The listening skills component of the Interpersonal Skills Training Program for staff of the University of Georgia Cooperative Extension Service was evaluated. Such services can help individuals and client families explore alternatives and develop resources for coping with crises. An instrument developed by J. E. Jones and L. Mohr (1986) was used to measure the listening skills of 150 county and state extension staff before and after the 3-day training program. The listening test consists of responses to taped statements that would reveal how accurately respondents had understood the statement's intended meaning. Pretest scores indicated that extension staff did not generally have adequate listening skills. The 30-item posttest indicated that extension personnel improved significantly in listening ability, with the greatest increases in the scores of males and those working in agriculture rather than home economics. No significant relationship was found between educational level and posttest scores. In addition, listening skills improved more for some geographic areas than for other areas, perhaps a reflection of higher personal contact in some areas.

(SLD)
Evaluating Listening Skills
of Extension Staff

by

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"Three seminars, four workshops and 12 cassette tapes on
the art of listening and my staff won't talk to me."

A paper presented to the American Evaluation Association,
San Francisco, California, October 20, 1989
INTRODUCTION

Disruption and dislocation often bring added stress and the possibility of disfunction in families. Families must develop their ability to manage stress and must learn how to identify and manage resources, generate realistic alternatives, and implement a course of action. Extension Educational Programs can help individuals and families explore alternatives and develop resources for coping with crises. To do this requires that Extension professionals have the necessary knowledge and skills to build helping relationships with their clientele. This helping relationship cannot be attained without first actively listening to clients.

PURPOSE OF THE STUDY

The purpose of the study was to investigate the listening skills component of the Interpersonal Skills Training Program for the Georgia Extension Staff. Extension Staff who possess listening and helping relationship skills can more effectively help farmers and their families make more sound decisions in their personal and professional lives. Specific objectives of the study are:

1. To describe selective background characteristics of Extension staff and their relationship to listening scores.
2. To determine the level of achievement of Extension staff in Advanced Orientation and inservice listening skills training program.
3. To compare the levels of achievement of Extension staff before and after the training program.

METHODOLOGY

Sampling

The data for this study were obtained from County Extension Agents and State Extension staff who were newly employed in the University of Georgia Cooperative Extension Service during 1986, 1987, and 1988. During this period a total of 150 County Extension Agents and State staff were employed and are located throughout the state in five Extension districts. These individuals comprised the population for the study.

Data and Instrumentation

A review of the literature revealed a standardized instrument developed by Jones and Mohr (1986) to measure listening skills of individuals. The Jones-Mohr listening efficiency, was developed primarily for the use in education and training designs. The test provides a measure of the effects of skill building in listening and can secondarily be used as an evaluation tool.
The design of the Jones-Mohr Test was to provide immediate feedback to participants on their listening accuracy. This format was used to motivate participants to work on their listening skills. A third function of the instrument was to demonstrate the need for listening improvements in groups and organizations. The data collected from the instrument allowed researchers an opportunity to research and evaluate listening skills.

The listening test consists of two cassette tapes containing thirty statements each (Form A and Form B). As the tapes are played respondents are asked to indicate on the answer form (Form A or Form B) which of the four phrases on the answer form best represents the intended meaning of the statement (Appendix A). After each statement is read aloud on the tape, the respondent has ten seconds to make his or her selection on the answer form before the next statement is read. Scoring of the instrument consists of totaling in the number of correct responses to the thirty statements.

Data Collection Procedure

The Jones-Mohr Listening Test was administered to County Extension Agents who were enrolled in the Interpersonal Skills Curriculum Program (see appendix). This training was a three day training program conducted twice each year for newly employed County Extension staff.

Participants in these trainings were given Form A (pretest) of the Jones-Mohr Listening Test at the beginning of this training. The post test, Form B, was administered after the active listening segment of the training had been completed.

All participants were encouraged to complete all items on the pre and post tests. A total of 150 County and State Extension Staff enrolled in the Interpersonal Skills Training completed both the pre and post tests. The equivalent-Form reliability coefficient was completed for the test. The coefficient of equivalence was .88.

The returned test forms were examined for completeness by the researchers. Data were coded, entered into IBM coding forms, and key punched. Preliminary runs were made to detect errors in coding, key punching, and entries using the Statistical Analysis System (SAS) of computer programs at the Instructional and Research Computer facilities of The University of Georgia.

Descriptive statistics of central tendency and variability were computed to summarize the data regarding agent scores on both the pre and post tests. Two statistical techniques were used to analyze the data and strength of the relationship between variables.
The statistical techniques which were used to determine the significance of the differences in pre test and post test scores was the t-test for independent samples. The t-test was also used to determine the significance of the difference between males and females enrolled in the advanced orientation training.

This study was also concerned with the relationship between several variables. The Pearson r is a measure of the strength and direction of the linear relationship between variables and used when the scale of the measurement is of interval or ratio type. The Pearson r correlation coefficient was used to test the relationship between the variable post test scores and level of education. The Duncan Multiple Range Test was used to determine if significant differences existed in test scores between Extension staff located in the five Extension Districts.

