An Experimental Study of the Attitudes of Speech Clinicians Toward Stuttering.

Jon Kenneth Ashby
Louisiana State University and Agricultural & Mechanical College

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_disstheses

Recommended Citation
https://digitalcommons.lsu.edu/gradschool_disstheses/2265
INFORMATION TO USERS

This dissertation was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.

2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.

4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.

University Microfilms
300 North Zeeb Road
Ann Arbor, Michigan 48106
A Xerox Education Company
ASHEY, Jon Kenneth, 1941-
AN EXPERIMENTAL STUDY OF THE ATTITUDES OF
SPEECH CLINICIANS TOWARD STUTTERING.

The Louisiana State University and Agricultural
and Mechanical College, Ph.D., 1972
Speech Pathology

University Microfilms, A XEROX Company, Ann Arbor, Michigan
AN EXPERIMENTAL STUDY OF THE ATTITUDES OF SPEECH CLINICIANS TOWARD STUTTERING

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in The Department of Speech

by

Jon Kenneth Ashby
B.S., Abilene Christian College, 1964
M.A., Louisiana State University, 1966
August, 1972
PLEASE NOTE:

Some pages may have
indistinct print.
Filmed as received.

University Microfilms, A Xerox Education Company
ACKNOWLEDGEMENTS

The writer wishes to express his appreciation to Dr. J. Donald Ragsdale for his guidance and encouragement throughout the course of this study. Appreciation is also expressed to Drs. Waldo W. Braden, George H. Gunn, Jr., Michael C. Pollack, and Joseph G. Dawson for their participation as committee members. Gratitude is also directed to Dr. Kenneth Koonce for his assistance with the statistical analysis.

This work was supported (in part) by a U.S. Office of Education Traineeship award from the U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE. This support is gratefully acknowledged.
# TABLE OF CONTENTS

LIST OF TABLES .............................................................

Chapter

I. INTRODUCTION .......................................................... 1
   REVIEW OF PERTINENT LITERATURE .............................. 3
   PURPOSE OF THE STUDY ............................................. 9
   RESEARCH QUESTIONS ............................................... 10

II. METHODOLOGY ......................................................... 12
   SUBJECTS ............................................................. 12
   TEST INSTRUMENT ................................................... 15
   Scales ............................................................... 15
      Factor I .......................................................... 16
      Factor II ......................................................... 16
      Factor III ....................................................... 16
      Factor IV ......................................................... 17
      Factor V .......................................................... 17
   Concepts ............................................................ 17
   Semantic Differential ............................................. 18

PROCEDURE ............................................................... 19
DATA ANALYSIS .......................................................... 19

iii
Chapter Page

III. RESULTS ...................................... 21

IV. DISCUSSION ................................. 31

V. SUMMARY ...................................... 38

BIBLIOGRAPHY ................................. 41

APPENDICES

A. SEMANTIC DIFFERENTIAL TEST FORM ........ 44

B. ANALYSIS OF VARIANCE TABLES .......... 56

VITA ............................................. 62
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Background Groupings of Subjects</td>
<td>14</td>
</tr>
<tr>
<td>II. Mean Responses for Each Factor on Each Concept</td>
<td>22</td>
</tr>
<tr>
<td>III. Results of Tests of Significance for Each Orthogonal Comparison on Each Concept for Each Factor</td>
<td>23</td>
</tr>
<tr>
<td>IV. Uncorrected Mean Responses on Each Factor by Groups of Age, Experience, Courses, Degree, and Certification</td>
<td>28</td>
</tr>
</tbody>
</table>
This study was concerned with connotative dimensions of meaning held by speech clinicians concerning the conceptual domain of stuttering.

For this investigation, 206 practicing speech clinicians employed in seven Texas and four Louisiana school systems served as subjects. The semantic differential technique was utilized for gathering responses to seven concepts in the stuttering domain on five meaning dimensions. Concepts selected included stuttering, stuttering therapy, boys who stutter, adult males who stutter, girls who stutter, adult females who stutter, and parents of stutterers. Thirty scales for the semantic differential test instrument were selected from five different factors that have accounted for meaning in numerous factor analytic studies. These factors included evaluation, activity, potency, understandability, and anxiety.

Comparisons were made among various combinations of the seven concepts on the five meaning dimensions. Subjects were also grouped for comparisons on the basis of age, years of paid clinical experience, highest degree held, the number of academic courses completed in stuttering, and ASHA certification status in speech pathology.
Results indicate that speech clinicians evaluate stuttering more positively, and stuttering therapy more negatively, than all other concepts. Individuals who stutter were viewed in a similar negative direction regardless of age or sex. Subjects responded more positively to parents of stutterers than to those who stutter.

When groups of clinicians were compared, results suggest that increasing age, higher degrees, more coursework, or more clinical experience did not produce more positive, clinically productive attitudes. However, those subjects with ASHA certification in speech pathology did reveal more clinically appropriate, positive attitudinal responses than the non-certified group.

Therapeutic implications of the research findings were discussed.
CHAPTER I
INTRODUCTION

The role of attitude in the stuttering phenomenon, as seen in the stutterers attitude toward his problem constitutes a significant part of the stuttering syndrome, and is a clinical variable of considerable consequence (Van Riper, 1963; Erickson, 1969). The attitudes and personality attributes of the speech clinician toward the disorder are also thought to be important clinical variables in the therapist-stutterer relationship (Cooper, 1965; Van Riper, 1966). The significance of the therapeutic relationship between the therapist and the stutterer has been stressed as one of the most important components of the therapeutic process.

A psychotherapeutic model of the therapeutic relationship, as discussed by Schultz (1972), may form the basis of the stuttering therapy process (Sheehan, 1970; Travis, 1971). Cooper (1966) has demonstrated that important similarities exist between psychotherapy and stuttering therapy. Studies in psychology and psychotherapeutic research have been addressed to this therapist-patient relationship and may directly relate
to stuttering therapy. It appears that clinical success in psychotherapy is related to the quality of the therapeutic relationship more than to the effects of the specific technique or methodology employed (Murphy and FitzSimmons, 1960; Meltzoff and Kornreich, 1970). Strupp (1963) found that therapists' attitudes strongly influence this relationship and the outcome of psychotherapy. Van Riper has made similar observations with regard to stuttering therapy:

It is possible for the therapist to become concerned too deeply with procedures and methodologies, to forget that the most important variable in therapy, outside the stutterer himself, is the therapist. The influence of his personal attributes often are crucial in terms of therapy processes and results. Every therapist, regardless of theoretical position or therapeutic approach, needs to consider seriously the import of his person in the therapy process (1968, p. 84).

The development of an appropriate therapeutic relationship may be influenced by the clinician's attitudes toward the client and the disorder possessed by the client (Feidler, 1953). Therefore the clinician should be made aware of the attitudes he holds and assumptions he tends to make about stuttering and individuals who stutter. His attitudes and attributes, though obviously important, are not well defined or differentiated in the literature. Very little systematic research into the attitudes of speech clinicians toward stuttering has been reported.
In one of the earliest research projects in which attitudes toward stuttering were assessed, Ammons and Johnson (1944) developed the Iowa Scale of Attitude Toward Stuttering. This Likert-type scale was made up of a series of 45 statements concerning stuttering and communicative behavior. It was designed to assess the stutterer's attitude toward his problem by having him indicate moderate or strong agreement or disagreement to the scale items. In the development of the scale Ammons and Johnson administered it to 67 normal speaking speech clinicians, 11 speech clinicians who were stutterers, 72 stutterers, 40 freshman college students, and 40 normal speaking townspeople. They found the speech clinicians to show the "least unfavorable reaction to stuttering" of all the groups tested. For many years this scale has been used more as a tool in clinical counseling and interviewing than as a standardized test of attitude (Johnson, Darley and Spriestersbach, 1963). Data supporting the validity of this scale have not been published. Ammons and Johnson's data do suggest that the scale was sensitive enough to differentiate the attitudes of the three groups, i.e. speech clinicians, nonprofessional normal speakers, and stutterers. From this early study it appears that speech clinicians do have the more positive attitude toward stuttering and that attitudes such as this one can be probed systematically.
Friedman (1955) compared the responses of 326 stutterers and 100 nonstuttering speech pathology students at the University of Iowa on the Iowa Scale of Attitude Toward Stuttering. She found no significant differences in mean attitude test scores between the two groups. This finding demonstrates the same degree of "nonacceptance of stuttering" in stutterers and in those learning to manage the problem clinically.

