Sandra M. Sheldon. REHABILITATION COUNSELORS' RATINGS OF THE DEGREE OF HANDICAP OF SPEECH DISORDERS. (Under the direction of Hal J. Daniel, III) Division of Speech and Hearing, Department of Special Education, August 1971.

This study was designed to examine the perceptions of rehabilitation counselors regarding the severity of speech problems and the relative effectiveness of speech therapy programs.

Specifically, a purpose of this study was to determine if significant differences existed between ratings of the degree of handicap of speech disorders and ratings of the degree of handicap of nine other disabling conditions as estimated by a group of counselors involved in the field of rehabilitation. Another purpose of this study was to analyze rehabilitation counselors' ratings of the degree of handicap of six speech disorders. This study was also concerned with counselors' ratings of the degree of success of speech therapy that they felt would be or had been attained by their clients with specific speech disorders. Finally, differences between counselors' ratings as a function of experience in the field of rehabilitation were analyzed.

Five hundred randomly selected members of the National Rehabilitation Counseling Association were used as subjects for this study. Each counselor was sent a four page questionnaire containing an introductory letter and three rating scales. On each rating scale, respondents used a defined scale of seven equally appearing intervals to make their ratings. The first rating scale obtained respondents' ratings of the perceived degree of handicap afforded by ten disabling conditions including: emotional disorders; respiratory disorders; spinal cord injury or disease; mental retardation; speech disorders; bone, joint, and

muscle disorders; hearing loss; heart and blood vessel disease; visual loss; and amputations. The second rating scale obtained respondents' ratings of the perceived degree of handicap afforded by the six speech disorders of cleft palate speech, delayed speech development, cerebral palsied speech, misarticulation, stuttering, and voice defects. Regarding the third rating scale, respondents rated the degree of success of speech therapy for the aforementioned disorders of speech.

Two hundred and fifty-one questionnaires were returned. Results from analyses of the data indicated that respondents did not perceive the degree of handicap of speech disorders to be significantly different from the degree of handicap of amputations. Respondents viewed speech disorders as less handicapping than the remaining eight disabling conditions.

Stuttering was used as a reference point in the analysis of the last two rating scales. Respondents rated the degree of handicap of stuttering significantly lower than the degree of handicap of cerebral palsied speech and significantly higher than the degree of handicap of voice disorders. No significant differences were found between stuttering and the remaining disorders of speech. Respondents rated the degree of success of speech therapy for stuttering as more successful than success of speech therapy for cerebral palsied speech and cleft palate speech. No significant differences were found between the degree of success of speech therapy for the remaining disorders of speech.

Results from an analysis of the ratings made by respondents with less than three years of experience in the field of rehabilitation compared to ratings made by respondents with more than three years of experience showed significant differences on only two variables of the

entire questionnaire. Less experienced counselors rated the conditions of emotional disorders and amputations as significantly more handicapping than more experienced counselors rated them.

REHABILITATION COUNSELORS' RATINGS OF THE DEGREE OF HANDICAP OF SPEECH DISORDERS

A Thesis

Presented to

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by

Sandra McClendon Sheldon

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

I. THE PROBLEM

Statement of the problem. One purpose of this study was to analyze rehabilitation counselors' ratings of the degree of handicap presented by ten disabling conditions with which rehabilitation counselors have contact. It was primarily designed to ascertain if differences exist between rehabilitation counselors' estimates of the degree of handicap of speech disorders as compared to the other disabling conditions.

This study was also concerned with rehabilitation counselors' ratings of the degree of relative handicap of six selected speech disorders. The speech disorder of stuttering was the main reference point in analyzing the counselors' ratings of speech disorders.

Another purpose of this study was to ascertain rehabilitation counselors' ratings regarding the degree of success of speech therapy that would be or had been attained by clients with specific speech disorders. Specifically, counselors' ratings for the speech disorder of stuttering were compared to their ratings for the other speech disorders.

Finally, differences between and among counselors' ratings as a function of experience in the field of rehabilitation were analyzed.

Importance of the study. It was anticipated that the results of this study would objectively present the attitudes of selected rehabilitation counselors in terms of their estimations of the degree of handicap that is presented by speech disorders. The counselors' ratings for the

degree of handicap of emotional disorders, respiratory disorders, spinal cord injury, mental retardation, bone and muscle disorders, hearing loss, heart and blood vessel disease, visual loss, and amputations as compared to their ratings for the degree of handicap of speech disorders may give some indication of the status of speech disorders within the rehabilitation program.

In addition, the study will hopefully indicate counselors' perceptions of the degree of handicap that cleft palate speech, retarded speech development, cerebral palsied speech, misarticulated speech, stuttered speech, and voice defected speech present to an individual. The ratings of specific speech disorders may possibly indicate the understanding or lack of understanding that those rehabilitation counselors responding have in dealing with clients.

The rehabilitation program for persons with communication disorders often includes coordination with a speech therapy program. Counselors' estimates for the degree of success of speech therapy in the six aforementioned speech disorders might indicate if the rehabilitation counselors responding, feel that the program of speech therapy is a necessary and important part in rehabilitating clients with specific speech disorders.

Differences in experience in the field of rehabilitation may change counselors' attitudes toward disability. An analysis of the ratings given by more experienced counselors compared to the ratings given by less experienced counselors could possibly indicate some attitude trends within the rehabilitation program.

More importantly, this study may provide information concerning rehabilitation counselors' attitudes toward stuttering as compared to

other speech pathologies. This information will indicate if the rehabilitation counselors' knowledge of stuttering must be extended in order to provide better services for the client who stutters.

II. DEFINITION OF TERMS

Several terms used in this text require further explanation. These terms have been defined as follows:

Cerebral palsied speech. Speech that is labored, slow, and jerky. The voice seems to be monotonous and relatively uncontrolled. Articulation suffers because of impaired muscular coordination (Johnson, 1967).

Cleft palate speech. Speech that is characterized by articulation errors such as nasally emitted consonants, hypernasality, faulty and labored rhythm due to nasal leakage, and breathing at the wrong times (Van Riper, 1963).

Counselors - less experienced. For purposes of this study, those counselors with less than three years of experience in the field of rehabilitation.

Counselors - more experienced. For purposes of this study, those counselors with three or more years of experience in the field of rehabilitation.

Disability. A physical or mental condition which materially limits, contributes to limiting or, if not corrected, will probably result in limiting an individual's activities or functioning. It includes behavioral disorders characterized by a pattern of deviant social behavior or impaired ability to carry out normal relationships with family and community which may result from vocational, educational, cultural, social, environmental, or other factors (Social and

Rehabilitation Service, 1970).