RESULTS

One of the objectives of the study was to describe selected background characteristics of the Extension staff who participated in these training sessions. Information was collected regarding sex, level of education, area of responsibility and district location within the state.

Seventy-two percent of the participants in the study were female, and twenty-eighty percent were male. Extension staff were uniformly located throughout the state. The district with the highest number of participants in the study was the southeast district with 30 participants. The district with the lowest number was the state staff with 22 participants.

Educational levels varied among the participants in the study. Sixty-one percent of the participants had only bachelor degrees. Thirty-one percent had achieved the master degree level and seven percent had doctorate degrees.

Seventy-two percent of the staff participating in the study had major program responsibilities in the area of home economics (Table 4). Twenty-eight percent had major program responsibilities in agriculture.

Pretest Results

There were 30 items in the Jones-Mohr Listening Test (Form A). The possible range of scores was from 0 to 30. Scores were determined by summing the number of correct responses to each of the 30 items. The mean score of the pretest was 11.53. The scores ranged from 3 to 24. The data presented in Table 1 indicate that in general, Extension staff do not have adequate listening skills.
Table 1
Pretest Scores

<table>
<thead>
<tr>
<th>Score</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>12</td>
<td>8.0</td>
</tr>
<tr>
<td>6-10</td>
<td>69</td>
<td>46.0</td>
</tr>
<tr>
<td>11-15</td>
<td>30</td>
<td>20.0</td>
</tr>
<tr>
<td>16-20</td>
<td>28</td>
<td>18.7</td>
</tr>
<tr>
<td>21-25</td>
<td>11</td>
<td>7.3</td>
</tr>
<tr>
<td>26-30</td>
<td>-</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Mean = 11.53   Mode = 10   Median = 10   S.D. = 5.28

Post Test Results
There were 30 items in the Jones-Mohr Listening Test (Form B). The possible range of scores was 0 to 30. Scores were determined by adding the correct number of responses to each of the 30 items. The mean score of the post test was 12.73.

The scores ranged from 3 to 29. The data represented in Table 2 indicate that in general, Extension Staff personnel improved in their listening ability based on the 30 item post test.

Table 2
Post Test Scores

<table>
<thead>
<tr>
<th>Score</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>10</td>
<td>6.6</td>
</tr>
<tr>
<td>6-10</td>
<td>55</td>
<td>36.5</td>
</tr>
<tr>
<td>11-15</td>
<td>40</td>
<td>26.7</td>
</tr>
<tr>
<td>16-20</td>
<td>22</td>
<td>14.7</td>
</tr>
<tr>
<td>21-25</td>
<td>20</td>
<td>13.3</td>
</tr>
<tr>
<td>26-30</td>
<td>3</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Mean = 12.73   Mode = 8   Median = 11   S.D. = 5.97
Differences Between Pretest Scores and Post Test Scores of Extension Staff Enrolled in Training Programs

It was hypothesized that there would be no significant difference between pretest scores and post test scores of Extension staff enrolled in the training program. As shown in Table 3, the mean score for correct responses in the pretest increased from 11.53 to 12.73.

It was determined through the use of the t-test that a significant difference (p < .05) existed between the mean pretest and the mean post test score, therefore, the null hypothesis was rejected.

Table 3

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>150</td>
<td>11.53</td>
<td>5.28</td>
</tr>
<tr>
<td>Post Test</td>
<td>150</td>
<td>12.73</td>
<td>5.97</td>
</tr>
</tbody>
</table>

T = 5.17   df = .001   p < .05

Differences Between Extension Staff from Different Districts on Pretest and Post Test Scores

It was hypothesized that there would be no significant differences between the Extension Districts on the pretest and post test listening scores. As shown in Table 4, a significant difference existed between districts. The Duncan Multiple Range Test was employed to determine if significant differences existed between the various Extension districts. This multiple comparison test will group the districts according to the differences found. Using this statistical test it was determined the Southwest District scored significantly higher on the pretest than other Districts in the study. The post test scores also revealed that staff from the Southwest District scored significantly higher (p < .05) on the post test than did staff from the other Extension Districts. The data also indicated that as a group the Central, Southwest, and Southeast Districts scored significantly higher on post test scores than did staff from the other Extension Districts.

