reports that there were some gains from 1991 to 2001 in these preschool factors, and that the gains were a somewhat higher for girls than for boys. Denton and West (2002), in an analysis of an early childhood longitudinal study of students in about 1,000 kindergarten programs during 1998–99, reviewed patterns of reading skills and concluded, in part, "Children's over-

all reading achievement does not vary by their sex.” They go on to point out how both child and family characteristics relate to achievement, noting that as early as first grade, girls are more likely to be reading and boys are more likely to be successful at mathematical operations such as multiplication and division. Such divergence in interests seems to persist. Girls’ greater interest than boys in some communication subjects is reflected in the College Board’s Advanced Placement (AP) Program’s National Summary Report (College Board, 2004b). Of high-school students who took the AP English language and composition examination, 63% were female. Of those taking AP foreign language (French, German, Latin, Spanish) examinations, 65% were female.) These findings reinforce the point made earlier, that achieving equity may involve helping students become aware of and cope with societal expectations and prejudices.

What must be resisted as these data are explored is the tendency to oversimplify complex phenomena. Framed with that caveat, we introduce the results from one major effort in the print domain that has allowed for examination of gender differences in communication learning outcomes, the National Assessment of Educational Progress (NAEP, 2005), also known as “The Nation’s Report Card,” a congressionally mandated collection of national data on student attainments in grades 4, 8, and 12. Data collected at these grade levels include reading and writing. NAEP also collects data in another area related to reading and communication skills, the study of foreign languages, a discussion found in the chapter “Gender Equity in Foreign and Second Language Learning and Instruction” of this book. NAEP began its data collections in 1969, so a great deal of trend data is available.<sup>7</sup>

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### LEARNING OUTCOMES IN READING AND WRITING SKILLS (LITERACY)

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Examples of NAEP testing content in reading include (grouped from highest proficiency level to lowest): compare descriptions to interpret character, explain thematic differences between poems, suggest improvements to a document, identify author’s use of specific details, use text information to provide a description, explain major idea in an article, and identify character’s main dilemma.

NAEP scores are especially valuable because they are also associated with out-of-school variables. For example, information from the NAEP Data Tool (2005) indicated that among 12th graders in 1998, those who reported having 0 to 2 types of reading material (newspaper, encyclopedia, magazines, more than 25 books) in their home had an average NAEP scaled reading score of 273; those who reported having all four types of material had an average NAEP scaled reading score of 298. The relevance of these data is their portion of the issue of extra-classroom influence on what happens in the classroom, a matter

previously discussed, and also forthcoming with regard to mass-media consumption and images.

The reading data from 1992 through 2003 show very little change in the size of the male/female gap during this time (NAEP, 2005). For example, the average scaled score for grade-four females in 2003 was 221.9 (standard error 0.3); for males 214.6 (standard error 0.3). The 2003 grade-four gender difference of 7.3 scaled score points in favor of females does not represent a significant difference from the 1992 data collection. In fact, in the six grade-four data collections conducted since 1992, there has not been a single one whose gap changed significantly from the previous data collection. Grade eight reading data collections from 1992 to 2003 indicate a slight narrowing of the gender gap when certain pairs of data collections are compared, but the overall grade-eight reading gender gap remains unchanged from 1992 to 2003. The grade-eight gender gap is slightly larger than the grade four gap. For example, in 2003 female students at grade-eight had an average scaled score of 268.6 (standard error 0.3); male students at grade eight had an average scaled score of 258.0 (standard error 0.3). For grade 12 students, females’ average reading scaled scores in 2002 were 295.0 (standard error 0.7); males’ average scaled scores were 279.0 (standard error 0.9), making a gender gap not statistically significantly different from in the 1992 grade-12 data.

Although these differences seem stable, probably because of the nature of the data set, the practical implications are unclear. Females’ advantage over males is evident across NAEP levels. Fewer female than male students score Below Basic, and more female than male students score at the Proficient and Advanced levels. Coley (2003) reported that there was little difference between males and females in terms of the *growth* that they made in NAEP reading scores between fourth and eighth grades. That is, looking at data for cohorts from 1994–1998, females in the eighth grade had advanced about 51 scaled-score points since fourth grade, while males had advanced about 48 points. Taking a longer historical perspective, the National Center for Educational Statistics (2000) concluded from the NAEP data that, “For 9- and 13-year-olds, average reading scores improved slightly between 1971 and 1980 and showed little or no change between 1980 and 1996. Scores for 17-year-olds have remained relatively consistent since 1971. Females outscore males in reading performance across all age groups.” Thus, while it is clear that these differences are statistically stable, alone they do not demonstrate significant gender inequities, especially when compared with contrasting outcomes on other tests. (See for example the discussions related to testing for general academic achievement, for university admission and for scholarships in the chapter “Gender Equity in Testing and Assessment.”) Moreover, as we noted above, the differences are relatively small when compared to differences of race, ethnicity, and socio-economic status within each sex group (Mead, 2006).

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<sup>7</sup>Data are collected according to a complex pattern of priorities, so complete data for every year, subject, and grade level are not available. A major study of writing outcomes, for example, will be conducted in 2007, to be reported in 2008 for comparison to the 2002 data now available. NAEP groups the scores on its assessments into levels, *Advanced*, *Proficient*, *Basic*, and *Below Basic*. NAEP has linked types of skills and assessment questions to these levels across the grades in which assessments are given. The broad content of the NAEP assessments is explicitly linked to school curricula at the appropriate grade levels. See <http://nces.ed.gov/nationsreportcard/ndeinfo.asp> for easily accessible reports of the assessment data.

In the United States, among the skills commonly designated as verbal, writing shows the largest consistent average differences between girls and boys. Gender differences in NAEP writing assessments are somewhat larger than in reading, again favoring females. In 2002, the average scaled score for grade-four females in writing was 162.7 (standard error 0.4); the average scaled score for grade-four males was 145.6 (standard error 0.6). There is not a statistically significant difference between this 2002 grade-four gender gap and the 1998 grade-four gender gap in writing. Grade eight NAEP writing data show an average female scaled score of 163.6 (standard error 0.6), and an average male scaled score of 143.1 (standard error 0.6). The grade-eight gender gap is slightly larger than the grade-four gap, but again, does not show any sign of increasing or decreasing over the time period from 1998 to 2002. At grade 12, NAEP writing scores also favor females, 160.5 (standard error 0.9) compared to 135.7 (standard error 0.8). The grade-12 gap is slightly larger than the grade-eight gap and NAEP reports show that at the grade-12 level, the gender gap widened to a degree that is statistically significant between 1998 and 2002.

These gaps also reflect the issue of complexity discussed earlier. Conceivably, much of the perceived gender gap in reading and literacy stems from too-narrow definitions of literacy. What is measured when reading scores are obtained? Some scholars argued that if reading for computer literacy (with testing for specific problem solving rather than for general comprehension) were more valued in schools, boys would be more motivated, and therefore achieve higher literacy (Coles & Hall 2001; Harste 2001). Smith and Wilhelm (2004) reported a study of middle- and high-school boys in which the students indicated they reject activities in which they believed they would not be competent. Recall the findings reported earlier about children's interests varying as early as first grade. Perhaps if the question of boys' interest in various communication media were raised, findings for literacy assessment similar to those reported by Smith and Wilhelm might well result.

The data on this issue reflect the complexity in such issues discussed earlier. First, it is important to remember that these are generalizations about all males, based on averages of the group; in some cases, differences within subgroups are striking. As noted earlier, among students taking university entrance preparation tests, the advantage to girls diminishes. The change probably results from the population being tested, as only students considering college take SAT and ACT exams. Except for the students of elite universities and of higher socioeconomic groups, more women than men enroll in undergraduate programs. Less-prepared boys and those from lower socioeconomic groups, more than other groups of boys, don't plan to do university education. Thus, they are not among those taking the PSAT, SAT, and ACT exams. Although at press time for this chapter detailed analysis by socioeconomic groups of test takers was not available, some preliminary comparisons by race, ethnicity, and English-as-a-second-language (ESL) status are intriguing. The August (2006) press release by the College Board showed that among the critical reading (formerly verbal) section of the 2006 test takers, White students scored 527, and Asian-heritage students 510. In contrast, Mexican-American and other Hispanic averages were 459 and 458 respectively, while Black students scored 434. The board reported that males

outscored females in critical reading in all ethnic groups except for African American. Students for whom English is a second language increased scores compared to 2005, to an average of 467 (<http://www.collegeboard.com/press/releases/150054.html>). In contrast, females outscored males in the new writing section across all race and ethnic groups. Group disparities suggested in these data highlight significant problems, but the nature of those problems will be not be understood if one merely compares the scores of girls and boys on the whole.

Another possible explanation for differences between the NAEP findings and the university admission exams is in the nature of the exams. Buck, Kostin, Phelps, and Kutz (n.d.) reported a "small but consistent difference between mean scores for males and females on the PSAT Verbal which favors males." The Sentence Completion and Analogy subsections, in particular, likely impacted the scores of female test takers. Looked at PSAT verbal scores and found a difference in mean scores, with males scoring slightly (but consistently) higher than females. A content analysis of the items in these subsections revealed more items with male-identified content such as politics, economics, physical danger, etc. than female-identified content such as feelings and emotion, art and literature, personal appearance, etc. Using large sample sizes and cross-validation techniques, Buck et al. categorized the items in this manner (i.e., items of more interest to girls and of more interest to boys), and found subtle but pervasive and repeated effects for this content: girls did better on profemale content, and boys on promale content. These items had already been through Differential Item Functioning analysis and a review of gender biases, but clearly the manner in which male and female test takers respond to seemingly unbiased content can impact performance. Female-identified content resulted in about a 1% improvement in female performance with the same effects for the promale content on boys.

The overall slightly lower scores in literacy, English, and modern languages for boys raised a number of important issues. Relevant research, discussed and documented in detail in Francis and Skelton (2005), supported the following conclusions. Importantly, boys' long-standing achievement gap in these areas did not seem to have impacted significantly their future positions and economic status. The highest-status and best-paying jobs continue to go to primarily to (White, middle-class) men. Indeed, since women are still not competing evenly with men in the employment market, it could be argued that raising boys' scores would only increase the inequality in employment. Nonetheless, for the individual children involved, their tendency to score below grade level in language and literacy subjects can have clear costs and raises significant questions. Foremost of the questions is to what extent the achievement shortfalls are concentrated in specific socioeconomic groups—and therefore impact some groups of children much more than others. Moreover, it is important to note the gaps are not matters of gender alone, and therefore the problems, although they may involve some gender differences, are not limited to gender differences, which are generally smaller than those related to socioeconomic and cultural factors.

Another perspective is provided by examining the sources of inequities that may extend well beyond schools (Francis & Skelton, 2005). For example, since education was extended beyond the upper classes in the United States, reading, writing, and tradi-

tionally conceived interpersonal oral-communication skills have had lower status than, say, science and technical skills. So boys' underachievement at communication subjects, including not only reading and writing but also "emotional literacy," such as articulating feeling and emotions clearly, may have serious implications for their effective interaction with others. Two points are involved here: the need for broader-based definitions and testing as we have discussed elsewhere in the chapter; and the need to disaggregate the overall skills to locate more clearly where the shortcomings in boys' learning are. These points are hard to overemphasize because as the work on achievement throughout this *Handbook* shows, social policies and gender assumptions and expectations play a major role in the level of achievement. For example, in the United States, when French was a valued, prestigious subject of study, boys were thought better at learning French than were girls. When that language lost some of its social status, it became a subject associated with feminine skills.

Whatever its source, the disaffection of many boys from school language and literacy programs, and any related disruptive behavior by boys, negatively impacts both their own learning and that of their classmates. Contrary to the proposal of many policymakers, the solution of providing higher numbers of male teachers does not by itself appear to increase boys' attainment or result in less disruptive behavior (Thornton & Brichenco; Younger et al., 2005). Smith and Wilhelm (2002) provided in-depth cases studies of boys from 7th through 12th grade that reveal the interplay of gender and ethnicity on boys' attitudes toward and uses for their literacy skills. Identification with the lone, European or Euro-American, male protagonist in much of classic English literature may be no more attractive or achievable for many boys in U.S. schools than it is for many girls. Much more balanced scholarly attention to these complex issues of gender, racial, ethnic and socioeconomic issues is thus needed. Clearly, both girls and boys should have the opportunity to fully develop their potential, so equality in achievement is a valuable goal in all subjects. Encouraging boys to increase their communication aptitudes and making reading and writing "safe territory" for boys can help avoid the continued construction of gender difference (See also Pickering, 1977). We comment on types of encouragement to deconstruct current gender boundaries in the following recommendations section.

#### A Wider Lens in Assessing Literacy and Gender Differences

Another factor, which may be producing the results described in the previous section discussing literacy scores, is that current methods of assessment may be missing actual literacy on the part of many children, especially boys (Venezky, Kaestle, & Sum, 1987). To date, Western perspectives on literacy rarely consider reading and writing in a digital environment. Because they develop a different kind of literacy, and because they have potentially strong links to gender, computer games and other elements of digital communication should be taken into account, instead being thought of only as a deterrent to literacy achievement. Boys (and men) devote many hours to such activities that seem far from the language and traditional forms of reading and writing. Uses vary considerably, depending on purpose and au-

dience, but deserve attention as important new applications for communication skills. By engaging in what gets labeled as game playing, which is often considered the antithesis of school, the users of computer-based gaming may gain an important entry point to competence and confidence with some valuable communication processes. Many avenues for writing (and other communication skills) have developed in the digital environment, among them instant messaging, e-mail, chatrooms, and blogs. The Perseus Development Corporation (2003) reported that 52% of all blogs are created and maintained by 13- to 19-years-olds. Huffaker and Calvert's (2005) study of 70 Web blogs authored by teens found usual length of postings about 2,000 words, with no significant differences in the way in which girls or boys wrote. Both wrote about interpersonal issues, using emoticons similarly as well.