Eligibility for vocational rehabilitation services. The presence of a physical or mental disability, the existence of a substantial handicap to employment, and a reasonable expectation that vocational rehabilitation services may render the individual fit to engage in a gainful occupation (Social and Rehabilitation Service, 1970).

Handicap. A physical or mental disability impeding an individual's occupational performance by preventing his obtaining, retraining, or preparing for gainful occupation consistent with his capacities and abilities (Social and Rehabilitation Service, 1970).

Misarticulation. A speech disorder characterized by the substitution, omission, addition, and distortion of speech sounds (Van Riper, 1963).

Retarded speech development or delayed speech. Failure of speech to develop at the expected age, possibly due to slow maturation, hearing impairment, brain injury, mental retardation, or emotional disturbance (Wood, 1957).

Speech defect or speech disorder. A deviation in speech which at any moment is sufficiently extreme to attract attention, to interfere with communication, or to effect adversely either the speaker or the listener (Milisen, 1957).

Stuttering. A disruption in the fluency of verbal expression characterized by involuntary repetitions or prolongations in the utterance of speech elements, sometimes accompanied by accessory activities such as eye blinks and facial grimaces that show speech struggle (Wingate, 1964).

Vocational rehabilitation. A process of restoring the handicapped individual to the fullest physical, mental, social, vocational, and economic usefulness of which he is capable (McGowan & Porter, 1967).

Voice disorders. Mainly classified in terms of primary attributes of voice: pitch, loudness, and quality (Johnson, 1967).

III. HYPOTHESES

This study was designed to test the following null hypotheses:

1. There is no significant difference between the raters' estimates of the perceived degree of relative handicap of speech disorders and nine selected disabling conditions including: emotional disorders; respiratory disorders; spinal cord injury or disease; mental retardation; bone joint, and muscle disorders; hearing loss; heart and blood vessel disease; visual loss; and amputations.

2. There is no significant difference between the raters' estimates of the perceived degree of relative handicap of stuttering and five other selected speech disorders (cleft palate, retarded speech development, cerebral palsied speech, misarticulation, and voice problems).

3. There is no significant difference between the raters' estimates of the perceived degree of relative success of speech therapy for stuttering as compared to each of the five other selected speech disorders.

4. There is no significant difference between more experienced raters' estimates and less experienced raters' estimates of the perceived degree of handicap of each of the ten disabling conditons.

5. There is no significant difference between more experienced raters' estimates and less experienced raters' estimates of the perceived degree of relative handicap of each of the six speech disorders.

6. There is no significant difference between more experienced raters' estimates and less experienced raters' estimates of the perceived degree of relative success of speech therapy for each of the selected speech disorders.

CHAPTER II

REVIEW OF THE LITERATURE

Recent focus in rehabilitation literature has been on the role of the rehabilitation counselor and how his perceptions, attitudes, performance, and experiences affect the services that he provides for his clients. This study attempted to objectively analyze rehabilitation counselors' perceptions and attitudes toward persons with ten disabling conditions with particular emphasis placed upon the disorders of speech, especially stuttering.

Relating to the basic hypotheses of this study, the review of literature examined studies of rehabilitation counselors' attitudes toward disabilities, studies of rehabilitation programs (Rehabilitation Services and Vocational Rehabilitation) for speech disorders, studies of speech therapy and the rehabilitation program, and studies of the changes in counselors' perceptions as a result of counselor experience.

I. REHABILITATION COUNSELORS' ATTITUDES TOWARD DISABILITY

The rehabilitation counselor is the axis in the rehabilitation process. Through him, eligibility, counseling, and referral are determined. A counselor's attitudes toward various disabilities may possibly influence his work with his clients. The rehabilitation literature has produced many studies that show that counselors do have significantly different attitudes toward particular disabilities.

In a study (Wilson, Beatty, & Frumkin, 1967) of the rankings of eight major disabilities made by 32 future rehabilitation counselors,

the results showed that disabilities of the head (blindness, deafness, and migraine headaches) were ranked as being appreciably more disturbing than disabilities connected with the rest of the body.

In a recent study (Daniel & Alston, 1971) of rankings of vocational rehabilitation counselors of the relative severity of profound hearing loss as compared with eight other major disabling conditions, the authors concluded that "the counselors and supervisors responding did not view profound hearing loss as vocationally handicapping as they do the majority of the disabling conditions (p. 3)".

In the review of literature on all studies of the attitudes of rehabilitation counselors toward various disabilities, very few studies included speech disorders as disabilities that should be considered. One study (Goldin, 1965) that included speech and hearing disorders, examined counselors' case preferences as indications of counselor motivation to work with particular kinds of disability. Approximately 77.1 percent of 84 counselors from six New England State Rehabilitation Agencies, who were questioned concerning their case preferences, responded as follows: 25 percent preferred amputees, 21.4 percent preferred cases with visual problems, 20.2 percent preferred mental illness, 15.5 percent preferred incapacity diseases, 7.1 percent preferred neurological motor impairments, 7.1 percent preferred mental retardation, and finally 3.6 percent of the counselors preferred speech and hearing cases. The authors stated, "the fact that only 3.6 percent of the counselors preferred to rehabilitate speech and hearing cases can be considered cause for some concern since communication defect is one of the most disabling and frustrating of handicaps to the patient not only physically but emotionally as well (p. 19)".

The conclusions of this study also indicated that counselors have very definite preferences concerning different disability types with which they desire to work. The authors suggested that their findings are important because they showed that in terms of counselor interest, certain types of disability are "rather badly neglected (p. 26)".

Goldin (1965) also investigated counselors' reasons for preferring to rehabilitate particular types of disability. The most frequently occurring reason for preference (comprising 38.3 percent of 81 counselors responding) was speed and ease of success in achieving vocational rehabilitation. A later study (Silver, 1969), when compared to the aforementioned study, showed that counselor attitudes tend to be somewhat in conflict. Silver analyzed the evaluation of counselor performance by instructing vocational counselors to choose disabilities which they felt were the most difficult to place in employment. Two other exercises rating disorders were also taken. Combining the results of the three scales responded to by 126 counselors, the data showed that speech impediment, hearing loss, diabetes, and arrested tuberculosis were judged to be less difficult to place than other groups, including the disorders of cerebral palsy, mental illness, epilepsy, amputation, paraplegia, post-stroke, mental retardation, and cardiac condition. Speech impediments were judged to be slightly more difficult to place than dental problems or hernia. Findings of counselor attitudes in Silver's study and findings of counselor attitudes in Goldin's study seemed to be incongruous. Silver found that persons with speech impediments were judged to be fairly easy to place in employment, which was indicated as the main factor for counselor preference for rehabilitation in Goldin's study. Yet, in the Goldin

study, only a small minority of counselors indicated that they preferred to work with speech and hearing cases.

