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SPEECH FRIGHT PROBLEMS OF GRADE SCHOOL STUDENTS.

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PRE-PILOT AND PILOT STUDIES WERE UNDERTAKEN TO SURVEY ANXIETY LEVELS IN THE SPEECH BEHAVIOR OF 45 ELEMENTARY SCHOOL CHILDREN. DURING THE PRE-PILOT STUDY, FOUR TESTS DESIGNED TO REVEAL THE STUDENTS' CONSCIOUS ANXIETY WERE DEVELOPED AND REGULARIZED. A QUESTIONNAIRE CONCERNING THE ATTITUDES OF TEACHERS TOWARD STUDENTS SPEECH ANXIETY INDICATED GENERALLY THAT UPPER ELEMENTARY GRADE TEACHERS WERE AWARE OF THE PHENOMENON AND DISCUSSED IT WITH THEIR STUDENTS, WHEREAS LOWER ELEMENTARY GRADE TEACHERS GENERALLY WERE NOT AWARE OF ANY HIGH DEGREE OF SPEECH ANXIETY, DID NOT DEAL DIRECTLY WITH IT, AND DID NOT FEEL THE NEED TO DO SO. DURING THE PILOT STUDY, BOTH THE TRAINED OBSERVERS AND THE TESTS IDENTIFIED EVIDENCE OF SPEECH FRIGHT. HOWEVER, THE OBSERVERS IDENTIFIED MORE ANXIETY THAN THE TESTS, THE TESTS HAD A LOWER PREDICTIVE VALIDITY THAN THE OBSERVATIONS, AND NEITHER METHOD SHOWED A SIGNIFICANT CORRELATION BETWEEN SPEECH FRIGHT AND SPEECH ABILITY. IT WAS ALSO DISCOVERED THAT, IN GRADES 3-6, CHILDREN FROM LOWER ECONOMIC ENVIRONMENTS DEMONSTRATED SIGNIFICANTLY MORE SPEECH FRIGHT THAN THOSE FROM HIGHER ECONOMIC ENVIRONMENTS. (SEE ED 010 610 FOR THE REPORT OF THE MAIN STUDY RESULTING FROM THESE PILOT STUDIES.) (RD)

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**SPEECH FRIGHT PROBLEMS OF
GRADE SCHOOL STUDENTS**

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BACKGROUND

Elementary School speech activities provide vital communication and socialization interactions for the child. The speech situation enables the child to express himself and grow through questioning and responding to classroom activity. Whether the speech situation is formal, such as show and tell, or informal, such as a group game, stage fright or speech fright is an operable phenomena. This phenomena is observable in adult speech behavior and there are instruments for determining the degree of speech fright, such as the Ross-Osborne Anxiety Inventory or the Gilkenson P. R. C. S. However, there are no instruments for determining the extent of speech fright in elementary school children. This study is structured to test several instruments for measuring such phenomena in elementary school children and to select the most useful instrument for each grade level.

OBJECTIVES

1. The main objective of the project is to survey speech anxiety (speech-fright) levels in students in the elementary grades. As a pilot study, it is designed to determine if specific problems observed are at all representative and if the presence of stage fright appears to be serious enough to cause problems which might interfere with other educational goals.
2. The second objective is to assess the attitudes of the teachers toward speech anxiety and to determine if they have had background work that would be expected to be useful in the alleviation of the problem.

3. A third objective is to administer standardized tests of speech anxiety to a limited number of children. These tests were originally designed for adults and the purpose would be to determine whether they could be used in their present form.

PROCEDURE AND RESULTS

The specific purpose of the pre-pilot study was: (a) to train two reliable observers, (b) to develop and regularize tests adaptable to the various grades, (c) to test the efficacy of a structured speech, (d) to indicate a rough comparison of speech ability and speech fright between grade levels, and (e) to evaluate the language of a short questionnaire which was filled out by the teachers.

The sample for the pilot study was drawn from the first, third, and sixth grades of the following schools:

1. St. Louis the King, 18805 St. Louis, Detroit, Michigan
2. Blessed Sacrament Cathedral School, 82 Belmont, Detroit, Michigan
3. Our Lady Queen of Heaven, 8210 Rolyat, Detroit, Michigan

A total of 45 students were involved.

In order for the two observers to refine their rating procedures, the children in the classrooms were asked to go to the front of the class individually. They were each given a piece of clay and asked to explain what they were doing with the clay. They were permitted to do what they wished with the clay. The two observers independently rated each child on a five-point rating scale, determining each child's proficiency in use of voice,

bodily action, language, and organizational ability. A separate rating was given for the observable degree of speech fright.

