Comparisons were conducted to assess the impact of levels of communication apprehension (CA) on students in a traditional hybrid basic course against students placed in freshmen interest group (FIG) settings. This investigation assessed the impact of the FIG classroom at an open admissions 4-year college on reduction of communication apprehension (CA) as compared to a traditional basic communication course classroom. While 57 students completed the pretest, only 44 students completed both the pre- and the post-Personal Report of Apprehension (PRCA-24). Students from a highly selective admissions institution served as a comparison group for levels of CA. At the open admissions institution, correlations were determined between CA and GPA and retention levels. Results indicated that the basic course itself, regardless of setting has a beneficial impact on CA. Findings suggest that there was not a correlation between CA and GPA, nor was there a difference in the CA level in students between institutions. Issues of educational settings and expectations are discussed as they related to communication apprehension. (Contains 18 references.) (Author/CR)
COMMUNICATION APPREHENSION AND THE BASIC COURSE: EFFECTS ACROSS EDUCATIONAL CONTEXTS AND BETWEEN STUDENT POPULATIONS

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Abstract

Comparisons were conducted to assess the impact of levels of communication apprehension (CA) on students in a traditional hybrid basic course against students placed in freshmen interest group (FIG) settings. This investigation assessed the impact of the FIG classroom, at an open admissions institution, on reduction of CA as compared to a traditional basic communication course classroom. Students completed a pre- and post-test Personal Report of Communication Apprehension (PRCA-24). Students from a highly selective admissions institution served as a comparison group for levels of CA. At the open admissions institution, correlations were determined between CA and GPA and retention levels. Results indicated that the basic course itself, regardless of setting, has a beneficial impact on CA. There was not a correlation between CA and GPA, nor was there a difference in the CA level in students between institutions. Issues of educational settings and expectations are discussed as they related to communication apprehension.
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Issues involved in effective college-level classroom instruction on the undergraduate level are multivariate and volatile. As the demographics of today's college student shift not only in terms of age but also in terms of academic preparation, changes may occur in the level of student expectations and student characteristics that impact on educational processing. This processing involves not only issues of academic success, but also issues of acceptance of academic traditions and innovations. The existence of high communication apprehension (CA) levels in college students is beyond question. New directions for research are expanding to address issues such as: risk level of students, student's attitudes towards instructional techniques and styles and acceptance of these innovations, and learning styles of students and acceptance of these innovations.

Through a review of previous research on CA and students' ability and success in college, interesting patterns develop. Early investigations on communication apprehension found significant associations between apprehension on student's perception of success and actual success in college. Recently, investigations tended to focus more on educational trends, such as participative learning, and the relation of apprehension to perception of these contextual settings.

This research project centered around evaluation of the impact of CA on student retention, and grade point averages at an open admission four year college. Additionally, the levels of CA
were measured on a pre- and post-test to assess the impact of a basic communication course.

Students at the open admission institution were enrolled in a traditional classroom setting or in a freshmen interest group (FIG) setting. The FIG setting was limited to incoming freshman, who contracted to enrolled in a cluster of three specified courses, one of which was the basic communication course. As a comparison to the open admission students, CA scores of students enrolled in a highly selective institution were compared.

APPREHENSION AND ACADEMIC SUCCESS

McCrosky & Andersen (1976), in early research on the effects of CA and its relation to other educational variables, found large effects of CA on the composite score of the ACT and on the ACT social science subscore; smaller effects were established on the mathematics subscores. Traditional classroom settings in mathematics and science courses, as compared to the more discussion oriented social science courses may contribute to this result. Thus, they concluded that high CAs were more comfortable with a less personally threatening, in terms of demanded student interaction/participation, educational environment. Continuing the exploration of educational contextual issues, high CAs rated larger classes more favorably than smaller classes. As explanation, McCrosky and Anderson offered: “when the instructional system studied permitted student-initiated interaction with the teacher, significant differences in achievement were observed between high and low apprehensives, but in a communication-restricted system, no such differences were observed” (p. 80). The authors warned of the dangers the traditional structures for contexts might place on students with high levels of apprehension. The situational setting may, in effect, penalize the high CA students, who are then “placed at a competitive disadvantage because they are too apprehensive to engage in the behaviors required to achieve success” (p. 80).
An additional finding, that the GPAs of high CAs were significantly lower than those of low CAs, was given additional credence by Scott and Wheeless (1977) who found that achievement on a final exam and a final group project during a communication course, was significantly lower for high CAs than for low CAs. The authors compared various contexts of the basic course: interpersonal, group discussion and public speaking. Regardless of the specific orientation of the course, “Oral...communication apprehension have [sic] an undesirable influence on student achievement, regardless of whether the classroom environment is performance oriented” (p. 255).

