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ABSTRACT

Research has demonstrated differences in the ways in which males and females communicate both in speech and in writing. A study extended previous research on gender differences in written communication to adults. Follow-up questionnaires were mailed to 277 people who had completed teacher preparation programs at the University of Tennessee. There was a 71% return rate--149 females and 48 males responded. Students were asked open-ended questions about the strengths and weaknesses of the program. Responses were examined for length, style, ownership (of ideas, etc., as expressed by "I," "me," and so on), abbreviations, completeness of response, solution (proposed for program weaknesses), and program satisfaction. Females tended to write longer, more formal responses, to use ownership terms, and to feel obligated to respond to survey items. No significant differences between males and females were found in the use of symbols and abbreviations or in the offering of solutions to weaknesses. The study was unique in that it was based on the written communication of college graduates in a voluntary task. Differences in findings from those of other studies may be due to the experience and education of the participants. (Two tables of data are included.) (SG)

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Let's See Them in Writing**

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GENDER DIFFERENCES: LET'S SEE THEM IN WRITING

Introduction

Differences between males and females in the nature of their verbal communication have been documented. According to Schaeff (1981), "In the White Male System, the purpose of communication is often to confuse, win, and stay one-up. In the Female System, the purpose of communication is to bridge (a term women often use), understand, and be understood" (p. 134).

Deborah Tannen's recent best-selling book (1990) pointed out several differences between males and females in their styles of communication, again focusing on spoken language. Males were characterized by "report talk" whereas females were more likely to engage in "rapport talk." Tannen supports Schaeff's contention that males seek to establish status (usually superiority or one-up position) in conversation whereas females are comfortable sharing on an equal footing. Males, when presented with a problem situation, tend to offer a solution; females, on the other hand, seek and offer understanding.

Previous research findings cited by Mulac, Studley and Blau (1990) and that presented in a much more extensive but earlier review by Kramarae, Thorne, & Henley (1983) show that the majority of research and findings of gender-linked language effects have been based on spoken rather than written communication.

Mulac, Studley and Blau (1990) selected 19 variables, all but one of which had been shown to differentiate between males and females in previous research, for study in written essays. Few of the variables, however, had been previously investigated in written communication. The data for their study were transcripts of impromptu essays written by students in grades four, eight, and twelve. Some of the variables they studied were related to sentence construction and correctness (rhetorical questions, sentence initial adverbials, relative clauses, coordination conjunctions, subordinating conjunctions, and grammatical errors), while others indicated linguistic style (mean sentence length,

oppositions, judgmental phrases, action verbs, uncertain verbs, progressive verbs, hedges/softeners, intensive adverbs, justifiers, references to emotion, references to quantity or place, fillers, and contractions). Gender differences were found at all three grade levels, but a different set of language variables differentiated between genders for each grade-level group.

Deming and Gowen (1990) compared two sets of essays written by male and female junior college students in basic writing. They found little difference between groups in length of the essays. Females used slightly more pronouns than males, but males used the second person pronoun "you" more often than females. When writing about a reflexive topic, one geared to personal experiences (e.g., "Discuss how well you were able to make friends in school earlier in your life. How much did your friends help you enjoy going to school?"), males offered advice more than twice as frequently as females. When an extensive, more formal and public (e.g., "Discuss the importance of making friends in school. How important is friendship in education?"), topic was used, the rate at which males gave advice dropped only slightly while that for females increased almost 400% so that it was twice that of the males.

The previous findings cited by Mulac, Studley and Blau (1990), as well as their own study, drew on written essays from students at various levels ranging from primary grades to university. When students are directed to produce a written assignment, it is expected that they would use a formal writing style (sentences) and that they would complete the assignment. Males have been found to have a negative attitude toward writing, which has been linked to poor writing performance (White, 1986). If the situation were less structured, or if they were given a choice, it is possible that males would choose either to write in a less formal style or to not respond at all.