With a population of 15 first-graders, 15 third-graders, and 15 sixth-graders, the correlation coefficient between the observers in terms of speech ability was $r = .837$, which is significant at the 1 per cent level of confidence. The correlation between the observers in terms of speech fright was $r = .733$, which was significant at the 1 per cent level of confidence.

The tests developed were the (1) Ross Test, (2) Sally Test, (3) Direct Questioning (Car Test), and (4) Indirect Questioning (Puppet Test).

The Ross Test and the Sally Test were paper-and-pencil, self-administered tests to ascertain introspectively the child's degree of felt speech fright. The Car Test and the Puppet Test were administered privately and individually to ascertain the child's degree of felt speech fright introspectively.

The Ross Test was a modification of the Ross-Osborne Test devised for use with college students. The questions were restructured in terms of vocabulary and sentence structure and administered to the fifth- and sixth-graders. The 22 questions asked for a yes or no answer to certain possible extraordinary symptoms of speech fright.

The Sally Test was devised for children from kindergarten through the fourth grade; therefore, it was created as a relatively language-free test. It consisted of five faces drawn on a sheet of paper. The faces ranged in expression from a very happy face to a very sad one. The children were

asked to color the face which best represented them when they spoke in front of the class.

The Car Test or (Direct Questioning) consisted of a small toy car placed on a colored racetrack. The child was told that the farther he moved the car along the track, the more uneasy and anxious he felt when he was asked to speak in class. The track was divided into a five-point rating scale. Each child was interviewed privately.

The Puppet Test or (Indirect Questioning) consisted of placing a group of puppets in a speech situation. The child was asked to indicate how the puppet felt when he spoke to the group of puppets. The child indicated his feelings on the racetrack and was rated on a five-point scale.

The results of the observations were correlated with the various test results. The correlation coefficient between the observers and the Ross Test was $r = .15$ which is not significant. At the first-grade level, the correlation coefficient between the observers of speech fright and the Sally Test was $r = .08$, which is not significant. At the third-grade level the correlation between the observers and the Sally Test was $r = .36$ which, though positive, is not significant. The correlation coefficient between the Car Test and the observers was $r = .16$ for the first-grade level, which is not significant. For the third-grade level, the correlation coefficient was $r = .08$, which is not significant. At the sixth-grade level, the correlation coefficient was $r = .39$, which, though positive, is not significant. The correlation coefficient between the Puppet Test and the observers for the first-grade level was $r = .1$ which is not significant. At the third-grade

level the correlation coefficient was $r = -.57$, which is a negative correlation significant at the 5 per cent level of confidence. At the sixth-grade level, the correlation coefficient was $r = .12$, which is not significant.

Comparisons were made between the various tests. The Ross Test was correlated with Direct Questioning (Car Test). At the sixth-grade level the correlation coefficient was $r = .644$ which was significant at the 1 per cent level of confidence. The Ross Test was correlated with the Indirect Questioning (Puppet Test). At the sixth-grade level the correlation coefficient was $r = .628$ which is significant at the 1 per cent level of confidence. The Sally Test was correlated with the Direct Questioning (Car Test). At the first-grade level the correlation coefficient was $r = .49$, which is not significant. At the third-grade level the correlation coefficient was $r = .328$ which is not significant.

The Sally Test was correlated with Indirect Questioning (Puppet Test) and at the first-grade level the correlation coefficient was $r = -.109$, which is not significant. At the third-grade level the correlation coefficient was $r = .140$, which is not significant.

The Direct Questioning (Car Test) was correlated with Indirect Questioning (Puppet Test) and at the first-grade level the correlation coefficient was $r = .342$, which is not significant. At the third-grade level the correlation coefficient was $r = .168$, which is not significant. At the sixth-grade level the correlation coefficient was $r = .628$, which was significant at the 1 per cent level of confidence.

To determine the efficacy of a structured speech the correlation coefficient between the observed speech anxiety in the structured clay speech and the observed speech anxiety in the actual classroom speech situation was $r = .745$, which is significant at the 1 per cent level of confidence.

PROCEDURE AND RESULTS - PILOT STUDY

The O. W. Holmes Elementary School in Detroit, Michigan, was selected for two kinds of paper-and-pencil tests to ascertain norms for speech fright. Eighty-five per cent of these children are white and 15 per cent are Negro. Teacher attitude questionnaires were given to the teachers to complete at a convenient time.