Powers & Smythe (1980) found lower apprehension correlated to higher grades on assignments in communication courses. Confounding this finding was the fact that there was no difference in the relation of moderate or high CA to grades. The authors postulated that this indicated there may be a series of expectations developed, during the course of a semester, by the instructor, which impacts on grading. These results were confirmed by Lubbers & Gorcyca (1992) who compared the level of CA with the final grade in the basic communication Course. The higher the level of CA the lower the final grade in class. Students who reported a lower CA also indicated more experience with extracurricular activities in high school and in college, and previous communication courses in high school.

Using the Unwillingness to Communicate Scale, Stacks & Stone (1984) found that simply completing a basic communication course will reduce one’s apprehension level. There were significant differences between the pre-test and post-test for students involved in a basic communication course, regardless of the context: public speaking, small group discussion, and interpersonal.
Ericson & Gardner (1992) tested incoming students, freshmen and transfer students in 1986. Students completed the Personal Report of Communication Apprehension (PRCA). The result was a mean of 65.3, with a standard deviation of 14.98. For the first year, high CAs drop out rate was 16% compared to the low CA rate of .9%, which was a significant difference. However, “after the first year, CA appears to have little effect on retention,” (p. 130).

Replicating the survey with the incoming class of 1987, the resulting mean was 64.16, with a standard deviation 15.03. The first year drop out rate was 7.1% for high CAs, and 1.9% for low CAs.

Further studies have demonstrated a positive correlation with high levels of CA and at-risk students. McCroskey, Booth-Butterfield, & Payne (1989) surveyed incoming college freshmen for communication apprehension using the PRCA-24. The subject pool presented a mean of 65.6, with a standard deviation 15.7. Both of these mathematical results respond to the normative national data. At the end of four years, more high CAs had dropped out than low CAs, finding the strongest effect, as determined by apprehension level, in the first two years of the college experience. For the first year, high CA drop-out rate was 12.5%, while the rate for the low CAs was 9.6% By the second year, calculated on a non-cumulative basis, the drop-out rate for the low CAs was 14.3% as compared to the rate for the high CAs which was 20.2%. Drop out rates during the third and fourth year of college were found not to be related to the level of communication apprehension. Extending the research to grading results, there were significant differences between grades of high CAs and low CAs for the first two years, but this difference did not occur during the third and fourth year. Author recommendations focused around the role of the classroom instructor in recognizing this differential impact of apprehension levels of
achievement. "Workshops on communication and teaching can emphasize such things as avoiding grading on participation, methods of providing alternatives to required oral assignments, and removing the stereotype that quietness signifies ignorance or disinterest" (p. 106).

Moving to the impact of CA on the high school population, Chesebro, et al. (1992) measured the CA of participating members of the Association for Supervision and Curriculum Development's (ASCD) Urban Middle Grades Networks, urban disadvantaged adolescents, grade six through nine. The students were defined as "at-risk," a term implying a high potential for drop-out, before the completion of the high school degree. The mean PRCA was 68.5, which is higher than the national normed mean, with a standard deviation of 13.5. "Results indicate that these students are substantially more apprehensive about communication in dyads or small groups than would be expected. This suggests a potentially serious problem for these students in an academic system that places heavy emphasis on instructional systems that involve dyadic and/or small group interactions with teachers or other students" (p. 353). This study established some areas of interest for future research.

EDUCATIONAL CONTEXT AND APPREHENSION

Given the results of these previous studies, Bourhis & Allen (1992) assert that no more information need be gathered on CA and success, it is a given. "Although CA is not related to intelligence or ability, we now know that there is a modest but important relationship between CA and educational outcomes, and that high CA students are at a distinct disadvantage when compared to their low and moderate counterparts" (p. 74). Indeed, Bourhis and Stubbs (1991) argue for research into various learning styles as they apply to apprehension. The research indicates that high CA students were identified as preferring an avoidance learning style while low
and moderate CAs preferred a participative learning style. Bourhis and Berquist (1990) found that high apprehensives appear to be more passive in their learning style preferences while low and moderate CA students are more active.

Proctor, Douglas, Garera-Izquierdo, & Wartman (1994) utilized the focus group approach to determine how best to offer help and assistance to apprehensive students. Communication apprehension may thus lead to an "approach-avoidance chase" between instructors and high CAs. "Students who could profit most from professional assistance may be the least likely to appreciate being approached" (p. 313).