Studies concerning the attitudes of rehabilitation counselors toward the specific speech disorder of stuttering were not found in the literature. This paucity of literature regarding rehabilitation counselors' attitudes toward stuttering may reflect a lack of understanding of the overall complexity of the nature of stuttering behavior.

II. REHABILITATION PROGRAM FOR SPEECH DISORDERS

Rehabilitation literature indicated that speech disorders have been afforded little attention in the total rehabilitation program. Johnson (1961), in a communication to rehabilitation counselors, stated that "one of our most important problems in rehabilitation stems from the fact that as the concept of rehabilitation has developed in our country, problems of speech have not been given very much attention (p. 38)".

Case statistics of the rehabilitation program showed that only a few persons with speech disorders had been helped through rehabilitation. Comparing the number and classification of cases rehabilitated by Vocational Rehabilitation for the years 1955 and 1960, McDaniel (1965) concluded that "it is apparent that the vocational rehabilitation of individuals with impaired speech is considerably less than other major handicapped groups in this country (p. 27)". A recent article (Newman, 1970) stated that there are probably more than one million speech impaired persons in America but in 1968 less than 2,000 speech impaired cases participated in the rehabilitation program. Rehabilitation case statistics showed that clients handicapped by

speech disorders have been poorly represented in the rehabilitation services program.

Recent articles (Levine, 1959; Burk, 1967; Gardner, 1968; Salomone, 1970; Hershenson & Murov, 1970), on the concept of disability, suggested that concepts of disability in the rehabilitation program had been too rigid, relying only on the medical concept of disability as a criterion for eligibility. The authors stated that rehabilitation must begin to adopt broader concepts toward disability that consider the whole person, his emotional, social, and educational adjustment and not just at the medical aspects of his disability. Hershenson & Murov (1970) concluded that "primary prevention" is a concept that has been neglected in the rehabilitation program and that eligibility for rehabilitation should be based on what rehabilitation can do for its clients, and not on whether its clients are defined as disabled.

Current written guidelines and regulations used in the rehabilitation program seemed to maintain restrictive qualities that might prevent counselors from rehabilitating certain clients with disabilities that cannot be quantitatively defined. One example of the guidelines used to determine eligibility for speech impaired clients was examined. The North Carolina Vocational Rehabilitation Manual (1970) stated:

> Clients without prior work experience may be accepted for training if the speech impairment is sufficient to interfere with satisfactory communication with an employer. If the client has a sufficient speech communication problem to cause preference for employment to be given to other applicants of equal qualifications, he will be considered as having an employment handicap. Speech therapy should be provided when indicated. If the defect is not severe, the client must be interviewed by the district supervisor and district medical consultant. The counselor, supervisor, and consultant will act as a

team in determining eligibility (Sec. III-51).

These guidelines may have negatively influenced counselors' decisions for acceptance of speech disordered clients, in that speech disorders are not always obvious or of major proportions, however, may be very handicapping to the individual.

A review of rehabilitation literature concerned with speech disorders, case statistics, and rehabilitation guidelines seemed to indicate that little attention has been paid to the specific disability of speech disorders.

III. IMPORTANCE OF SPEECH THERAPY IN THE REHABILITATION PROGRAM

Many articles (Huber, 1949; Morley, 1952; Johnson, 1960; McDaniel, 1965; Newman, 1970) in rehabilitation literature stated that coordination between the services of the rehabilitation counselor and the speech therapist can best help the client with a communication disorder achieve a dignified and productive role in society.

Various studies have established the importance of the speech therapy program for effective rehabilitation for the person with a speech disorder. Speech therapy aims at eliminating the sources of frustration by guiding the person to speech improvement, effective use of speech, and better personal adjustment (Morley, 1952).

Numerous articles (Thorn, 1946; Leith, 1967; Griffith, 1971) have emphasized that positive results of speech therapy are manifested in decreased vocational handicaps, thereby increasing occupational opportunities for the rehabilitation client.

One study (Wright & Trotter, 1968), which established the importance of speech therapy evaluated the effects of a speech therapy program for clients of the Pennsylvania Bureau of Vocational Rehabilitation. Subjects for the study were 122 clients of The Pennsylvania State University Speech and Hearing Clinic who had speech or hearing disorders judged to be vocationally handicapping. The subjects had been treated at the clinic between 1944 and 1959. Interviews of clients and interviews of a sample of their families, and a sample of their present employers were utilized to obtain data. The therapy program was evaluated in the general areas of communication ability, social-emotional adjustment, attitude toward speech and hearing program, attitude toward individual clinician, attitude toward Bureau of Vocational Rehabilitation services, attitude toward vocational rehabilitation counselors, and vocational status. The major findings of the study were reported as follows: about 50 percent of the subjects were judged as having better speech; subjects tended to overestimate the level of their speech abilities; subjects, family members, and counselors generally felt that the subjects had made gains in speech and communication ability as a result of therapy; subjects appeared to improve in social-emotional adjustment; there was a favorable impression of therapy and the rehabilitation program; and, at the time of the interview 77 percent were employed. Sigenthaler (1962), in another report of the study, felt that clients had improved in overt speech output, general communication ability, social-emotional adjustment, and vocational status. As with all speech disorders, the speech therapy program for the stutterer is an important part in his total rehabilitation program.

Gregory (1964) described how the Speech Clinic at Northwestern University had aided adult stutterers since 1928. The author reported that the clinic provided an intensive therapy program that usually took one year. Approximately 200 adult stutterers had been helped in the last 15 years. The program was aimed toward:

> (1) changing the attitudes and feelings of the stutterer by providing information about stuttering and helping him gain personal insight;
> (2) extinguishing or diminishing the person's fear and avoidance of sounds, words, and situations;
> (3) diminishing unnecessary buildup of tension while speaking through use of physical relaxation exercises; and
> (4) establishing new speech patterns and general patterns of behavior as mal-adaptive speech responses and attitudes are altered (p. 9).

Gregory concluded that the comprehensive program at Northwestern had helped the stutterers improve speech and obtain more adequate personal, social, and vocational adjustments.

The major goal of rehabilitation is to help the handicapped individual achieve the fullest physical, mental, social, vocational, and economic usefulness of which he is capable. Although a speech disordered client might be successfully placed in employment, studies (Wright & Trotter, 1968; Sigenthaler, 1962; Gregory, 1964) indicated that the client's personal, social, and emotional adjustments may not be fully achieved until the speech disorder itself has been remediated.