The Dossin Elementary School was also selected for the paper-and-pencil testing. Eighty per cent of the children are white and 20 per cent are Negro.

The Herman Elementary School was selected for the full study utilizing paper-and-pencil testing, observation, and interviews. The neighborhood is predominantly white, with a Negro population of about thirty per cent.

A total of 1,166 elementary school children were involved in this study, along with 28 elementary school teachers from the aforementioned three schools. Sixty children from each grade were selected for the study, since past studies indicate that from 50 to 55 students seems to provide a fair and adequate representation.

The major testing instruments were: the car on the racetrack, the puppet test, the Sally picture test, the Ross questionnaire, the researcher's rating form, the Teacher's rating form and the teacher questionnaire form.

Chi squares were found to be the most appropriate measure for the study. Several t tests are also employed. The 5 per cent level of confidence has been used to indicate significant differences throughout the main study.

Frequency of Speech Fright by Grades as Measured by Direct Observation

- (1) Between the 6th grade and the 4th grade, a chi-square of 5.3, was found which was not significant at the 5 per cent level but was at the 10 per cent level of significance.
- (2) Between the 6th grade and the 2nd grade, a chi square of 3.679 was not significant.
- (3) Between the 6th grade and kindergarten, a chi square of 2.993 was not significant.
- (4) Between the 4th grade and the 2nd grade, a chi square of .742 was not significant.
- (5) Between the 4th grade and kindergarten, a chi square of .700 was not significant.
- (6) Between the 2nd grade and kindergarten, a chi square of .010 was not significant.
- (7) The overall chi square of this table was found to be 6.051, which was not significant.

Frequency of speech fright by grades as measured by Direct Questioning of the child via the Car Test

- (1) Between the 6th grade and the 4th grade, a chi square of 11.375 indicates a significant difference at the 1 per cent level.
- (2) Between the 6th grade and the 2nd grade, a chi square of 30.417 indicates a significant difference at the 1 per cent level.
- (3) Between the 6th grade and kindergarten, a chi square of 14.901 indicates a significant difference at the 1 per cent level.
- (4) Between the 4th and the 2nd grade, a chi square of 5.691 indicates no significant difference; however, it was significant at the 10 per cent level of confidence.
- (5) Between the 4th grade and kindergarten, a chi square of .417 is not significant.
- (6) Between the 2nd grade and kindergarten a chi square of 2.656 is not significant.

- (7) The overall chi square of this table is 31.344 which indicates a significant difference at the 1 per cent level.

**Frequency of speech fright by grades as Measured
by Questioning (Puppet Test)**

- (1) Between the 6th grade and the 4th grade, a chi square of 4.906 indicates no significant difference. It was, however, significant at the 10 per cent level.
- (2) Between the 6th and 2nd grades, a chi square of 6.624 indicates a significant difference at the 5 per cent level.
- (3) Between the 6th grade and kindergarten, a chi square of 6.752 indicates a significant difference at the 5 per cent level.
- (4) Between the 4th and 2nd grades, a chi square of .912 is not significant.
- (5) Between the 4th grade and kindergarten, a chi square of 1.789 is not significant.
- (6) Between the 2nd grade and kindergarten, a chi square of 4.757 is not significant. It was, however, significant at the 10 per cent level.
- (7) The overall chi square of this table is 13.194 which indicates a significant difference at the 5 per cent level.

**Frequency of speech fright by grades as Measured by
the Ross and Sally Paper-and-Pencil Tests when
administered by Researchers**

- (1) Between the 6th and 4th grades, a chi square of 28.686 indicates a significant difference at the 1 per cent level.
- (2) Between the 6th and 2nd grades, a chi square of 33.659 indicates a significant difference at the 1 per cent level.
- (3) Between the 6th grade and kindergarten, a chi square of 15.139 indicates a significant difference at the 1 per cent level.
- (4) Between the 4th and 2nd grades, a chi square of 2.637 is not significant.
- (5) Between the 4th grade and kindergarten, a chi square of 2.393 is not significant.
- (6) Between the 2nd grade and kindergarten, a chi square of 7.261 indicates a significant difference at the 5 per cent level.
- (7) The overall chi square of this table is 50.013 which indicates a significant difference at the 1 per cent level.