Survey researchers are familiar with the "foot in the door" concept (Hansen & Robinson, 1980). The essence of this approach is to present the potential respondents with small initial requests that they can fulfill easily and quickly, thus they are

encouraged to begin responding. Once they have started the interview or questionnaire, there is a likelihood that they will continue. The implication is that the longer individuals continue to respond to items on the questionnaire, constantly increasing the time invested in completing the task, the greater their commitment to completing the process. In the case of a questionnaire in this study, this would mean that by the time respondents had completed all but the final two items, they would be likely to finish them as well because of the time already invested, even if they evaluated the program either very positively or very negatively.

The present study extends previous research on gender differences in written communication to adults. It also introduces the element of choice in responding in that participants were free to choose whether or not to write a response. Educational level is controlled in that those in the study are all college graduates..

The objective of this study was to determine if there were gender differences in adult written responses. Specific questions to be addressed included the following:

1. Would female responses be longer in an attempt to establish rapport?
2. Would female responses be more explicit and formal by using sentences?
3. Would females be more likely to show ownership in their responses with use of first person singular pronouns and first person singular possessive adjectives?
4. Would female responses include fewer abbreviations and symbols that would serve to expedite the activity?
5. Would male responses be more likely to include solutions when listing weaknesses in their program?.
6. Would males be less likely to submit written responses when such responses were optional?
7. Is the extent to which individuals respond (response length) more closely related to feelings about the program (explaining strengths if the program were evaluated

positively, weaknesses if the program were evaluated negatively) or to task completion (writing about both strengths and weaknesses to the same extent)?

Method

Data Sources

In the fall of 1990, follow-up survey questionnaires were mailed to 277 individuals who had completed initial teacher preparation programs at The University of Tennessee during the previous year. The follow-up questionnaire contained the following two open-ended questions on the back page of the questionnaire booklet: "What were the major strengths of your teacher preparation program?" and "What were the major weaknesses of your teacher preparation program?" A space 7 inches wide by 2 1/2 inches high was allowed for the respondent to answer each question. These were the only items on page 8 of the booklet.

Student responses to the following questions from the follow-up survey were also available: "In general, how satisfied are you with your teacher preparation program at UTK?" (responses were recorded on a scale from 1, very dissatisfied, to 10, very satisfied), and "How satisfied are you with your present employment situation?" (response options were 1, very satisfied; 2, somewhat satisfied; 3, somewhat dissatisfied; and 4, very dissatisfied). Follow-up survey responses regarding employment were recoded into either 1. teacher in public or private school or 2. other. Occupations of substitute teacher, aide, interim teacher, and teacher in post-secondary or another setting were classified as other. Percentile scores on the National Teachers Examination core battery and gender were obtained from student records.

Characteristics of Respondents

Questionnaires were returned by 149 females and 48 males as part of an overall 71% return rate. Responses from these questionnaires provided the data for this study. Males and females did not differ on age ($t = .11, p = .915$) or satisfaction with their teacher preparation program ($t = .02, p = .981$). There was no difference between groups in the

proportion of each group employed as teachers ($X^2 = .54$, $df = 1$, $p = .543$). Mann-Whitney tests also found no significant gender differences in job satisfaction ($U = 3023$, $z = .27$, $p = .785$), or on communication skills ($U = 2904$, $z = 1.44$, $p = .149$), or professional knowledge ($U = 2900$, $z = 1.46$, $p = .146$) as measured by the National Teachers Examination (NTE). Males did, however, significantly outperform females on the general knowledge test of the NTE ($U = 227$, $z = 3.36$, $p = .0008$).

Variables

Five variables were studied in the open-ended responses of both strengths and weaknesses, and a sixth variable (solution) was examined in listings of weaknesses only. Teacher preparation program satisfaction ratings from another questionnaire item were also used.