Studies in the extensional definition of stuttering suggest that training in speech pathology influences attitudes toward stuttering. Tuthill explained that his study was concerned with

. . . extensional definition (ostensive or pointing) rather than intensional definitions. Whereas the latter consists of the usual type of definition, i.e., using words, the former makes use of a range of "objects" to which the label may or may not be applied. The range of objects in this instance consisted of actual speech with certain influent pauses, repetitions, hesitations, etc. to which the word "stuttering" was to be applied (1946, p. 82).

Tuthill's data revealed that speech clinicians and experts in the field of speech pathology tend to count significantly more moments of stuttering in recorded speech samples, or sound film speech samples, than do normal speakers who are unacquainted with speech pathology.

Emerick (1960) also studied the extensional definition of stuttering using two groups of elementary school teachers. One group had taken one or more college level courses in speech pathology while the other had taken none. Comparisons were made with respect to the
number of stutterings each group counted in a recorded speech sample. Results substantiated Tuthill's study, indicating that academic coursework in speech pathology, even at a minimal level, tended to make the listener more likely to classify nonfluencies as stuttering. Emerick then compared his two groups with respect to their responses on the Iowa Scale of Attitude Toward Stuttering. The data indicated that training in speech pathology tends to sensitize an individual to stuttering behaviors. Emerick concluded that this training may produce more tolerant attitudes toward stuttering as well as higher countings of moments of stuttering. Since even a small amount of training in speech pathology influences the attitudes and behavior of individuals toward stuttering, the amount and kind of training a clinician possesses may provide a profitable area for attitudinal research.

Results of the studies by Ammons and Johnson (1944), Friedman (1955), and Emerick (1960) should be viewed with caution due to the use of the Iowa Scale of Attitude Toward Stuttering. As stated earlier, data have not been reported on the validity of this test. Emerick (1960) suggests that it may not actually be a measure of attitude but rather a test of how much the subjects know about the disorder. He states that his results may indicate that "training in speech pathology acquaints the listener with the 'right' answers on the attitudinal
scale." The influence of the developers of the scale on the students at the University of Iowa may have had a significant effect on their responses in the study by Friedman (1955).

Conlon (1966) studied the attitude of selected adult groups toward the label "stutterer". She used a modification of the semantic differential technique by requiring each subject to rate the scales twice, first on his own behavior traits and the second time as he thought a stutterer would. Five groups were used in this study: Group I was made up of 50 speech clinicians; group II was 50 public school teachers who had college coursework in speech pathology; group III was 50 public school teachers who had no college coursework in speech pathology; group IV was 10 subjects from the general public who had coursework in speech pathology but who were in business curriculums, and none of whom were educators; group V was made up of 98 subjects from the general public with no academic background in speech pathology; and group VI was 13 stutterers. Results demonstrated the negative evaluative factor of the label "stutterer" as theorized by Johnson (1955). Groups I through V, i.e., all groups but the stutterers, revealed statistically significant responses between the two ratings. Subjects without academic background in stuttering and those with such training tended to respond differently to the rating scales. There was a tendency for responses
of speech clinicians to be more negative than the other groups. Conlon suggests that his may be supportive of Emerick's findings reported above. The more familiar the subjects are with stuttering the more confident they may be in their opinions. Consequently they may be more free to respond negatively to the "stutterer" concept.

Ingram and Studen (1967) studied the attitudes of speech pathology students toward the therapeutic process utilizing the semantic differential technique. Their results indicated that more experienced students were more sure of themselves in that their concepts were well defined. Speech pathology majors at various levels of training differed significantly in their responses, which may suggest a developmental pattern of attitude change.

The role of clinical experience appears to be a well accepted one in the development of clinical skills and attitudes. However, no direct empirical evidence is available to test the validity of this assumption. Yairi and Williams (1970) used an open-ended questionnaire in studying speech clinicians' preconceptions or "stereotypes" of elementary school boys who stutter. An interesting finding was that clinicians with extensive experience with boys who stutter listed more traits than the less experienced ones. Considerable consensus in stereotypes was reported for both groups. Yairi and
Williams suggest that these findings demonstrate that more experienced clinicians have more well defined stereotypes. It may be that clinicians' attitudes toward stuttering change with experience and become more well defined as the distinctiveness of the stereotype in experienced clinicians might suggest. These stereotypes were considered measures of "non-speech connotations" or "clinician's conceptions" of elementary school boys who stutter, and as such provide insight into prevailing attitudes. The majority of the traits reported were judged to be undesirable, which again points to the negative evaluative factor of the problem.

In a later study Woods and Williams (1971) took the Yairi and Williams (1970) data and compared it with responses to the same questionnaire for adult males who stutter. They found speech clinicians to have a similar viewpoint toward both men and boys who stutter. On the basis of their data it appears that stutterers who are elementary school age boys and adult males "generally are expected to be similar and act similarly". The consequences of such expectations should have profound negative effects both on children and adults in a therapeutic relationship (Van Riper, 1963).

Several conclusions may be drawn from existing literature. It appears that speech clinicians have measurably different attitudes toward stuttering from
subjects unacquainted with the field of speech pathology. Those subjects who have had even a limited amount of coursework in the area are more likely to classify non-fluencies as stuttering and at the same time have more tolerant attitudes toward the disorder. The more knowledgeable subjects are about stuttering the more well defined their responses will be to connotative measures. Speech clinicians tend to have negative reactions to stuttering which apparently change with training and experience. They also view stutterers of different age levels similarly.

PURPOSE OF THE STUDY

The significance of the therapeutic relationship between the clinician and the stutterer has been stressed as one of the most important components of the therapeutic process. The attitudes of the speech clinician toward the concept of stuttering, the management of the problem, and individuals who possess the disorder may influence this relationship and hence the therapeutic process. These attitudes have not been systematically probed in such a way that dimensions of the problem might be differentiated. This study is concerned with the dimensions that enter into the concept of stuttering for speech clinicians. The effects of a clinician's age, experience, and certain aspects of training on attitudes
toward several concepts in the domain of stuttering will be investigated.

RESEARCH QUESTIONS

This study was designed to investigate the attitudes of speech clinicians toward the milieu of stuttering. This investigation will first seek to answer research questions concerning the attitudes of speech clinicians toward selected concepts from the domain of stuttering.

1. Are speech clinicians' attitudes toward the concept of stuttering different from their attitudes toward stuttering therapy?

2. Are speech clinicians' attitudes toward stuttering and stuttering therapy different from their attitudes toward individuals who stutter and the parents of stutterers?

3. Are there differences in speech clinicians' attitudes toward boys who stutter and adult males who stutter?

4. Are there differences in speech clinicians' attitudes toward girls and adult females who stutter?

5. Are there differences in speech clinicians' attitudes toward males and females who stutter?

6. Are there differences in speech clinicians' attitudes toward individuals who stutter and parents of stutterers?

This investigation will secondly seek to answer research questions concerning the effects of certain background variables on speech clinician's attitudes toward stuttering.
1. Does a clinician's age affect his attitudes toward stuttering?

2. Are there differences in attitudes toward stuttering between clinicians with a bachelors degree and those with a masters degree?

3. Do clinicians with ASHA Certification in speech pathology have different attitudes toward stuttering from those who are not certified?

4. Does the amount of clinical experience a clinician has affect his attitudes toward stuttering?

5. Does the number of academic courses the clinician has completed in stuttering affect his attitude toward the problem?
CHAPTER II
METHODOLOGY
SUBJECTS

For this study 206 public school speech clinicians from seven Texas and four Louisiana school systems served as subjects. These included:

1. Fort Worth Independent School District, Fort Worth, Texas (27 subjects)

2. Dallas Independent School District, Dallas, Texas (30 subjects)


4. Irving Independent School District, Irving, Texas (16 subjects)

5. Birdville Independent School District, Haltom City, Texas (6 subjects)

6. Carrollton-Farmers-Branch Independent School District, Carrollton, Texas (8 subjects)

7. Hurst-Euless-Bedford Independent School District, Hurst, Texas (7 subjects)

8. Baton Rouge Public Schools, Baton Rouge, Louisiana (26 subjects)

9. Jefferson Parish Public Schools, Gretna, Louisiana (27 subjects)

10. New Orleans Public Schools, New Orleans, Louisiana (30 subjects)

11. Opelousas Public Schools, Opelousas, Louisiana (13 subjects)
Subjects ranged in age from 20 to 56 years with a mean of 28.5 years. Their experience as practicing speech clinicians ranged from 0 to 31 years with a mean of 4.3 years. All subjects were college graduates, 149 held baccalaureate and 57 held masters degrees. The Certificate of Clinical Competence in Speech Pathology (CCC-Sp) from the American Speech and Hearing Association (ASHA) was held by 28, and 54 others stated that they had reached the academic equivalent. None were certified in audiology. Some subjects had taken no academic coursework in the area of stuttering, while others had taken as many as four courses.