Frequency of speech fright as Measured by the Ross and Sally Paper-and-Pencil Tests when Administered by Individual Teachers

- (1) Between (5th-6th) and (3rd-4th), a chi square of 76.362 indicates a significant difference at the 1 per cent level.
- (2) Between (5th-6th) and (1st-2nd), a chi square of 68.106 indicates a significant difference at the 1 per cent level.
- (3) Between (5th-6th) and kindergarten, a chi square of 17.312 indicates a significant difference at the 1 per cent level.
- (4) Between (3rd-4th) and (1st-2nd), a chi square of 2.370 is not significant.
- (5) Between (3rd-4th) and kindergarten, a chi square of 17.921 indicates a significant difference at the 1 per cent level.
- (6) Between (1st-2nd) and kindergarten, a chi square of 13.651 indicates a significant difference at the 1 per cent level.
- (7) The overall chi square of this table is 110.003 which indicates a significant difference at the 1 per cent level.

Frequency of speech fright between the grades, as Reported by the individual teachers

- (1) Between the 6th and 4th grades, a chi square of 14.296 indicates a significant difference at the 1 per cent level.
- (2) Between the 6th and 2nd grades, a chi square of 27.954 indicates a significant difference at the 1 per cent level.
- (3) Between the 6th grade and kindergarten, a chi square of 30.338 indicates a significant difference at the 1 per cent level.
- (4) Between the 4th and 2nd grades, a chi square of 4.234 is not significant.
- (5) Between the 4th grade and kindergarten, a chi square of 15.969 indicates a significant difference at the 1 per cent level.
- (6) Between the 2nd grade and kindergarten, a chi square of 8.212 indicates a significant difference at the 5 per cent level.
- (7) The overall chi square of this table is 56.366 which indicates a significant difference at the 1 per cent level.

Level and Extent of Speech Ability between the Grades as Measured by Trained Observers

- (1) Between the 6th and 4th grades, a chi square of 3.090 is not significant.
- (2) Between the 6th and 2nd grades, a chi square of 3.537 is not significant.

- (3) Between the 6th grade and kindergarten, a chi square of 5.033 is not significant at the 5 per cent level, but was significant at the 10 per cent level.
- (4) Between the 4th and 2nd grades, a chi square of 3.112 is not significant.
- (5) Between the 4th grade and kindergarten, a chi square of 10.399 indicates a significant difference at the 1 per cent level.
- (6) Between the 2nd grade and kindergarten, a chi square of 3.436 is not significant.
- (7) The overall chi square of this table is 14.362 which indicates a significant difference at the 5 per cent level.

Level and Extent of speech ability between the grades as reported by the individual teachers

- (1) Between the 6th and 4th grades, a chi square of 14.035 indicates a significant difference at the 1 per cent level.
- (2) Between the 6th and 2nd grades, a chi square of 3.867 is not significant.
- (3) Between the 6th grade and kindergarten, a chi square of 16.112 indicates a significant difference at the 1 per cent level.
- (4) Between the 4th and 2nd grades, a chi square of 27.116 indicates a significant difference at the 1 per cent level.
- (5) Between the 4th grade and kindergarten, a chi square of 38.162 indicates a significant difference at the 1 per cent level.
- (6) Between the 2nd grade and kindergarten, a chi square of 8.641 indicates a significant difference at the 5 per cent level.
- (7) The overall chi square of this table is 57.848 which indicates a significant difference at the 1 per cent level.

Relationship of Speech Fright to Speech Ability

(1) Sixth Grade--

- a. When average and good speech ability scores are combined and compared with speech fright scores (derived by Direct Questioning), a chi square of .002 is obtained, which is not significant.
- b. When average and good speech ability scores are combined and compared with speech fright (as derived by researchers' observation), a chi square of 1.262 is obtained, which is not significant.
- c. When average and good speech ability scores are combined and compared with speech fright (as derived via the Ross Test), a chi square of .141 is obtained, which is not significant

- d. When average and good speech ability scores are combined and compared with speech fright scores (as derived by Indirect Questioning), a chi square of .046 is obtained, which is not significant.

(2) Fourth Grade--

- a. When average and good speech ability scores are combined and compared with speech fright scores (as derived by Direct Questioning), a chi square of .002 is obtained, which is not significant.
- b. When average and good speech ability scores are combined with speech fright scores (as derived by researchers' observation), a chi square of 1.113 is obtained, which is not significant.
- c. When average and good speech ability scores are combined and compared with speech fright scores (as derived by the Sally Test), a chi square of .036 is obtained, which is not significant.
- d. When average and good speech ability scores are combined and compared with speech fright scores (as derived by Indirect Questioning), a chi square of .204 is obtained, which is not significant.