Many students, girls and boys though perhaps especially boys, find focusing on classroom texts and waiting for teachers to provide learning material and objectives both uninteresting and unnecessary. Many boys, who have difficulty with reading and writing in school or who are not interested in reading and writing, do excel in "home-literacy" activities such as sports, music, and video games (Smith & Wilhelm, 2002, 2004). Individual, text-based literacy activities of the classroom are unlikely to compete successfully with the more interactive, playful engagement that so many children, perhaps especially boys, experience with a variety of media, including games (Jenson, de Castell, & Bryson 2003; Jensen & de Castell 2004; de Castell & Jenson 2004).

As noted in a discussion of literacy by the National Council of Teachers of English (NCTE), "Adolescents are already reading in multiple ways when they enter secondary classrooms . . . Their texts range from clothing logos to music to specialty magazines to Web sites to popular and classical literature." The NCTE argued that teachers must learn to recognize and value the multiple literacy resources students bring to the acquisition of school literacy.

Arguably, teaching and assessments of all communication literacy should be reconceptualized to include such skills. Learning through computer gaming is unlike most school-based learning in important ways. Many of the current computer games have no age restrictions, and are not text-based; they provide players with quick access to a global mass-media industry and new structures of interactive learning. Traditional education formats, which by several measures seem to fail at gaining enthusiastic attention of many boys, perhaps should be adapted to include some aspects of the sophisticated commercial digital games being played by millions of users. In so doing, however, attention to equity will be important. What might be attractive and successful with boys could once again marginalize girls, as most extant computer games are neither attractive to nor hospitable toward girls. Jenson and de Castell (2004) outlined many gender issues in need of serious consideration when bringing an understanding of the impact of this new communication situation into the educational setting.

Computers and literacy raise complex questions. Simply providing equal access to and use of computers in school labs, while necessary, will not be sufficient to recognize or achieve major changes in literacy; many kinds of communication competence arise from increased use of many different kinds of digital programs. While recently, Western education has been basi-

cally a process of imparting print literacy focused on separating information from stories, and then presenting it as data, description, theory, and prescription (Cajete, 1994), today's environment differs dramatically. Many students have moved to more narrative modes of learning, in which they interact with accounts provided by commercial storytellers and many other information and entertainer providers other than their teachers and texts. As Gerbner has argued, widespread use of television and other forms of popular culture has now changed the entire process of learning. To assess skills of children who have grown up in a world dominated by electronic media will require an expanded way of thinking about—and testing—literacy. Some recent work in the area looking at antecedents of literacy (Soderman, Gregory, & McCarty, 2004) suggested a number of factors, in addition to gender, that need to be considered, making it “very difficult to parse out the proportional contribution of any one factor” (Backlund, 2006, personal communication).

At a minimum, the issues of validity in testing must be raised, and new measures of literacy must include communication in the digital and electronic media environments (Olsen & Torrance, 1991; Taylor, 2004, 2005). New forms of writing deserve attention as do visual messages. In one sense, this set of requirements for education to adapt to the changed communicative environment seems unrelated to gender. In another sense, that apparent irrelevance makes attention to gender issues in digital environments especially important. Since we know that gendered expectations have pervaded the environment in which communication has occurred previously, if alterations in the environment are changing gender expectations, that is important to know. Much might be learned about how we might change the existing patterns of bias. (See “Gender Equity in the Use of Educational Technologies”.) While the changes in the ways we communicate will necessitate new policies and standards for gender-sensitive education systems, the necessity to work on inclusion, enhancing capabilities, and gender/social equalities won't change.

### International Perspective on Reading and Gender Gaps

International data may provide an initial basis for examining how cultural differences affect communication learning. Organisation for Economic Co-operation and Development (OECD, 2001) literacy data, based on a study of 15-year-olds, indicate statistically significant differences in favor of females on the Programme for International Student Assessment (PISA) combined reading literacy scores in all 28 of the participating countries. These gaps in favor of females differ somewhat in magnitude across countries. The smallest gaps in favor of females are found in Korea (14 points of a scale of more than 300 points),<sup>8</sup> Mexico (20), and Spain (24). The largest gaps in this study were found in Finland (51), New Zealand (46), and Norway (43). The gender gap among American students in this study was 29 scaled score points. The PISA study also looked at mathemat-

ical and scientific literacy among the same countries, and found much smaller gender gaps in these areas than were found in reading. The mathematical literacy gender gaps tended to favor males, although many comparisons were not statistically significant; scientific literacy gaps were largely nonexistent.

In the 2001 IEA Progress in Reading Literacy Study [PIRL] done by the International Association for the Evaluation of Educational Achievement (IEA) (OECD, 2001), data from fourth graders in 16 OECD countries were collected. As with the PISA study of 15-year-olds, differences in every country favored females. The smallest differences were observed in Italy (8 score-scale points), France (11), and the Czech Republic (12). Note that the three countries listed above as having the smallest differences among 15-year-olds, Korea, Mexico, and Spain, did not participate in the PIRLS study. The largest differences were found in New Zealand (27); England and Sweden had the next largest differences (22), followed by Greece and Norway (21). Finland did not participate in the PIRLS study.

The PISA study of 15-year-olds in 28 countries also considered students' self-reports of habits and attitudes related to learning. In the United States, females reported more use of self-regulating behaviors in the areas of memorization ( $d = 0.17$ ) and elaboration strategies ( $d = 0.08$ ), effort and persistence ( $d = 0.31$ ), an index of cooperative learning ( $d = 0.21$ ), and, of particular concern to us in this chapter, interest ( $d = 0.36$ ), and self-concept ( $d = 0.36$ ) in reading. The patterns of gender gaps in some of these areas (indices of elaboration strategies, control strategies, and instrumental motivation) in other countries are more mixed than are the patterns of gender gaps in attainments across countries. It is also noteworthy that in this same PISA study, in the United States and elsewhere, males led, to a small degree, in self-reported interest (over all countries,  $d = -0.20$ ; U.S.  $d = -0.08$ ) and self-concept (over all countries,  $d = -0.25$ ; U.S.  $d = -0.13$ ) in mathematics. Males also led in the indices of competitive learning (over all countries,  $d = -0.21$ ; U.S.  $d = -0.13$ ) and self-efficacy (over all countries,  $d = -0.22$ ; U.S.  $d = -0.06$ ).

Wittmann (2004) provided an interesting and innovative analysis related to interpretation of national and international trends in verbal and quantitative assessments, based on Brunswik symmetry,<sup>9</sup> that attempts to quantify the nature of the relationships among verbal and quantitative skills at both the individual level and at a much higher level of aggregation, the country level. He noted, based on analyses of data from PISA and other studies, that “tilted profiles” of verbal and quantitative abilities are typical of countries as well as individuals and males/females as a group. In general, he found that while females exhibited a profile “tilted” toward verbal, males exhibited a profile “tilted” toward quantitative. Using PISA data, he also designated countries as having a verbal (e.g., Italy, Ireland, Mexico, Spain), or quantitative (Korea, Japan, Switzerland) tilt. The tilt of the United States is moderately verbal in Wittmann's analyses (1988; Wittmann & Süß, 1999).

<sup>8</sup>PISA uses highly sophisticated statistical techniques for its sampling, scoring, and scaling. A treatment of these is beyond the scope of this chapter, but complete technical details for PISA can be found at <http://www.pisa.oecd.org/>

<sup>9</sup>A full treatment of this complex methodology is beyond the scope of this chapter. For further details, see Wittmann, 1988 and Whittman & Süß, 1999).

## Assessing Oral Communication Skills

One major problem faced when attempting to discuss gender equity in education with respect to oral communication is that no data exist comparable to those for reading and writing. Systematic, nationwide, or international assessments of students' achievement of listening and speaking competence do not exist. (One major exception to this conclusion is with English-language-learner [ELL] students whose language skills, including speaking and listening, are often measured and provide some useful information on this topic. See the discussion later in the chapter.) One reason assessments have not been conducted is that competence in oral communication cannot be measured by assessing individual skills in isolation; oral communication, wherever it happens, in school or out, is an interactive process involving relational and affective meanings as well as cognitive ones. Such interactive processes are not easily captured in standardized testing methods. One cannot simply measure a set of unidimensional skills and assume that the sum of those behaviors will be competence. Nonetheless, assessing communication competence is possible.

Acknowledging the importance of speaking and listening as school subjects, Title II of the Elementary and Secondary Education Act Amendments of 1978 altered the list of basic skills students should achieve in education. The amendments, renewed in 1987, identified these basic skills as "reading, mathematics, and effective communication, both written and oral" (Lieb-Brilhart, 1975; del Polito & Lieb-Brilhart, 1981). Given this first-ever national recognition that schools need to help students achieve oral communication competence, the National Communication Association (NCA, then known as the Speech Communication Association), supported by staff in the U.S. Department of Education, turned to identifying components of communication competence, ways of helping students learn to use them, and means for assessing their achievements. In the decades since, several national task forces have produced reports including measurement instruments, and many states have pursued a variety of efforts at identifying standards for oral communication learning and ways for implementing such instruction and assessment. These included standards for preparing teachers to help students learn communication skills. (See Backlund, 1982; Darling & Dannels, 1998; DeWitt, Bozik, Hay, Litterst, Strohkirch & Yokum, 1991; Lynn & Kleiman, 1976; Morreale, Backlund, & Dallinger, 1996; Morreale & Backlund, 2002; Peterson, 1991; Rosenthal, 2002; Rubin, 1982, 1985; Rubin, Mead, & Daly, 1984). Thus, assessment tools do exist, although the issues are not simple and the tools continue to be refined (Bergvall & Remlinger, 1996; Halliday, 1985; Morreale & Backlund, 2002; Spitzberg, 1987). The outcomes of this work are available in a number of publications available through the NCA at <http://www.ncastore.com/Assessment.html>.

In the education legislation known as Goals 2000 (National Educational Goals Panel, 1998), communication remained among those skills identified as essential for students' achievement and also for exit from post-secondary education (Lieb & Stacey, 1993). Still, widespread and systematic use of the assessment tools has not occurred, probably for several reasons. Reading and mathematics have had primacy of focus at the federal level; many educators think communication doesn't require the for-

mal teaching that reading and writing do; testing interactive, situationally based skills is quite costly (Lieb, 1994). Thus, with implementation of assessment programs that are sporadic at best, we can report little data driven information about gender difference in oral communication competence outcomes in education or any inequities that may exist. What we can do is draw some logical inferences from the various data that do exist.

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## LEARNING COMMUNICATION SKILLS THROUGH CLASSROOM TALK AND INTERACTIONS

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One way in which students learn communication skills is through classroom talk and interactions (Cooper, 1988). As previously noted, virtually all education relies on communication as a medium of "delivery." Extant research suggests no reason to think students' interactions in communication classes and instructors' responses to them differ from those in other kinds of classes as discussed in earlier chapters. (See especially the following chapters in this book: "The Treatment of Gender Equity in Teacher Education"; "Gender Equity in Coeducational and Single-Sex Educational Environments"; and "Sexual Harassment.") Hence, communication that happens in other subject-matter classes probably reinforces previously learned patterns. When new patterns are "taught," the goal is rarely a focus on a communication skill but on whatever might be the "subject" of the class. Because learning about communication in such settings is usually not the focus of student lessons, it becomes part of the unstated classroom agenda, the "hidden lessons" of the curriculum (Sadker & Sadker, 1994). Precisely because these lessons do not focus overtly on communication learning, the communicative behaviors teachers model and reward as well as those peers reward or punish are likely to reify patterns preestablished in a culture. For that reason, a quick review of what is known about communicative interaction is worth our attention to the question, "How do classroom talk and interactions impact gender equity in communication learning?"

On the whole, we know that in mixed-sex groups, including classrooms, female students use and control less conversational space. (See the review of this literature in Bergvall and Remlinger 1996). Studies of classrooms have used a variety of methods: examining conversations (e.g., Schegloff, 1983) and participant structures (e.g., Fleming, 1995), and have paid attention to the nature and count of turns, words or seconds, topic control and interruptions (Canary & Dindia, 1998; Dindia, 1987; Grob, Meyers & Schuh, 1997; Hosman, 1989; Kennedy & Camden, 1983; West & Zimmerman, 1983). The concept of "linguistic space" has been explored (Mahony, 1985). Observational studies have reported both qualitative analyses and data counts (e.g., Pearson & West, 1991; Taps & Martin, 1990); students' perceptions have been surveyed and a variety of anecdotal reports have been reviewed (e.g., Donovan & MacIntyre, 2004; Edelsky, 1993); classes with different course content and in educational settings at various levels have been examined. Overall, the research indicates that female students in classrooms control less floor time and receive less attention from teachers and other students; male students talk more, are permitted to respond to more questions, and receive more praise than girls. Teachers tend to maintain more eye contact with male students

and ask them more content-related questions, accept their responses, and give them more academic help (Sadker & Sadker, 1994; see also research reviewed in Stewart, Cooper, & Stewart, 2003, and in this *Handbook* the chapter “Gender Equity in Co-educational and Single-Sex Educational Environments”). On average, girls in school have fewer opportunities to practice public speech or engage orally as a way to refine their ideas. Concomitantly, males receive more overt discipline in classrooms and are subject to more overtly negative messages (Jones & Dindia, 2004; National Coalition for Women & Girls, 2002).

