This pilot study examined the communication apprehension (CA) in the student public speaking population, specifically the high risk Mexican American students, at the University of Texas, Pan American. The study also measured the effectiveness of the beginning speech class and the optional speech lab on CA and grade performance. Both high and low communication apprehensives (CAs) improved their performances with the speech class to a significant degree. High CAs with high or moderate use of the speech lab raised performance levels, while those with no lab use showed no significant difference. Low CAs with high lab use also showed significant improvement. No significant differences were seen due to sex, ethnicity, bilingualism or first language on the baseline pretest. However, Hispanic students had a significant decrease in CA after treatment, while Anglos did not. Some differences were seen between male and female, as well as those whose first language was Spanish, with regard to performance increase. Findings suggest that other more complete and controlled studies need to be conducted in this area. (Twenty-eight references are attached.) (HB)
COMMUNICATION APPREHENSION

AND THE HISPANIC PUBLIC SPEAKING STUDENT

AT THE UNIVERSITY OF TEXAS -- PAN AMERICAN

by

Jan Courtney, Steve Liebowitz, Emy Fischer,

University of Texas -- Pan American

Edinburg, Texas

Presented at the Speech Communication Association Conference

Atlanta, Georgia

November 1, 1991
COMMUNICATION APPREHENSION AND THE HISPANIC PUBLIC SPEAKING STUDENT AT THE UNIVERSITY OF TEXAS--PAN AMERICAN
A Pilot Study Investigating the Use of an Optional Speech Lab

Abstract

The purpose of this pilot study was to examine Communication Apprehension (CA) in UT-PA student public speaking population, specifically the high risk Mexican-American student, and to measure the effectiveness of the beginning speech class and optional speech lab on CA and performance (grade).

Both high and low Communication Apprehensives (CAs) improved their performance with the speech class to a significant degree. High CAs lowered apprehension with the class but low CAs had no significant change.

High CAs with "high speech lab use" raised performance levels; as did those with "moderate use"; but "no lab" students showed no significant difference. Low CAs with "high lab" use showed a significant improvement in performance but none was noted with those of moderate or no use.

High CAs with high lab use had no significant change in CA levels; though those with moderate use had a drop in CA, but no significant difference was noted in high CAs with no lab use.

Unexpectedly there were no significant differences due to sex, ethnicity, bilingualism or first language on the baseline pretest (McCroskey's PRCA 20); but Hispanic students had a significant decrease in CA after treatment, Anglos did not. Males had significant performance increase on first and last performances, but females did not; and all had significant increases in performance but those speaking Spanish as a first language did not. ACT scores made no significant difference in either performance or CA.

Data indicates other more complete and controlled studies need to be conducted in this area.
COMMUNICATION APPREHENSION
AND THE HISPANIC PUBLIC SPEAKING STUDENT AT UT--PAN AMERICAN

/Background and Rational

The definitive study, *Language Anxiety* (Horwitz and Young, 1991), which includes John Daly's clearly focused review of the literature on Communication Apprehension (CA), and Ronald L. Applbaum's research on the Mexican American (MA) student in Rio Grande Valley, lays the groundwork for this study of CA in the beginning public speaking student at the University of Texas-Pan American (UTPA).

Applbaum's study of CA in the UTPA Mexican American student and that student's self-perceived low language competence and measured high Communication Apprehension indicates that a realistic self-assessment of his abilities and increased practice to improve his oral and written competence might lower his CA and raise his oral communication performance levels in the beginning fundamentals of speech course.

The present study does not replicate or make direct comparisons to Applbaum's study since there are dramatic differences both in the size of the population (Applbaum's 429 versus 50) and the situational context (a beginning psychology class with a lecture format versus an evaluated performance format).

The Population

UT-PA is located on the Texas-Mexico border and has the largest population of Hispanic students (83%) in the United States, according to the UTPA Admissions Records (Fact Book, 1990-92).

Spanish is frequently the first language and the students are often first generation US citizens as well as first generation college students.