Since significant differences (p < .05) existed between districts on both the pretest and post test scores, the null hypothesis was rejected.
Table 4
Duncan Multiple Range Test on Mean Pretest and Post Test Scores by District*

<table>
<thead>
<tr>
<th>Test</th>
<th>SW</th>
<th>CE</th>
<th>SE</th>
<th>ND</th>
<th>NC</th>
<th>SS</th>
<th>DF</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>14.6</td>
<td>11.6</td>
<td>11.2</td>
<td>11.1</td>
<td>10.6</td>
<td>10.0</td>
<td>144</td>
<td>2.28</td>
</tr>
<tr>
<td>Post Test</td>
<td>15.7</td>
<td>13.2</td>
<td>13.1</td>
<td>11.9</td>
<td>10.5</td>
<td>11.6</td>
<td>144</td>
<td>2.22</td>
</tr>
</tbody>
</table>

* Differences between and among means are insignificant unless noted with a subscript

** SW = Southwest, CE = Central, SE = Southeast, ND = North, NC = North Central, SS = State Staff

a Southwest District pretest scores were significantly higher than either Central, Southeast, North, North Central, or State Staff participants scores.

b Southwest District post test scores were significantly higher than either Central, Southeast, North, North Central or State Staff participants scores

c As a group Southwest, Southeast and Central Districts scores were significantly higher than North, North Central and State Staff scores.

Difference Between Males and Females on Post Test Scores

It was hypothesized that there would be no difference between the pretest and post test scores of males and females in the Extension training program. As shown in Table 5, there was an increase in the post test scores of males. Using the t-test, a statistically significant different (p < .05) was found to exist in the means of the different genders in post test scores. The null hypothesis is therefore rejected.
Table 5

Test of Significance Between Male and Female Post Test Scores

<table>
<thead>
<tr>
<th>Sex</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>42</td>
<td>16.45</td>
<td>5.33</td>
</tr>
<tr>
<td>Female</td>
<td>108</td>
<td>11.28</td>
<td>5.59</td>
</tr>
</tbody>
</table>

T = -5.13  df = 148.0  p < .05

Differences in Area of Responsibility, Agriculture or Home Economics Post Test Scores

It was hypothesized that there would be no difference between the area of responsibility (agriculture or home economics) in post test scores. As shown in Table 6, those whose major area of responsibility was agriculture scored significantly higher (p < .05) on the post test than did those working primarily in the home economics area. The null hypothesis of no difference between the area of responsibilities was therefore rejected.

Table 6

Test of the Significance for Area of Responsibility Between Agriculture and Home Economics Post Test Scores

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>42</td>
<td>15.92</td>
<td>5.30</td>
</tr>
<tr>
<td>Home Economics</td>
<td>108</td>
<td>11.49</td>
<td>5.78</td>
</tr>
</tbody>
</table>

r = 4.3  df = 148.0  p < .05
Relationship Between Extension Staff with Advanced Degrees and Post Test Listening Scores

A Pearson Product Movement Coefficient was generated to test the relationship between educational level and post test listening scores. No significant relationship was found between these two variables in the study.

The hypothesis that association existed between post test scores and level of education was therefore rejected.

Table 7
Pearson Product Coefficient for Relationship between Educational Level and Post Test Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Listening Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Level</td>
<td></td>
</tr>
<tr>
<td>(1 = BS, 2 = MS,</td>
<td></td>
</tr>
<tr>
<td>3 = PhD)</td>
<td>-.065</td>
</tr>
</tbody>
</table>

p < .05

Discussion

The post test mean listening scores were improved after a training session. This indicates that Extension Agents can benefit from listening skill communication training.

Male scores were significantly higher than their female counterparts. A possible assumption involves the fewer number of males in the study and the higher achievement levels of this gender group.

The Southwest District staff scored higher on both pre and post listening tests than staff from other districts. A possible assumption would be that agents from this district are more involved with production agriculture and the farm financial crisis that many farm families encountered.

The Southwest, Central, and Southeast districts scored significantly higher on the post test than did the other districts. A possible explanation for this might be the varying degrees of production agriculture in each district and the degree to which the farm crisis impacted on local communities. Counties in districts affected adversely by the farm crisis may have sensitized Extension staff to the need to listen attentively and effectively to their clientele.
The urban Extension districts, North, North Central, and the State Staff had the lowest listening scores. A possible explanation for this might be that staff from these districts have less personal contact with clientele than do staff from other districts. Staff in their geographic areas rely more heavily on newspaper articles, television programming, and group meetings to disseminate educational information. Also clients served in these regions have not experienced the same financial stress that communities and farm families have experienced in the central and southern part of the state.

REFERENCES


Jones, John E. and Lawrence Mohr, The Jones Mohr Listening Test, University Associates, San Diego, California, 1976
APPENDIX A

Interpersonal Skills Training

(3 days)

(Day 1) Helping Skills
- Helping Relationship Model Overview
- Language Communications Behaviors
- Deterrents to Effective Listening
- Mini-activity Communicating Acceptance
- Active Listening Model
- Father/Daughter Dialogue Exercise
- Selecting Synonyms Exercise
- Identifying Predominant Feelings Exercise
- Communications for Program Assistants Examples (video tape)
- Listening Triads Activity

(Day 2) Problem Solving, Negotiation, Conflict Management
- Handling Conflict Creatively
- Dealing with Difficult People
- Role Play/Case Studies - Dealing with Difficult People

(Day 3) Handling Relationships
- Team Building
- Balancing Work with Family