Subjects were split into groups for comparisons on the bases of age, highest degree held, clinical experience, ASHA Certification, and the amount of academic coursework in stuttering as shown in Table I.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Grouping</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>20 - 29 years</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>30+ years</td>
<td>61</td>
</tr>
<tr>
<td>Experience</td>
<td>0 - 2 years</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>3+ years</td>
<td>117</td>
</tr>
<tr>
<td>Courses</td>
<td>0</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>2+</td>
<td>72</td>
</tr>
<tr>
<td>Degree</td>
<td>BA</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>MA</td>
<td>57</td>
</tr>
<tr>
<td>Certification</td>
<td>Yes</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>178</td>
</tr>
</tbody>
</table>
Smith (1962) reports that attitudes toward speech correction concepts may be measured by the semantic differential technique that was developed by Osgood, Suci, and Tannenbaum (1957). This technique has also been used by Conlon (1966) and Ingram and Studen (1967) to measure attitudes of speech pathology students and clinicians. Nunnally (1967) defines attitudes as an individual's feelings concerning particular objects. These objects may be social or physical, types of people or particular persons, or social institutions. In the semantic differential technique, the object that is rated is referred to as a concept. The ratings are made on selected seven point scales anchored on the extremes by bipolar adjectives.

Scales

Thirty scales were selected from Osgood, Suci, and Tannenbaum (1957) and Nunnally (1967) and screened by a panel of expert judges. This panel included two members of the Louisiana State University Department of Psychology, and one member of the Department of Speech, who were skilled in the development and usage of the semantic differential technique. Six scales were selected from five different factors that have accounted for meaning in numerous factor analytic studies. These factors
included evaluation, potency, activity, understandability, and anxiety.

**Factor I.** The most frequently reported factor is referred to as "evaluation". This is apparently the strongest factor in semantic differential scales and may be a measure of verbalized attitudes (Nunnally, 1967). Osgood (1962) suggests that the evaluative factor is the attitudinal component of meaning. The six scales selected for this factor included good-bad, pleasant-unpleasant, successful-unsuccessful, positive-negative, sweet-sour, and valuable-worthless.

**Factor II.** The second most frequently reported factor is called "potency" and is considered orthogonal to the evaluative dimension of meaning (Osgood, 1962). This dimension is concerned with the potency, strength, power, or toughness of the meanings associated with it. Scales selected included strong-weak, hard-soft, rugged-delicate, masculine-feminine, large-small, and heavy-light.

**Factor III.** The third factor that frequently appears is referred to as "activity". The activity factor expresses motion or action and is concerned with quickness, excitement, agitation and the like (Osgood, 1957). Scales selected included tense-relaxed, hot-cold, active-passive, sharp-dull, excitable-calm, and impetuous-quiet.
**Factor IV.** Another factor reported by Nunnally (1967) was called "understandability" or familiarity. Scales selected included familiar-unfamiliar, clear-confusing, simple-complex, predictable-unpredictable, understandable-mysterious, and usual-unusual.

**Factor V.** A fifth factor suggested by Nunnally (1967) was called "anxiety". This dimension may be useful in studying subjective feelings of anxiety. Scales selected included anxious-calm, afraid-unafraid, pleasurable-painful, disturbed-undisturbed, nervous-restful, and upset-quiet.

The thirty scales were randomized in order of presentation and also in polarity.

**Concepts**

Seven concepts were selected for this investigation. These included stuttering, stuttering therapy, boys who stutter, adult males who stutter, girls who stutter, adult females who stutter, and parents of stutterers.

The concept of stuttering was selected to represent the total domain to be evaluated. The stuttering therapy concept was added to partition attitudes concerning management of the disorder. Wingate (1971) suggests that speech clinicians have a fear of stuttering. Van Riper (1968) has stated that therapy is likely to be a perplexing endeavor for the clinician.
Five other concepts were added to represent individuals involved in the milieu of stuttering. The third and fourth concepts were boys who stutter and adult males who stutter. Woods and Williams (1971) reported that speech clinician's stereotypes of men and boys who stutter were similar. Van Riper (1963) indicated that this situation is highly detrimental to both groups in the therapy process. The fifth and sixth concepts selected were girls who stutter and adult females who stutter. Responses to these should provide further information as to possible differences in attitudes of speech clinicians relating to the sex and age of stutterers. The seventh concept selected was parents of stutterers. This concept was added to observe attitudes toward individuals involved in the problem other than the stutterer.

**Semantic Differential**

The thirty randomized scales were placed on 8½ by 11 inch paper with the concept to be rated at the top of each page. An instruction sheet was added before the first concept. An information questionnaire followed the last scale. The instrument was constructed and presented in such a way that no instructions were necessary other than those included on the first page of the test. The complete test is included in Appendix A.
Subjects easily completed the task in a thirty minute time period.

PROCEDURE

All subjects in this investigation were speech clinicians employed in public schools. Tests were administered when the clinicians in each school system were together in a group. These sessions included coordination and staffing periods, or regular staff meetings, depending on the school district. Typically subjects were seated together in a classroom or large office. They were told only that they were being asked to participate in a study in the area of stuttering. The tests were distributed and subjects were told to begin after they had thoroughly read the instructions. No other instructions or explanations were supplied. The tests were collected by the examiner as they were completed.

DATA ANALYSIS

The data were subjected to an analysis of variance which utilized the individual degree of freedom technique known as the orthogonal comparison procedure. Mean responses for each of the five factors served as dependent variables while concepts and subject groupings served as independent variables. This analysis permitted tests of null hypotheses for each of the five background
variables, and then for tests of specific comparisons between six combinations of the seven concepts. The analysis was designed to test each of the specific research questions directly. The data were analyzed by an SAS Regression Procedure program at the Louisiana State University Computer Center.
CHAPTER III

RESULTS

The analysis was designed to answer two sets of research questions: (1) to determine whether speech clinicians' attitudes towards selected concepts in the stuttering domain differ significantly, and (2) to determine if background variables affect speech clinicians' attitudes toward stuttering.

Mean responses on the five meaning dimensions for each of the seven concepts are shown in Table II. The analysis of variance for these data are summarized in Table III. The analysis for each of the five meaning dimensions are presented in Appendix B. Research question one was concerned with responses toward the concepts of stuttering and stuttering therapy. The null hypothesis for research question one was rejected at the .01 level of confidence in four of the five factors, and at the .05 level in the remaining factor. Subjects exhibited responses toward the concept of stuttering which differed significantly from their responses to the concept of stuttering therapy. Mean responses toward the concept of stuttering were the highest of all concepts in the
<table>
<thead>
<tr>
<th>Concept</th>
<th>Factor I Evaluation</th>
<th>Factor II Activity</th>
<th>Factor III Potency</th>
<th>Factor IV Understandability</th>
<th>Factor V Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1 Stuttering</td>
<td>28.80</td>
<td>21.25</td>
<td>18.46</td>
<td>27.62</td>
<td>13.19</td>
</tr>
<tr>
<td>C2 Stuttering Therapy</td>
<td>19.41</td>
<td>23.22</td>
<td>23.65</td>
<td>23.24</td>
<td>23.57</td>
</tr>
<tr>
<td>C3 Boys Who Stutter</td>
<td>24.10</td>
<td>22.33</td>
<td>19.56</td>
<td>25.49</td>
<td>15.36</td>
</tr>
<tr>
<td>C4 Adult Males Who Stutter</td>
<td>24.82</td>
<td>22.02</td>
<td>20.52</td>
<td>26.25</td>
<td>15.69</td>
</tr>
<tr>
<td>C6 Adult Females Who Stutter</td>
<td>24.27</td>
<td>26.16</td>
<td>21.39</td>
<td>26.84</td>
<td>16.18</td>
</tr>
<tr>
<td>C7 Parents of Stutterers</td>
<td>25.74</td>
<td>22.79</td>
<td>18.73</td>
<td>26.86</td>
<td>14.60</td>
</tr>
<tr>
<td>Factor I Evaluation</td>
<td>Factor II Activity</td>
<td>Factor III Potency</td>
<td>Factor IV Understandability</td>
<td>Factor V Anxiety</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------</td>
<td>---------------------</td>
<td>-----------------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>QT</td>
<td>HS</td>
<td>HS</td>
<td>HS</td>
<td>HS</td>
<td></td>
</tr>
<tr>
<td>HS</td>
<td>S</td>
<td>HS</td>
<td>HS</td>
<td>HS</td>
<td></td>
</tr>
<tr>
<td>QT</td>
<td>HS</td>
<td>HS</td>
<td>NS</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>QT</td>
<td>S</td>
<td>HS</td>
<td>HS</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>QT</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>QT</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td></td>
</tr>
</tbody>
</table>

S - significant at .05 level
HS - significant at .01 level
NS - not significant

*Q₁ - 1 vs 2
Q₂ - 1,2 vs 3,4,5,6,7
Q₃ - 3,4,5,6 vs 7
Q₄ - 3,4 vs 5,6
Q₅ - 3 vs 4
Q₆ - 5 vs 6
evaluative and understandability factors, and lowest of all concepts in the activity, potency, and anxiety factors. Mean responses for the stuttering therapy concept were the lowest of all concepts on the evaluative and understandability factors, and the highest of all concepts on the potency and anxiety factors. Apparently speech clinicians' feelings are more positive and understanding, as well as less tense and anxious, toward the concept of stuttering. Feelings toward the stuttering therapy concept were significantly more negative, intense, anxious and less understanding.

