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ABSTRACT
              A study was conducted to determine whether elementary
school students' self-reports of communication apprehension were
significantly related to their levels of academic achievement.
Subjects were 48 second grade students in two classrooms of a
midwestern elementary school. In approximately the 27th week of
class, students were administered the Stanford Achievement Test (SAT)
to assess their level of academic achievement in reading and
mathematics. Students in the two classes did not differ in their
levels of achievement. Four weeks later, students were orally
administered the Measure of Elementary School Apprehension (MECA),
which is composed of 20 Likert-type statements that assess students'
levels of fear or anxiety associated with communication with others.
Students' MECA scores were correlated with their national
percentile-rank achievement scores in reading and mathematics from
the SAT. The results suggested that the academic achievement of
students in second grade was not related to their levels of
communication apprehension. (HTH)

COMMUNICATION APPREHENSION AND

ELEMENTARY SCHOOL ACHIEVEMENT: A RESEARCH NOTE

Over the past decade a substantial body of research has focused on the effects of communication apprehension (CA) in the academic environment.[1] In general, this research depicts a negative picture of the communication apprehensive student. Studies have shown students with high CA, as compared to those with low CA, attained lower overall grade-point averages (McCroskey & Andersen, 1976), developed negative attitudes toward school (Hurt, Preiss & Davis, 1976; McCroskey & Sheahan, 1978), and displayed lower achievement on standardized tests administered at the completion of high school (Bashore, 1971; McCroskey & Andersen, 1976).

These studies on the effects of CA in the academic environment, however, have focused almost exclusively on students in high school and college. That little research exists which documents the effects of CA in the elementary school is surprising for two reasons. First, a number of researchers have provided evidence to indicate that early school experiences may be significant in the development of CA (Daly & Friedrich, 1978; Phillips, 1968; Porter, 1978). Second, reliable methods for measuring CA in the elementary classroom are now available (Garrison & Garrison, 1979). Research on the effects of CA on elementary school students will aid theorists in formulating explanations concerning the development of CA. Systematic research may identify exactly when CA begins to adversely affect learning and suggest strategies to counteract the negative effects of CA.

Given the relative lack of research on the effects of CA on elementary school students and the apparent need for such research, the present exploratory investigation was undertaken. The present study examined the relationship

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between CA and academic achievement among elementary school students. The

following section reviews previous research on the relationship between CA and

academinc achievement and summarizes a rationale for the present study.

CA & Academic Achievement

The academic achievement of the communication apprehensive student,

compared to the low communication apprehensive student, is expected to be

significantly lower because he/she will avoid classroom communication with

peers and, perhaps more importantly, with the teacher at times when such

communications may be necessary to help clarify and enhance understanding of

course content. McCroskey and Andersen (1976) maintained that high communi-

cation apprehensive students may be handicapped because:

> "...they do not ask questions, give feedback, or participate
> in class discussions. Apprehensive students may learn less
> because they do not attempt to restructure the classroom
> presentation of information to meet their specific needs" (p. 74).

The cummulative effect of such a mode of behavior may have a very negative

impact on the achievement of the individual.

Two studies that have examined the relationship between CA and academic

achievement have supported this proposition. Bashore (1971) observed a

negative relationship between CA and academic achievement among female high

school students in a university laboratory school. A later study by McCroskey

and Andersen (1976) revealed that high communicaiton apprehensive students,

compared to low communication apprehensive students, had lower academic

achievement in high school and had lower grade point averages in their first

semester of college.

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While research on high school and college students will continue to enhance our understanding of CA, much may also be learned from studies of the effects of CA on children (McCroskey et al., 1981). Researchers have paid relatively little research attention to the effects of CA on the academic performance of children. This void in the research literature exists despite the fact that research (McCroskey et al., 1981) has revealed that one of the largest increases in self-reported CA occurs during the 3rd and 4th grades of elementary school. Research, then, is needed which examines the relatiosnhip between CA and academic performance among elementary school students to determine if CA has the same adverse effect on elementary school students that it has on high school students.

The present study sought to extend our understanding of the CA construct by examining the relationship between CA and academic achievement among children. The following research question guided the investigation

> Are elementary school students' self-reports of
> CA significantly related to their levels of
> academic achievement?.

## METHODS

### Subjects

Subjects for this study were 48 second grade elementary school students (23 females and 25 males) in Indiana. Students were enrolled in two self-contained classrooms. The average age of students was 7.7 years.