1. **Length** (number of words in the response). It is theorized that "report" responses, ascribed to males, would be shorter than the "rapport" responses of females. If males also have a more negative attitude toward writing, they would be less likely to compose long responses than females.

2. **Style**. A response consisting totally of sentences was assigned a code of "s." If a response included no complete sentences, the "p" coding was used to indicate phrases only. A "m" code represented responses containing both sentences and phrases. Punctuation and other grammatical errors were not coded.

3. **Ownership**. A response was coded "1" if it contained one or more words indicating ownership of the idea, sentiment, or experience ("I," "me," "my," or "mine). It was coded "0" if did not include any of the ownership terms.

4. **Abbreviations**. The response was coded "1" for abbreviations if the writer used one or more abbreviations or symbols. Abbreviations included the following: w (for with), b/c (because), &, dept., yrs., exp., lang., mgmt., +, =, reg. ed., bus. ed., @, psych., sem., CP&P, prof., s. studies, ex., sp. ed., ->. Acceptable shortcuts that were not coded as

abbreviations included LD (learning disabled), IEP (individualized education program), C&I, curriculum and instruction, etc., and use of arabic numbers (1, 4, etc.).

5. **Response.** A response code was assigned each individual to indicate whether they had responded with both strengths and weaknesses, responded with strengths only, responded with weaknesses only, or did not respond with either strengths or weaknesses.

6. **Solution.** In addition, responses under weaknesses were coded to indicate whether or not they included a solution, implied by the following terms: should (have), would/could have been better/helpful, needed, advice/advise, recommend, wish (I'd had).

7. **Program Satisfaction.** Respondents were asked to respond to the following question: "In general, how satisfied are you with your teacher preparation program at UTK?" Numbers from 1 through 10 were provided with the poles labeled as "Very Dissatisfied" (1) and "Very Satisfied" (10). Respondents were directed to circle a number to indicate the level of their satisfaction.

Procedures

Identification numbers for the survey were assigned alphabetically by graduates' last names within programs. All open-ended responses were typed from the questionnaires in numeric order by identification number. There was no identification of the sex of the writer on the typed lists.

After discussing and defining the variables and their indicators, two researchers independently coded the comments by using highlighters to indicate ownership, abbreviations, and solutions. Codings for structure were written in the margin. Length was established by using the "word count" utility in the Microsoft Word word processing software for the Macintosh. One type of correction was made to deduct from the word count numbers attached to listings of items (1, 2, etc.).

After coding the lists of responses, the researchers compared their codings and discussed items on which the codings differed. Differences in codings were resolved by

further clarification and definition of the variables, resulting in the definitions and examples that are provided.

Individuals at times supplied inappropriate responses. Two responses were written under the heading of weaknesses but indicated strengths of the program or that the individual did not perceive any weaknesses. Two individuals also wrote inappropriate responses under the heading of strengths. These responses were included in the study because they were part of the commitment or predisposition to complete and because it was possible to examine them for the stylistic features that were being studied with the exception of offering solutions.

Analysis

Independent t-tests were used to compare males and females on age, length of comments, and teacher education program satisfaction. Mann-Whitney tests were used to compare male and female percentile scores on the National Teachers Examination core battery tests for general knowledge, communication skills, and professional knowledge. A Mann-Whitney test was also used for comparison of the four-point ratings for job satisfaction. Chi-square tests were used for categorical variables of comment writing, sentence structure, personalization, abbreviations, and solutions. Pearson correlations were used to assess the relationships between response lengths and program satisfaction.

Results

In comparing response length (see Table 1), the difference between males and females in response length was significant for strengths ($t = 3.12$, $p = .003$) but not for weaknesses ($t = 1.33$, $p = .19$). In both situations, females wrote longer responses. Both males and females wrote longer responses for weaknesses than for strengths.