These findings parallel other studies (of adults) of interaction in mixed-sex groups (see the reviews of such work in Stewart, Cooper, & Stewart, 2003; Pearson, West, & Turner, 1995; Wood, 2005). When they are in groups, males talk more in classes, work settings, and experimental studies, and have more control over agendas and topics, thus determining what issues are addressed and which are dropped. Some studies have examined the gender perceptions of students and instructors. In a survey of 1,000 students in 51 university-level classes, Fassinger (1995) found that male students perceived themselves as more confident and involved in the classroom; whereas female students perceived themselves as more interested in class content and in others’ comments. Condrary, Skirboll, and Taylor (1998) reported that both male and female faculty perceived that (a) male students interrupt more frequently and assume leadership roles more frequently than females, and (b) female students seek outside help and were more open to constructive criticism than male students. Male faculty perceived that female students participated more and volunteered responses more frequently than male students. In contrast, female faculty perceived that male students participated with volunteered responses more than female students. Furthermore, female faculty perceived male students as more defensive and more confident than did male faculty.

Some research about gender and communication focuses on matters that may not be taken into consideration when gender in classrooms is addressed—silence, for example. While we do not have empirical evidence of a positive correlation between how much student’s talk in class and their academic achievement, in middle-class Euro-American and British schools, verbal communication is prized more highly than silent participation, listening, and observation. Since studies indicate that boys, or at least some of them (Sunderland, 1996), are apt to talk more in class than girls, conceivably evaluations are affected by that. Teachers writing references for secondary and college students applying for college admission mentioned talk far more often than silence (Jaworski & Sachdev, 2004). Male recommenders mentioned silence more often for female referees, and mentioned talk more often in the references for male students. The women recommenders did not differentiate between the amount of time the female and male applicants talked, although they did mention talk more often for both females and males than did the men. Sunderland’s work, along with that of others (See chapter 25 in this book), demonstrated again the issue of how often differences within groups are ignored when the focus is comparing women and men in general. In all situations, classrooms included, some involved participants, males and females, will remain largely silent while others will be more verbal and use much more of the talk time. Culture, personality, interest, experience, and situation influence these differences within the “groups” of women and men. Relationships among silence,

learning, and other communication outcomes remain largely unknown. Research is needed to connect the issues.

Insufficient scholarly attention has been devoted to other issues as well. One is the matter of making links throughout conversations. For example, consider topic transitions: By the time they reach college, females, in comparison with males, have been found more adept at “smoothing out the transitions” from one topic to another, while males seem more likely to create abrupt disjunctures in the flow of conversation (West, 1995). This communication skill is seldom considered in existing assessments of students’ conversational competence. Another area that has been subject of much scholarship but has seldom been related to classroom outcomes is politeness (Ng & Bradac, 1993). While girls show themselves quite capable of using impolite, imperative forms (e.g., “Don’t do that,” “Get outta here!”), or even profanity, they have also shown themselves as more adept than boys at posing directives as proposals (e.g., “Let’s go,” “Maybe we can get some more.”). Girls tend to seek agreement and avoid conflict (Andersen, 1990; Goodwin, 1988, 1980).

Much of this research relates to how students listen and observe, contribute responses, and pose their own questions without undermining the attempts of others to enter the conversation. Studies of these issues tell us much about asymmetries in conversation, and about conversational skills that are seldom (but could be) acknowledged and rewarded (Bergvall & Remlinger, 1996). Research is needed to see if there are links among such participation in the classroom and related kinds of interactions in life situations outside classrooms. What interactions might exist among gender, group interactions, and specific teaching styles is a question inadequately studied. To date, educational outcomes studies have not asked about links to gender imbalances in talk, which leads to important unanswered questions.

In contrast, for reading and writing, some aspects are measured. These findings, along with some other measures such as grades, seem to show fairly persistent superior educational outcomes for girls compared to boys, although university admissions measures do not reflect that consistently. At the same time, employment outcomes and other disparities continue to favor men. Is it possible that the actual and perceived masculine oral communication skills (styles—see the following discussion) have more value than reading and writing skills in life outside the formal educational setting? With the absence of more systematic measurement of educational outcomes for the whole array of communication skills and more attention to the links between such outcomes and post-educational successes, conclusions about equity cannot be drawn. Such research is needed.

Bullying and sexual harassment are other significant issues of classroom communication climate and gender equity, topics largely addressed in the chapter on sexual harassment in this book. Here, we note only that both harassing behaviors and the appropriate responses are communication behaviors, and that currently communication education gives little attention to these problems.

#### Inequities Involved in Gender-Related Communicative “Styles”

We also need to consider, at least briefly, teaching and learning about communication that occur in contexts other than formal

educational settings. This is important because what happens in classroom talk and how it is interpreted relates to widespread beliefs in and expectations about the existence of gendered patterns, or “styles.” Students (and teachers) sometimes engage in inequitable classroom interactions based, in part, on what they have learned as culturally sanctioned ways to communicate.

Relevant scholarship about gender and communication styles that affect learning about communication in classrooms and communication within classrooms fits into two primary categories: (a) studies that examine beliefs about how women and men (girls and boys) communicate (e.g., Thorne, Henley, & Kramarae, 1983; Henley & Kramarae 1991; Tannen, 1990, 1994); and (b) research that explores expectations about what are described as feminine or masculine patterns (e.g., Taylor & Beinstein Miller, 1994; Tannen, 1993; Turner & Sterk, 1994; Warner, Ahers, Bilmes, Oliver, Wertheim, & Chen, 1996; Wood, 2005). Studies of beliefs involve what people think girls and women (or boys and men) do as they communicate, and, on the other hand, what role (or identity) behaviors are expected. Prior to presenting what is known about these beliefs in communication patterns, we note that the behaviors expected from girls and women or from boys and men vary greatly according to time, cultural and social group, situational exigencies, and the behaviors in which they actually engage. Unfortunately, most research on these topics has not covered this wide range of variable settings. Subjects of most studies have been predominantly White, middle class and above, or upwardly mobile members of other groups in cultures dominated by the White middle class and above. And, even within these groups, none of the research described communication patterns, actual and perceived, of *all* girls and women or boys and men in the groups studied. Thus, even for people for whom the descriptions are accurate much of the time, they do not describe such persons’ behavior all the time (Crawford, 1995; Aries, 1996).

Given the caveats just laid out, one might wonder why we bother describing scholarship about feminine and masculine styles at all. The answer is that although the average differences between females and males are small and the differences among females and males are wide, widespread, and persistent beliefs about female and male communication styles exist (e.g., Gray, 1992, 2002). Thus, we attend to what people believe exists, because such beliefs affect both how teachers deal with students (and vice versa) and how students deal with each other.<sup>10</sup> Moreover, beliefs in these styles exist alongside a strong bias against feminine style in workplace settings. Hence, when either girls or boys (and women or men) engage in behaviors thought of as feminine in settings that expect masculine style, they will likely be responded to negatively. For examples, see several of the articles in Fischer (2000), especially Brody (2000) and Jansz (2000).

In dominant U.S. culture and many other groups as well, a feminine communication style is perceived as being relationship

centered. Hence, feminine style involves communication behaviors that reflect the importance of relationships (caring, sensitivity to others, and the feeling content of the communication), are characterized by responsiveness, cooperativeness, and supportiveness, have message content that is concrete and personal and often expressed tentatively. Messages involve welcoming personal exchanges and interaction. In short, feminine styles emphasize the “we” in the interaction. Masculine style in contrast centers around the communicator’s autonomy (Tannen, 1990; Jansz, 2000). Hence, masculine style involves communication behaviors directed toward that goal: messages focus on content that involves problem solving or strategy, use abstract logic and principles in reasoning, are directed toward locating the individual in a status hierarchy free from control by others. Communication in masculine style is characterized by competitive interactions, assertive statements, and confidently expressed conclusions.

The behaviors called “feminine style” seem especially common to interpersonal settings, home, family, and friendship communication situations—locations often described as the “private” sphere of life (Wood & Inman, 1993; Wood, 1994). Behaviors called “masculine styles,” in contrast, have been (and to a large extent still are) considered appropriate for the situations in life described as “public,” such as work, business, politics, and government (Campbell & Jerry, 1988; Hanson, 1996). Because both women and men inhabit both the public and private spheres, effective communication education would stress the value of both in both settings. Scholarship available does not demonstrate that it does.

Masculine style primarily characterizes university classrooms in general (Hall & Sandler, 1985; Sandler & Hall 1986; Sandler, Silverberg, & Hall, 1996). Communication curriculum classes in journalism, mass media, public speaking, rhetoric, and many of the associated cocurricular activities reflect the same pattern (Foss & Foss, 2002; Foss & Griffin, 1995). Course materials and interaction norms in many classes reveal a strong if implicit bias toward traditional so-called masculine communication patterns (e.g., directness, linear logic, assertive, and competitive—even combative—verbal and nonverbal presentations) and a strong negative bias against so-called feminine patterns that reflect more passivity, deference to others, soft-speaking, and noncombative nonverbals (Foss, Foss, & Griffin, 1999). In contrast, in interpersonal communication skills classes, a bias may exist toward a communication style that many males do not like and are not socially rewarded for using (Wood & Inman, 1993). Conversely, in courses where masculine styles are privileged (including most university classrooms), penalties are especially severe for males who engage in feminine styles, and for elementary and secondary students these penalties are often quite overt.

Both styles carry penalties for nonconformity. A boy who doesn’t enjoy the rough and tumble of typically “boy” activities

<sup>10</sup>Much recent attention has been given to the matter of gender differences that tie in some way to biology, whether it is in brain research or studies of genetics. These issues have been discussed with reference to communication, in work epitomized by that of James McCroskey (1998) and McCroskey, Michael Beatty, and Kristin Valencic (2001). This work is primarily theoretical, attempting to account for sources of difference and permanence in communication “traits.” It does not present anything new with regard to the size of the differences between women and men as a group, although if such differences as can be established can be demonstrated to be trait based and dispositional (and thus not amenable to substantial alteration), the work might ultimately be useful in suggesting avenues to adapting instruction to account for such dispositions. Since, however, none of the current work suggests larger differences between females and males as groups than within each of the groups, its usefulness to examine gender equity is limited. What the work does demonstrate, as do many other approaches to communication learning that are not trait based, is the need for instruction materials, settings, and approaches to be tailored carefully to individual students, not to students as members of any group.

or who prefers to play quietly in small groups that include girls will quickly be labeled a “sissy”—among the worst epithets boys can receive. Much bullying directed toward smaller or weaker boys includes accusations of the child being a sissy or a fag. Changes in schools and the legal system are making such overt expressions of bias less common, at least in formal settings supervised by school staff; instances of sports coaches who accuse their teams of behaving like girls, as in “you throw like a girl,” are now rare and these coaches could be disciplined (See the chapter “Gender Equity in Physical Education and Athletics” in this *Handbook* for the continuing difficulties of students in physical education classes). Nonetheless, gender bias remains against males who communicate in ways counter to the traditional masculine gender-role expectations. For two reasons, communicating in counter-stereotypical ways elicits fewer negative responses for girls and women in most educational settings. First, as just noted, the so-called masculine communication style is appropriate for most modes of education. Most educational settings reward logical, linear communication and styles of argument that fit well within the masculine style, so teachers tend to reward both girls and boys who use it. Girls and women who enter and succeed in these environments will have learned to adapt and use the style. Indeed, the masculine style will be thought of as how one is supposed to talk in school and won’t even be perceived as being gendered. Second, when such counter-stereotypical behavior is noticed, in play and other competitive situations, it will often result in a girl being tagged as a “tomboy,” a label that carries fewer negative connotations than does a sissy label for boys. For some girls, it earns a positive cachet, but many girls (and women) work hard to balance, usually nonverbally, the masculine connotations with a kind of hyper-femininity. The point here is that feminine style evokes negative outcomes in the learning climate for both girls and boys as we noted previously and as Janet Hyde and Sara Lindberg explored as well in the chapter “Facts and Assumptions about the Nature of Gender Differences and the Implications for Gender Equity.”

These styles carry with them other limitations in classrooms. Sexist language, stereotypes, and communication patterns restrict students’ freedom to experiment with words and ideas, and perhaps especially for males, the heterosexual norms created and replicated in classrooms exert great social pressure for conformity (Davies, 2003). Davies pointed out that if all students are to have similar opportunities to talk—and the same responsibilities to engage others in classroom discussions—teachers will need to encourage more explicit discussions of the ways conversations are shared and disrupted. Without teachers’ careful structuring of talk during tasks in the classroom, students—both female and male—will experience much negative social “noise” and have more difficulty in reaching academic goals (p. 130). This issue pointed to the importance of attending to differences among girls and among boys. Inequity may not show up across whole groups of females or males, but might significantly impact those whose skills and styles do not reflect socially approved gender-appropriate behavior (see the several articles in Fischer, 2000).