Research question two dealt with a comparison of responses between individuals in the milieu of stuttering and the concepts of stuttering and stuttering therapy. The null hypothesis for research question two was rejected at the .01 confidence level for the activity, potency, understandability, and anxiety factors but not for the evaluative factor. However, observation of the data reveal that on the evaluative factor the mean for the stuttering concept of 28.80 is higher than all others, and the mean for the stuttering therapy concept of 19.41 is the lowest of all other concepts. The difference between the means of the two groups was not statistically significant in this particular comparison, since the means for these two concepts were averaged. Speech clinicians' feelings about the two concepts, stuttering and stuttering
therapy, apparently are significantly different from their attitudes toward individuals who stutter and parents of stutterers. Responses toward individuals in the milieu of stuttering were more toward the negative pole than were responses toward the concept of stuttering, but more toward the positive pole than feelings toward the stuttering therapy concept.

The third research question dealt with differences in speech clinicians' attitudes toward parents of stutterers and individuals who stutter. The null hypothesis was rejected for three of the five factors at the .01 level of confidence. Parents were rated significantly higher than individuals who stutter in the evaluative factor and significantly lower in the potency factor. On the activity factor, parents were given higher ratings than male stutterers but were more negatively rated than females who stutter. There were no differences between these groups on the understandability or the anxiety factors. It may be that speech clinicians' feelings toward parents of stutterers are more tolerant, as results of the evaluative and potency factors might indicate. They may feel more negatively toward individuals who stutter and toward males more than females.

The fourth research question dealt with speech clinicians' attitudes toward stutterers of the different sexes. The null hypothesis was rejected for three of the
five factors beyond the .01 level of confidence. Results indicate that significant differences exist on the potency, activity, and understandability factors. No differences were observed on either the evaluative or the anxiety factors. It appears that the variable of an individual's sex is cancelled out on the evaluative and anxiety factors by the fact that he is a stutterer. Mean responses on the potency, activity, and understandability factors were significantly more positive toward females than toward males. Attitudes toward males may have been more negative due to the clinicians' greater familiarity with males who stutter.

Research question five and six were concerned with differences in attitudes of speech clinicians toward stutterers of different ages. The null hypotheses were accepted for both questions on all five factors. There were no significant differences in mean responses between men and boys who stutter on any of the five factors. The same results were found for question six. No differences were observed in responses toward girls and adult females who stutter. Responses to these connotative measures of meaning were not significantly different between children and adults who stutter of either sex.

The analysis of variance was also designed to observe the affects of certain background variables on speech clinicians' attitudes toward stuttering. These
variables include the clinician's age, years of paid clinical experience, the number of academic courses completed in the area of stuttering, the highest degree held, and certification status with the American Speech and Hearing Association. Uncorrected mean responses on the five meaning dimensions for each of the background variables and the results of the analysis are shown in Table IV. The analysis for each of the five meaning dimensions are presented in Appendix B.

Subjects were split into two age groups as shown in Tables I and IV. Results of the age comparison reveal that older clinicians, those over thirty years of age, responded significantly more toward the negative pole on the evaluative and understandability factors, and more toward the positive pole on the anxiety factor beyond the .01 level of confidence. It appears that the more mature clinicians viewed stuttering more negatively, with less understanding feelings, and with greater anxiety.

Subjects were also split into two experience groups as shown in Table I and IV. When clinicians with limited experience, those with two years or less of paid clinical experience, were compared with those with three or more years of experience there was a trend (P .09) for the experienced clinicians to respond more negatively to the evaluative factor, and a significant response in the activity factor toward the negative pole at the .01 level
## TABLE IV

**UNCORRECTED MEAN RESPONSES ON EACH FACTOR BY GROUPS OF AGE, EXPERIENCE, COURSES, DEGREE, AND CERTIFICATION**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Factor I Evaluation</th>
<th>Factor II Activity</th>
<th>Factor III Potency</th>
<th>Factor IV Understandability</th>
<th>Factor V Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 - 29 yrs.</td>
<td>24.81**</td>
<td>23.42</td>
<td>20.49</td>
<td>26.65**</td>
<td>15.92**</td>
</tr>
<tr>
<td>30+ yrs.</td>
<td>23.08</td>
<td>23.54</td>
<td>20.76</td>
<td>24.65</td>
<td>17.74</td>
</tr>
<tr>
<td>Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 2 yrs.</td>
<td>24.54+</td>
<td>23.70**</td>
<td>20.39</td>
<td>26.40</td>
<td>16.09</td>
</tr>
<tr>
<td>3+ yrs.</td>
<td>24.15</td>
<td>23.26</td>
<td>20.70</td>
<td>25.85</td>
<td>16.69</td>
</tr>
<tr>
<td>Courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>24.81</td>
<td>23.53</td>
<td>20.61**</td>
<td>27.39**</td>
<td>15.61</td>
</tr>
<tr>
<td>1</td>
<td>24.23</td>
<td>23.43</td>
<td>20.21</td>
<td>26.01</td>
<td>16.61</td>
</tr>
<tr>
<td>2+</td>
<td>24.23</td>
<td>23.44</td>
<td>21.03</td>
<td>25.63</td>
<td>16.54</td>
</tr>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA</td>
<td>24.60</td>
<td>23.44</td>
<td>20.53</td>
<td>26.58**</td>
<td>16.11**</td>
</tr>
<tr>
<td>MA</td>
<td>23.59</td>
<td>23.49</td>
<td>20.66</td>
<td>24.80</td>
<td>17.27</td>
</tr>
<tr>
<td>Certification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>24.54'</td>
<td>23.43</td>
<td>20.67**</td>
<td>26.23</td>
<td>16.48**</td>
</tr>
<tr>
<td>Yes</td>
<td>23.02</td>
<td>23.63</td>
<td>19.94</td>
<td>25.26</td>
<td>16.15</td>
</tr>
</tbody>
</table>

*P .09  
*P .05  
*P .10  
**P .01

**Note:** Mean responses reported above were corrected for the analysis due to unequal subclass numbers.
of confidence. These data indicate that clinicians with three or more years of therapeutic experience evaluate stuttering more negatively and feel more agitated toward the disorder.

Clinicians' responses were then compared with respect to the number of courses specifically dealing with stuttering each had completed. Subjects were placed in one of three groups as shown in Tables I and IV. One group had taken no coursework in stuttering, a second group had taken only one course, and a third group had taken two or more courses. These three groups responded similarly on the evaluative, activity, and anxiety factors. Significant differences were found on the understandability and potency factors beyond the .01 level of confidence. On the understandability dimension responses moved in a significantly more negative direction as the number of courses increased. These data indicate that the more coursework the clinician has in stuttering, the less understanding or familiar his feelings toward the subject. Those who had no coursework responded more positively on the potency factor (20.61) than those who had only one course (20.21), and the latter responded more negatively than those who had taken two or more courses (21.03). These results may indicate that the potency or power dimension of meaning is high in those who have not studied the disorder in detail. Only one course may diminish these feelings,
and as more coursework is accomplished this dimension becomes more positive than the prior two conditions.

When speech clinicians with baccalaureate level and masters level degrees were compared, as shown in Tables I and IV, it appears that both groups evaluate stuttering similarly with similar strength. There were significant differences in responses on the understandability and anxiety factors beyond the .01 level of confidence. Speech clinicians with baccalaureate level degrees responded more positively on the understandability factor and more negatively on the anxiety factor. These data suggest that speech clinicians with masters level degrees have more anxious feelings toward stuttering, and view it with less understanding feelings than those with baccalaureate level degrees.