For the most part, these students are from low income families and have to work, often 20-40 hours per week. Though the profile varies, a high percentage of this population is seriously "at risk" educationally. They enter college unprepared, require remedial classes, and are often language deficient in English and Spanish which is a handicap in all academic areas (based on UT-PA ACT Scores and grade point averages).

The English Department requires a score of 24 on the ACT in English to enter the freshmen level composition course and the mean score of the beginning freshman is 11-12. Some students in the beginning speech courses have scores as low as 6 & 7 (out of 36) on their composites due to the current open admissions policy.
Applbaum's study of 388 Mexican American and 41 Anglo students at UT-PA found that (1) CA in the dominant language was lower than in the second language across communication contexts; (2) CA levels increased as the measures moved from more informal, personal contexts to the more formal, less personal contexts; (3) women experienced more CA than men across situation on both languages; (4) subjects had higher CA levels than those of other previously tested Hispanic groups; (5) CA patterns were consistent with those of previously tested bilingual samples; (6) a significant relationship exists between CA and language proficiency in both English and Spanish and (7) CA levels for the Mexican-American students were higher than those of Anglo students and other minority students in the United States. (According to the Sociology Department, the average ACT Composite score in Social Science courses is 11 out of a possible 36.)

The study of CA, given this profile, is useful for three reasons: First, public speaking, alone, provokes anxiety (Yook, 1989). McCroskey's study of nearly 20,000 American students found that 15-20% were so highly apprehensive that their academic work was affected (1977). Second, Mexican-Americans are the fastest growing minority with the highest rate of "drop outs" and the lowest enrollment and graduation from post-secondary educational institutions (Kantrowitz & Rosado, 1991). High levels of CA can only exacerbate this trend.

Third, to maintain enrollment, schools must find ways of helping students overcome fears, increase proficiency, and stay in school. (Yook, 1989).

UT-PA has developed remedial courses in math, English, and reading; and the Learning Assistance Center, serving all academic areas, provides tutoring. No where on campus, however, is there an oral communications component per se.

In an attempt to fill this gap, in July of this year the following study on CA was undertaken as a pilot project, and a Speech Lab was set up in the Communication Department on an experimental basis.

Hypotheses

Hypothesis I: Students with high levels of Communication Apprehension (CA) who complete a speech class will improve their performance grade and lower their CA more than students with low CA who complete a speech class.

Hypothesis II: Students with high levels of Communication Apprehension (CA) who participate in a Speech Lab will increase their performance grade and lower their CA more than students with high levels of CA who do not participate in a speech lab.
Student Subjects

The Subjects tested were 50 students: 39 Mexican American, 9 Anglos, 1 Black, and 1 Polynesian; 21 were male, 29 female. All were enrolled in either a Fundamentals of Speech Communication or a Fundamentals of Oral Presentation course.

Pretest

These subjects completed a questionnaire (PRCA 20) (McCroskey 1970) during class time after an orientation lecture and non-graded speeches of self introduction in the first week of a five-week Summer Semester (June '91)

Assignments and Expectations

Following pre-testing each student began the first oral assignment which would be the procedure for all formal speeches: the preparation of a detailed typed outline following a prescribed pattern and with all steps and supporting materials labeled. The first speech was 3-4 minutes long, the last three 4-5.

The students were to practice out-loud five times prior to class performance. They were told to consider themselves "in Process" and told not to worry about "performing." "Reading" was not acceptable but they could look at their outlines if they got "lost."

Each student did oral and written critiques on one of his peers; and received both from his instructor on the outline preparation and presentation.

Oral Assignments:
Two informative and Two persuasive speeches were required, each speech allotted progressively more time with greater expectations of substance and style. Two Impromptu speeches on any current issue were interspersed among the formal presentations.

Students were assigned appropriate chapters in the text and the activity book throughout the five week semester comprised of 33 class hours. A review of an outside speaker using class criteria was also required. An objective test was given at the end of the term over the text material.

Lab Referrals

Students who were "prepared" but were having "problems" were referred to the lab and/or for a conference with the instructor. Students were told they could get "help" from the lab, to practice with a "speech buddy" from the class or at home, and to use the video to critique themselves. Since most of these students lab time was often impossible.
Attrition

It is not unusual for five to eight students in a class of 35-37 to drop out the first three weeks of the long term. Twelve subjects (with ACT composite scores of 8-11) dropped out, most before they completed their first speech. The twelve did not show up in the lab or seek help from the instructor. Two students at high risk utilized the available "help" and completed the course with marked improvements.