(3) Second Grade--

- a. When average and good speech ability scores are combined and compared with speech fright (as derived by Direct Questioning), a chi square of .253 is obtained, which is not significant.
- b. When average and good speech ability scores are combined and compared with speech fright scores (as derived by researchers' observations), a chi square of 2.664 is obtained, which is not significant.
- c. When average and good speech ability scores are combined and compared with speech fright scores (as derived by the Sally Test), a chi square of .254 is obtained, which is not significant.
- d. When average and good speech ability scores are combined and compared with speech fright scores (as derived by Indirect Questioning), a chi square of .011 is obtained, which is not significant.

(4) Kindergarten--

- a. When average and good speech ability scores are combined and compared with speech fright scores (as derived by Direct Questioning), a chi square of 1.725 is obtained, which is not significant.

- b. When average and good speech ability scores are combined and compared with speech fright scores (as derived by researchers' observation), a chi square of 4.760 is obtained, which indicates no significance at the 5 per cent level, but is significant at the 10 per cent level.
- c. When average and good speech ability are combined and compared with speech fright scores (as derived by the Sally Test), a chi square of .218 is obtained, which is not significant.
- d. When average and good speech ability scores are compared with speech fright scores (as derived by Indirect Questioning), a chi square of .505 is obtained, which is not significant.

Comparison between Teachers' Ratings and Researchers' Ratings of speech fright and speech ability by grades

- (1) Between the 6th grade ratings, a chi square of 44.201 indicates a significant difference at the 1 per cent level.
- (2) Between the 4th grade ratings, a chi square of 7.124 indicates a significant difference at the 5 per cent level.
- (3) Between the 2nd grade ratings, a chi square of 24.745 indicates a significant difference at the 1 per cent level.
- (4) Between the kindergarten ratings, a chi square of 104.248 indicates a significant difference at the 1 per cent level.
- (5) The overall chi square of this table is 15.856 which is significant at the 1 per cent level.

Differences by grade between the paper-and-pencil tests at the Dossin and Holmes Elementary Schools, administered by teachers, and the same tests at the Herman Elementary School, administered by trained researchers

- (1) Between (5th-6th) and (6th) grade, a chi square of 4.650 is not significant at the 5 per cent level, but was significant at the 10 per cent level.
- (2) Between (3rd-4th) and (4th) grade, a chi square of 2.909 is not significant.
- (3) Between (1st-2nd) and (2nd) grade, a chi square of 2.033 is not significant.
- (4) Between the two kindergarten groups, a chi square of .388 is not significant.
- (5) The overall chi square of this table is 3.237 which is not significant.

Speech ability Ratings between teacher ratings and researcher ratings by grade as to poor, good, and average speech ability

- (1) Between 6th grade ratings, a chi square of 4.079 is not significant.
- (2) Between 4th grade ratings, a chi square of 37.850 is significant at the 1 per cent level.
- (3) Between 2nd grade ratings, a chi square of 16.450 is significant at the 1 per cent level.
- (4) Between kindergarten ratings, a chi square of 115.721 is significant at the 1 per cent level.
- (5) The overall chi square of this table is 8.164 which is significant at the 5 per cent level.

Socio-economic Difference in speech fright between schools as shown by paper-and-pencil tests

- (1) Between the Dossin and Holmes Schools, a chi square of 14.201 indicates a significant difference at the 1 per cent level.
- (2) Between the Holmes and Herman Elementary Schools, a chi square of .013 is not significant.
- (3) Between the Herman and Dossin Schools, a chi square of 10.943 indicates a significant difference at the 1 per cent level.
- (4) The overall chi square of this table is 16.920 which indicates a significant difference at the 1 per cent level.

Differences by Grades within the Schools that significantly differ

- (1) Between (5th-6th) grades at the Dossin School and (5th-6th) grades at the Holmes School, a chi square of 10.938 indicates a significant difference at the 1 per cent level.
- (2) Between (3rd-4th) grades at the Dossin School and (3rd-4th) grades at the Holmes School, a chi square of 6.320 indicates a significant difference at the 5 per cent level.
- (3) Between (1st-2nd) grades at the Dossin School and (1st-2nd) grades at the Holmes School, a chi square of 1.260 is not significant.
- (4) Between the kindergarten classes at the Dossin and Holmes Schools, a chi square of 1.837 is not significant.