The aforementioned studies definitely supported speech therapy as a necessary and beneficial part in achieving the goals of rehabilitation for clients with speech disorders.

IV. CHANGES IN COUNSELOR ATTITUDE

There are many factors that have been associated with particular attitudes toward the disabled. Counselors' attitudes may change as a result of time, education, and experience. Specifically, changes in counselors' attitudes as a result of counselors' experience with the disabled have been examined in the literature.

Many studies (Arnholter, 1963; Yuker, Block & Younng, 1966; Downes, 1967; Anthony, 1969), which examined the effects of contact experience on counselors' attitudes, utilized an attitude test developed by Yuker, Block, & Campbell (1960) known as the Attitude Toward Disabled Persons Scale or ATDP. This scale was designed to measure the non-disabled person's acceptance of disabled persons.

Arnholter (1963), in a study of workers at Goodwill Industries, concluded from his findings that the amount of contact that the non-disabled person had with the disabled had a positive influence, as measured by the ATDP, in their attitudes toward the disabled.

In a comprehensive review of all literature involving the ATDP, Yuker, Block, & Younng (1966) concluded that the type or setting of contact influenced attitudes of the non-disabled toward the disabled. The authors stated that studies of contact in a rehabilitation setting showed that lower ATDP scores were obtained as a result of increased contact in this type of setting. The authors hypothesized that rehabilitation workers start out with favorable attitudes but, after extensive contact, they tend to have less favorable attitudes than persons with close personal or social contact with the disabled. Perhaps the increased contact made counselors aware of the very real limitations of

disabled persons.

Downes (1967), in an unpublished doctoral dissertation, used the ATDP as well as two other tests of attitude toward the physically disabled to examine attitudes of undergraduate rehabilitation students compared to rehabilitation counselors. The author's findings indicated that counselors with more experience and education in working with the handicapped tended to rate disability more realistically than undergraduate rehabilitation students.

Anthony (1969) investigated the effects of contact on an individual's attitude toward disabled persons. The ATDP was used as a pre- and post-test to indicate changes in counselors' attitudes after working with the handicapped in a summer camp for ten weeks. From this type of contact experience, the author concluded that contact did produce favorable attitude change in the staff.

Studies (Arnholter, 1963; Yuker, Block, & Younng, 1966; Downes, 1967; Anthony, 1969) of changes in counselors' attitudes perhaps have shown that the type and amount of contact experience with the disabled influenced changes in counselors' attitudes. These results have indicated that contact in an employment or social setting tended to produce more accepting attitudes toward the disabled as a result of contact. More conservative and realistic attitudes toward the disabled were generally indicated by counselors with increased contact in the rehabilitation setting.

Changes in rehabilitation counselors' attitudes toward various disabilities may also be a result of the educational training of various groups of counselors. One study (Goldin, 1965) that attempted to analyze counselor preference to work with particular types of handicap, found

significant differences between their two counselor groupings on only one handicap examined. Preference to work with mental illness by a group of counselors with one to three years of experience was significantly different from another group of counselors with four to ten years of experience in the field of rehabilitation. The authors suggested that this difference related to discrepancies in training between the groups. The newer counselors' training emphasized the psychotherapeutic aspects in the rehabilitation of the handicapped which was reflected in 11 counselors of 28 preferring to work with mental illness. Older counselors' training emphasized the vocational aspect of rehabilitation and only 3 counselors of 28 indicated preference to work with mental illness.

The literature suggested, therefore, that training and experience might possibly contribute to changes in counselors' attitudes toward persons with various handicapping conditions.

CHAPTER III

METHODS AND PROCEDURES

The present study analyzed ratings made by a randomly selected group of members of the National Rehabilitation Counseling Association on the perceived degree of relative handicap that each of the following ten conditions present to the individual: emotional disorders; respiratory disorders; spinal cord injury or disease; mental retardation; speech disorders; bone, joint, and muscle disorders; hearing loss; heart and blood vessel disease; visual loss; and amputations. Rehabilitation counselors' ratings of the perceived relative handicap that cleft palate speech, delayed speech development, cerebral palsied speech, misarticulated speech, stuttering, and voice defects were also analyzed. An analysis of the ratings by rehabilitation counselors of the degree of success of speech therapy for the six speech disorders was also made. Finally, a cursory analysis of the possible differences in all ratings by counselors with less than three years of experience in the field and those with three years of experience or more in the field of rehabilitation was made.

The data obtained from three rating scales in this study presented rehabilitation counselors' attitudes toward ten disabling conditions as well as their attitudes toward selected speech disorders and therapy for these selected disorders of speech.

I. SUBJECTS

The subjects (respondents) for this study were obtained by randomly selecting a total of five hundred names and addresses from the 1970 listing of the current membership of the National Rehabilitation Counseling Association. A table of random numbers (Kendall & Smith, 1938) was used in selection of names for participation as respondents. The listing was obtained from the offices of the National Rehabilitation Association, Washington, D. C. The National Rehabilitation Counseling Association is a private, nonprofit corporation of professional workers in all phases of rehabilitation who are dedicated to the rehabilitation and well-being of handicapped persons.

II. RATING SCALES

The data for this study were obtained by having the previously mentioned respondents answer a questionnaire containing three rating scales (see Appendices B, C, and D). The first rating scale was structured to separately obtain the respondents' ratings of the perceived degree of handicap afforded by the following disabling conditions including:

Emotional Disorders (schizophrenia, etc.)

Spinal Cord Injury or Disease (paraplegia, etc.)

Mental Retardation (WAIS below 75)

Speech Disorders (disorders of articulation, rhythm, voice, and language)

Bone, Joint, and Muscle Disorders (arthritis, etc.)

Hearing Loss (profound impairment in speech frequencies)

Heart and Blood Vessel Disease (grade 2B)

Visual Loss (20/200 in better eye)

Amputations (in one arm or one leg)

The respondents were asked to rate the ten disabling conditions on a scale of equally appearing intervals with one (1) meaning "not at all handicapping" and seven (7) meaning "severely handicapping". For the purpose of this study two (2) meant "slightly handicapping", three (3) meant "mildly handicapping", four (4) meant "moderately handicapping", five (5) meant "more than moderately handicapping", and six (6) meant "markedly handicapping". At the top of the first rating scale a space was provided for the respondent to indicate the number of years of experience he had in the field of rehabilitation.