### Data Collection Procedures

On approximately the 27th week of class, students were administered the Stanford Achievement Test (Harcourt, Brace & Janovich, 1973) to assess their level of academic achievement in reading and mathematics. Students in the two classes did not differ in their levels of achievement in reading (t=.15, df=46, p=.88) or mathematics (t=.68, df=46, p=.50).

Approximately four weeks after completing the SAT, students were orally administered the Measure of Elementary School Apprehension (MECA; Garrison & Garrison, 1979). The MECA is ocmposed of twenty Likert-type statements that assess students' level of fear or anxiety associated with communication with others. MECA items are framed in language appropriate for younger children and incorporates a progression of smiling faces for response options (Garrison & Garrison, 1979). The MECA was administered by the students' respective teachers. Teachers were trained by the experimenter on procedures for administering the MECA. Evidence concerning the reliability and validity of the MECA were reported in Garrison and Garrison (1979).

Data Analysis

Students' MECA scores were correlated with their national percentile-rank achievement scores in reading and mathematics from the SAT. The national percentile-rank score reflects a student's achievement in relation to every 100 students who took the exam (Harcourt, Brace & Janovich, 1973).

RESULTS

Reliability

The MECA had an internal reliability estimate of .77 (Cronbach's alpha). Reliability estimates for the SAT were not available.

Primary Results

Table 1 presents descriptive statistics for the MECA and achievement scores. The descriptive statistics, particulary the kurtosis and skewness indicies, suggested that scores for CA and achievement were normally distributed and that a correlational anlysis on the raw data would be appropriate.

Table 2 presents the Pearson correlation coefficients between subjects' MECA scores and their achievement cores in reading and mathematics. The data revealed low, positive correlations between CA and achievement scores. No correlation was statistically significant.

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## DISCUSSION

The results of the present study suggest that the academic achievement of students in second grade is not related to their levels of CA. The negative correlation between CA achievement that has emerged in studies of high school students(Bashore, 1971; McCroskey and Andersen, 1976) was not observed in the present study. To the contrary, a very low positive relationship was observed between CA and achievement.

One very tentative explanation of the positive relationship between CA and achievement is that, in the early stages of the development of CA, the high CA individual, compared to the low CA, compensates for higher perceived verbal/encoding inadequacies by developing greater reception/decoding skills. By developing sensitive receiving abilities (i.e., listening, sensitivity to NV cues, etc.), the child learns that he/she can avoid some social contact with others by paying more attention to the verbal and nonverbal cues of others. This heightened decoding sensitivity is brought to classroom and achievement is subtly enhanced.

The results of the present study should not lead one to expect a similar correlation in all samples of elementary school students. Since self-reported CA increases with age (McCroskey et al., 1981), one might expect to see the negative correlation only with a certain level of perceived fear. Another factor that may affect the observed correlation is whether or not the student experiences a self-contained or departmentalized instructional system (See Note 2). Of the two, the departmentalized system would appear to present a greater problem for the high CA. In such a system, the high CA is forced to relate to a variety of different teachers, each with different social styles, social sensitivities, etc. Such functioning may cause the high CA to experience more difficulty in engaging him/herself with teachers

when he/she has a need for information.

Primary limitations of the study center around the sample. The relatively small number of subjects that were observed represented only one grade level in the elementary school.

Future research is needed which explores in a factorial design the effects of age, instructional system, and CA on academic achievement. Such research will contribute greatly to our understanding of CA.

NOTES

[1] See McCroskey (1977) for a review of the CA literature.

[2] Elementary school classrooms are typically defined as being self-contained or departmentalized. In a self-contained system, there is one teacher and a moderate number of students (usually 20-25) and the teacher instructs students in all content areas. In a departmentalized system, there is one teacher for each content area.

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Harcourt, Brace & Janovich, Inc. Stanford Achievement Test. Copyright 1973.

## TABLE 1

### DESCRIPTIVE STATISTICS

### FOR CA AND ACHIEVEMENT SCORES

| Variable | Mean | Std. Dev. | Min | Max | Kurtosis | Skewness |
|----------|------|-----------|-----|-----|----------|----------|
| Com App (CA) | 42.73 | 9.82 | 25 | 68 | -0.04 | .44 |
| Reading Ach | 75.33 | 20.42 | 4 | 99 | 1.91 | -1.37 |
| Math Ach | 61.81 | 28.03 | 2 | 99 | -0.89 | -0.38 |

## TABLE 2

### PERSON CORRELATION COEFFICIENTS BETWEEN MECA

### SCORES AND ACHIEVEMENT SCORES*

|  | Reading | Mathematics | CA |
|--|---------|-------------|-----|
| Reading | -- | .77 | .06 |
| Mathematics |  | -- | .12 |
| CA |  |  | -- |