Differences in speech fright between the grades at the Dossin and Herman Schools

- (1) Between (5th-6th) grades at the Dossin School and (5th-6th) grades at the Herman School, a chi square of 12.193 indicates a significant difference at the 1 per cent level.
- (2) Between (3rd-4th) grades at the Dossin School and (3rd-4th) grades at the Herman School, a chi square of 5.691 indicates a significant difference at the 1 per cent level.
- (3) Between (1st-2nd) grades at the Dossin School and the (1st-2nd) grades at Herman School, a chi square of 1.348 is not significant.
- (4) Between the kindergarten classes at the Dossin and Herman Schools, a chi square of .012 is not significant.

Teacher Attitudes with respect to Speech Ability, Speech Fright, and Speech Curriculum in the Elementary Grades and Background in the Area of Speech, as reported through a questionnaire form

(1) Speech Fright

- a. Seventeen of the twenty-eight teachers appeared to understand the concept behind speech fright and were able to sympathetically discuss speech fright with their pupils. The majority of the 17 teach in the higher elementary grades.
- b. The remaining 11 teachers indicated that they do not discuss speech fright with their pupils, and do not feel that they should. Most of these teachers work in primary grades.

(2) Speech Ability

- a. Seventeen of the 28 teachers think of speech ability as not only including good voice and articulation, but also as including the broader ability of expressing thoughts and feelings.
- b. The remaining 11 teachers in this category think of good speech ability as primarily being good pronunciation. The majority of these teachers were from the primary grades.

(3) Speech Curriculum

- a. Generally, the teachers indicated that speech should be integrated with, or part and parcel of, the curriculum rather than taught as a separate subject.

(4) Course Background in the Area of Speech

- a. Number of Courses Taken: None 1 2 3 4
Number of Teachers: 5 11 8 3 1

**Speech fright differences according to Sex, as
Measured by the Ross and Sally Tests at the
Holmes and Dossin Schools**

- (1) Between the boys and girls of the 5th-6th grades, a chi square of .039 is not significant.
- (2) Between the boys and girls of the 3rd-4th grades, a chi square of .825 is not significant.
- (3) Between the boys and girls of the 1st-2nd grades, a chi square of 1.733 is not significant.
- (4) Between the boys and girls in the kindergarten classes, a chi square of 5.802 indicates a significant difference at the 10 per cent level.
- (5) The overall chi square of this table is 2.090 which is not significant.

CONCLUSIONS AND IMPLICATIONS

PRE-PILOT STUDY

- (1) The pilot study tends to support the literature and previous research in that the observations of speech fright made by the observers, for the most part, did not correlate with any of the introspective tests of speech fright.
- (2) There was a significant negative correlation between the Indirect Questioning (Puppet Test) and the observers' observation of speech fright for the third grade class. Perhaps the child projects his wished-for feelings upon the puppets rather than his actual feelings. It might also be that the child at this age level has a greater need to please the observer.
- (3) The introspective tests tend toward a degree of correlation with each other. The introspective tests seem less correlated with the observers' observations. This brings out the possibility, as discussed in the literature, that the observers' observations and the introspective tests are measuring different phenomena.
- (4) At the 6th grade level, the Ross Test, the Direct Questioning (Car Test) and the Indirect Questioning (Puppet Test) are significantly correlated. This may indicate that older children are more consistent in their responses to introspective tests.
- (5) At the third-grade level, the introspective tests (the Sally Test, the Direct Questioning (Car Test), and the Indirect Questioning (Puppet Test) are the least correlated. It may be that, as we stated in Conclusion 2, third-grade children

are less able to assess their own feelings or are, at this age, most anxious to give a pleasing answer when facing an examiner in a private session. Since the Sally Test is not privately administered, the child might not be as afraid to admit his true feelings in this impersonal situation.

- (6) Since there was a higher correlation among the introspective measurements at the sixth-grade level, which was significant at the 1 per cent level of confidence, it may be inferred that these introspective measurements have a greater validity in terms of consistently testing the same speech fright phenomenon with older children.

A Comparison between the Grade Levels in Terms of Speech Ability

- (1) Generally speaking, language seems to improve as a child matures in age and progresses in grade level.
- (2) Thought proficiency seems to improve with age and with advancing grade levels.
- (3) Voice proficiency seems to decrease slightly as age increases and as grade level increases. Perhaps increased anxiety in a structured situation could account for this slight drop.
- (4) Action proficiency seems to decrease for many children as they become older. Perhaps more inhibitions concerning bodily actions develop as the child matures, or perhaps the children are taught by the teacher to move less, and thus become conditioned.
- (5) As the children's ages increased, they tended to have scores which grouped more closely together, and they seemed to be more homogenous. Perhaps the extreme examples scored at the first-grade level had been modified by extra teacher attention to their problems.
- (6) At the first-grade level, the thought proficiency and action proficiency standard deviations showed the group to be more heterogenous on these two items. Thought proficiency remains the area in which the scores are consistently more heterogenous, even at the third and sixth-grade levels, although they are more homogenous than they were in the first grade.
- (7) In language proficiency, action proficiency, and voice proficiency, the standard deviations indicate a slight tendency to be more homogenous at the third-grade level than at the sixth-grade level. Perhaps this age group tends to be one at which these kinds of scores should be the most homogenous. Extreme problems have been given teacher help, and native abilities have not yet been developed to any extent.