The second rating scale asked the respondents to rate the degree of handicap afforded by six selected speech disorders using the same aforementioned interval scale. The six selected speech disorders were as follows:

Cleft Palate (speech affected by cleft lips and/or palates)

Delayed Speech Development (failure of speech to develop at expected level for age group)

Cerebral Palsied Speech (speech of persons with cerebral palsy)

Misarticulation (speech with defective and incorrect sounds)

Stuttering (disruption of speech fluency characterized by involuntary repetitions or prolongations)

Voice Defects (speech characterized by disorders of pitch, loudness, or quality of voice)

The final rating scale asked the respondents to give their estimates of the degree of success that they felt would be or had been attained by their clients after speech therapy with each of the speech

disorders. In this rating scale one (1) meant "no success as a result of speech therapy", two (2) meant "slight success as a result of speech therapy", three (3) meant "more than slight success", four (4) meant "moderately successful", five (5) meant "more than moderate success", six (6) meant "marked success", and seven (7) meant "extremely successful".

The respondents were also sent a short letter of introduction (see Appendix A) as well as a self-addressed, stamped envelope along with the questionnaire.

A numerical rating scale technique was used for this survey. As reported by Guilford (1954), the rating scale method requires less time than other methods, rating scales are usually interesting and easy to use, rating scales have a wide range of application and can be used for a large number of characteristics.

The numbers one through seven were chosen on the basis of information reported by Symonds (1924) who concluded from his study that there is a loss of reliability in ratings due to coarseness of the scale and that seven steps is the optimal number for a rating scale.

The rating scales were constructed with the following controls for error, in order to obtain as valid and reliable ratings as possible:

(1) Use of qualified raters - professional persons in rehabilitation who have contact with disabled people;

(2) Interest - assessing the degree of handicap is a necessary part of the rehabilitation process;

(3) Purpose of the scale not indicated - the letter of introduction was short and precise giving no information concerning content of the scale;

(4) Time - the scales were simple to use and gave definite choices;

(5) Defined scales - the scales were unidirectional and each numerical increment was defined at each step;

(6) "Halo effect" decreased - each scale was on a separate page;

(7) Motivation increased - a stamped, addressed return envelope was enclosed and the respondents were not asked to sign their names, so, therefore, they could be more honest in their ratings.

It was assumed that respondents would conscientiously apply number properties directly to their observations of the rated conditions. The ratings, therefore, approximated the characteristics of interval data and statistical procedures generally reserved for the analysis of interval data were applied.

III. STATISTICAL PROCEDURES

As was previously stated in Chapter I, the data compiled for this study were used to test the following null hypotheses:

1. There is no significant difference between the raters' estimates of the perceived degree of relative handicap of speech disorders and nine selected disabling conditions including: emotional disorders; respiratory disorders; spinal cord injury or disease; mental retardation; bone, joint, and muscle disorders; hearing loss; heart and blood vessel disease; visual loss; and amputations.

2. There is no significant difference between the raters' estimates of the perceived degree of relative handicap of stuttering and five other selected speech disorders (cleft palate, retarded speech development, cerebral palsied speech, misarticulation, and voice problems).

3. There is no significant difference between the raters' estimates of the perceived degree of relative success of speech therapy for

stuttering as compared to each of the five other selected speech disorders.

4. There is no significant difference between more experienced raters' estimates and less experienced raters' estimates of the perceived degree of handicap of each of the ten disabling conditions.

5. There is no significant difference between more experienced raters' estimates and less experienced raters' estimates of the perceived degree of relative handicap of each of the six speech disorders.

6. There is no significant difference between more experienced raters' estimates and less experienced raters' estimates of the perceived degree of relative success of speech therapy for each of the selected speech disorders.

Nine correlated t tests were utilized to ascertain if differences existed between the raters' estimates of the relative handicap of speech disorders and each of the other selected disabling conditions. The second and third hypotheses also used five correlated t tests, respectively, to ascertain the significance of any rating differences. The East Carolina University Computer Center Library Program t test for Correlated Samples was used to derive the t scores, means, and degrees of freedom used in analyzing the data corresponding to these first three hypotheses.

Ten uncorrelated t tests were used to test the fourth null hypothesis. Six uncorrelated t tests were used to test the fifth and sixth null hypotheses of this study. The East Carolina University Computer Center Library Program COREL was used to derive the means and standard deviations used in computing uncorrelated t scores utilized in testing the last three hypotheses of the study.

CHAPTER IV

RESULTS AND DISCUSSION

I. RESULTS

Of the 500 questionnaires mailed, 251 (50 percent) were returned. Some of these questionnaires were only partially completed and therefore, only partially utilized for analysis within this study. For example, regarding the first analysis comparing spinal cord injury to speech disorders, only 223 (df = n-1) respondents rated both variables.

In testing each hypothesis a significance level of .01 was chosen.

Hypothesis One. The first hypothesis stated that, "there is no significant difference between the raters' estimates of the perceived degree of relative handicap of speech disorders and nine selected disabling conditions including: emotional disorders; respiratory disorders; spinal cord injury or disease; mental retardation; bone, joint, and muscle disorders; hearing loss; heart and blood vessel disease; visual loss; and amputations".

Table I presents the mean scores, degrees of freedom, and *t* values for speech disorders as compared to the nine other disabling conditions. Ratings of spinal cord injury or disease, emotional disorders, mental retardation, visual Loss, hearing loss, respiratory disorders, heart and blood vessel disease, and bone and muscle disorders were found to be significantly different from ratings of speech disorders. No significant difference was found between ratings of speech disorders and amputations.

The trend of the means indicated that amputations and speech disorders were judged to be the least handicapping of the ten rated conditions.

TABLE I

MEANS, DEGREES OF FREEDOM, AND t VALUES FOR SPEECH DISORDERS AND THE NINE DISABLING CONDITIONS

COMPARISON	$\bar{X}$	df	t
Spinal Cord Injury or Disease Speech Disorders	6.18 3.93	222	* 24.24
Emotional Disorders Speech Disorders	5.46 3.92	225	* 15.02
Mental Retardation Speech Disorders	4.97 3.92	225	* 11.50
Visual Loss Speech Disorders	4.85 3 93	226	* 8.44
Hearing Loss Speech Disorders	4.76 3.92	227	* 9.11
Respiratory Disorders Speech Disorders	4.64 3.94	225	* 7.61
Heart and Blood Vessel Disease Speech Disorders	4.41 3.94	224	* 5.33
Bone, Joint, and Muscle Disorders Speech Disorders	4.33 3.92	226	* 4.59
Amputations Speech Disorders	3.81 3.93	226	1.14

* Any value of t greater than 2.60 significant at .01 level of confidence.

The mean ratings of speech disorders and amputations were between the "mildly" and "moderately" handicapping range. The mean ratings of all of the other conditions fell between the "moderately" and "markedly" handicapping range.