Females tended to write in more formal style (using sentences) for both strengths and weaknesses than did males, while males were more likely to use phrases only (see Table 2). The difference was not significant for strengths ($X^2 = 4.63$, $df = 2$, $p = .099$) and only marginally significant for weaknesses ($X^2 = 8.33$, $df = 2$, $p = .016$), although the

Table 1
Average Response Length in Words

Question	Males	Females
Strengths	15	25
Weaknesses	33	40

percentage of females using sentence style was almost twice that of males for both strengths and weaknesses.

Ownership, the use of first person singular pronouns and/or possessive adjectives, was more characteristic of females than males, but the difference was statistically significant only in descriptions of weaknesses ($X^2 = 7.62$, $df = 1$, $p = .006$). A reverse, but less pronounced, pattern was found in the use of abbreviations and symbols, with differences being more obvious in writings about strengths ($X^2 = 4.70$, $df = 1$, $p = .030$). When writing about weaknesses, the two groups were very similar in the use of shortcuts in their writing. Females were fairly consistent, with almost the same percentages writing about strengths and weaknesses. The percentage of males writing about weaknesses, however, was more than double the percentage who wrote about strengths.

There was little difference between groups in the extent to which they offered solutions in their descriptions of program weaknesses.

Because of low expected cell frequencies, the "strengths only" and "weaknesses only" responding categories were collapsed when comparing groups on the extent to which they wrote responses. Although the percentage of males electing not to respond to either of the open-ended items was more than twice the percentage of females, the difference was not statistically significant ($X^2 = 5.41$, $df = 2$, $p = .067$).

Table 2
Characteristics of Male and Female Responses to Open-Ended Questions

Variable	Males		Females	
	n	%	n	%
Response style - Strengths				
Sentences	8	23%	52	40%
Phrases	22	63%	56	43%
Mixed	5	14%	22	17%
Response style - Weaknesses				
Sentences	9	27%	60	50%
Phrases	15	44%	26	22%
Mixed	10	29%	35	29%
Included ownership - Strengths	10	29%	60	46%
Included ownership - Weaknesses	10	29%	68	56%
Included abbreviation(s) - Strengths	5	14%	43	33%
Included abbreviation(s) - Weaknesses	12	35%	46	38%
Included solution	13	39%	51	43%
Wrote responses				
Responded to both	33	69%	119	80%
Listed strengths only ^a	2	4%	11	7%
Listed weaknesses only ^a	1	2%	2	1%
Listed neither	12	25%	17	11%

^aCategories collapsed for analysis.

Pearson correlations showed a stronger relationship between lengths of responses for strengths and weaknesses ($r = .50$, $N = 197$) than between either length of strengths response and program satisfaction ($r = .17$, $N = 183$) or length of weakness response and

program satisfaction ($r = -.19$, $N = 183$). When non responses (response length = 0) were excluded from the analyses, the results were very similar: strengths and weaknesses, $r = .52$, $N = 152$; strengths and satisfaction, $r = .21$, $N = 154$; weaknesses and satisfaction, $r = -.14$, $N = 147$.

Discussion

Males and females did not differ significantly on communication skills as measured by the National Teachers Examination, but there were differences in their written communication. In comparing the results of this study to previous research, differences in population and task must be considered. Participants in this study were all college graduates, whereas previous research has been done with students who were in school at various levels. Deming and Gowen (1990), for example, used writing samples from students in basic or developmental writing classes. Previous studies of written language have been done most frequently using student essays that were written to meet class requirements. Under this condition, students did not have a choice of writing or not writing. It was also expected that they would attempt to write in a formal style, using sentences and avoiding symbols and unacceptable abbreviations. The present study imposed no such restrictions on the writers. While the reflexive topics in the Deming and Gowen study focused on personal experience and asked how the writer had behaved or reacted, the present study asked about the strengths and weaknesses of the teacher education program of the individual, not specifically about the reactions of the individual.