Subjects were also split into two groups with respect to their ASHA certification status in speech pathology as shown in Tables I and IV. A trend (P .10) for certified clinicians to respond more positively on the evaluative factor was found. A significantly higher response to the potency and anxiety factors for non-certified clinicians was revealed at the .01 level of confidence. These data indicate that clinicians holding ASHA certification felt more positively toward stuttering with significantly less potency and anxiety than the non-certified group.
CHAPTER IV

DISCUSSION

The results of this study demonstrate that connotative dimensions of meaning can be probed for specific speech pathology concepts with profit.

The data in this investigation show that speech clinicians do respond to concepts in the domain of stuttering in different ways. The concept of stuttering itself is more positively evaluated than any other concept in this study, including stuttering therapy. This latter concept is the most negatively evaluated of all concepts tested. The disparity in these two conceptual responses may be of significant import. It appears that speech clinicians may feel more threatened, anxious, and less confident about therapeutic technique. Wingate (1971) has suggested that a fear of stuttering exists among a "substantial majority of public school speech clinicians", but he does not differentiate between stuttering as a conceptual or theoretical entity and stuttering therapy or management. The dichotomy in responses to these two concepts may indicate that theoretical or conceptual aspects of the disorder are more easily managed cognitively, since
so many varying theoretical points of view have been presented and substantiated in the literature. However, when the practical therapeutic dimension is evaluated, the fear of failure, of the unknown, of confusion, of harming the stutterer, and uncertainty as to the efficacy of traditional treatment paradigms and techniques becomes involved. Wingate (1971) has indicated that feelings such as these provide an "impasse to effective therapy." It may be that training programs and available therapeutic literature provide more information and demonstration in theoretical constructs than on practical application. The speech clinician may thus be significantly more sophisticated in theory than in practice. Leith (1971) reports that "serious problems face training programs in providing the necessary clinical experiences in stuttering therapy." In a survey of 50 graduate training institutions he concluded that "it is obvious that training programs are sometimes long on academics and short on practical clinical experience."

At the outset of this investigation it was thought that individuals in the milieu of stuttering would elicit more positive responses from speech clinicians than the stuttering or stuttering therapy concepts. Results indicate this to be the case for stuttering therapy but not for the concept of stuttering. Apparently the feelings toward the individual are not so negative as toward the
treatment of his disorder. These results do indicate that speech clinicians are able to view individuals and their stuttering differentially.

The influence of parents in the development, maintenance, and treatment of stuttering has been recognized as critical for many years (Van Riper, 1963). It was interesting to note that speech clinicians feel more negatively toward individuals who stutter than toward the parents of stutterers. It may be that those individuals in the stuttering milieu who do not possess the disorder evoke more tolerant responses from speech clinicians.

Male and female stutterers were evaluated similarly with similar feelings of anxiety. Males were more negatively viewed on strength and understandability dimensions. These results again demonstrate the negative evaluative factor of stuttering of both sexes and the anxious feelings of the clinicians toward that factor. Females who stutter elicit more tolerant responses in other dimensions than do males. It may be that if clinicians had similar amounts of experience with stutterers of both sexes they would be seen similarly in all dimensions. Speech clinicians see many more male than female stutterers and thus may have more well defined attitudes toward the former than the latter.

Woods and Williams (1971) reported that elementary school age boys who stutter and adult males who stutter,
"generally are expected to be similar and act similarly."
In this study no significant differences were found in measures of connotative meaning between boys and adult males who stutter. When girls who stutter and adult females who stutter were compared the same results were found as for their male counterparts. Speech clinicians' feelings toward individuals who stutter are essentially the same regardless of the sex or age of the stutterer.

Background variables in this investigation revealed generally more positive, tolerant, and less anxious responses from younger clinicians with less training and experience. Woods and Williams (1972) suggest that stereotypes become more well defined with experience and dispose or permit the subject to more negative responses to connotative measure. As seen earlier in this study, speech clinicians may feel safer and be more idealistic or sophisticated in theoretical areas than in practice. Van Riper (1966) stated that "while clinical satisfactions for the therapist occur, clinical experiences which are more likely to frustrate, upset, or perplex occur, too."

Clinicians holding ASHA certification revealed more positive, tolerant and less anxious responses than those not certified. Apparently the certification requirements for advanced clinical practicum, well rounded coursework program, and clinical experience under
supervision produce a clinician with a more appropriate 
clinical attitude toward stuttering than any of such 
variables alone.

This study was concerned with connotative di-
mensions of meaning held by speech clinicians concerning 
the conceptual domain of stuttering. Scores and measures 
obtained from studies using the semantic differential 
technique are typically used as indices of prevailing 
attitudes, though there is discussion as to how directly 
these responses relate to specific attitudinal dimensions. 
In any event, response comparisons in this study revealed 
statistically significant differences in certain factors. 
These scores strongly suggest that connotative meanings 
are very different in some cases and go on to specify the 
directions in which each of the groups in the comparisons 
moved.

Based on these results certain therapeutic con-
clusions and implications become apparent. Emerick (1960), 
Conlon (1966), Ingram and Studen (1967), Van Riper (1966), 
and Woods and Williams (1971) point out that a clinician's 
feelings and attitudes do change with clinical experience. 
Stereotypes become more distinctive, responses to conno-
tative measures become more negative and well defined, 
and subjects become less cautious about expressing their 
feelings. This study confirms these findings in that 
of all groups evaluated only one group showed more 
positive responses with advanced training and extensive
Increasing age, higher degrees, more coursework, or more experience did not produce more positive or clinically productive attitudinal responses. However, the ASHA Certification group was the exception. Results of this study may lend credence to the concept of clinical certification requirements. The major requirement components do not of themselves tend to change clinical attitudes positively.

These positive attitudinal responses are apparently quite important in the therapeutic process. In a review of studies in psychotherapeutic literature, Strupp (1963) concluded that clinicians who have warm feelings and positive attitudes toward their patients reveal more favorable diagnostic and prognostic expectations. He goes on to state that clinicians with positive, warm attitudes communicate more empathy and positive responses in the interaction of therapy. It may be that some therapy programs fail because of the negative effects of the attitudes of the clinician, and not to the ineptitude or resistance of the stutterer. According to Johnson (1955) the critical difference between the stutterer and the nonstutterer is found in the evaluative responses of the listener. The stutterer responds to the environment by fitting into the stereotype outlined for him. Gillen (1971) suggests that speech clinicians are governed as much by feelings as intellect in the therapeutic
process. Results of this study may indicate that the theory of stuttering and profiles of the stutterer presently taught in academic circles is different from the actual stutterer in the field. The preconceptions and attitudes of the clinician may impose a clinical stereotype on the stutterer.Resistance to therapy by the stutterer may in some cases be resistance to the stereotype the clinician presents to him, rather than to the therapeutic process.

For these reasons the clinician, as Haney (1971) recommends, should possess a clear perception of the management of his own therapeutic attitudes, intentions, and techniques. According to Travis (1971), the insight therapist should study his own feelings and attitudes that are aroused by the stutterer's stimulus value. Results of this investigation agree with Woods and Williams (1971) in that the category "stutterer", whether referring to male or female, child or adult arouse undesirable reactions in the speech clinician. The attempts on the part of the stutterer to hide or disguise his problem may result from these intense negative environmental conditions. Woods and Williams suggest:

...by realizing more clearly the nonspeech aspects of the label "stutterer", we will be in a better position to understand this other person's inner world and thereby to increase our mutual respect and liking for him. The improved communication between client and clinician should result in more effective therapy. (1971, p. 233)
CHAPTER V

SUMMARY

This study was concerned with the dimensions of meaning that enter into the concept of stuttering for speech clinicians. Clinical and research literature suggest that feelings and attitudes of clinicians toward particular types of persons and communicative disorders strongly influence therapeutic relationships. By studying the connotative meanings of stuttering concepts, these attitudes may be explored and applied to the therapeutic relationship.

For this investigation, 206 practicing speech clinicians employed in seven Texas and four Louisiana public school systems served as subjects. The semantic differential technique was utilized for gathering responses to seven concepts in the domain of stuttering on five meaning dimensions.

Responses were analyzed in two ways. First, responses of all subjects were compared on the five meaning dimensions of the test instrument and comparisons were made among various combinations of the seven concepts. Secondly, subjects were split into groups for
comparisons by age, clinical experience, highest degree, number of courses in stuttering, and ASHA certification status.