Measures

Two measurements of effectiveness were used: the level of Communication Apprehension as reported by a pre-test and post-test of McCroskey’s Personal Report of Communication Apprehension 20 (McCroskey, 1978) and the first and last oral presentation grades.

Results

Hypothesis I: Students with high levels of Communication Apprehension (PRCA score) who complete a speech class will improve their performance (grade) and lower their communication apprehension (PRCA score) more than students with low CA who complete a speech class.

Measures of Performance

Performance was measured by grades on the first and last speech. Points for grades were assigned on the usual 5-point scale: A=4, B=3, C=2, D=1, F=0. In general, the performance for the class increased from the first speech (mean=2.58) to the last speech (mean=3.52). These differences were statistically significant (t=−5.78, p<.001, directional).

Measures of Communication Apprehension

Hypothesis I predicts improved performance when communication anxiety is lessened. Communication Apprehension was measured by McCroskey’s PRCA 20, a 20 question, Likert attitude scale. Each question had five response categories, varying from strongly agree to strongly disagree. Possible anxiety scores could range from 20 to 100 with a potential midpoint of 60.

Performance Results

To compare performance in the low anxiety group (low CA) and the high anxiety group (high CA), the sample was split at the mean of the pretest CA scale (62.3). The low CA group was comprised of students scoring between 20-62 (N=25) on the pretest; the high, between 63-100 (N=25).
The hypothesized increase in performance, from the first speech (mean=2.52) to the last speech (mean=3.48), for the high pretest anxiety group, was attained at the .001 level of statistical significance (t=-4.71, p<.001, directional).

Although increased performance, from the first speech to the last speech, for the low pretest CA group was not predicted; it is logical to expect it since this group experienced low levels of anxiety. In fact, the low CA group exhibited increased performance from the first speech (mean=2.64) to the last speech (mean=3.56), and these differences were statistically significant (t=-3.57, p=.001, directional).

Apprehension Results

In general and for the class as a whole, there were decreases in communication anxiety, from the pretest CA (mean=62.34) to the posttest CA (mean=57.48). These differences reached statistical significance (t=3.42, p<.001, directional).

The second part of Hypothesis I predicted that students starting the semester with high CA levels would lower their CA levels by the end of the course. To test this hypothesis, once again the class was split at the pretest mean (62.34) into low pretest CA (20-62, N=25) and high pretest CA (63-100, N=25).

The findings support this part of Hypothesis I. The high pretest CA group (N=25) showed a statistically significant decrease (t=4.24, p<.001, directional) from the pretest (mean=73.36) to the posttest (mean=64.68). For the low pretest CA group, the differences between the pretest (mean=51.32) and the posttest (mean=50.28) were not statistically significant.

Hypothesis II: Students with high levels of Communication Apprehension (CA) who participate in a speech lab will increase their performance and lower their Communication Apprehension (CA) more than students with high levels of Communication Anxiety (CA) who do not participate in a speech lab.

Speech Lab Participation

Students spent an average of 90 minutes in the lab, but the median time was only 30 minutes. Forty-four percent did not use the lab, 28% spent between 10-120 minutes, and the remaining 28% spent between 150-600 minutes. For the 56% of the students who used the lab, the mean use was 168 minutes, and the median was 127 minutes.
Performance Results:

The first part of Hypothesis II predicts increased performance (higher grades) from the first speech to the last speech, for students with high communication anxiety (CA) who have participated in a speech lab. Students with high CA were those students scoring above the mean of 62.34 (N=25) on the 20-item, Likert, pretest CA scale.

For this high CA group, changes in CA from pretest to posttest were analyzed in terms of three levels of lab participation: none (zero minutes, N=9), moderate (minutes 1-149, N=9), and high (150-602 minutes, N=7).

There were statistically significant differences (t=-4.80, p<.002, directional) between the first speech (mean=2.28) and the last speech (mean=3.71) for the high CA group with high lab participation (150-602 minutes, N=7).