A. Comparison between the Grade Levels in Terms of Speech Anxiety

- (1) Children have more anxiety about speech-making as they grow older, perhaps due to conditioning or fear of doing poorly.**
- (2) Children at the sixth-grade level report more anxiety on the introspective tests and are more consistent with other tests of speech fright.**
- (3) Children at the third-grade level seem to be ambivalent in their reporting of anxiety in the introspective tests. While a greater number of them have observed anxiety than do children at the first-grade level, they sometimes report even less anxiety than those in the first grade. Perhaps this is due to a wish to hide their feelings from themselves, from others, or from both. They are less consistent with other measurements of speech fright.**
- (4) A great number of children reported less anxiety on the Sally Test than on any other test. Perhaps they liked the smiling faces or were loathe to show an unhappy visual image of themselves, since this is the only completely visual test given to measure introspective feelings.**
- (5) The standard deviation scores seem to emphasize the ambivalence of the third grade with fluctuations in deviation from test to test.**
- (6) The first-grade children seem to be the most heterogenous group; they vary more widely in their answers to questions.**
- (7) The sixth-grade class showed the greatest deviation from the mean in the Ross Anxiety Test. Since this one score seemed so out of line with all of the other scores given, it may be a reflection of very poor reading ability on the part of some of the children; this was the only test given to children in which reading was requested. The histogram would tend to support this inference.**

A. Comparison of Speech Fright and Speech Ability between the Observers' Ratings and the Classroom Teacher's Ratings

- (1) Since this was a very small sample of teachers for rating, it is doubtful whether any conclusions of significance can be drawn. One of the teacher's ratings correlated with the observers' ratings, and one did not. Whether this one teacher was more perceptive, more attuned to the observers' rating system, or whether it is easier to predict speech anxiety and ability at the first-grade level than at the third-grade level, are factors which are not known and would have to be explored further.**

- (2) Both teachers seemed better able to predict speech ability than speech anxiety and had higher appropriate correlations with the observers.

Major Conclusions of Pre-Pilot Study

- (1) In this pilot study, the data may be accepted at face value; that is, reliable observed measures of anxiety are just that--expert observations. The same is true with the introspective reports given.
- (2) This pilot study does support the literature, in that introspective reports are not positively correlated to observation reports.
- (3) The trained observers are reliable with respect to the measurement of both speech ability and speech fright. The grade-related introspective devices appear to be most reliable and are correlated with each other.
- (4) The significant correlation between observers indicates that similar phenomena are identically being seen, namely signs of speech fright and signs of speech ability.
- (5) The Sally Picture Test is more appropriate for the earlier grades than is the Ross Questionnaire. Both tests can be interpreted to infer attitudes toward the speaking situation.
- (6) Empirically, it was indicated that samples drawn from kindergarten, second, fourth, and sixth grades would be predictive.

PILOT STUDY

- (1) How Frequent is the Phenomenon of Speech Fright at the Elementary School Level?
 - a. Between 15 and 25 per cent of the elementary school children in this study appear to reveal considerable concern about speech fright.
- (2) Is Speech Fright Related to Poor Speech Ability
 - a. In this study Speech fright is not found to correlate with poor speech ability.
- (3) What are the Teachers' Attitudes with Respect to Speech Fright?
 - a. The upper elementary grade teachers indicate generally that they are aware of this phenomenon of speech fright and discuss it directly with their pupils. The lower grade teachers indicate generally that they are not aware of any great intensity of speech fright and therefore, they do not directly deal with the children's speech fright, nor do they feel the need to do so.