Results indicated that speech clinicians do respond differently on meaning dimensions to concepts in the domain of stuttering. Stuttering therapy was evaluated more negatively than all other concepts, with greater feelings of anxiety and less understandability. The concept of stuttering was evaluated more positively than all others. Individuals who stutter were viewed in a similar negative direction regardless of age or sex. The subjects did not respond to parents of stutterers as negatively as they did toward those who stutter.

When groups of clinicians were compared it was found that increasing age, higher degrees, more coursework, or more clinical experience did not produce more positive, clinically productive attitudes. Those clinicians holding the Certificate of Clinical Competence in Speech Pathology from the American Speech and Hearing Association revealed more clinically appropriate, positive attitudinal responses than the non-certified group.

It appears that speech clinicians are more sophisticated in theory than in practice, are strongly negative in their feelings toward stuttering therapy, and hold the negative evaluative factor of stuttering in such a way that their feelings are similar regardless of the
age or sex of the stutterer. Since ASHA Certified speech clinicians apparently have the most positive, clinically productive attitudes, the kind of advanced training program in speech pathology may be a significant factor in the development of well-prepared speech clinicians. Clinicians and training institutions should be cognizant of the influences to the therapeutic relationship these results indicate.


APPENDIX A
INSTRUCTIONS

The purpose of this study is to measure the meanings of certain concepts to various people by having them judge them against a series of descriptive scales. In taking this test, please make your judgements on the basis of what these concepts mean to you. Following these instructions, you will find several different concepts to be judged and beneath them a set of scales. You are to rate the concept on each of these scales in order.

Here is how you are to use the scales:
If you feel that the concept at the top of the page is very closely related to one end of the scale, you should place your check-mark as follows:

fair \( \times \) : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ unfair
or fair ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ X unfair

If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your check-mark as follows:

or strong ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ X weak

If the concept seems only slightly related to one side as opposed to the other side (but is not really neutral), then you should check as follows:

or active ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ X passive

If you consider the concept to be neutral on the scale, both sides of the scale equally associated with the concept, or if the scale is completely irrelevant, unrelated to the concept, then you should place your check-mark in the middle space:


IMPORTANT: (1) Place your check-marks in the middle of the spaces, not on the boundaries (the colons).
(2) Be sure you check every scale for every concept, do not omit any.
(3) Never put more than one check-mark on a single scale.

Do not look back and forth through the items. Do not try to remember how you checked similar items earlier in the test. Make each item a separate independent judgement. It is your first impressions, the immediate "feelings" about the items that we want. However, please do not be careless since we want your true impressions.
STUTTERING

disturbed ___:___:___:___:___:___:___ undisturbed
sweet ___:___:___:___:___:___:___ sour
valuable ___:___:___:___:___:___:___ worthless
impetuous ___:___:___:___:___:___:___ quiet
unfamiliar ___:___:___:___:___:___:___ familiar
pleasant ___:___:___:___:___:___:___ unpleasant
sharp ___:___:___:___:___:___:___ dull
unpredictable ___:___:___:___:___:___:___ predictable
feminine ___:___:___:___:___:___:___ masculine
relaxed ___:___:___:___:___:___:___ tense
cold ___:___:___:___:___:___:___ hot
anxious ___:___:___:___:___:___:___ calm
confusing ___:___:___:___:___:___:___ clear
afraid ___:___:___:___:___:___:___ unafraid
usual ___:___:___:___:___:___:___ unusual
understandable ___:___:___:___:___:___:___ mysterious
large ___:___:___:___:___:___:___ small
bad ___:___:___:___:___:___:___ good
simple ___:___:___:___:___:___:___ complex
soft ___:___:___:___:___:___:___ hard
weak ___:___:___:___:___:___:___ strong
delicate ___:___:___:___:___:___:___ rugged
calm ___:___:___:___:___:___:___ excitable
pleasurable ___:___:___:___:___:___:___ painful
positive ___:___:___:___:___:___:___ negative
upset ___:___:___:___:___:___:___ quiet
nervous ___:___:___:___:___:___:___ restful
light ___:___:___:___:___:___:___ heavy
unsuccessful ___:___:___:___:___:___:___ successful
passive ___:___:___:___:___:___:___ active
**STUTTERING THERAPY**

<table>
<thead>
<tr>
<th>Word</th>
<th>Antonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>disturbed</td>
<td>undisturbed</td>
</tr>
<tr>
<td>sweet</td>
<td>sour</td>
</tr>
<tr>
<td>valuable</td>
<td>worthless</td>
</tr>
<tr>
<td>impetuous</td>
<td>quiet</td>
</tr>
<tr>
<td>unfamiliar</td>
<td>familiar</td>
</tr>
<tr>
<td>pleasant</td>
<td>unpleasant</td>
</tr>
<tr>
<td>sharp</td>
<td>dull</td>
</tr>
<tr>
<td>unpredictable</td>
<td>predictable</td>
</tr>
<tr>
<td>feminine</td>
<td>masculine</td>
</tr>
<tr>
<td>relaxed</td>
<td>tense</td>
</tr>
<tr>
<td>cold</td>
<td>hot</td>
</tr>
<tr>
<td>anxious</td>
<td>calm</td>
</tr>
<tr>
<td>confusing</td>
<td>clear</td>
</tr>
<tr>
<td>afraid</td>
<td>unafraid</td>
</tr>
<tr>
<td>usual</td>
<td>unusual</td>
</tr>
<tr>
<td>understandable</td>
<td>mysterious</td>
</tr>
<tr>
<td>large</td>
<td>small</td>
</tr>
<tr>
<td>bad</td>
<td>good</td>
</tr>
<tr>
<td>simple</td>
<td>complex</td>
</tr>
<tr>
<td>soft</td>
<td>hard</td>
</tr>
<tr>
<td>weak</td>
<td>strong</td>
</tr>
<tr>
<td>delicate</td>
<td>rugged</td>
</tr>
<tr>
<td>calm</td>
<td>excitable</td>
</tr>
<tr>
<td>pleasurable</td>
<td>painful</td>
</tr>
<tr>
<td>positive</td>
<td>negative</td>
</tr>
<tr>
<td>upset</td>
<td>quiet</td>
</tr>
<tr>
<td>nervous</td>
<td>restful</td>
</tr>
<tr>
<td>light</td>
<td>heavy</td>
</tr>
<tr>
<td>unsuccessful</td>
<td>successful</td>
</tr>
<tr>
<td>passive</td>
<td>active</td>
</tr>
</tbody>
</table>
BOYS WHO STUTTER

disturbed ___:___:___:___:___:___:___
  sweet ___:___:___:___:___:___:___
valuable ___:___:___:___:___:___:___
impetuous ___:___:___:___:___:___:___
unfamiliar ___:___:___:___:___:___:___
pleasant ___:___:___:___:___:___:___
sharp ___:___:___:___:___:___:___
unpredictable ___:___:___:___:___:___:___
feminine ___:___:___:___:___:___:___
relaxed ___:___:___:___:___:___:___
cold ___:___:___:___:___:___:___
anxious ___:___:___:___:___:___:___
confusing ___:___:___:___:___:___:___
afraid ___:___:___:___:___:___:___
usual ___:___:___:___:___:___:___
understandable ___:___:___:___:___:___:___
large ___:___:___:___:___:___:___
bad ___:___:___:___:___:___:___
simple ___:___:___:___:___:___:___
small ___:___:___:___:___:___:___
good ___:___:___:___:___:___:___
complex ___:___:___:___:___:___:___
hard ___:___:___:___:___:___:___
strong ___:___:___:___:___:___:___
rugged ___:___:___:___:___:___:___
excitable ___:___:___:___:___:___:___
painful ___:___:___:___:___:___:___
negative ___:___:___:___:___:___:___
quiet ___:___:___:___:___:___:___
restful ___:___:___:___:___:___:___
heavy ___:___:___:___:___:___:___
successful ___:___:___:___:___:___:___
active ___:___:___:___:___:___:___
ADULT MALES WHO STUTTER