A final point regarding the so-called feminine and masculine styles is that the expectations ignore what the body of research dealing with communication competence has demonstrated, that competent communicators need skill in both sets of behaviors (Morreale & Backlund, 2002). Because there is little or

no systematic assessment of communication competency in educational settings, we cannot report whether boys and girls score differently on the subskills associated with each of the styles. Research conducted with adult subjects shows that while widespread perceptions exist that women are more adept than men at feminine style, the few actual observational studies that are available suggest the differences between women and men as a group are small and show wider variations within the sex groups than between them (Aries, 1996; Canary & Dinidia, 1998; Crawford, 1995). It may be reasonable to infer the differences between girls and boys in the classroom are also small and that more attention should be focused on the outliers, the less competent among both girls and boys, than on generalizations about children by sex groupings. Moreover, it is equally reasonable to conclude that discussion in classrooms of these issues of style and what kinds of competencies fit what kinds of situations would improve by the dynamics of classroom interactions and reduce inequities both within sex groups and between them.

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### GENDER BIAS IN COMMUNICATION CURRICULUM AND LEARNING MATERIALS

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Our final area of exploration is with learning materials and the extent to which gender inequities pervade the classroom resources. Cooper (1987, 1989, 1993, 1994, 2000) identified significant degrees of sexism and role stereotyping in a variety of children’s literature. Communication texts (like most texts) display gender stereotypes of many sorts (Gullocks, Pearson, Child, & Schwab, 2005; Purcell & Stewart, 1990; Tetenbaum & Pearson, 1989). Messages, mostly nonverbal, in the texts suggest that the most important writers, speakers, and theorists are men. For example, collections of literature for high-school English classes include mostly male authors (Carlson, 1989). Harmon (2000) reported similar findings about anthologies of literature for use in university English courses. Historically, collections of “great” or “representative” speeches have featured no speeches by women. To counter these imbalances, some collections of women’s speaking have been created (Campbell, 1989; Kennedy & O’Shields, 1983, among others). However, until women’s words appear in equitable numbers in regular anthologies and collections, the nonverbal messages to students will continue to be that women do not speak on the “important” public issues do not have the eloquence of men. More recently, some addresses by women have been included in materials specifically aimed at student audiences, but these anthologies continue to feature many more speeches by men than women (Campbell, 1991; Vonnegut, 1992). Sixteen of the 17 public-speaking texts analyzed by Hanson (1999) pictured men in power positions more frequently than women and all of the texts pictured men more frequently in photographs, a finding replicated in Gullock et al.’s (2005) examination of the 2002 ten best-selling public-speaking texts. When texts in all content areas are examined, similar gender biases are found (Hurd & Brabeck, 1997; Hogben & Waterman, 1997; Stone 1996; Feiner & Morgan, 1987; see also research reviewed in Jossey-Bass, 2002).

Hanson’s (1999) investigation of public-speaking textbooks found that the mean number of pages devoted to discussing gender issues was 7.26, fewer than 5% of the pages in any of

the best-selling volumes. The near-absence of women as speakers, writers, and theorists in public communication materials along with the near-absence of discussion of gender leaves intact the privileging of men's activities with very little attention to the gender implications.

Increasingly, films, videos, music, and Web pages are used as learning materials. Too rarely do the lessons call attention to the gender issues depicted. Moreover, since much of what happens in any classroom is determined by the resources brought to the room by the students as well as the instructor, the considerable amount of electronic media consumption by students becomes an issue for the communication classroom. We know from much research that students consume huge daily doses of information from music, computers, television, and movies (Swanson, 1992). A Kaiser Foundation study (Rideout, Roberts, & Foehr, 2005) found young people between the ages of 8 and 18 spent on average 6 hours per day using electronic media (compared to 43 minutes reading print materials). For an easily accessible summary of the report, go to [www.kff.org/entmedia/index.cfm](http://www.kff.org/entmedia/index.cfm). Moreover, in a commercial world, students are subjected to equally massive daily doses of advertising designed to teach them how to live. A conclusion reported by the Canadian Paediatric Society (2005) was that the average Canadian child, who is exposed to watch less television than the average U.S. child, sees at least 20,000 commercials annually. Therefore, when these sources contain gender biases of many kinds, as we know they do (Borchert, 2004; Buck & Newton, 1989; Butruille & Taylor, 1987; Consalvo, 2004; Cooks, Orbe, & Bruess, 1993; Creedon, 1993; Daddario, 1992; Glascock & Ruggerio, 2004; Lovdal, 1989; among many others), students learn from these gendered messages, which form part of the context in which communication education takes place. Thus, even if all materials brought to the classroom by teachers were equitable and unbiased, the media environment still places an additional demand on teachers. Current curricula include little attention to media literacy in classrooms and, when it is present (in elective courses or literature classes), no assessments show whether students are alerted to the gender biases and distortions in popular media. Nor do we have studies that show that courses help students find ways to resist accepting those messages as prescriptions for how they should live, what they should buy, and what should consume their time and attention.

### Gender Gaps in Communication Skills of English Language Learners

The field of education faces the challenge of assuring that English language learners (ELLs) attain academic standards, given

the current gulf in performance between ELL and native-English or English-proficient students. The magnitude of this challenge is large and growing, with more than 5.1 million ELL students enrolled in U.S. public schools in the past year (U.S. Dept. of Ed., 2005). Addressing how to validly assess and educate students who are developing English language skills is essential to their fair and equitable treatment in education (Bailey & Butler, 2004). The chapter "Gender Equity in Foreign and Second-Language Learning and Instruction" in this book discusses these issues in detail.

In this chapter, the focus is on the learner of English communication skills and what issues of gender equity might be involved in this acquisition that impact the rest of the student's educational experience. The goal of focusing on reading and communication skills for the English-language learner is to bring these students into the mainstream of education with the necessary tools for their education. Having adequate English language skills to benefit from American public education is of concern for all students, at all levels. The issues especially related to English-language learners involve sociological and individual psychological variables such as learning style, motivation, social stratification, etc., as well as curricular concerns (what is taught and how).<sup>11</sup>

The No Child Left Behind Act (NCLB, 2001a) requires that achievement data for math and reading (and science by 2006) be disaggregated by student subgroups according to race, ethnicity, gender, English-language proficiency, migrant status, disability status, and low-income status.<sup>12</sup> Consequently, NCLB has placed the assessment of ELL students at the forefront of the educational arena in the United States. Under this law, not only must the performance of ELL students on standards-based assessments for math and reading be included in a district's calculation of Adequate Yearly Progress, but ELL students must show measurable progress each year in English-language development; namely listening, speaking, reading, writing, and comprehension (NCLB, 2001b). However, the question remains: Do male and female students who are acquiring English-language skills along with content knowledge fare comparably in performance?<sup>13</sup>

Why is such a question important to ask and attempt to answer? Certainly important differences in the performances of girls and boys may be masked if the ELL subgroup is treated as homogenous, without disaggregating gender (Jule, A., 2001, 2002). Gender-related differences may stem from different cultural expectations for performance by boys and girls in K-12 schooling as well as for the college-level population. Reactions to the testing situation and gender bias in test items may differentially impact the performance of boys and girls on the assessments that are at the very crux of the NCLB accountability sys-

<sup>11</sup>See the related discussions in the chapter "Gender Equity in Foreign and Second Language Learning and Instruction."

<sup>12,13</sup>One state that allows for the break down of English-language development scores by gender is California, with 1,598,535 ELL students (or approx. 34% of the United States total ELL enrollment) at the K-12 level (California Department of Education, 2004). Examination of scores for the 2004-2005 school year on the California Test of English Language Development (CELDT) suggested only very small gender differences and in quite similar magnitude across much of the K-12 Grade spectrum (CDE, 2005). For the combined Listening/Speaking subsection, boys trailed girls by about four mean scale score points until grades 10-12 when their performance matched that of girls. For the Reading subsection, boys trailed girls by a larger margin of approximately six-eight mean scale score points until they matched girls' performance at grades 11 and 12. Differences in the gap between boys and girls is widest on the Writing subsection of the CELDT with boys' scale scores on average remaining below girls throughout their K-12 careers (approximately 10 mean scale score points below the girls). These differences between boys and girls across most grade levels appear relatively stable over time with similar patterns of performance by gender reported each year since the CELDT's adoption in the 2001-2002 school year.

tem. It is well documented in the psychometric literature that gender-related effects on test scores exist and need to be guarded against. In a statistical examination of the result of a reading and listening assessment for college-level speakers of English-as-a-second-language (ESL), Kunnan (1990) found that 20% of items favored male test takers. More recently, using conversational analysis techniques, Brown and McNamara (2004), reported biases in a face-to-face ESL assessment of spoken English at the college level that may stem from differences in the gender of the interviewer/examiner, with female interviewers of test takers giving higher scores than a male interviewer.

Complex interactions between topic, gender of test-takers, and gender of nonpresent listeners, or audience (or nonpresent testers in the case of tape-recorded test responses) have also been recently documented (Lumley & O'Sullivan, in press) That is, when female college-level ESL students are required to talk about an unfamiliar topic to a hypothetical native English-speaking male listener, they performed less well than when they perceived the audience to be female despite the same level of unfamiliarity with the topic. Such findings with ESL students at the college level suggest that similarly complex interactions between gender and performance on reading and communicative skills are likely to also exist for the K–12 population, although fewer studies of gender and ESL have been conducted with elementary and secondary ELL students. Testing and instructional implications will follow from this kind of research. For instance, in addition to the current use of psychometric techniques and bias reviews for addressing the effects of gender biases, we need to see closer examination of the effects of interactions between gender of test takers and text examiners (both face-to-face and perceived audience gender), and closer examination of topics so that the selection of reading and listening passages on assessments captures the range of topics that are representative of both the profemale and promale categories identified by Buck et al. (n.d). (Also see the chapter “Gender Equity in Testing and Assessment.”)

### Numbers, Degrees, and Salaries in Journalism/Communication Education

In this chapter, space limitations prohibit attention to education in each of the specific communication career fields (e.g., organizational communication, public address, intercultural communication, mass media). We have focused instead on communication learning that relates to all students and their achievement of communication competence. Due, however, to the ubiquity of the electronic communication discussed earlier and the necessity for mainstreaming knowledge about gender inequities in popular culture as well as in formal-learning settings, some attention to this specific area of education for a communication career is warranted. Thus, we attend briefly to the status of education in journalism and other areas of electronic communication at the college level. In these fields, throughout history employment has been heavily skewed toward men (Wooten, 2004). Relatively few women have played significant roles either as print journalists or in the media of radio, movies, television, and music. More recently, diversity in newsrooms and electronic media has increased somewhat, with demonstrable effects of

more diverse programming and news coverage. For example, those newspapers with a high percentage of men in managerial positions (the majority of newspapers) tend to focus more on crime (Craft & Wanta, 2004). Newspapers with women in significant editorial positions include more coverage of women, hire more women writers, and include more women quoted as experts in stories (Bridge & Bonk, 1989; Bridge, 1989, 1994).

These facts make clear why the status of women in journalism education deserves some mention. We examined several recent surveys about the status of students and teachers in journalism and electronic media. The data show that while there has been some progress in terms of equity during the past 20 years, major inequities remain.

Women constitute the majority of the students enrolled in college and university journalism and mass communications programs. In 2001–2002, women received 64.6% of the 42,060 bachelor's degrees, 64.2% of the 3,700 master's degrees, and 50.3% of the 180 doctoral degrees in these programs. These numbers do not correspond to the numbers of women and men seeking and getting media jobs. Only 34.2% of the women graduates who sought work on a daily newspaper were offered a job, compared with 44.3% of the male graduates. In television, 33.9% of the women graduates who looked for a job received an offer, compared with the lower statistic of 35.2% of the men graduates. Women students were more likely than men to take a job in public relations (5.2% of the women, 2.6% of the males). (See Becker 2003 for a summary of several relevant surveys.) Women journalism and mass communications students are more than twice as likely as men to major in public relations, in large part because there has been historically less overt discrimination in the field (Rush, Oukrop, & Creedon, 2004). Rush et al. suggested some other explanations as well, most relating to the fact that the working conditions in public relations are more conducive to combining a family and a career than is the case in journalism or the electronic media industries. Other factors probably involve the fact that women are less likely to have an internship in the media while in college and are less likely to have worked for the campus newspaper, radio, or television station. Additionally, in that the definition of news in newsrooms primarily focuses on conflict and negativity (Becker, 2003), many women reject the climate of the work. Indeed, the situation illustrates another way in which inequities that begin early in education have a reciprocal relationship to inequities elsewhere in society.

Inequities of salary, promotion, tenure, workload, and appointment to leadership positions for teachers and administrators all continued to be major concerns of the women in journalism (Rush, Oukrop, & Creedon, 2004). According to researchers who have been surveying gender-equity issues in journalism and mass communication education, there are more women in these fields than 30 years ago, but “the same issues of discrimination in about the same amounts” (p. 104). The major, flagship research indicated that “public universities are less likely than other schools to have faculty gender and race equity in terms of numbers” (pp. 118–119). Women comprised approximately 25% of the top administrators in U.S. journalism programs in 2002; 4.5% of these female administrators were minorities. Women comprised approximately 18% of the full professors (Endres, Creedon, & Henry, 2004). The slow pace of im-

provement in the number and status of women and minority men in journalism and mass communication programs has led one reviewer to give them a general grade of “D” on faculty diversity (Poindexter, 2000). A 2002 survey of journalists in newsrooms of papers with circulation of more than 50,000 found women less likely than men to be confident of promotion, less satisfied with their current jobs, and more likely to be planning to leave the field (Selzer, 2002).

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## CONCLUSIONS AND RECOMMENDATIONS: HOW FAR HAVE WE COME?