Since significant differences were found between speech disorders and eight of the nine selected conditions, null hypothesis one was rejected.

Hypothesis Two. The second null hypothesis stated that, "there is no significant difference between the raters' estimates of the perceived degree of relative handicap of stuttering and five other selected speech disorders (cleft palate, retarded speech development, cerebral palsied speech, misarticulation, and voice problems)".

Table II presents the mean scores, degrees of freedom, and *t* values for stuttering as compared to the five other speech disorders. It can be seen that significant differences were found between stuttering and cerebral palsied speech and stuttering and voice defects. Ratings of stuttering were not significantly different from ratings of cleft palate, delayed speech development, and misarticulation.

Inspection of the means given in Table II indicates that respondents rated speech disorders of cleft palate, stuttering, misarticulation delayed speech development, and voice defects as being between the "mildly" to "moderately" handicapping range. Cerebral palsied speech was rated as "more than moderately" to "markedly" handicapping.

Null hypothesis two was retained.

Hypothesis Three. Hypothesis three stated that, "there is no

TABLE II

MEANS, DEGREES OF FREEDOM, AND t VALUES FOR STUTTERING AND THE FIVE DISORDERS OF SPEECH (DEGREE OF HANDICAP)

COMPARISON	$\bar{X}$	df	t
Cerebral Palsied Speech	5.15	230	* 14.71
Stuttering	3.74		
Cleft Palate	3.93	230	2.04
Stuttering	3.73		
Misarticulation	3.76	229	.27
Stuttering	3.73		
Delayed Speech Development	3.62	230	1.14
Stuttering			
Voice Defects	3.13	230	* 8.48
Stuttering	3.72		

* Any value of t greater than 2.60 significant at .01 level.

significant difference between the raters' estimates of the perceived degree of relative success of speech therapy for stuttering as compared to each of the five other selected speech disorders".

Table III presents the mean scores, degrees of freedom, and *t* values for the degree of success of speech therapy for stuttering as compared to the degree of success of speech therapy for each of the other speech disorders. No significant differences were found between respondents' ratings for stuttering compared to delayed speech development, misarticulation, and voice disorders. Significant differences were found between stuttering compared to cleft palate and cerebral palsied speech.

Respondents rated speech therapy for misarticulation, delayed speech development, stuttering, and voice disorders in the "moderately" to "more than moderately" successful categories. Speech therapy for cleft palate speech was estimated to be between the "more than slight success" and "moderately successful" categories. The lowest rated speech disorder which fell between the "slight success" and "more than slight success" categories was that of cerebral palsied speech.

Null hypothesis three was retained.

Hypothesis Four. The fourth hypothesis stated that, "there is no significant difference between more experienced raters' estimates and less experienced raters' estimates of the perceived degree of handicap of each of the ten disabling conditions".

Table IV presents the mean scores, degrees of freedom, and *t* values for more experienced counselors' ratings compared to less experienced counselors' ratings of the degree of handicap of the ten given conditions. Results of uncorrelated *t* tests presented in Table IV

TABLE III

MEANS, DEGREES OF FREEDOM, AND t VALUES FOR STUTTERING AND THE FIVE DISORDERS OF SPEECH (DEGREE OF SUCCESS OF SPEECH THERAPY)

COMPARISON	$\bar{X}$	df	t
Cerebral Palsied Speech	2.96	207	* 12.64
Stuttering	4.48		
Cleft Palate Speech	3.70	205	* 6.47
Stuttering	4.51		
Voice Disorders	4.44	203	.68
Stuttering	4.51		
Delayed Speech Development	4.58	207	.74
Stuttering	4.50		
Misarticulation	4.64	209	1.58
Stuttering	4.48		

* Any value of t greater than 2.60 significant at .01 level.

TABLE IV

MEANS, DEGREES OF FREEDOM, AND t VALUES FOR MORE EXPERIENCED AND LESS EXPERIENCED COUNSELORS' RATINGS OF TEN DISABLING CONDITIONS

CONDITIONS	More Experienced	Less Experienced	df	t
Spinal Cord Injury or Disease	6.20	6.17	218	.21
Emotional Disorders	5.34	5.75	220	* 2.85
Mental Retardation	4.98	4.91	217	.42
Visual Loss	4.81	4.93	222	.60
Hearing Loss	4.83	4.62	218	1.14
Respiratory Disorders	4.70	4.48	216	1.32
Heart and Blood Vessel Disease	4.35	4.38	215	.19
Bone, Joint, and Muscle Disorder	4.39	4.08	219	1.96
Speech Disorders	3.96	3.79	218	1.08
Amputations	3.62	4.21	220	* 3.30

* Any value of t greater than 2.60 significant at .01 level.

show significant differences between more experienced and less experienced counselors' ratings of emotional disorders and amputations. In both instances, less experienced counselors rated the handicap as more handicapping than more experienced counselors rated it.

No significant differences were found between the two groups' ratings of the eight other disabling conditions.

Null hypothesis four was retained.

Hypothesis Five. Hypothesis five stated that, "there is no significant difference between more experienced raters' estimates and less experienced raters' estimates of the perceived degree of relative handicap of each of the six speech disorders".

Table V, showing the mean ratings, degrees of freedom, and t scores for more experienced counselors' and less experienced counselors' ratings of the handicap of six speech disorders, indicates that no significant differences were found between the two variables. Counselors with more experience in the field of rehabilitation did not rate the handicaps afforded by specific speech disorders different from less experienced counselors.

Null hypothesis five was retained.

Hypothesis Six. The sixth hypothesis stated that, "there is no significant difference between more experienced raters' estimates and less experienced raters' estimates of the perceived degree of relative success of speech therapy for each of the selected speech disorders".

Table VI of the mean ratings, degrees of freedom, and uncorrelated t scores for more experienced counselors' ratings compared to less experienced counselors' ratings of the degree of success of speech therapy for each of the selected speech disorders, shows no significant differences

TABLE V

MEANS, DEGREES OF FREEDOM, AND t VALUES FOR MORE EXPERIENCED AND LESS EXPERIENCED COUNSELORS' RATINGS OF SIX SPEECH DISORDERS (DEGREE OF HANDICAP)

DISORDER	More Experienced $\bar{X}$	Less Experienced $\bar{X}$	df	t
Cerebral Palsied Speech	5.29	4.79	220	2.58
Cleft Palate	3.89	4.03	221	.77
Misarticulation	3.81	3.55	219	1.53
Stuttering	3.75	3.61	222	.81
Delayed Speech Development	3.66	3.53	220	.72
Voice Defects	3.13	3.00	220	.75

TABLE VI

MEANS, DEGREES OF FREEDOM, AND t VALUES FOR MORE EXPERIENCED AND LESS EXPERIENCED COUNSELORS' RATINGS OF SIX SPEECH DISORDERS (DEGREE OF SUCCESS)

DISORDER	More Experienced $\bar{X}$	Less Experienced $\bar{X}$	df	t
Cerebral Palsied Speech	2.80	3.28	202	2.54
Cleft Palate Speech	3.73	3.66	199	.35
Voice Disorders	4.46	4.23	200	.94
Stuttering	4.50	4.37	200	.52
Delayed Speech Development	4.49	4.96	197	2.55
Misarticulation	4 58	4.80	200	1.08

between the variables of this hypothesis.