disturbed ___:___:___:___:___:___:___ undisturbed
sweet ___:___:___:___:___:___:___ sour
valuable ___:___:___:___:___:___:___ worthless
impetuous ___:___:___:___:___:___:___ quiet
unfamiliar ___:___:___:___:___:___:___ familiar
pleasant ___:___:___:___:___:___:___ unpleasant
sharp ___:___:___:___:___:___:___ dull
unpredictable ___:___:___:___:___:___:___ predictable
feminine ___:___:___:___:___:___:___ masculine
relaxed ___:___:___:___:___:___:___ tense
cold ___:___:___:___:___:___:___ hot
anxious ___:___:___:___:___:___:___ calm
confusing ___:___:___:___:___:___:___ clear
afraid ___:___:___:___:___:___:___ unafraid
usual ___:___:___:___:___:___:___ unusual
understandable ___:___:___:___:___:___:___ mysterious
large ___:___:___:___:___:___:___ small
bad ___:___:___:___:___:___:___ good
simple ___:___:___:___:___:___:___ complex
soft ___:___:___:___:___:___:___ hard
weak ___:___:___:___:___:___:___ strong
delicate ___:___:___:___:___:___:___ rugged
calm ___:___:___:___:___:___:___ excitable
pleasurable ___:___:___:___:___:___:___ painful
positive ___:___:___:___:___:___:___ negative
upset ___:___:___:___:___:___:___ quiet
nervous ___:___:___:___:___:___:___ restful
light ___:___:___:___:___:___:___ heavy
unsuccessful ___:___:___:___:___:___:___ successful
passive ___:___:___:___:___:___:___ active
GIRLS WHO STUTTER

disturbed _______ ________ ________ _______ ______ undisturbed
sweet ___________ ___________ ___________ sour
valuable ___________ ___________ ___________ worthless
impetuous ___________ ___________ ___________ quiet
unfamiliar ___________ ___________ ___________ familiar
pleasant ___________ ___________ ___________ unpleasant
sharp ___________ ___________ ___________ dull
unpredictable ___________ ___________ ___________ predictable
feminine ___________ ___________ ___________ masculine
relaxed ___________ ___________ ___________ ______ tense
cold ___________ ___________ ___________ ______ hot
anxious ___________ ___________ ___________ ______ calm
confusing ___________ ___________ ___________ ______ clear
afraid ___________ ___________ ___________ ______ unafraid
usual ___________ ___________ ___________ ______ unusual
understandable ___________ ___________ ___________ mysterious
large ___________ ___________ ___________ ______ small
bad ___________ ___________ ___________ ______ good
simple ___________ ___________ ___________ ______ complex
soft ___________ ___________ ___________ ______ hard
weak ___________ ___________ ___________ ______ strong
delicate ___________ ___________ ___________ ______ rugged
calm ___________ ___________ ___________ ______ excitable
pleasurable ___________ ___________ ___________ ______ painful
positive ___________ ___________ ___________ ______ negative
upset ___________ ___________ ___________ ______ quiet
nervous ___________ ___________ ___________ ______ restful
light ___________ ___________ ___________ ______ heavy
unsuccessful ___________ ___________ ___________ ______ successful
passive ___________ ___________ ___________ ______ active
### ADULT FEMALES WHO STUTTER

<table>
<thead>
<tr>
<th>Disturbed</th>
<th>Undisturbed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet</td>
<td>Sour</td>
</tr>
<tr>
<td>Valuable</td>
<td>Worthless</td>
</tr>
<tr>
<td>Impetuous</td>
<td>Quiet</td>
</tr>
<tr>
<td>Unfamiliar</td>
<td>Familiar</td>
</tr>
<tr>
<td>Pleasant</td>
<td>Un pleasan t</td>
</tr>
<tr>
<td>Sharp</td>
<td>Dull</td>
</tr>
<tr>
<td>Unpredictable</td>
<td>Predictable</td>
</tr>
<tr>
<td>Feminine</td>
<td>Masculine</td>
</tr>
<tr>
<td>Relaxed</td>
<td>Tense</td>
</tr>
<tr>
<td>Cold</td>
<td>Hot</td>
</tr>
<tr>
<td>Anxious</td>
<td>Calm</td>
</tr>
<tr>
<td>Confusing</td>
<td>Clear</td>
</tr>
<tr>
<td>Afraid</td>
<td>Unafraid</td>
</tr>
<tr>
<td>Usual</td>
<td>Unusual</td>
</tr>
<tr>
<td>Understandable</td>
<td>Mysterious</td>
</tr>
<tr>
<td>Large</td>
<td>Small</td>
</tr>
<tr>
<td>Bad</td>
<td>Good</td>
</tr>
<tr>
<td>Simple</td>
<td>Complex</td>
</tr>
<tr>
<td>Soft</td>
<td>Hard</td>
</tr>
<tr>
<td>Weak</td>
<td>Strong</td>
</tr>
<tr>
<td>Delicate</td>
<td>Rugged</td>
</tr>
<tr>
<td>Calm</td>
<td>Excitable</td>
</tr>
<tr>
<td>Pleasurable</td>
<td>Painful</td>
</tr>
<tr>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Upset</td>
<td>Quiet</td>
</tr>
<tr>
<td>Nervous</td>
<td>Restful</td>
</tr>
<tr>
<td>Light</td>
<td>Heavy</td>
</tr>
<tr>
<td>Unsuccessful</td>
<td>Successful</td>
</tr>
<tr>
<td>Passive</td>
<td>Active</td>
</tr>
</tbody>
</table>
## Parents of Stutterers

<table>
<thead>
<tr>
<th>Word</th>
<th>Opposite Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>disturbed</td>
<td>undisturbed</td>
</tr>
<tr>
<td>sweet</td>
<td>sour</td>
</tr>
<tr>
<td>valuable</td>
<td>worthless</td>
</tr>
<tr>
<td>impetuous</td>
<td>quiet</td>
</tr>
<tr>
<td>unfamiliar</td>
<td>familiar</td>
</tr>
<tr>
<td>pleasant</td>
<td>unpleasant</td>
</tr>
<tr>
<td>sharp</td>
<td>dull</td>
</tr>
<tr>
<td>unpredictable</td>
<td>predictable</td>
</tr>
<tr>
<td>feminine</td>
<td>masculine</td>
</tr>
<tr>
<td>relaxed</td>
<td>tense</td>
</tr>
<tr>
<td>cold</td>
<td>hot</td>
</tr>
<tr>
<td>anxious</td>
<td>calm</td>
</tr>
<tr>
<td>confusing</td>
<td>clear</td>
</tr>
<tr>
<td>afraid</td>
<td>unafraid</td>
</tr>
<tr>
<td>usual</td>
<td>unusual</td>
</tr>
<tr>
<td>understandable</td>
<td>mysterious</td>
</tr>
<tr>
<td>large</td>
<td>small</td>
</tr>
<tr>
<td>bad</td>
<td>good</td>
</tr>
<tr>
<td>simple</td>
<td>complex</td>
</tr>
<tr>
<td>soft</td>
<td>hard</td>
</tr>
<tr>
<td>weak</td>
<td>strong</td>
</tr>
<tr>
<td>delicate</td>
<td>rugged</td>
</tr>
<tr>
<td>calm</td>
<td>excitable</td>
</tr>
<tr>
<td>pleasurable</td>
<td>painful</td>
</tr>
<tr>
<td>positive</td>
<td>negative</td>
</tr>
<tr>
<td>upset</td>
<td>quiet</td>
</tr>
<tr>
<td>nervous</td>
<td>restful</td>
</tr>
<tr>
<td>light</td>
<td>heavy</td>
</tr>
<tr>
<td>unsuccessful</td>
<td>successful</td>
</tr>
<tr>
<td>passive</td>
<td>active</td>
</tr>
</tbody>
</table>
How many years experience have you had as a practicing clinician in speech pathology? What is your age?
What is your highest degree and the year it was awarded?
Do you hold ASHA Certification in Speech Pathology? Audiology?
If not, do you have the academic equivalent?
If not, how many hours toward certification do you have?
Please indicate the number of courses you have completed specifically in the area of stuttering?
Please indicate the number of courses, other than those above, in which stuttering was a part of the course?