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Over 20 years ago in the 1985 *Handbook* chapter “Sex Equity in Reading and Communication Skills,” authors Scott, Dwyer, and Lieb-Brillhart recommended guidance similar to the following principles to enhance the competence of males as well as females (1985):

- Instruction should attend to students’ individual differences without perpetuating sex stereotypes.
- Reading materials should portray females and males in non-stereotypical situations, including reading as something that males can do and high-level thinking as something females can do.
- Instruction should promote sex-equitable language and communication patterns for all students.
- Teacher education and materials should decrease sex-stereotyped classroom interactions and learning.

Analyzing the research available 20 years ago, writers reviewed the various explanations for girls’ assumed advantage in reading comprehension, noting the need for better reading role models for boys and better intellectual role models for girls in strategies coping with inferential reading materials, as well as less culturally stereotyping classroom communication. Cultural stereotyping for gender-related communication styles and preferences was reported, and it was clear that there was a nature-nurture controversy surrounding this aspect of communication. Nationwide assessments of these skills with respect to gender were not available, and only a few studies focused on gender differences in reading interests and skill, with much of the difference assumed to reside in differences in gender acculturation. Little was reported on the impact of media on stereotyping, gender-related use of technology, especially computer usage, and the gender-related differences of interest in reading content (which might account for differences in testing outcomes).

The current chapter shows that many national- and state-level assessments of reading and writing competencies have been completed or are ongoing. In addition, much research including attention to data on gender has occurred. Most current measurements show a gender gap in favor of girls in reading and in writing, college entrance examinations being the exception. These advantages have remained relatively steady over the two-plus decades. This finding occurs also in some international assessments of reading. Yet there is no more evidence today than 25 years ago that the presumed advantages in these skills

translate into advantage in life and work situations after formal schooling. Data showing increased attention to oral communication skills in standards and curricula after the ESEA legislation of 1978 included speaking and listening as basic skills. The addition spurred professional attention to specifying speaking and listening objectives for assessment, and national associations identified assessment and implementation tools. The women’s movement of the late 20th century promoted attention to the roles of women in a wide range of communication activities. However, federal interest in supporting research on assessment of oral competency has recently waned. The current iteration of ESEA (No Child Left Behind, NCLB, 2001a) focused on collecting data on reading and mathematics with little acknowledgment of their interrelationships with listening and speaking. Attention to English-language learners provides the exception to this case (NCLB, 2001b). Addition of an actual writing portion in the national college aptitude exams (ACT & SAT) will spur increased understanding of writing skill acquisition outcomes for college-bound students, but the development is too recent to permit informed analysis of any gender impacts at this time, although given the persistent writing advantage for girls shown in other measures, it is not surprising that as discussed earlier in this chapter, the 2006 SAT writing section results show that girls outscore boys. It will be important to monitor these findings over more than a single year to fully understand the outcome. It remains obvious that without nationwide assessments in speaking and listening, especially in the interactive settings that establish whether or not oral-communication competency exists, and without wider recognition of the electronic media as involving important communication processes that impact both learning and gender, few definitive claims can be made about gender inequities in learning oral communication skills among students at any level.

Data suggest that despite more attention among both scholars and teachers to the impact of gendered communication over two decades, biased communication still occurs in education as well as in the larger culture. As noted elsewhere in this volume, while there are more laws punishing overt gender discrimination now than 20 years ago, the images in media and schooling, not to mention the persistent pay gap between women and men, still communicate substantial gender inequities for women. At the same time, some inequities for boys and men in education exist as well, a pattern not explored in the earlier volume, although all evidence suggests it is not a new pattern. These are biases against femininity and feminine communication behaviors that affect boys whose behaviors do not fit the traditional masculine patterns as well as girls and women once they reach the workplace.

A flurry of recent popular attention about possible gender inequities in education for boys has occurred because overall enrollment of women at the college and university level in the United States now significantly outpaces that of men. Some commentators see these imbalances as evidence of an educational neglect of boys, although the disproportionately high enrollment by women is not found at the elite universities (Sadker, 2000) nor is it found in most of the science and technical fields of study. Nonetheless, the situation warrants attention, especially because, when the data are explored by race, class, and ethnicity, women’s enrollment percentage is highest in some,

though not all, minority groups, and because some claims have been made that the changes in enrollment patterns spring from changes in the schools that made them more equitable for girls (Mortenson, 2001). The charge that changes in the last 20 years have caused these problems of boys' achievements seems spurious since some of the patterns cited far predate the legislation mandating sex-equity of 1972. A higher rate of discipline problems and more diagnosed reading disabilities in boys as well as too few male teachers in elementary and primary-school classrooms have existed in U.S. schools far longer than 20 years. Moreover, the actual impact of the college and university enrollment disparities remains quite unclear. What links any of these outcomes may have to communication education is unclear. As Sara Mead (2006) wrote, the fact that girls and women surpass the boys in a few areas creates more media concern than larger equity issues (2005, accessible at [www.education-sector.org](http://www.education-sector.org)). Mead pointed out that White boys score significantly better than Black and Hispanic boys in reading, at all grade levels. Closing racial and economic gaps would help the poor and minority boys more than would trying to close gender gaps, she concluded.

All reflect social patterns that deserve to be changed; what role the schools should play in creating those changes remains an issue of serious debate. Even in the field of communication, where changes in the enrollment, faculty, and career placements have changed dramatically with increasing participation of women, the salaries that college-educated women earn in the field remain considerably lower than those of men (Becker, 2003) and women have more difficulties than men in securing employment (Endres et al., 2004; Poindexter, 2000). What all of this makes most clear is how badly more research is needed into the relationships between communication competence, gender in communication education, and employment outcomes. Especially relevant for this chapter are questions of how communication competence relates to gendered expectations in career choices and workplaces (Barnett & Rivers, 2004; see also the chapter "Gender Equity in Career and Technical Education" in this *Handbook*). With these concerns in mind, we offer summary conclusions and action recommendations grouped into five categories: (a) curriculum, (b) assessment, (c) professional development, (d) research, and (e) policy.

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## RECOMMENDATIONS FOR ACTION

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**Curriculum.** Curricula involving communication must be transformed, a task important for both girls and boys because gendered expectations affect both, often negatively.

- Schools should integrate age and developmentally appropriate focus on all communication skills (listening, reading, speaking, and writing, media literacy) at all levels, K–16
- Special attention is needed to understand and respond to the impacts of ethnicity and race, socioeconomic status, and different languages spoken in the home.
- Curricula need to attend to literacy in its broadest sense. No longer should it be assumed that children enter school need-

ing only to achieve reading literacy and writing competence. Competence in listening and speaking and interactive skills, including in use of the wide variety of modern electronic media, is required to function successfully in the 21st century. On the surface, this recommendation does not seem related to gender, but it is. Education exists within a gendered culture in which all communication in some way references gender norms involving verbal and nonverbal language and interaction patterns; and popular media are structured to perpetuate those gendered patterns. Therefore, competent communicators, whatever the medium of interaction, must attend to those norms. As education is currently provided in the United States, learning how gender functions in communication is almost exclusively the province of unstated agendas within the classroom, even though it is always present and reflects often overt teaching outside the classroom through students' interactions with each other, their families, workplace, their media, and their culture.

- Curricula need to include overt attention to gender norms, patterns, and outcomes to make sure students understand and can evaluate the gendered expectations found in all sources, academic, social and cultural; and the curriculum needs to show students how these attitudes affect their communication and (hence) their lives. Curricula need to help teachers and students see that many gendered associations are problematic and can be changed. Needed curricular changes will attend to gender equity in course content, instructional materials, interaction patterns and media; and the changes will involve assignments that link to students' lived experience both as children and prospective effectively functioning adults.
- The elements just outlined, present in isolated parts and places in today's formal education system, need to become as central a part of the formal learning process as they are of students' communicative lives.
- Schools with model communication education programs should be identified, publicized, and replicated.
- Achieving the transformation described here will require examination of textbook and other formal learning materials, but it will also include attention to gendered messages found in popular culture artifacts of all types, especially in music, television, movies, computer games, and programs.

**Assessment.** Assessment of student learning of gender and communication needs to be significantly expanded.

- Assessment should encompass the full range of communication skills (listening, reading, speaking, writing, media literacy) and be done on a systematic basis with careful attention to technical quality and educational consequences, whether the tests are teacher-made or mandated by others, and whether they are formative or summative in nature.
- Assessment needs to attend to differences within gender groups, especially as they involve race, ethnicity, and socioeconomic class. Such reporting of gender differences within subgroups of students would not only show the impact of the new elementary and secondary accountability system on stu-

dent performance in all communication skills, it would also provide a more finely grained picture of the impacts of ethnicity, race, and class on accomplishment and equity.

- Assessment processes need to keep pace with the role of electronic communication in students' lives by incorporating a conceptualization of communication literacy that includes computer and other media literacy.

**Professional development.** Significant changes in communication education will depend on changes in the professional development of teachers at all levels, curriculum and test developers, and those who teach these education practitioners. A deliberate attempt to integrate gender research and theory in the development of these professionals will help ensure a future supply of practitioners prepared for the challenges to communication education made by attending to gender.

- Knowledge about both the full range and complexity of communication processes and the central role of gender within those processes should be integrated into the formal preparation of teachers and other education practitioners such as curriculum and test developers.
- Skills of analysis and assessment of language and discourse need to be included in teacher preparation to provide the foundation for critical examination of formal learning materials such as curricula, as well as the artifacts of popular culture.
- Teachers will need knowledge of both the purpose of assessments and how to interpret a range of communication assessments for use in implementing curriculum and other instructional decisions.
- Formal, well-supported professional-development programs for acquiring the skills and knowledge just outlined should be made available to teachers currently in the classroom.
- In order to remain effective educators at the higher-education level, those responsible for the education and continued development of teachers and other education practitioners must also have the related skills and knowledge about communication processes, assessment, and curricula and the central role of gender in these areas.

**Research.** An expanded research program is required to clarify the links among communication; gender; specific teaching and learning behaviors; and life experiences in the home, the public arena and the workplace.

- Much scholarship will be needed to fully understand the links among gender attitudes, teacher behaviors, school curricula, social and cultural factors and student life outcomes.
- Especially needed is longitudinal work that can examine (a) students' interactions with each other; (b) students' interactions with the wide variety of popular media in which most are immersed; and (c) how and what social/cultural influences enhance their communication and gender competency.
- In all this scholarship, careful attention is needed to within-sex-group differences, especially those of race, ethnicity, class, and any other factors likely to significantly affect both

what communicative competence means within that group and how gendered expectations may vary from the mainstream.

- To enable and support this research, more women and minorities need to be hired for university communication faculties and administrations, appointed to publication selection committees, encouraged to submit articles for publication, and nominated for awards (see Wooten, 2004).

**Policy.** To implement the recommendations above, policy changes will be required.

- Education policies at the national, State, district, university, and school levels must emphasize communication proficiency requirements in the governance of the pre-K through 16 education enterprise.
- Research-based knowledge about communication must be translated into education policy. Although research from disparate fields has demonstrated the importance of communication in every area of life, this knowledge has not translated into education policy. We know that every act of teaching and learning, of administration and supervision, of linking education to communities, for example, relies on complex enactments of communication behaviors. Typical policies urge educators to communicate effectively in these contexts, but few policies at any level equip educators with the tools to do this.
- The Congress should require the U.S. Department of Education to fund a National Research and Development Center on Communication within its "education sciences" mandates. This center should encompass all of the literacy and communication skills described in this chapter, with special emphasis on promoting excellence and equity among all groups.
- At the national level, education reform legislation (for example, in reauthorizing the Elementary and Secondary Education Act), should emphasize policies that promote both student and teacher proficiencies in all aspects of communication at all levels of schooling. Attention to the powerful interactions between gender (as one aspect of diversity) and communication should be emphasized. Such legislation should support the efforts of various stakeholders (e.g., teacher-education institutions, professional organizations, licensing, certification, and assessment agencies) to implement standards, assessments, and programs for communication proficiency. Policies should support a bottom line: No teacher should enter a classroom without demonstrating the proficiency in reading, writing, speaking, listening, media, and interactive behaviors necessary for promoting student learning.
- Federal agencies should coordinate policies with the Department of Education for enhancing productive communication skills for the especially diverse citizenry of the United States. Since the Departments of Labor, Health and Human Service, Housing and Urban Development, Immigration, and other agencies all serve individuals and families, implementing communication education is in part included in their mandates.

Literacy and communication skills are crucial in promoting health, job mobility, family welfare, and other missions of these agencies. Various Inter-Agency Federal Coordinating Agencies now coordinate policies, for example for linking jobs and education, for providing free materials for teachers, for teaching adult literacy, etc. For coherent policy implementation, they need to incorporate key principles of communication that impact on gender equity in multiple contexts.