Statistical significance (t=-2.40, p<.022, directional) was also reached for the differences between first speech (mean=2.89) and last speech (mean=3.67) for the high CA group with moderate lab participation (1-149 minutes, N=9).

No statistically significant differences were obtained for the group with high CA and no lab minutes.

For low CA students, the only statistically significant increase in performance occurred in the low CA, high lab participation group (t=-2.98, p=.013, directional).

Communication Apprehension Results:

The second part of Hypothesis II predicts lower communication anxiety (CA) for students with high CA who participate in a speech lab.

Differences from pretest (mean=69.28) to posttest (mean=63.28) for students (N=7) with high CA and high lab time failed to achieve statistical significance.

Students (N=9) with high CA and moderate lab time (1-149 minutes) exhibited statistically significant differences (t=4.53, p=.001, directional) from pretest (mean=77.78) to posttest (mean=63.44).

Students (N=9) with high CA and zero lab time did not show statistically significant differences between the pretest (mean=72.11) and the posttest (mean=67.00).

All of the above comparisons, for high CA, were also made for students with low CA (below the mean of 62.34, N=25). None of these comparisons were statistically significant.

Other findings: Demographic Data and Ability Levels

The students in this study were primarily female (58%), Hispanic (78%), and bilingual (74%). Fifty-four percent identified Spanish as their first language. (More Anglo students were probably retained due to the influx of summer students who attend other
schools during the long term such as UT-Austin, Southwest Texas State University, etc. This factor probably skewed results in several areas but further studies with controls will probably point to the difference areas.)

As a baseline indicator, the pretest scores for CA and the grades on the first speech were compared for the effects of sex, ethnicity, bilingualism, and first language. All the comparisons failed to achieve statistical significance.

However, statistically significant decreases in pretest-posttest CA scores were found for students of both sexes; for Hispanic students, but not Anglo students; for both the bilingual or not bilingual; and for those speaking Spanish or English as their first language.

Statistically significant performance increases occurred for the males, but not females; Anglos and Hispanics; bilingual or not; students with English as a first language, but not for students with Spanish as a first language.

ACT composite scores were also compared. The overall mean composite ACT was 17 (unusually high for UT-PA, but with the "summer influx" came scores like 24 and 28, which raised the mean). In spite of the comparitively high scores no significant correlations were found for the ACT composite scores and the dependent measures of pretest CA, posttest CA, first speech, and last speech (an unexpected and unexplainable finding given early expectations)

Summary and Implications

It appears that students with high communication apprehension improve their performance by completing a speech class as do those with low apprehension; and in those having high apprehension it is alleviated to a significant degree, but in those having low apprehension, it is not diminished significantly.

The significance of the speech lab varied with the amount of time spent: High CAs with high speech lab utilization had significant improvements in performance; High CAs with moderate speech lab utilization had significant improvement in performance; High CAs with no speech lab had no significant improvement in performance.

The only students with low CA that showed a significant lessening of CA were the high lab utilization group. Students having high CA with high speech lab utilization showed no significant improvement in levels of apprehension though their skills improved, in this case their apprehension may have been a "facilitating factor". High CAs with moderate lab use diminished CA levels significantly; high CAs with no speech lab had no significant improvement in CA levels or performance which may indicate their CA has a "debilitating effect."
Speech classes alone seem to be an effective treatment for CA except in extreme cases. Speech lab seems to be effective as an optional aid for those who choose to use it but there are indications that those with high CA may be too afraid to utilize the lab when it is not required.

This study seems to indicate a more comprehensive study with a larger population is in order, perhaps one which tests students in all beginning classes in a long term using standard controls, experimenting with required versus optional lab use, and checking for instructor treatment and bias.

An option to the speech lab would be to treat high CAs in special classes. This would necessitate pretesting and/or self referrals prior to registration perhaps during orientation. This would be a cost effective way to deal with the problem.

This pilot study has probably raised more questions than it has answered, but it has shown those involved in the research the importance of knowing the population, the care with which assumptions are made and the importance of testing and evaluation of programs.
References