Has your experience in stuttering therapy been:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant

Do you feel your effectiveness in stuttering therapy has been:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant

What type of theoretical background do you feel you have in stuttering:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant
What type of background do you feel you have in clinical techniques and procedures in stuttering therapy:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant

Have you had training in operant procedures in stuttering therapy:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant

How much experience have you had with the following:

Adult males who stutter:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant

Boys who stutter:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant

Adult females who stutter:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant
Girls who stutter:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant

Parents of stutterers:
   a. __ extensive
   b. __ moderate
   c. __ minimal
   d. __ none or scant
APPENDIX B
**TABLE I**

ANALYSIS OF VARIANCE TABLE FOR VARIABLES OF AGE, EXPERIENCE, COURSES, DEGREE, CERTIFICATION AND CONCEPT FOR THE EVALUATIVE FACTOR

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sums of Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1441</td>
<td>49405.40638</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>1429</td>
<td>38449.87299</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>533.27028</td>
<td>20.56244**</td>
</tr>
<tr>
<td>Experience</td>
<td>1</td>
<td>73.16463</td>
<td>2.71918</td>
</tr>
<tr>
<td>Courses</td>
<td>2</td>
<td>34.35081</td>
<td>0.63833</td>
</tr>
<tr>
<td>Degree</td>
<td>1</td>
<td>26.19415</td>
<td>0.97351</td>
</tr>
<tr>
<td>Certification</td>
<td>1</td>
<td>67.32367</td>
<td>2.50210</td>
</tr>
<tr>
<td>Concepts</td>
<td>6</td>
<td>9861.68793</td>
<td>61.08539**</td>
</tr>
</tbody>
</table>

1 vs 2 1 1 1 .80122
1,2 vs 3,4,5,6,7 1 1 119.74728**
3,4,5,6 vs 7 1 1 7.43691**
3,4 vs 5,6 1 1 .02500
3 vs 4 1 1 .97189
5 vs 6 1 1 .62722

*P .05

**P .01
TABLE II
ANALYSIS OF VARIANCE TABLE FOR VARIABLES OF AGE, EXPERIENCE, COURSES, DEGREE, CERTIFICATION AND CONCEPT FOR THE ACTIVITY FACTOR

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sums of Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1441</td>
<td>27153.47919</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>1429</td>
<td>21927.88511</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>25.48262</td>
<td>1.66066</td>
</tr>
<tr>
<td>Experience</td>
<td>1</td>
<td>116.71798</td>
<td>7.60630**</td>
</tr>
<tr>
<td>Courses</td>
<td>2</td>
<td>3.37175</td>
<td>0.10987</td>
</tr>
<tr>
<td>Degree</td>
<td>1</td>
<td>0.02479</td>
<td>0.00162</td>
</tr>
<tr>
<td>Certification</td>
<td>1</td>
<td>11.33821</td>
<td>0.73889</td>
</tr>
<tr>
<td>Concepts</td>
<td>6</td>
<td>5098.76560</td>
<td>55.37953**</td>
</tr>
</tbody>
</table>

1 vs 2        1 24.90709**
1,2 vs 3,4,5,6,7 1 4.05245*
3,4,5,6 vs 7    1 7.58275**
3,4 vs 5,6      1 8.55592**
3 vs 4          1 1.54701
5 vs 6          1 .017918

*P .05
**P .01
TABLE III
ANALYSIS OF VARIANCE TABLE FOR VARIABLES OF AGE, EXPERIENCE, COURSES, DEGREE, CERTIFICATION AND CONCEPT FOR THE POTENCY FACTOR

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sums of Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1441</td>
<td>34055.97503</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>1429</td>
<td>29494.84194</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>43.39929</td>
<td>2.10266</td>
</tr>
<tr>
<td>Experience</td>
<td>1</td>
<td>17.08561</td>
<td>0.82778</td>
</tr>
<tr>
<td>Courses</td>
<td>2</td>
<td>177.20964</td>
<td>4.29283**</td>
</tr>
<tr>
<td>Degree</td>
<td>1</td>
<td>10.16096</td>
<td>0.49229</td>
</tr>
<tr>
<td>Certification</td>
<td>1</td>
<td>186.47251</td>
<td>9.03443**</td>
</tr>
<tr>
<td>Concepts</td>
<td>6</td>
<td>4149.29542</td>
<td>33.50497**</td>
</tr>
</tbody>
</table>

1 vs 2           | 1   | 8.50297**       |
1,2 vs 3,4,5,6,7 | 1   | 48.35533**      |
3,4,5,6 vs 7     | 1   | 7.83698**       |
3,4 vs 5,6       | 1   | 2.70648*        |
3 vs 4           | 1   | 2.70648         |
5 vs 6           | 1   | .66462          |

*P .05
**P .01
TABLE IV
ANALYSIS OF VARIANCE TABLE FOR VARIABLES OF AGE, EXPERIENCE, COURSES, DEGREE, CERTIFICATION AND CONCEPT FOR THE UNDERSTANDABILITY FACTOR

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sums of Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1441</td>
<td>45642.29017</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>1429</td>
<td>41183.15334</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>774.46127</td>
<td>26.87276**</td>
</tr>
<tr>
<td>Experience</td>
<td>1</td>
<td>64.80412</td>
<td>2.24862</td>
</tr>
<tr>
<td>Courses</td>
<td>2</td>
<td>296.83396</td>
<td>5.14987**</td>
</tr>
<tr>
<td>Degree</td>
<td>1</td>
<td>335.24997</td>
<td>11.63272**</td>
</tr>
<tr>
<td>Certification</td>
<td>1</td>
<td>24.73902</td>
<td>0.85841</td>
</tr>
<tr>
<td>Concepts</td>
<td>6</td>
<td>2477.50347</td>
<td>14.32767**</td>
</tr>
<tr>
<td>1 vs 2</td>
<td>1</td>
<td></td>
<td>6.49404**</td>
</tr>
<tr>
<td>1,2 vs 3,4,5,6,7</td>
<td>1</td>
<td></td>
<td>30.68539**</td>
</tr>
<tr>
<td>3,4,5,6 vs 7</td>
<td>1</td>
<td></td>
<td>.89618</td>
</tr>
<tr>
<td>3,4 vs 5,6</td>
<td>1</td>
<td></td>
<td>5.33333**</td>
</tr>
<tr>
<td>3 vs 4</td>
<td>1</td>
<td></td>
<td>.28676</td>
</tr>
<tr>
<td>5 vs 6</td>
<td>1</td>
<td></td>
<td>.02560</td>
</tr>
</tbody>
</table>

*P .05

**P .01
### TABLE V

**ANALYSIS OF VARIANCE TABLE FOR VARIABLES OF AGE, EXPERIENCE, COURSES, DEGREE, CERTIFICATION AND CONCEPT FOR THE ANXIETY FACTOR**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sums of Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1441</td>
<td>66777.42580</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>1429</td>
<td>51409.91464</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>896.94030</td>
<td>24.93153**</td>
</tr>
<tr>
<td>Experience</td>
<td>1</td>
<td>1.33636</td>
<td>0.3715</td>
</tr>
<tr>
<td>Courses</td>
<td>2</td>
<td>79.33515</td>
<td>1.10261</td>
</tr>
<tr>
<td>Degree</td>
<td>1</td>
<td>219.25326</td>
<td>6.09441**</td>
</tr>
<tr>
<td>Certification</td>
<td>1</td>
<td>452.42244</td>
<td>12.57562**</td>
</tr>
<tr>
<td>Concepts</td>
<td>6</td>
<td>13715.18308</td>
<td>63.53832**</td>
</tr>
<tr>
<td>1 vs 2</td>
<td>1</td>
<td>41.74404**</td>
<td></td>
</tr>
<tr>
<td>1,2 vs 3,4,5,6,7</td>
<td>1</td>
<td>103.96861**</td>
<td></td>
</tr>
<tr>
<td>3,4,5,6 vs 7</td>
<td>1</td>
<td>1.58123</td>
<td></td>
</tr>
<tr>
<td>3,4 vs 5,6</td>
<td>1</td>
<td>.09960</td>
<td></td>
</tr>
<tr>
<td>3 vs 4</td>
<td>1</td>
<td>.03225</td>
<td></td>
</tr>
<tr>
<td>5 vs 6</td>
<td>1</td>
<td>.00126</td>
<td></td>
</tr>
</tbody>
</table>

*P .05

**P .01
VITA

Name: Jon Kenneth Ashby

Born: February 2, 1941
Dayton, Ohio

Education:

High School: Patterson Co-operative High School, Dayton, Ohio

Undergraduate: Diploma, May, 1962
Ohio Valley College
Parkersburg, West Virginia
Major: Liberal Arts
B.S. Ed., May, 1964
Abilene Christian College
Abilene, Texas
Major: Speech Pathology and Audiology

Graduate: M.A., August, 1966
Louisiana State University
Baton Rouge, Louisiana
Major: Speech Pathology and Audiology

Professional Experience:

Speech Clinician: May, 1964 - September, 1964
Hearing and Speech Center of Dayton and Montgomery County
Dayton, Ohio

Instructor, Clinical Supervisor: September, 1966 - August, 1970
Speech and Hearing Clinic
North Texas State University
Denton, Texas
**Candidate:** Jon Kenneth Ashby

**Major Field:** Speech

**Title of Thesis:** An Experimental Study of the Attitudes of Speech Clinicians Toward Stuttering

**Approved:**

[Signature]

Major Professor and Chairman

[Signature]

Dean of the Graduate School

**EXAMINING COMMITTEE:**

[Signatures]

**Date of Examination:**

May 16, 1972