

Speaking and Listening Apprehension: A Study of College of Agriculture Students

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Abstract

This study concerns speaking and listening apprehension, speaking skills, and oral communication knowledge for College of Agriculture students. The results reveal significant differences between males and females on several speaking and listening items, positive correlations between speaking and listening apprehension, and negative correlations between apprehension areas and cognitive skills and between apprehension areas and psycho-motor skills.

In 1970 McCroskey developed the Personal Report of Communication Apprehension instrument (PRCA). The instrument consists of twenty items that focus on fear of social disapproval in public speaking, and group communication situations. Approximately fifty studies have determined the apprehension levels of students representing various educational levels and of adult groups. These studies concerned the person as a communicator and emphasized the importance of lowering anxiety in public speaking and interpersonal communication situations. Approximately 20 to 30 percent of the adult population and college students suffer from debilitating speech anxiety.²

In 1974 Wheelless developed the Receiver Apprehension Test (RAT) to determine differences among listeners at the college level. The RAT consists of twenty items that focus on fear of misinterpreting, decoding messages, and psychologically adjusting to messages. The study revealed that listeners experienced a limited amount of receiver apprehension. Since the average student spends approximately 40 percent of his communication time in listening, receiver apprehension should concern all teachers.³

A Serious Problem

High levels of speaking and listening apprehension are serious problems for a substantial percentage of college students. The most obvious classes in which oral communication and listening apprehension occur are courses such as public speaking, interpersonal communication, and listening. But this can also be true in agriculture courses in which speaking is required or mass lectures are presented. For example, McCroskey and Andersen found that communication students who were highly apprehensive scored significantly lower than less apprehensive students on each section of the American College Test (ACT), had lower grade point averages across courses, but found no relationship between apprehension and achievement in a mass lecture course.⁴

Scott and Wheelless discovered that students who experienced levels of communication apprehension received lower scores on objective tests and instructor-evaluated written projects in small college classes.⁵

The literature indicates that past researchers used composite scores on apprehension tests to determine whether students experience speech and/or receiver apprehension. The composite scores fail to reveal in which situations students are most apprehensive. An analysis of each item may reveal that students with identical composite scores are apprehensive in different situations. For example, subject A may be highly apprehensive in public speaking situations while subject B may be highly apprehensive in interpersonal communication situations. This study attempts to determine in which communication situations College of Agriculture students are apprehensive and if males and females differ significantly on each item of the PRCA and the RAT. The study also uses the PRCA and RAT to determine the relationship between speaking and listening apprehension for males, females, and the composite group, and to determine relationships between apprehensive areas, speaking skill, and knowledge areas.

The null Hypotheses are:

1. There will be no differences between the means of males and females from the College of Agriculture on each item and on composite scores of the pretest, post-test, and gain scores of the PRCA and the RAT.
2. There will be no relationships between composite PRCA scores and RAT scores of the pretest and post-test for the composite group and for males and females.
3. There will be no relationship between composite PRCA scores and Speaking Skill Test scores, between PRCA scores and Communication Competency Test scores, between RAT scores and Speaking Skill Test scores, and between RAT scores and Communication Competency scores.

Procedures

The sample consisted of four intact public speaking classes (30 males and 38 females) at the University of Minnesota, St. Paul. Public speaking is a required course for all College of Agriculture students. A pretest/posttest de-

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sign was used to determine differences between males and females on the PRCA and RAT. Although no control group was used in this study, previous research over the past three years indicates no significant differences among groups who were administered only the pretest and the four intact groups used in this study. Likewise, there were no significant differences between previous groups who were administered the posttest and the posttest scores of the four intact groups. Both the PRCA and the RAT consist of five-point Likert scales from strongly disagree to strongly agree. Students were instructed to rate items in reference to academic activities in the College of Agriculture. In previous research, McCroskey and Wheelless utilized factor analysis with varimax rotation to confirm the reliability and validity of the instruments. The composite Speaking Skill Test scores (SST) were determined by adding the four major speech grades, and the Communication Competency Test scores (CCT) were determined by students' grades on the final test. Item analysis was used to determine the validity of test items.