Using learning styles to explain these findings, the authors suggest utilization of Motley's (1991) "performance orientation," in which "the speaker's overriding impression is that the audience is hypercritically focused on his/her every move, and that success is measured by how flawlessly his/her oratorical skills are demonstrated" (p. 89). This study also found that there could be success by placing like students together, like students being defined by CA levels, however, it should be remembered that this was a focus group, not a quantitative study.

Rosenfeld, Grant, & McCroskey (1995) studied subjects in grades seven through 10 who were academically successful (TIP) students. They found a mean PRCA-24 of 55.58 with a standard deviation of 14.35, which is considerably lower than the national normative mean of 63.10. Differences were also found of the four subscales of the PRCA-24. At-risk students were most apprehensive about speaking in groups while the academically successful students (TIP) were least apprehensive concerning this communication context. Defining the at-risk students was accomplished successfully through the dyadic subscale, which was not of major importance for the TIP students. TIP students were more easily identified by the subscale of speaking in
meetings, while this held little importance for at-risk students. The authors, taking together these results along with those of Chesebro et al. (1992), concluded that the “key communication variables affecting academic success: apprehension about speaking in groups, and self-perceived competency in speaking to strangers,” (p. 84-85). These combined results indicate the strong presence communication apprehension may have in determination of student success in the higher educational setting. “Although the students who are most likely to benefit from such intervention are the at-risk students, findings from this investigation indicate that some intervention strategies—particularly those directed at reducing communication apprehension in groups and increasing self-perceived communication competency while speaking to strangers—are likely to help the majority of students, not just the at-risk ones” (p. 85).

Dobos (1996) studied collaborative learning in relation to apprehension. Defining the educational process, she establishes that “Collaborative learning refers specifically to classroom-based activities in which students work together in small groups to apply and synthesize course concept....distinguished by self-directed peer interaction centered on a common task goal” (p. 118). Using only a five point scale for CA, taken from PRCA, she found that “Students with preinteraction expectations above their group average and apprehension below their group average (high optimal challenge) reported less anxiety and more satisfaction, communication activity and expectancy fulfillment; students with below-average expectations and above-average apprehension (low optimal challenge) relative to their group means demonstrated the opposite pattern” (p. 129). High CA students tend to avoid all different forms of communication, such as communications with peers, advisors, and professors, activities which may result in a lowering of apprehension levels.
HYPOTHESES

The sum results of the previous research tends to support the notion that the existence of high levels of CA has been well-documented. Indeed, research should turn to the educational issues impacting on student’s perceptions of the demands of the educational situation and the adjustment necessary for success at the post-secondary level. Communication apprehension may well be a contributing factor to academic success.

The purpose of the present research was to determine the level of communication apprehension in students at an open admission four-year college in comparison to students at a highly selective post-secondary institution, which has graduate offerings. Additionally, the students at the open admissions institution were in two educational settings for the basic communication course: a traditional hybrid setting, and a freshman interest group (FIG) setting. The research sought to determine if the interactive setting of the FIG classroom impacted either positively or negatively on the student’s level of apprehension. Finally, for the open admissions institution, student’s grade point averages and retention levels were collected to determine the correlation of academic progress and communication apprehension.

The specific hypotheses, based on the review of the literature, offered were:

H1: Students at the open admissions institution will have significantly higher levels of CA than students at the highly selective institution.

H2: Students in the freshmen interest groups (FIG) classrooms will reduce their CA levels significantly more than students in traditional classrooms.

H3: There will be a significant negative correlation between levels of CA and cumulative GPA.
METHOD

Participants

Participants were students enrolled in an open admissions institution, either in the freshmen interest group (FIG) classroom or a traditional basic course, in the Midwest. The comparison group were students enrolled in a traditional basic course at a highly selective admissions institution in the Midwest. At the open admissions institution, participants were enrolled in seven different sections of the basic communication course. Three of these sections were taught in the FIG format. The FIG classroom affords the students with opportunities for these differing forms of communication in a continuous and sustained setting over the course of the semester. The peers are not just students in one class, they are students in three classes. Additionally, the FIG experience encouraged out of classroom interaction with instructors and peers. Money was provided by the college administration for a minimum of one social activity, hosted outside of class hours, to provide further opportunities for interaction. While 57 students completed the pre-test, only 44 students completed both the pre- and post-Personal Report of Apprehension (PRCA-24).