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## References

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- Alperstein, J. F. (2005, May 16). *Commentary on girls, boys and test scores and more*. Retrieved November 4, 2005, from file:///Users/Icom/Desktop/TCRecord-%20Article.webarchive.
- American Association of University Women Educational Foundation. (2001). *Beyond the 'Gender Wars': A Conversation about Girls, Boys, and Education*. Washington, D.C.: Author.
- American Federation of Teachers. (2003). *Setting strong standards*. Washington, DC: Author.
- Andersen, E. S. (1990). *Speaking with Style: The Sociolinguistic Skills of Children*. London: Routledge, Kagan Paul.
- Andersen, P. S. (1999). *Nonverbal communication: Forms and functions*. Mountain View, CA: Mayfield.
- Andersen, P. S., & Guerrero, L. K. (Eds.). (1998). *Handbook of communication and emotion: Research, theory, applications, and contexts*. San Diego, CA: Academic Press.
- Andersen, P. S., Guerrero, L. K., & Afifi, W. A. (Eds.) (2001). *Close encounters: Communicating in relationships*. Mountain View, CA: Mayfield.
- Aries, E. (1996). *Men and women in interaction: Reconsidering the differences*. New York: Oxford University Press.
- Backlund, P. (1982). *State practices in speaking and listening skill assessment*. Annandale, VA: Speech Communication Association.
- Backlund, P. (January, 2006). Letter to author.
- Bailey, A. L., & Butler, F. A. (2004). Ethical considerations in the assessment of the language and content knowledge of English language learners K-12. *Language Assessment Quarterly*, 1, 177-193.
- Barnett, R. C., & Rivers, C. (2004). *Same difference: How gender myths are hurting our relationships, our children, and our jobs*. New York: Basic Books.
- Barton, P. E. (1994). *Becoming literate about literacy* (ETS Policy Information Report No. ED 372 227). Princeton, NJ: Educational Testing Service.
- Barton, P., & Lapointe, A. (1995) *Learning by degrees: Indicators of performance in higher education* (ETS Policy Information Report No. ED 379 323). Princeton, NJ: Educational Testing Service.
- Beatty, M. J., McCroskey, J. C., & Valencic, K. M. (2001). *The biology of communication: A communibiological perspective*. Cresskill, NJ: Hampton Press.
- Becker, L. B. (2003). *Gender equity elusive, surveys show*. Accessed October 20, 2005, from <http://www.freedomforum.org/templates/document.asp?documentID=17784>
- Bem, S. L. (1993). *The lenses of gender*. New Haven, CN: Yale University Press.
- Bergvall, V. L., & Remlinger, K. A. (1996). Reproduction, resistance and gender in educational discourse: The role of critical discourse analysis. *Discourse & Society*, 7(4), 453-479.
- Birdwhistell, R. L. (1968). Some body motion elements accompanying spoken American English. In L. Thayer (Ed.). *Communication: Concepts and perspectives*. Washington, DC: Spartan.
- Birdwhistell, R. L. (1970). *Kinesics and context; essays on body motion communication*. Philadelphia: University of Pennsylvania Press.
- Blair, C., Brown, J. R., & Baxter, L. A. (1994). Disciplining the feminine. *The Quarterly Journal of Speech*, 80, 383-409.
- Borchert, M. (2004). Lions, tigers & little girls: Representations of gender roles in *Power Rangers and Wild Force*. In P. M. Backlund & M. R. Williams (Eds.) *Readings in Gender Communication* (pp. 314-321). Belmont, CA: Wadsworth Thomson.
- Borisoff, D., & Merrill, L. (1998). *The power to communicate: Gender differences as barriers* (3rd ed.). Prospect Heights, IL: Waveland Press.
- Bridge, J. (1989). *News magazines neglect females*. Alexandria, VA: Unabridged Communications.
- Bridge, J. (1994). *Arriving on the scene*. Alexandria VA: Unabridged Communications.
- Bridge, J., & Bonk, K. (1989). *Women, men and media: A report of content analysis of newspaper and television reporting*. Alexandria, VA: Communications Consortium.
- Brody, L. R. (2000). The socialization of gender differences in emotional expression: Display rules, infant temperament, and differentiation. In A. H. Fischer (Ed.) *Gender and Emotion: Social Psychological Perspectives*. (pp. 24-37). Cambridge: Cambridge University Press, UK.
- Broverman, I. K. (1970). Sex-role stereotypes and clinical judgments of mental health. *Journal of Consulting & Clinical Psychology*, 34(1) 1-7.
- Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. (1972). Sex-role stereotypes: A current appraisal. *Journal of Social Issues* 28, 59-78.
- Brown, A., & McNamara, T. (2004). 'The devil is in the details': Researching gender issues in language assessment. *TESOL Quarterly*, 38(3), 524-538.
- Buck, E. B., & Newton, B. J. (1989). Research on the study of television and gender. In B. Dervin, & M. J. Voigt (Eds.) *Progress in Communication Sciences* (Vol. 9; pp. 1-42). Norwood, NJ: Ablex.
- Buck, G., Kostin, I. Phelps, M., & Kutz, D. (n.d.). *Understanding the origins of gender-based impact on the SAT Verbal: Exploring item content*. Princeton, NJ: Educational Testing Service.
- Butruille, S., & Taylor, A. (1987). Women in American popular song. In L. Stewart & S. Ting-Toomey (Eds.) *Communication Gender and Sex Roles in Diverse Interaction Contexts* (pp. 179-188). Norwood, NJ: Ablex.
- Cajete, G. (1994). *Look to the mountain. An ecology of indigenous education*. Durango, CO: Kivaki Press.
- Calahan, C., Mandinach, E. B., & Camara, W.J. (2002). *The College Board Report No. 94-2*. New York: The College Board.
- California Department of Education (COE). (2005). *California English Language Development Test (CELDT) Reports, 2001-2005*. Retrieved February 20, 2005, from <http://celdt.cde.ca.gov/reports.asp>
- Cameron, D. (Ed.). (1990). *The feminist critique of language: A reader*. London: Routledge.

- Cameron, D. (Ed.). (1998). *The feminist critique of language: A reader* (2nd ed.). London: Routledge.
- Campbell, K. K. (1989). *Man cannot speak for her: A critical study of early feminist rhetoric*. New York: Praeger Publishers.
- Campbell, K. K. (1991). Hearing women's voices, *Communication Education*, 40, 33–48.
- Campbell, K. K., & Jerry, E. (1988). Woman and speaker: A conflict in roles. In S. Brehm (Ed.), *Seeing female: Social roles and personal lives*. New York: Greenwood.
- Canadian Paediatric Society. (2005). Impact of media use on children and youth. *Paediatrics & Child Health* 2003, 8(5), 301–306. Retrieved December 31, 2005, from <http://www.cps.ca/english/statements/PP/pp03-01.htm>
- Canary, D. J., & Dindia, K. (Eds.). (1998). *Sex differences and similarities in communication: critical essays and empirical investigations of sex and gender in interaction*. Mahwah, NJ: Lawrence Erlbaum.
- Carlson, M. (1989). Guidelines for gender-based curriculum in English, grades 7–12. *English Journal*, 36, 30–3.
- Carnevale, A. P. (1996). Liberal education and the new economy. *Liberal Education* Washington, DC: American Association of College and Universities.
- Chapman, C. (2006). *Review of research on composition: Multiple perspectives on two decades of change*. Retrieved June 6, 2006, from [www.tcrecord.org/Content.asp?ContentID=12532](http://www.tcrecord.org/Content.asp?ContentID=12532).
- Coles, M., & Hall, C. (2001). Boys, books and breaking boundaries: Developing literacy in and out of school. In W. Martino & B. Meyenn (Eds.), *What about the boys? Issues of masculinity in schools* (pp. 211–221). Buckingham, UK: Open University Press.
- Coley, R. J. (2003). *Growth in school revisited: Achievement gains from the fourth to the eighth grade* (ETS Policy Information Report). Princeton, NJ: Educational Testing Service.
- College Board. (2004a). *2004 College-bound seniors: A profile of SAT program test-takers*. New York:
- College Board. (2004b). *National Summary Report*. Retrieved January 27, 2005, from [http://apcentral.collegeboard.com/repository/programsummaryreport\\_39028.pdf](http://apcentral.collegeboard.com/repository/programsummaryreport_39028.pdf)
- College Board. (2006, August 29). College Board announces scores for new SAT<sup>®</sup> with Writing. Retrieved August 31, 2006, from <http://www.collegeboard.com/press/releases/150054.html>
- Condravy, J., Skirboll, E., & Taylor, R. (1998). Faculty perceptions of classroom gender dynamics. *Women & Language*, 21(1), 18–27.
- Consalvo, M. (2004). Borg babes, drones, and the collective: Reading gender and the body in *Star Trek*. *Women's Studies in Communication*, 27, 177–203.
- Cooks, L. M., Orbe, M. P., & Bruess, C. S. (1993). The fairy tale theme in popular culture: A semiotic analysis of *Pretty Woman*. *Women's Studies in Communication*, 16, 86–104.
- Cooper, P. (1987). Sex role stereotypes of stepparents in children's literature. In L. P. Stewart & S. Ting-Toomey (Eds.), *Communication, Gender, Sex Roles in Diverse Interaction Contexts* (pp. 61–82). Norwood, NJ: Ablex.
- Cooper, P. J. (1988). *Speech communication for the classroom teacher*. Scottsdale, AZ: Gorsuch Scarisbruck.
- Cooper, P. (1989). Children's literature: The extent of sexism. In C. M. Lont & S. A. Friedley (Eds.), *Beyond Boundaries: Sex & Gender Diversity in Communication* (pp. 233–249). Fairfax, VA: George Mason University Press.
- Cooper, P. (1993). Women and power in the Caldecott and Newberry winners, 1980–1990. In C. Berryman-Fink, D. Ballard-Reisch, & L. Newman (Eds.), *Communication and sex-role socialization* (pp. 7–27). New York: Garland.
- Cooper, P. (1994). The image of stepmothers in children's literature 1980–1991. In L. Turner & H. Sterk (Eds.), *Differences that make a difference*. Westport, CT: Bergin and Garvey.
- Cooper, P. (2000, October). *Image of stepmothers in children's literature 1980–2000*. Paper presented at the convention of the Organization for the Study of Communication, Language, and Gender, Milwaukee, WI.
- Costello, C. B., & Krimgold, B. K. (Eds.). (1996). *The American woman, 1996–97: Women and work*. NY: Norton.
- Costello, C. B., & Stone, A. J. (Eds.). (2001). *The American woman, 2003–2004: Getting to the top*. NY: Norton.
- Costello, C. B., Wight, V. R., & Stone, A. J. (Eds.). (2003). *The American woman: Daughters of a revolution—young women today*. NY: Palgrave Macmillan.
- Craft, S., & Wanta, W. (2003, Spring). Women in the newsroom: Influences of female editors and reporters on the news agenda. *Journalism & Mass Communication Quarterly*, 81(1), 124–138.
- Crawford, M. (1995). *Talking difference: On gender and language*. London: Sage.
- Creedon, P. J. (1993). *Women in mass communication: Challenging gender values*. (2nd ed.). Beverly Hills, CA: Sage.
- Daddario, G. (1992). Swimming against the tide: *Sports Illustrated's* imagery of female athletes in a swimsuit world. *Women's Studies in Communication*, 15(1), 49–64.
- Daly, J. A. (1994). Assessing speaking and listening: Preliminary considerations for a national assessment. In S. Morreale, & M. Brooks (Eds.), *1994 SCA summer conference proceedings and prepared remarks* (pp. 17–31). Annandale, VA: The Speech Communication Association.
- Darling A. L., & Dannels, D. P. (1998, November). *Disciplinary assessment of oral communication*. Paper presented at the annual meeting of the National Communication Association, New York.
- Davies, J. (2003, March). Expressions of gender: An analysis of pupils' gendered discourse styles in small group classroom discussions. *Discourse & Society*, 14(2), 115–132.
- de Castell, S., & Jenson, J. (2004). Paying attention to attention: New economies for learning. *Educational Theory*, 54(4), 381–397.
- delPolito, C. M., & Lieb-Brillhart, B. (1981). Implications of oral communication as a basic skill. In G. Friedrich (Ed.), *Education in the 80s*. Washington, D.C.: National Education Association.
- Denton, K., & West, J. (2002). *Children's reading and mathematics achievement in kindergarten and first grade*, (NCCES 2002-125). Washington, DC: U. S. Department of Education.
- deWitt, J., Bozick, M., Hay, E., Litterst, J., Strohkirch, C., & Yokum, K. (1991). Oral communication competency and teacher certification in the United States: Reality and recommendations. *Communication Education*, 40, 144–151.
- Dindia, K. (1987). The effects of sex of subject and sex of partner on interruptions. *Human Communication Research*, 13, 345–371.
- Donovan, L., & MacIntyre, P. D. (2004). Age and sex differences in willingness to communicate: Communication apprehension, and self-perceived competence. *Communication Research Reports*, 21, 420–427.
- Dwyer, C. A., & Johnson, L. M. (1997). Grades, accomplishments, and correlates. In W. W. Willingham & N. S. Cole (Eds.), *Gender and fair assessment* (pp. 127–156). Mahwah, NJ: Lawrence Erlbaum Associates.
- Eckert, P., & McConnell-Ginet, S. (2003). *Language and gender*. New York: Cambridge University Press.
- Edelsky, C. (1993). Who's got the floor? In D. Tannen (Ed.), *Gender and Conversational Interaction* (pp. 189–227). New York: Oxford University Press.
- Ekman, P., & Friesen, W. V. (1969). The repertoire of non-verbal behavior: Categories, origins, usage and coding. *Semiotica*, 1, 1–20.
- Ekman, P., Friesen, W. V., & Phoebe P. (1972). *Emotion in the human face: Guide-lines for research and an integration of findings*. New York: Pergamon.
- Ekman, P., & Rosenberg E. L. (2005). *What the face reveals: Basic and applied studies of spontaneous expression using the facial action coding system* (2nd ed.). New York: Oxford University Press.