Several controls were employed for sources of internal validity. First, a 2 x 2 Latin square design controlled for differential transfer or testing effects. In addition, students completed the same speaking assignments, listened to the same materials presented by the same instructor, and were administered the same cognitive test. These factors controlled for intrasession history and instrumentation. Campbell and Stanley suggest that intact classroom units be used to control for reactive arrangement.⁶ The time that classes met was the only confounding variable that was not controlled. *Post hoc* analysis, however, revealed that no significant differences occurred among groups on dependent measures.

Chi Square analysis was completed on each item of the PRCA and RAT to determine differences between males and females.⁷ T-tests determined differences between males and females on composite PRCA and RAT pretest scores, posttest and gain scores, and differences between males and females on CCT scores and SST scores. Correlational analysis determined the relationship between PRCA and RAT scores for males, females, and the composite group and on the CCT and SST scores.

Results

Students were most apprehensive on the following items:

1. I look forward to expressing my opinions at meetings.
2. While participating in a conversation with a new acquaintance I feel very nervous.
3. I look forward to the opportunity to speak in public.
4. I feel that I am more fluent when talking to people than most other people.
5. I feel self-conscious when I am called upon to answer a question or give an opinion in class.

6. I face the prospect of making a speech with complete confidence.
7. I would enjoy presenting a speech on local television.

Although no significant differences existed between males and females on composite scores for the PRCA and RAT, significant differences did occur on specific items for both measures. These differences point out the importance of doing an inductive analysis.

Chi Square analysis on each item revealed that males were significantly ($P < .05$) more apprehensive on the following:

1. While participating in a conversation I feel very nervous.
2. I find the prospect of speaking mildly pleasant.
3. When communicating my posture feels strained and unnatural.
4. Conversing with people who hold positions of authority causes me to be fearful and tense.
5. I dislike to use my body and voice expressively.
6. I face the prospect of making a speech with complete confidence.

Females were significantly ($P < .05$) more apprehensive on the following:

1. I have no fear of facing an audience.
2. I feel that I am more fluent when talking to people than most other people are.
3. I feel self-conscious when I am called upon to answer a question or give an opinion in class.

Males were significantly ($P < .05$) more apprehensive on the following:

1. I feel comfortable when listening on the phone.
2. It is often difficult for me to concentrate on what others are saying.
3. I would rather not have to listen to other people at all.
4. I often have difficulty in concentrating on what others are saying.
5. I have difficulty in concentrating on instructions others give me.

Females were significantly ($P < .05$) more apprehensive on the following:

1. When listening to members of the opposite sex, I find it easy to concentrate on what is being said.
2. I am generally overexcited and rattled when others are speaking to me.
3. Watching television makes me nervous.
4. Television programs that attempt to change my mind about something make me nervous.

Overall, College of Agriculture students are somewhat more apprehensive than the general college population. Previous research by McCroskey shows the grand mean for general college students is approximately 3

points lower than the results obtained for College of Agriculture students in this study.⁸

The correlational results reported in Table 1 reveal significant relationships between the pretest PRCA scores and RAT scores and between the posttest PRCA scores and RAT scores for the 68 participants. For the female group significant correlations also occurred for both between PRCA and RAT pretest scores and between PRCA and RAT posttest scores. For the male group, however, a significant correlation occurred only between PRCA and RAT pretest scores. Significant negative correlations occurred between posttest PRCA scores and Communication Competency Test scores, between PRCA scores and Speaking Skill Test scores, between posttest RAT scores and Communication Competency Test scores, and between RAT scores and Speaking Skill Test scores for all groups. These results reveal that students who are apprehensive in speaking and listening score lower in the written tests and on speeches.

TABLE 1. Correlation Analysis for College of Agriculture Students

Variables	Males		Females		Composite	
	Pre	Post	Pre	Post	Pre	Post
PRCA/RAT	.39*	.20	.41*	.34*	.37*	.28*
PRCA/SST	-.34*	-.45*	-.38*	-.39*	-.37*	-.42*
RAT/CCT	-.42*	-.37*	-.45*	-.45*	-.44*	-.42*

*Significant at the .05 level

PRCA - Personal Report of Communication Apprehension
 RAT - Receiver Apprehension Test
 SST - Speaking Skill Test
 CCT - Communication Competency Test

Discussion

These results reveal that males and females respond differently to various PRCA and RAT items. Because these tests focus on a variety of areas causing speaking and listening apprehension and because the number of items in each area is limited, further testing is needed. Tests should be designed for each communication situation before any definitive statements can be made about specific sources of apprehension for College of Agriculture students. Teachers from various disciplines of agriculture can help design tests to determine specific sources of apprehension that may be unique to specific disciplines. For example, research may uncover that students majoring in agriculture business are less apprehensive than students majoring in agronomy. Other personality tests might be administered to determine the relationship among PRCA scores, RAT scores, self-concept scores, and self-esteem scores.