The comparison sections were taught by instructors who did not participate in FIGs, in an attempt to control for changes in instructor's perceptions or tactics due to the FIG classroom experience. These instructors were unfamiliar with the FIG concept, and were uninformed as to the goal of this intervention. All of the sections were taught in essentially the same manner, covering a required content area. All instructors required a minimum of three classroom presentations, plus a variety of written work and exams. The comparison group consisted of 101 students who completed the pre-test; 79 completed both the pre- and post-PRCA-24.
The third group consisted of students from the highly selective institution, taught by one instructor, in two sections. The basic communication at this institution is a public speaking course, which covers issues of interpersonal and small group communication. Thirty-eight students completed the pre-test; twenty five were eligible through completion of both pre- and post-PRCA-24 completion.

The mean age for both groups at the open admissions institution was 21.75. The mean age for the highly selective institution was 20.3.

Instruments and Procedure

Students were given the PRCA-24 on a pre-test level within the first three class meetings. An outside investigator administered the survey, and informed the students that the instructor would not see the scores, unless the student requested this action. After the final oral presentation, the PRCA-24 was administered, again by an outside investigator. For six sections, this occurred during the final exam period, prior to the exam. For the final two sections, the PRCA-24 was administered during the last class period.

Analysis

A 2x3 mixed-design ANOVA was calculated on the PRCA-24 scores. This analysis examined the differences between the pre and post test scores of the three groups (FIG, Comparison, Highly Selective) of subjects. For the students at the open admissions institution, Pearson correlations were calculated to determine the relationship between grade point average and apprehension level.
RESULTS

H₁: Contrary to expectations, there was not a difference in the communication apprehension (CA) level of students in the two groups at the open admissions institution and the group at the highly selective admissions institution. The pre-test mean for the students in the freshmen interest groups (FIG) classrooms was 67.38 with a standard deviation of 15.99. The pre-test mean for the students in the regular sections of the basic course was 66.69 with a standard deviation of 17.95. Finally, the pre-test mean for students enrolled in the highly selective institution was 67.57 with a standard deviation of 16.57. Thus, the hypothesis that students at the open admissions institution would have significantly higher CA levels than students at the highly selective admissions institution was not supported ($E(2,135) = .006, \ p > .05$). The normative mean for scores on the PRCA-24 is 65.6.

H₂: There was a significant main effect ($F(1,135) = 17.678, \ p < .001$) for time, with no significant interaction between time and group ($E(2,135) = .554, \ p > .05$).

The post-test Personal Report of Communication Apprehension (PRCA-24) demonstrated a reduction in CA for all sections of analysis ($F(1,148 = 12.335, \ p < .002$). The post-test mean for the FIG classrooms was 61.65 with a standard deviation of 16.17. The post-test mean for the regular classroom sections was 62.17 with a standard deviation of 16.9. The highly selective group post-test mean was 63.40 with a standard deviation of 17.37.

On the subscores of the PRCA-24, all groups of students were substantially more apprehensive about public speaking compared to the other three subscales (meeting, group and
dyad). There was a significant main effect for scale type ($F(1,209)=3335.74, p < .001$) with the public subscale significantly higher ($M=20.2$) than the other three subscales ($M=14.99$ for the D subscale, $M=15.34$ for the G subscale, and $M=16.55$ for the M subscale).

Although all groups significantly reduced their CA level over time, there was not a greater impact due to the FIG context, thus the second hypothesis was not supported.

**H3:** For all groups at the open admissions institution there was not a significant correlation between CA level and GPA, either for the pre- or the post-test PRCA. The pre-test score resulted in a correlation of $r(209) = .056$; the post-test correlation was $r(165) = -.076$. Again, the hypothesis at a significant correlation between CA level and GPA was not supported.

**DISCUSSION**

Hypothesis one, dealing with difference between communication apprehension (CA) and the type of institution, open admissions or highly selective admissions, was thoroughly predicted by the literature. The finding of a lack of difference was the most surprising result of this investigation. Students from the open admissions institutions have an average ACT of 18.88, while a 26 is the minimum for acceptance into the highly selective institutions. With an average of 18 ACT, there are students who fall in the very low range of the ACT scores, yet the Personal Report of Communication Apprehension (PRCA-24) scores showed virtually no differentiation between the students at the two schools.

At the open admissions institution, the students in the FIG classroom were classified as at-risk, as determined by the ACT scores, or failure to meet minimum requirements of a statewide initiative for a high school core curriculum. However, there was no significant difference in the
CA level for the students in the FIG classrooms as compared to the regular sections of the basic course, or either the pre- or the post-test. The mean ACT was also calculated for the FIG and for the control classes. The mean ACT composite score for the FIG students was 18.69, mean ACT composite for the control classes was 18.99. The highly selective institution does not have a specific requirement for the ACT, admission is based on a composite of several variables, however the minimum for control purposes is a composite score of 26.