Females tended to write longer responses under both headings, strengths and weaknesses. This may lend support to the idea expressed by Schaefer (1981) and Tannen (1990) that females seek understanding through communication. Longer responses are used to make themselves clearly understood. Females also used sentences when writing about both strengths and weaknesses more characteristically than males. Sentences convey complete thoughts. The difference in style of expression, sentences versus

phrases, has not been investigated before because of the more formal tasks used to provide writing samples for previous studies.

Females were more likely than males to use first person singular pronouns and possessive adjectives, indicating ownership, in their responses. The difference was significant in descriptions of weaknesses, with almost twice the percentage of females using such pronouns and adjectives as males. Deming and Gowen (1990) found a slight difference, favoring females, in the number of pronouns used. The Deming and Gowen writing samples were from a different population, and the initial topics that were used (reflexive) were intended to elicit subjective responses. The less structured task in the present study provided more opportunity for individual variation and choice in whether or not to express comments in personal terms. This greater preference on the part of females for interjecting themselves into their comments may be another sign of "rapport" rather than objective "report" communication described by Tannen (1990).

Males and females did not differ significantly in their use of symbols and abbreviations. These results are indicative of those found by Mulac, Studley, and Blau (1990) when they introduced the use of contractions as a possible variable in gender-linked language differences. Use of contractions was found to be a predictor variable for eighth grade students but not for twelfth graders.

Contrary to the findings of Deming and Gowen (1990), males and females in the present study were almost equally likely to offer advice or solutions regarding weaknesses. This implications of this particular finding seem unclear. Tannen (1990) indicated that offering solutions was more characteristic of males. Deming and Gowen found conflicting results in the number of advice-giving examples offered by males and females depending on the topic: males offered more advice in reflexive essays, less in extensive essays. Their study, however, utilized counts of the numbers of solutions offered, rather than whether or not a solution was offered (as was done in the present

study). Age and educational level of the writers in this study may have some bearing on the results, but this cannot be determined at the present time.

Females felt a stronger sense of obligation to respond to the items, and to respond to both strengths and weaknesses. Attitude has been linked to writing performance at other levels (White, 1986), with males having more negative attitudes and lower writing performance scores. Males and females in the present study did not differ in communication skills. It might have been assumed that their attitudes toward writing also did not differ and that the groups would be similarly predisposed to respond. The percentage of males who chose not to respond to either strengths or weaknesses, however, was twice that of females. The tendency to respond, then, cannot, be linked to writing ability.

Perceiving the description of strengths or weaknesses as an attempt to make oneself better understood by explaining a high or low rating of program satisfaction is belied by the low correlations between program ratings and length of comments. Instead, a stronger relationship exists between lengths of the two responses. This would tend to support the "foot in the door" concept that if a person has responded to previous items, the individual will complete the questionnaire.

If there is a commitment to complete the questionnaire because of the "foot in the door" advantage established through responding to earlier parts of the questionnaire, the commitment does not motivate males and females equally. Another dimension of completion, however, must be considered. If completion means responding to both, rather than only one, of the open-ended items. Survey researchers examining such responses need to beware placing equal weight on the strengths and weaknesses that are listed. If a person rates a program strongly and responds in equal detail about both strengths and weaknesses, the comments in opposition to the program rating are provided more from a sense of obligation than from true sentiments about the program.

Summary

The findings of this study have provided a new dimension to those of previous research. There is support for the idea that among college graduates with similar communication skills, females use written communication as a means of establishing rapport more than males. In a voluntary, relatively unstructured task, females tend to write longer responses and to express themselves by complete thoughts (sentences). Females are also more likely to use first person singular pronouns and first person singular possessive adjectives. There is no support in this situation for gender differences in offering solutions to described program weaknesses. The length of the open-ended responses describing weaknesses and strengths are more closely related to each other than they are to ratings of program satisfaction.

This study was unique in that it was based on written communication of college graduates in a voluntary task. Differences in findings from those of other studies may be due to experience and education of the participants.

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