With these limitations in mind, however, the PRCA results indicate differences between males and females. Males generally were more apprehensive on public speaking items whereas females were apprehensive on interpersonal items. Females experienced more pre-speech

anxiety, and males experienced more anxiety during speeches. Although significant differences occurred between male and female groups, the within-group variance on items was considerably higher than the between-group variance, thus limiting the generalizability of the results. In a debriefing session males indicated that they enjoyed talking in class, but females revealed that they did not enjoy communicating in classes where males outnumbered them.

An interpretation of the listening results substantiates that significant differences exist between males and females on a number of items. Males are more anxious than females when listening as a member of an audience and find it more difficult to concentrate on instructions, ideas, and new information. Females feel more nervous than males when listening to males, watching television, and feel more tense at social gatherings. Other results revealed that areas of apprehension correlate negatively with learning and performance. The less apprehensive students did considerably better on the Communication Competency Test and Speaking Skill Test. The high negative correlation between cognitive skills and apprehension seems to indicate that apprehension creates a barrier to learning. These conclusions, however, should be viewed with caution as inadequate data exists to assume causation.

Based on the results, future research is needed to understand better the concepts of speaker and receiver apprehension of College of Agriculture students. The following suggestions may be used to guide research. Additional tests that focus on the specific communication areas can be developed and validated to obtain more reliable data about specific areas of anxiety. Biographical information can be gathered to develop profiles of students with different types of communication anxiety to determine if predictors of particular types of apprehension exist. For example, researchers have determined that whether students grew up in an urban or rural environment, their academic major, number of brothers and sisters, educational level of parents, order of birth, etc. are factors in indexing types of apprehension.⁹ Teachers of communication may utilize this information to discover specific reasons why students are apprehensive. If students were administered apprehension tests during freshman week, they could be referred to communication laboratories to overcome specific communication fears and, perhaps, improve themselves both academically and emotionally.

If future research suggests that males and females from similar backgrounds experience the same types of apprehension, teachers can utilize the tests to discover specific needs of groups as well as individual students. Programs can be designed and tested to discover which are most effective in reducing specific anxieties. For example, the anxiety of a student who is apprehensive on items which relate to public speaking may not only arise from the communication situation but may also be related to the development of the self-concept, role of

peer conformity, and fear of being singled out for performance. Taking the developmental process into consideration, the teacher may introduce activities which foster a positive self-concept, as well as lower anxiety in various communication situations in agricultural classes.

Future research can explore further the relationship between speaker apprehension and receiver apprehension. Research also can focus on the relationship between listening apprehension and listening comprehension. Although research has been completed to increase listening apprehension. A study might be undertaken to discover if class size and teaching method affect comprehension.

Current alternatives to help students who are highly apprehensive when communicating include not evaluating oral contribution in the class, requiring no oral reports, avoiding calling on the apprehensive students in the class, and structuring the course so that students can obtain all necessary information without outside the classroom communication contact with either teacher or peers. While these suggestions might temporarily alleviate the communication problem, the real solution involves treatment. This researcher currently uses a systematic desensitization program to help lower apprehension in oral communication classes. The Department of Rhetoric also has a listening course available to students who wish to lower apprehension and increase comprehension.

A major concern expressed at the NACTA Convention in Winnipeg, 1978, was the continued improvement of teaching methods. Joseph Richter stated, "First I recommend that we build into the curriculum at the undergraduate and graduate level fundamental communication and education courses among electives, at least for students who gravitate toward university or other teaching functions. This would be similar to the learning-teaching courses indispensable for a degree for most students of a classical university."¹⁰ Methods to identify and to help the highly apprehensive student could be a vital part of the educational training of teachers at all educational levels. Speech communication teachers suggest that professional training of teachers should include instruction in the nature and effects of communication apprehension.

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