- (4) How Reliably Predictive are the Introspective Tests?
- a. The introspective tests have a low predictive value as compared with observed speech fright. At face value, the tests do indicate the child's speech attitude concerning speech-making.
- (5) Which Introspective Test Judged by its Results Seems Most Sensitive at the Respective Grade Levels?
- a. The introspective test which shows the closest correlation with the researchers' observations of high, low, and average speech fright is Direct Questioning (Car Test).
 - b. The introspective test which reveals the greatest amount of speech fright is Direct Questioning (Car Test).
 - c. The introspective test which shows the closest correlation with the researchers' observations of high speech varies at each grade level: for sixth grade, the Ross Test; for fourth and second grade, the Direct Questioning (Car Test); for Kindergarten, the Indirect Questioning (Puppet Test).
 - d. The introspective test which shows the closest correlation with the teachers' reports of high speech fright varies at each grade level: for sixth grade, the Indirect Questioning (Puppet Test); for fourth grade, the Direct Questioning (Car Test); for second grade, the Indirect Questioning (Puppet Test); for kindergarten, all three tests (Sally Test, Direct Questioning and Indirect Questioning).
- (6) Do Children in the Lower Economic Settings Have More Speech Fright than Children in Higher Economic Settings?
- a. In the schools here studied, at the third, fourth, fifth and sixth grade levels, statistically significant evidence is found that children in the lower economic settings indicate more speech fright than children in high economic settings. It is interesting to note that such statistically significant evidence is not found for the kindergarten, first, and second grades.
- (7) Do the Researchers' Ratings and Introspective Test Results Indicate Speech Fright Differences according to Sex?
- a. There are no conclusive indications concerning any presence or absence of speech fright differences according to sex.

IMPLICATIONS

- (1) It would be important to understand why children in the lower economic settings particularly in the higher elementary grades, indicate more speech fright than those children at the same grade level in the higher economic settings. Perhaps self-esteem tests could be devised to reveal a difference.

- (2) It would also be important to understand why children of the lower economic setting in the primary grades do not vary from the children in the higher economic setting with respect to speech fright, until the third grade. Since this seems to be the critical transition period, an answer here could be very important.
- (3) The role of speech communication training in the very early grades of socially, economically or culturally deprived children appears from this study to be a critical area for research.
- (4) The study showed that there was no significant difference in the frequency of speech fright among grade levels, as measured by the researchers' observation. Through longitudinal studies, it would be important to note whether it is the same children who continue to have speech fright throughout the grades, or whether some children outgrow their fears, while others acquire them.
- (5) It may be important and relevant to know more about the child who is considerably concerned by speech fright, in terms of intelligence, listening habits, creativity, general anxiety, emotional maturity and physical maturity. It might prove productive to conduct follow-up studies of this child to discover whether the same patterns of speech fright continue for him at the high school and college level.
- (6) The literature indicates that girls usually reflect more general anxiety than boys. As Sarason points out, this could be a cultural determinant, inasmuch as girls feel freer to admit their anxiety. The girls in this study did not reflect greater speech fright than the boys. It would be interesting to explore further discrepancy between the study and the literature.
- (7) It might be important to determine why teachers differed significantly with the researchers observing speech fright in the classroom.
- (8) The study indicated no significant difference in the frequency of poor, average, and good speech ability among grade levels as reported by the researchers' observations. Through longitudinal studies, it would be important to note whether each child retains the same degree of speech ability throughout grade school and college.
- (9) The pilot study showed that there were some discrepancies among grades in the development of voice, language, action, and thought ability, as indicated by the researchers' observation. Further study of this phenomenon would help in obtaining more specific speech norms for the elementary school.
- (10) This study did not investigate the sex differences that might be present in speech ability. Further understanding of speech ability would be of help to teachers in working with children and their speech problems.

- (11) It would be interesting to discover whether teachers who had more formal speech training at the university level are better able to deal with speech fright.
- (12) It would be interesting to experiment with seminars for elementary school teachers, in which the central study is speech fright in the elementary grades.
- (13) It would be important to discover whether the children feel less speech fright in those classes where the teacher has a warm personality and creates an atmosphere which encourages fuller self-expression.
- (14) It would be important to know whether there is more speech fright in those classes where the child has less opportunity to speak, or vice versa.
- (15) The elementary school teachers indicated in the questionnaire that they integrate speech activities with their class curriculum. Perhaps experimentation with a more direct approach to public speaking, such as that used at the college freshman level, might yield positive results.
- (16) It would be interesting to discover whether the anxiety ratings by trained observers could be correlated with ratings determined by the Sudorimeter or psycho-dermal testing. The Sudorimeter ratings would provide another index for determining these anxiety levels.
- (17) It would be interesting to pursue the problem of I. Q. as it relates to speech fright. Perhaps this could be a major emphasis in future studies.

BIBLIOGRAPHY

There are 77 references listed in the final report.

PUBLICATIONS

None to date.