Null hypothesis six was retained.

II. DISCUSSION

The results of the analysis of the data collected to test the six null hypotheses of this study gave some insight into rehabilitation counselors' attitudes toward speech disorders. Compared to all of the other disabling conditions with which they work, rehabilitation counselors did not view speech disorders to be as handicapping. Even though speech disorders were rated below all other disorders except amputations, they were perceived to be between "mildly" and "moderately" handicapping.

Corresponding to the new trends in rehabilitation that have emphasized the importance of the psychological aspects of disability, it was noted that amputations were judged to be one of the least handicapping conditions and emotional disorders as one of the most handicapping conditions.

Looking specifically at counselors' opinions of specific speech disorders, results indicated that they were judged to be in the "mildly" to "moderately" handicapping range with the exception of cerebral palsied speech. The severe physiological problems associated with cerebral palsy that are not involved in the other disorders of speech might have influenced counselors' ratings. In the same manner, counselors might have reacted to cleft palate speech considering the physical appearance of the disorder and not the speech problem that is involved.

Voice disorders of the type that would be referred to a vocational rehabilitation counselor, are vocationally handicapping and often difficult to remediate. The person who depends on good speech for a living

needs control of the voice for making and maintaining contact to an audience, whether it be to one person or to a group of persons. A voice disorder disrupts contact with others and interferes with vocational and social adjustments. Also, the remediation of a client with a voice disorder is essential, for, if not corrected, a voice problem may lead to irreparable damage to the vocal mechanism. Voice disorders are generally considered one of the more difficult speech disorders to remediate, in that personality is often a related factor. Respondents in this study perceived voice disorder to be the least handicapping of the given speech disorders. It is possible that the group of counselors responding had little experience with this type of speech disorder and were not cognizant of all of the problems involved in the remediation of voice defects.

Stuttering, which was a main concern of this study, was not perceived to be more or less handicapping than the other rated speech disorders. Studies (Nikoloff, 1962; Neal & White, 1965; Ayer, 1968) have indicated that the attitudes of other professional groups toward stutterers are generally negative, in that stutterers were judged to be non-acceptable for specific types of employment. It was anticipated that counselors would be aware of the unfavorable attitudes that exist toward clients with this specific type of speech disorder and thus rate it as more handicapping than the other types of speech disorders. Counselors might have reflected attitudes which understand the general type of problem, but not the specific handicapping aspects that each speech disorder has on an individual.

The rehabilitation counselors' perceptions of the success of speech therapy was generally favorable. They felt that speech therapy was moderately successful with all speech disorders except cleft palate and cerebral palsied speech. The residual problems typically associated with these speech disabilities rather than the amount of improvement in speech may have influenced counselors' ratings of these two speech problems.

Speech therapy for the stutterer has always been a controversial issue in speech and hearing literature. Counselors rated speech therapy for the stutterer as successful as therapy for misarticulation, delayed speech, and voice disorders. It would be interesting to note if speech therapists themselves would have as much confidence in their therapy for the stutterer as counselors had in estimating their success.

Minimal differences existed between more experienced and less experienced counselors' ratings on all three scales. It was assumed that after three or more years of experience, counselors would have come into contact with more types of disability and would have acquired the basic knowledge and skills expected to perform adequately on the job. The investigation of this variable did not provide significant differences except on the variables of amputations and emotional disorders. While experience, as defined in this study, apparently does influence the perceptions of some disorders, it does not significantly affect the perceptions that rehabilitation counselors have of speech disorders.

Finally, the differences in the degrees of freedom between the second and third rating scales were significant. For example, 231 (df = n-1) respondents rated stuttering and cerebral palsied speech on the second rating scale (see Table II) and only 208 respondents rated

both categories on the third rating scale (see Table III). One conclusion that may be postualted from a cursory analysis of the uncompleted questionnaires is that respondents did not come into contact with enough speech impaired clients to make the required judgments. The literature (McDaniel, 1965; Newman, 1970) has shown that the lack of numbers or the lack of need cannot account for the lack of attention that has been paid to the speech handicapped group in the rehabilitation program. If rehabilitation counselors have not come into contact with the speech therapy program or with speech disordered clients, then efforts should be made to draw more attention to the needs of these persons. Ideally, Rehabilitation Service Counselors working with the school systems could join speech therapists in prevention of speech disorders which could become vocationally, educationally, and socially handicapping to the individual student.

Practitioners in the field of speech therapy may differ with some of the opinions expressed by rehabilitation counselors. Eligibility decisions of rehabilitation counselors are influenced by their perceptions of these problems and their perception of the probability of remediation. It is important for the speech therapist to communicate the capabilities and limitations of their profession to other professionals in the helping field. Failure to do so could result in less adequate services to the speech impaired client.

CHAPTER V

SUMMARY AND CONCLUSIONS

I. SUMMARY OF THE STUDY

This study was undertaken to determine if significant differences existed between ratings of the degree of handicap of speech disorders and ratings of the degree of handicap of nine other disabling conditions as estimated by a selected group of counselors involved in the field of rehabilitation.

The study was also concerned with counselors' ratings of the degree of handicap of six selected speech disorders. The speech disorder of stuttering was the main reference point in analyzing the counselors' ratings of the degree of handicap of specific speech disorders.

Another purpose of this study was to analyze counselors' ratings of the degree of success of speech therapy that they felt would be or had been attained by clients with each specific speech disorder. Specifically, counselors' estimates of the degree of success of speech therapy for stuttering were compared to estimates of the degree of success of speech therapy for the five other types of speech disorders.

Finally, differences between more experienced counselors' and less experienced counselors' estimates of the degree of handicap of ten disabling conditions, the degree of handicap of six speech disorders, and the degree of success of speech therapy for the six speech disorders were analyzed.