- Endicott Report. (1978). *Endicott report: 32nd annual survey of well-known business and industrial firms concerning employment trends for college graduates*. Evanston, IL: Northwestern University.
- Endres, K., Creedon, P. J., & Henry S. (eds.) (2004). Timeline and vignettes: Exploring the history and status of women in journalism and mass communication education. In R. R. Rush, C. E. Oukrop, & P. J. Creedon. *Seeking equity for women in journalism and mass communication education: A 30-Year update* (pp. 33–50). Mahwah, NJ: Lawrence Erlbaum Associates.
- Fassinger, P. (1995). Understanding classroom interaction: Students and professors' contributions to students' silence. *Journal of Higher Education*, 66(1), 82–97.
- Feiner, S., & Morgan, B. (1987). Women and minorities in introductory economics textbooks: 1974–1984. *Journal of Economic Education*, 18, 376–392.
- Fischer, A. H. (2000). *Gender and emotion: Social psychological perspectives*. Cambridge, UK: Cambridge University Press.
- Fivush, R. (1989). Exploring sex differences in the emotional context of mother-child conversations about the past. *Sex Roles*, 20, 675–691.
- Fleming, S. (1995). Whose stories are validated? *Language Arts*, 72, 590–596.
- Foss, K. A., Foss, S. K., & Griffin, C. L. (1999). *Feminist rhetorical theories*. Thousand Oaks, CA: Sage.
- Foss, S. K., & Foss, K. A. (2002). *Inviting transformation: Presentational speaking for a changing world* (2nd ed.). Prospect Heights, IL: Waveland Press.
- Foss, S. K., & Griffin, C. L. (1995). Beyond persuasion: A proposal for an invitational rhetoric. *Communication Monographs*, 62, 2–18.
- Francis, B., & Skelton, C. (2005). *Reassessing gender and achievement: Questioning contemporary key debates*. New York: Routledge.
- Freeman, C. E. (2004). *Trends in educational equity of girls & women: 2004* (NCES 2005-016). U.S. Department of Education, National Center for Educational Statistics. Washington, DC: U.S. Government Printing Office.
- Gerbner, G. (1994). Reclaiming our cultural mythology. *In Context: A Quarterly of Humane Sustainable Culture*, 38, 40. Retrieved October 30, 2005, <http://www.context.org/ICLIB/IC38/Gerbner.htm>.
- Glascok, J., & Ruggiero, T. E. (2004). Representations of class and gender on primetime Spanish-Language television in the United States. *Communication Quarterly*, 52, 390–402.
- Gleason, R. B. (1989). Sex differences in parent-child interaction. In S. Phillips, S. Steel, & C. Tang (Eds.), *Language, gender and sex in comparative perspective* (pp. 189–199). Cambridge, UK: Cambridge University Press.
- Goodwin, M. H. (1980). Directive-Response Speech Sequences in Girls' and Boys' Task Activities. In S. McConnell-Ginet, R. Borker, & N. Furman (Eds.), *Women and Language in Literature and Society* (pp. 157–173). New York: Praeger.
- Goodwin, M. (1988). Cooperation and competition across girls' play activities. In A. D. Todd & S. Fisher (Eds.), *Gender and discourse: The power of talk*. Norwood, NJ: Ablex.
- Gray, J. (1992). *Men are from Mars, women are from Venus: A practical guide for improving communication and getting what you want in your relationships*. New York: HarperCollins.
- Gray, J. (2002). *Men, women and relationships: Making peace with the opposite sex*. New York: HarperCollins.
- Grob, L., Meyers, R. A., & Schuh, R. (1997). Powerful/Powerless language use in group interactions: Sex differences or similarities? *Communication Quarterly*, 45, 282–303.
- Gulloks, K. A., Pearson, J. C., Child, J. T., & Schwab, C. R. (2005, May). Diversity and Power in Public Speaking Textbooks. *Communication Quarterly*, 53, 247–258.
- Hall, R. M., & Sandler, B. R. (1985). A chilly climate in the classroom. In A. G. Sargent (Ed.), *Beyond Sex Roles* (2nd ed., pp. 503–510).
- Halliday, M. A. K. (1985). *An introduction to functional grammar*. London: Edward Arnold. St. Paul, MN: West Publishing
- Hansen C., & Hansen, R. (1988). How rock music videos can change what is seen when boy meets girl: Priming stereotypical appraisal of social interactions. *Sex Roles*, 19, 287–316.
- Hanson, T. L. (1996). A comparison of leadership practices used by male and female communication department chairpersons. *Journal of the Association for Communication Administration*, 1, 40–55.
- Hanson, T. L. (1999). Gender sensitivity and diversity issues in selected basic public speaking texts. *Women & Language*, 22(2), 13–19.
- Harmon, M. R. (2000). Gender/language subtexts as found in literature anthologies: Mixed messages, stereotypes, silence, erasure. In M. J. Hardman & A. Taylor (Eds.), *Hearing Many Voices* (pp. 75–86). Cresskill, N.J.: Hampton Press.
- Harste, J. C. (2001). What education as inquiry is and isn't. In S. Boran & B. Comber (Eds.), *Critiquing whole language and classroom inquiry* (1–17). Urbana, IL: National Council of Teachers of English.
- Hellinger, M., & Bussmann, H. (2001). *Gender across languages: The linguistic representation of women and men*. Amsterdam/Philadelphia: John Benjamins. Three vol.
- Henley, N. (1986). *Body politics: Power, sex, and nonverbal communication*. NY: Simon & Schuster (Original work published 1977 by Prentice-Hall).
- Henley, N., & Kramarae, C. (1991). Gender, power and miscommunication. In N. Coupland, H. Giles, & J. Wiemann (Eds.), *Miscommunication and Problematic Talk* (pp. 18–43). Newbury Park, CA: Sage.
- Hill, A. O. (1986). *Mother tongue, father time: A decade of linguistic revolt*. Bloomington, IN: University Press.
- Hogben, M., & Waterman, C. (1997). Are all of your students represented in their textbooks? A content analysis of coverage of diversity issues in introductory psychology textbooks. *Teaching Psychology*, 24, 95–100.
- Holborow, M. (1999). *The politics of English*. London: Sage, 1999.
- Hosman, L. A. (1989). The evaluative consequences of hedges, hesitations, and intensifiers: Powerful and powerless speech styles. *Human Communication Research*, 15, 383–406.
- Howes, C., & Matheson, C. C. (1992). Sequences in the development of competent play with peers: Social and social pretend play. *Developmental Psychology*, 28, 961–974.
- Howes, C., & Phillipsen, L. (1992). Gender and friendship: Relationships within peer groups of young children. *Social Development*, 1, 230–242.
- Huffaker, D. A., & Calvert, S. L. (2005). Gender, identity, and language use in teenage blogs. *Journal of Computer-Mediated Communication*, 10(2), 1. Retrieved November 5, 2005, from <http://jcmc.indiana.edu/vol10/issue2/huffaker.htm>
- Hurd, T., & Brabeck, M. (1997). Presentation of women and Gilligan's ethic of care in college textbooks, 1970–1990: An examination bias. *Teaching of Psychology*, 24, 159–167.
- Jansz, J. (2000). Masculine identity and restrictive emotionality. In A. H. Fischer, (Ed.) *Gender and Emotion: Social Psychological Perspectives* (pp. 166–188). Cambridge, UK: Cambridge University Press.
- Jaworski, A., & Sachdev, I. (2004). Teachers' beliefs about students' talk and silence: Constructing academic success and failure through metapragmatic comments. In Jaworski, A., Coupland, N., & Galasinski, D. (Eds.), *Metalanguage: Social and ideological perspectives* (pp. 227–246). Berlin, Germany: Mouton de Gruyter.
- Jenson, J., & de Castell, S. (2004 July/November). 'Turn it in': Technological challenges to academic ethics. *Education Communication & Information*, 4(2/3), 311–320.
- Jenson, J., de Castell, S., & Bryson, M. (2003). "Girl talk": Gender, equity, and identity discourses in a school-based computer culture. *Women's Studies International Forum*, 26(6), 561–573.
- Jones, S. M., & Dindia, K. (2004). A meta-analytic perspective on sex-equity in the classroom. *Review of Educational Research*, 74(4), 443–471.
- Jossey-Bass. (2002). *The Jossey-Bass Reader in Gender in Education*. San Francisco: Jossey-Bass.

- Jule, A. (2001). *Speaking silence? A study of linguistic space and girls in the ESL classroom*. TESOL annual conference, Vancouver, BC, Canada.
- Jule, A. (2002). *Speaking their sex: A study of gender and linguistic space in an ESL classroom*. *TESL Canada Journal*, 19(2), 37–51.
- Kennedy, C. W., & Camden, C. T. (1983). A new look at interruptions. *Western Journal of Speech Communication*, 47, 45–58.
- Kennedy, P. S., & O'Shields, G. H. (1983). *We shall be heard: Women speakers in America*. Dubuque, IA: Kendall/Hunt Publishing.
- Kunnan, A. (1990). DIF in native language and gender groups in an ESL placement test. *TESOL Quarterly*, 24, 742–746.
- Lakoff, R. T. (1990). *Talking power: The politics of language*. New York: Basic Books/HarperCollins.
- Lesikin, J. (1998). Determining social prominence: A methodology for uncovering gender bias in ESL textbooks. *College ESL*, 8(1), 83–97.
- Lieb, B. (1994). National contexts for developing postsecondary competency assessment. In S. Morreale & M. Brooks (eds). *1994 SCA Summer Conference Proceedings & Prepared Remarks*. Annandale, VA: Speech Communication Association.
- Lieb, B., & Stacey, N. (Eds.). (1993). *Reaching the goals: Goal 5: Adult literacy and lifelong learning* (Prepared by the Goal 5 Work Group). Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education.
- Lieb-Brilhart, B. (1975). Speech Communication Association and American Theatre Association guidelines for speech communication and theatre in teacher education. *Speech Teacher*, 24, 343–364.
- Lovdal, L. (1989). Sex role messages in television commercials: An update. *Sex Roles*, 21, 715–724.
- Lumley, T., & O'Sullivan, B. (in press). The effect of test-taker gender, audience and topic on task performance in tape-mediated assessment of speaking. *Language Testing*.
- Lynn, E. M., & Kleiman, D. (1976). *Improving classroom communication: Speech communication instruction for teachers* (p. 289) Falls Church, VA: Speech Communication Association.
- Mahony, P. (1985). *Schools for the boys? Co-education re-assessed*. London: Hutchinson.
- McConnell-Ginet, S. (1975). Our father tongue: Essays in linguistic politics. *Diacritics*, 5, 44–50.
- McCroskey, J. C. (1998). *Communication and personality: Trait perspectives*. Cresskill, NJ: Hampton Press.
- Mead, S. (2006). *The truth about boys and girls*. Washington, D.C.: Education Sector. Retrieved June 29, 2006, from www.educationsector.org
- Miller, C., & Swift, K. (1991). *Words and Women: New language in new times, Updated*. New York: Harper Collins. (Original work published 1976 by Anchor Press/Doubleday).
- Morreale, S. L., Backlund, P. M., & Dallinger, J. M. (1996). *Large scale assessment of oral communication: K–12 and higher education*. Annandale, VA: Speech Communication Association.
- Morreale, S. P., & Backlund, P. M. (2002). Communication curricula: History, recommendations, resources. *Communication Education*, 51, 2–18.
- Morreale, S., & Brooks, M. (Eds.). (1994). *1994 SCA summer conference proceedings and prepared remarks*. Annandale, VA: The Speech Communication Association.
- Morreale, S. P., Osborn, M. M., & Pearson, J. C. (2000). Why communication is important: A rationale for the centrality of the study of communication. Retrieved September 20, 2005. *Journal of the Association for Communication Administration*, 29(1), 1–25.
- Mortenson, T. (2000). Fact sheet: What's wrong with the guys? Retrieved September 20, 2005, www.postsecondary.org/archives/Reports/Spreadsheets/Private.htm
- Mortenson, T. (2001, February). Where the guys are not: The growing gender imbalance in college degrees awarded. Retrieved September 20, 2005. *Postsecondary Education Opportunity*. No. 104. Retrieved September 2005, from www.postsecondary.org/archives/
- National Alliance for Business. (1996). *Challenge of change: Standards to make*. Washington, DC: Business Coalition for Education Reform.
- National Assessment of Educational Progress (NAEP). (2005). *The nation's report card*. Retrieved January 27, 2005, from http://nces.ed.gov/nationsreportcard/
- National Center for Educational Statistics (NCES). (2000, March 1). *Indicator of the month: Trends in the Reading performance of 9, 13, and 17-year-olds*. Retrieved June 3, 2004, from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000006
- National Center for Educational Statistics (NCES). (2002). Common Core of Data Resources. Retrieved September 23, 2003, from http://nces.ed.gov/ccd/
- National Center for Educational Statistics (NCES). (2003). *National assessments of adult literacy: Defining literacy and sample items*. Retrieved November 30, 2005, from http://nces.ed.gov/naal/
- National Coalition for Women and Girls in Education (NCWGE). (2002). *Title IX at 30: Report Card on Gender Equity*. Washington, DC: Author.
- National Communication Association. (1998). The speaking, listening and media literacy standards and competency statements for K–12 education. Annandale, VA: Author.
- National Council of Teachers of English. (2005). Retrieved January 7, 2006, from http://www.ncte.org/collections/adolescentliteracy
- National Educational Goals Panel. (1998). Washington, DC: Author. Electronic publication available at http://govinfo.library.unt.edu/negp/page9-3.htm
- Ng, S. H., & Bradac, J. J. (1993). *Power in language: Verbal communication and social influence*. Thousand Oaks, CA: Sage.
- No Child Left Behind (NCLB). (2001a). *No Child Left Behind. Title I: Improving the academic achievement of the disadvantaged*. 107th Congress, 1st Session, December 13, 2001. (Printed version prepared by the National Clearinghouse for Bilingual Education). Washington, DC: George Washington University, National Clearinghouse for Bilingual Education.
- No Child Left Behind (NCLB). (2001b). *No Child Left Behind. Title III: Language instruction for limited English proficient and immigrant students*. 107th Congress, 1st Session, December 13, 2001. (Printed version prepared by the National Clearinghouse for Bilingual Education). Washington, DC: George Washington University, National Clearinghouse for Bilingual Education.
- Olsen, D., & Torrance, N. (1991). *Literacy and orality*. Cambridge, UK: Cambridge University Press.
- Organization for Economic Co-operation and Development (OECD). (2001). *OECD Literacy Data*. Retrieved September 1, 2005, from http://www.oecd.org/dataoecd/0/45/14165144.xls (Tables A.11.3, A.11.5a, & A.11.5b) and http://www.oecd.org/dataoecd/52/32/336699095.xls (Tables A9.5 & A9.5b).
- Pearson, J. C., & West, R. L. (1991). An initial investigation of the effects of gender on student questions in the classroom: Developing a descriptive base. *Communication Education*, 40, 22–31.
- Pearson, J. C., West, R. L., & Turner, L. H. (1995). *Gender and Communication*. Wm. C. Brown/Dubuque, IA.
- Penelope, J. (1990). *Speaking Freely: Unlearning the lies of the fathers' tongues*. New York: Pergamon Press.
- Pennock-Roman, M. (1994). *College major effects and gender differences in the prediction of college grades*. New York: College Entrance Examination Board.
- Perseus Web Surveyor (2003). *The blogging iceberg*. Perseus Development Corporation. Online publication. Retrieved August 1, 2006. www.perseus.com/blogsurvey/iceberg.html
- Peterson, E. E. (1991). Moving toward a gender balanced curriculum in basic speech communication courses. *Communication Education*, 40, 60–72.
- Pickering, J. (1997). *Raising boys' achievement*. Stafford, CA: Network Educational Press.
- Poindexter, P. M. (2000). Improving journalism education's diversity grade in the 21st century. Paper presented at the AEJMC Conference, Phoenix, AZ.