Confounding these results was the fact that contrary to several previous investigations, the group, meeting, and discussion subscales of the PRCA-24 were not higher in apprehension for the students. The public speaking subscale was the largest producer of anxiety as demonstrated by the significant ANOVA.

One explanation may be an artifact of date of previous investigations. Previous authors' comments focused upon the issue that students may not be fully prepared for the interaction demanded in the college-level classroom. However, with the recent emphasis on collaborative classrooms, not only in post-secondary education, but at all educational levels, students may be more prepared than investigators may have anticipated in the past.

A survey conducted in the FIG classrooms sheds some light on this issue. The questionnaire asked students to rate the FIG classes on a five-point scale, 1 being strongly agree. The questions are included in Appendix I.
The survey results indicate, on a very preliminary basis that the FIG classroom encourages student participation and discussion. Based on these results, it was surprising that the CA level was not significantly reduced due to participation in the FIG class. However, with a lack of control over the other instructors, final evaluation in this area cannot be made.

The basic communication course has the opportunity to have a significant impact on a student’s level of communication apprehension (CA). The main effect for time for the pre- and post-Personal Report of Communication Apprehension (PRCA-24) scores indicates that the basic communication can indeed be beneficial to all levels of students. This is an encouraging finding, adding support to arguments for inclusion of a basic communication course in general studies curriculums.

The finding of a nonsignificant main effect for group offers interesting possibilities for discussion. Initially, the freshmen interest group (FIG) classroom endeavor was devised as a method of integrating incoming freshmen into the college experience. The concept of learning
environments is not new; however, this was the first semester for implementation at the open admissions institution. The three FIGs included as part of this analysis were taught by three different instructors. Each of the communication instructors was paired with two instructors from different fields. Therefore, while the normal functioning of the communication class may have been helpful for reducing anxiety, there is no information on the teaching styles of the other instructors in order to draw adequate conclusions.

The lack of correlation between the CA level and grade point poses several issues for future research. When calculating the correlation of CA and GPA for the FIGs, since all students were incoming freshman, only one semester’s grades were available, with average cumulative hours of 12.40. At the open admissions institution, it has been demonstrated that the largest concern for both GPA and retention occurs following the spring, or second, semester. Thus, this early data does not provide adequate information to address this issue. For the control subjects, the mean hours accumulated was 33.19. However, even for this group of subjects, there was no correlation between CA and GPA. Further research should explore the association between overall GPA and grade in a basic communication course, since many of the previous studies considered only the grade in the communication course, not overall GPA. This continuing research will include, in the future, not only overall GPA, but also grade in the basic communication course, and grades in the other FIG courses as part of the comparison.

Further investigation is definitely called for based on the results reported here. The data reported here is only from the first semester of the freshman year. These students, in the FIG and traditional classrooms, will be tracked throughout their college career. At the open admissions institution, data indicates that the most significant problems in retention occur at the end of the
freshman year, not at the fall to spring semester break of the freshmen year. For the at-risk
students tracked, 77% of the students in the FIG program returned for the second semester,
whereas, only 60% of the at-risk freshmen students who were not enrolled in the FIG program
returned. For non-risk freshmen students, the FIG students returned at a higher rate (82%)
compared to non-FIG students (76%). For future research, the GPA and retention data will be
tracked over the next five years.

Secondly, the FIG classroom environment itself offers exciting possibilities for freshman
instruction, but considerations must be made on several levels. First, instructors need to
coordinate their efforts to a greater extent. Anecdotal evidence from the FIG instructors, during
the first semester of implementation, discount this effort. Workshops and training are being
prepared for Fall, 1997. Communication instructors must be expected to play a central role in this
development. The results of the subscale scores on the PRCA-24 are encouraging with regard to
attitudes towards communicating at meetings and in discussions. The significantly lower scores
for all students on these subscales, as compared to the public speaking subscale, may indicate a
readiness for the college educational setting, a greater readiness than previously anticipated. This
may also add support to Dobos’ (1996) finding regarding high apprehensives’ attitude toward
collaborative learning. Incoming freshmen are experienced in many educational settings and may
well demonstrate a willingness to participate in different contexts.

A final limitation concerns the parameters of data collection. Unfortunately, we were
unable to obtain the GPA of students at the highly selective admissions institution. This addition
of data could have offered valuable insights. Future research will attempt to obtain this data.
The basic communication course certainly has the potential to offer assistance for students in dealing with communication apprehension, and this assistance may be applicable to the entire college experience. The main effect over time for CA is an encouraging finding, indicating that the basic communication course itself can reduce a student’s communication apprehension. The move to less-traditional classroom environments does offer stimulating possibilities for future research on the best methods of handling communication apprehension in college students in a basic communication class.
Bibliography


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