- Poole, M. S., & Walther, J. (2002). *Communication: Ubiquitous, complex, consequential*. Washington, DC: National Communication Association.
- Purcell, P., & Stewart, L. (1990). Dick and Jane in 1989. *Sex Roles, 22*, 177–185.
- reAMAZE. (2005). Six factors of career success. Retrieved October 28, 2005, from [http://www.rezamaz.com/PAGE-article\\_6\\_factors.html](http://www.rezamaz.com/PAGE-article_6_factors.html)
- Rideout, V., Roberts, D. F., & Foehr, U. G. (2005). *Executive Summary: Generation M Media Use in the Lives of 8–18 year olds* (A Kaiser Foundation Study). Retrieved December 30, 2005, from [www.kff.org/entmedia/index.cfm](http://www.kff.org/entmedia/index.cfm)
- Rodriguez, E. M., & Ruppert, S. S. (1996). *Postsecondary Education and the New Workforce*. Denver: State Higher Education Executive Officers (SHEEO). (Funded by the U.S. Department of Education/OERI)
- Rosenthal, A. (2002). Report of the Hope College Conference on Designing the Undergraduate Curriculum in Communication. *Communication Education, 51*, 19–25.
- Rosser, P. (1989). *The SAT gender gap: Identifying the causes*. Washington DC: Center for Women Policy Studies.
- Rosser, P. (1990). The SAT gender gap. *Women and Language, 13*(2), 2–7.
- Rosser, P. (2005). Too many women in college? *Ms. Magazine*. Retrieved October 30, 2005, from <http://www.ms magazine.com/fall2005/college.asp>
- Rubin, R. B. (1982). Assessing speaking and listening competence at the college level: The communication competency assessment. *Communication Education, 52*, 19–32.
- Rubin, R. B. (1985). The validity of the communication competency assessment instrument. *Communication Monographs, 52*, 171–185.
- Rubin, D. L., Mead, N. A., & Daly, J. (1984). *Large scale assessment of oral communication skills: Kindergarten through grade 12*. Annandale, VA: Speech Communication Association.
- Rush, R. R., Oukrop, C. E., & Creedon, P. J. (Eds.). (2004). *Seeking equity for women in journalism and mass communication education: A 30-Year update*. Mahwah, NJ: Lawrence Erlbaum Associates
- Sadker, D. (2000, July 31). *The Washington Post* A19.
- Sadker, M., & Sadker, D. (1994). *Failing at fairness: How America's schools cheat girls*. New York: Charles Scribner's Sons.
- Sandler, B. R., & Hall, R. M. (1986). *The campus climate revisited: Chilly for women faculty, administrators, and graduate students*. Washington, DC: Association of American Colleges, Project on the Status and Education of Women.
- Sandler, B. R., Silverberg, L. A., & Hall, R. M. (1996). *The chilly classroom climate: A guide to improve the education of women*. Washington, DC: The National Association for Women in Education.
- Schegloff, E. A. (1982). Discourse as an interactional achievement: Some uses of 'uh huh' and other things that come between sentences. In D. Tannen (Ed). *Analyzing discourse: Text and talk*. Washington, DC: Georgetown University Press, 71–93.
- Schulz, M. R. (1990). The semantic derogation of woman. In Cameron, D. (Ed.). *The Feminist Critique of Language* (pp. 134–137). London: Routledge.
- Scott, K. P., Dwyer, C. A., & Lieb-Brillhart, B. (1985). Sex equity in reading and communication skills. In S. Klein (Ed.), *Handbook for Achieving Sex Equity through Education*. Baltimore, M.D: Johns Hopkins University Press.
- Selzer & Co. (2002). *The great divide: Female leadership in U. S. newsrooms*. American Press Institute Pew Center for Civic Journalism. Retrieved January 7, 2006, from <http://www.americanpressinstitute.org/content/745.cfm>
- Smith, M. W., & Wilhelm, J. D. (2002). *Reading don't fix no Chevys: Literacy in the lives of young men*. Portsmouth, NH: Heinemann.
- Smith, M., & Wilhelm, J. D. (2004, March). 'I just like being good at it': The importance of competence in the literate lives of young men. *Journal of Adolescent & Adult Literacy, 47*(6), 454–461.
- Soderman, A. K., Gregory, K. M., & O'Neill, L. (1999). *Scaffolding emergent literacy: A child-centered approach for preschool through grade 5*. Boston: Allyn & Bacon.
- Soderman, A. K., Gregory, K. M., & McCarty, L. I. (2004). *Scaffolding emergent literacy: C child-centered approach for preschool through grade 5* (2nd ed.). Boston: Allyn & Bacon.
- Speech Communication Association. (date) *SCA Report on Sophomore Competences: Communication is life, essential college sophomore speaking and listening competencies* (Task force report). Annandale, VA: Author.
- Spender, D. (1985). *Man made language*. London: Routledge & Kegan Paul, 2nd ed.
- Spitzberg, B. H. (1987). Issues in the study of communicative competence. In B. Dervin & M. J. Voigt, (Eds.). *Progress in Communication Sciences* (Vol. 8, pp. 1–45). Norwood, NJ: Ablex.
- Stewart, L. P., Cooper, P. J., & Stewart, A. D., with Friedley, S. (2003). *Communication and gender* (4th ed.). Boston: Allyn & Bacon.
- Stone, P. (1996). Ghettoized and marginalized: The coverage of racial and ethnic groups in introductory sociology texts. *Teaching Sociology, 24*, 356–363.
- Stump, R. W., & Selz, N. (1982). Basic skills for the world of work. In L. R. & S. Ward, *Basic Skills Issues and Choices: Issues in Basic Skills Planning and Instruction*. St. Louis: CEMREL, Inc.
- Sunderland, J. (1996, October). *Girls and boys or just a class of individuals?: An illustration of gendered diversity*. Paper presented at annual meeting of the Organization for the Study of Communication, Language and Gender. Tempe, AZ.
- Swanson, D. (1992). Review of Media Matter: TV Use in Childhood and Adolescence. [Review of the book *Media Matter: TV Use in Childhood and Adolescence*]. *Communication Theory, 2*, 87–90.
- Tannen, D. (1990). *You just don't understand: Women and men in conversation*. New York: William Morrow.
- Tannen, D. (Ed.). (1993). *Gender and conversational interaction*. New York: Oxford University Press.
- Tannen, D. (1994). *Talking from 9 to 5: How women's and men's conversational styles affect who gets heard, who gets credit, and what gets done at work*. New York: William Morrow.
- Taps, J., & Martin, P. J. (1990). Gender composition, attributional accounts and women's influence and likeability in task groups. *Small Group Research, 21*, 471–491.
- Taylor, A., & Beinstein Miller, J. (1994, April). Gender diversity: Conceptions of femininity and masculinity. Paper presented at the Berkeley Women and Language Conference, Berkeley, CA.
- Taylor, D. L. (2004/2005, December/January). 'Not just boring stories': Reconsidering the gender gap for boys. *Journal of Adolescent & Adult Literacy, 48*(4), 291–298.
- Tetenbaum, T., & Pearson, J. (1989). The voices in children's literature: The impact of gender on the moral decisions of storybook characters. *Sex Roles, 20*, 381–395.
- Thorne, B. (1993). *Gender play: Boys and girls in school*. New Brunswick, NJ: Rutgers University Press.
- Thorne, B., Henley, N., & Kramarae, C. (1983). *Language, gender and society*. Rowley, MA: Newbury House.
- Thornton, M., & Brichenco, P. (2002, September). *Staff gender balance in primary schools*. Paper presented at the British Educational Research Association Annual Conference, Exeter, UK: University of Exeter.
- Tuijnman, A. (2000). *Benchmarking adult literacy in America: An international comparative study*, (Statistics Canada, 2000), from: <http://www.edpubs.org/>
- Turner, L. H., & Sterk, H. M. (Eds.). (1994). *Differences that make a difference: Examining the assumptions in gender research*. Westport, CN: Bergin & Garvey.
- U.S. Department of Education. (2005). *FY 2002–2004 Biennial Report to Congress on the Implementation of NCLB, Title III, the State For-*

- mula Grant Program*. Washington, DC: Author. Retrieved March 31, 2005, from <http://www.ncela.gwu.edu/oela/biennial05/index.htm>.
- Van Horn, C. (1995). *Enhancing the connection between higher education and the workplace: A survey of employers*. Denver: State Higher Education Executive Officers (SHEEO). (Funded by the U.S. Department of Education/OERI).
- Venezky, R. L., Kaestle, C. F., & Sum, A. (1987). *The Subtle Danger: Reflections on the Literacy Abilities of America's Young Adults*. Princeton, NJ: Educational Testing Service.
- Vonnegut, K. S. (1992). Listening for women's voices: Revisioning courses in American public address. *Communication Education*, 41, 26–40.
- Warner, N., Ahlers, J., Bilmes, L., Oliver, M., Wertheim, S., & Melinda Chen, M. (Eds.). (1996). *Gender and belief systems: Proceedings of the fourth Berkeley women and language conference, April 19–20, 1996*. Berkeley, CA: Berkeley Women and Language Group.
- West, C. (1995). Women's competence in conversation. *Discourse & Society*, 6(1), 107–131.
- West, C., & Zimmerman, D. H. (1983). Small insults: A study of interruptions in cross-sex conversations between unacquainted persons. In B. Thorne, C. Kramarae, & N. Henley (Eds.), *Language, gender and society* (pp. 102–117). Rowley, MA: Newbury House.
- Wittmann, W. W. (1988). Multivariate reliability theory: Principles of symmetry and successful validation strategies. In J. R. Nesselroade & R. B. Cattell (Eds.), *Handbook of multivariate experimental psychology* (2nd ed., pp. 505–560). New York: Plenum.
- Wittmann, W. W. (2004, October). *Brunswick-symmetry: A key concept for successful assessment in education and elsewhere*. Paper presented at the Fourth Spearman Conference, Philadelphia.
- Wittmann, W. W., & Süß, H.-M. (1999). Investigating the paths between working memory, intelligence, knowledge, and complex problem-solving performances via Brunswick symmetry. In P. L. Ackerman, P. C. Kyllonen, & R. D. Roberts (Eds.), *Learning and individual differences: Process, traits, and content determinants* (pp. 77–108). Washington, DC: American Psychological Association.
- Wood, J. T. (1994). *Who cares: Women, care and culture*. Carbondale, IL: Southern Illinois University Press.
- Wood, J. T. (2005). *Gendered lives: Communication, gender and culture*. Belmont, CA: Wadsworth.
- Wood, J. T., & Inman, C. C. (1993). In a different mode: Masculine styles of communicating closeness. *Journal of Applied Communication*, 21, 279–295.
- Wooten, B. (2004). Examining how masculinity affects journalism. In R. R. Rush, C. E. Oukrop, & P. Creedon (Eds.), *The Search for Equity: Women in Journalism and Mass Communication Education* (pp. 129–148). Mahwah, N.J.: Erlbaum.
- Younger, M., Warrington, M., Gray, J., Rudduck, J., McLellan, R., Bearne, E., et al. (2005). *Raising Boys' Achievement*. University of Cambridge, Faculty of Education. Retrieved (June 20, 2006), from <http://www.standards.dfes.gov.uk/genderandachievement/>