Five hundred randomly selected members of the National Rehabilitation Counseling Association were used as subjects for this study. Each counselor was sent a four page questionnaire containing introductory

letter and three rating scales. Of the 500 questionnaires mailed, 251 (50 percent) were returned and analyses were computed on the data contained within the questionnaires.

The first rating scale was designed to obtain respondents' ratings of the perceived degree of handicap afforded by ten disabling conditions including: emotional disorders; respiratory disorders; spinal cord injury or disease; mental retardation; speech disorders; bone, joint and muscle disorders; hearing loss; heart and blood vessel disease; visual loss; and amputations. The respondents rated the ten conditions on a seven point scale of equally appearing intervals with one (1) meaning "not at all handicapping" and seven (7) meaning "severely handicapping". In analyses of the data obtained from the first rating scale, correlated *t* tests were performed to ascertain if significant differences existed between speech disorders and each of the other disabling conditions. The resulting *t* scores between all variables except amputations and speech disorders were all significant at the .01 level of confidence.

The second rating scale was designed to obtain respondents' ratings of the perceived degree of handicap afforded by the six speech disorders of cleft palate speech, delayed speech development, cerebral palsied speech, misarticulation, stuttering, and voice defects. Respondents rated these disorders using the aforementioned interval scale. In analyses of differences between stuttering and each of the speech disorders correlated *t* tests were utilized. Significant differences were found between the ratings of voice defects and stuttering as well as cerebral palsied speech and stuttering. No significant differences were found between the respondents' ratings of stuttering when compared with the remaining speech disorders of this scale.

Regarding the third rating scale, respondents rated the degree of success of speech therapy that they felt would be or had been attained by their clients after speech therapy on a seven point scale of equally appearing intervals with one (1) meaning "no success as a result of speech therapy" and seven (7) meaning "extremely successful". Correlated *t* tests used in analyses of this data revealed significant differences between stuttering and cleft palate speech as well as stuttering and cerebral palsied speech. No significant differences were found between stuttering and the other three speech disorders rated on this last scale.

Differences between counselors' ratings as a function of experience in the field of rehabilitation were also analyzed. Uncorrelated *t* tests used in statistical comparisons between more experienced and less experienced counselors' ratings on the first rating scale showed significant differences on the two conditions of emotional disorders and amputations. No significant differences were found between the ratings made by the two groups of counselors on the remaining conditions of the first scale, the six speech disorders of the second scale, and the six speech disorders of the third rating scale.

The aforementioned analyses of data were all tested at the .01 level of significance.

II. CONCLUSIONS

The following conclusions may be drawn from analysis of the data obtained in the study:

1. Respondents did not view speech disorders to be as handicapping as: spinal cord injury or disease; emotional disorders; mental retardation; visual loss; hearing loss; respiratory disorders; heart and blood vessel disease; and bone, joint, and muscle disorders.
2. Respondents' ratings of the degree of handicap afforded by amputations were not significantly different from their ratings of the degree of handicap afforded by speech disorders.
3. Counselors' estimates of the degree of handicap of speech disorders were between the "mildly" to "moderately" handicapping categories.
4. Counselors perceived stuttering as more handicapping than voice defects and less handicapping than cerebral palsied speech.
5. Respondents' ratings of the degree of handicap of stuttering compared to their ratings of the degree of handicap of cleft palate speech, delayed speech development, and misarticulation were not significantly different.
6. Speech therapy for stuttering clients was judged to be more successful than speech therapy for cerebral palsied and cleft palate clients.
7. Significant differences were not found between respondents' ratings of the success of speech therapy for stuttering and misarticulation, voice disorders, and delayed speech development.
8. In general, counselors with three or more years of experience in the field of rehabilitation did not rate most of the variables of this study differently from counselors with less than

three years of experience.

9. The degree of handicap of amputations and emotional disorders was rated differently by the more experienced counselors compared to the less experienced counselors.

These findings should not be accepted or rejected without consideration of the following limitations:

1. Rating scales are subject to many distorting factors. Errors resulting from rater characteristics such as "error of central tendency" and errors resulting from respondents having limited contact with the conditions they were asked to rate, were probably distorting factors in this study.
2. Errors were introduced because of the composite nature of the characteristic that was rated. The "degree of handicap" is not a specific entity which is readily observable.
3. Less than 50 percent of the questionnaires were used in analysis of data. No provision was made for a follow-up letter to increase returns.

III. SUGGESTIONS FOR FURTHER STUDY

The following suggestions for future studies are offered by the examiner:

1. A study assessing the actual handicapping affects of speech disorders. The vocational placement of stutterers could be compared to the vocational abilities of stutterers.

2. A study utilizing a rating scale that has speech disorders compared to many more handicapping conditions than used in this study.
3. A study involving greater controls on returns through use of a follow-up letter.
4. A study which objectively evaluates the Rehabilitation Services Programs for clients with speech disorders by examining agency placements and referrals of clients with specific speech disorders.
5. A study involving clients' perceptions of the vocational rehabilitation program and of the speech therapy program.

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APPENDICES

APPENDIX A: LETTER OF INTRODUCTION

Dear Sir:

Enclosed are three rating scales which we are sending to counselors across the nation. Your help in supplying this information is important to our research. It will be very much appreciated if you will complete the rating scales and return them to us within three weeks.

A self-addressed envelope is also enclosed for your convenience.

Sincerely yours,

(Mrs.) Sandra M. Sheldon

enclosures

APPENDIX B: RATING SCALE I

#_____

How many years have you been in the field of rehabilitation?_____

The disabling conditions listed below are often seen by Vocational Rehabilitation Counselors. Please estimate the degree of handicap that you feel is presented by each condition on the following scale by circling the corresponding number.

1 means "Not At All Handicapping"
2 means "Slightly Handicapping"
3 means "Mildly Handicapping"
4 means "Moderately Handicapping"
5 means "More Than Moderately Handicapping"
6 means "Markedly Handicapping"
7 means "Severely Handicapping"

Emotional Disorders (schizophrenia, etc.)	1 2 3 4 5 6 7
Respiratory Disorders (chronic emphysema, etc.)	1 2 3 4 5 6 7
Spinal Cord Injury or Disease (paraplegia, etc.)	1 2 3 4 5 6 7
Mental Retardation (WAIS below 75)	1 2 3 4 5 6 7
Speech Disorders (disorders of articulation, rhythm, voice, and language)	1 2 3 4 5 6 7
Bone, Joint, and Muscle Disorders (arthritis, etc.)	1 2 3 4 5 6 7
Hearing Loss (profound impairment in speech frequencies)	1 2 3 4 5 6 7
Heart and Blood Vessel Disease (grade 2B)	1 2 3 4 5 6 7
Visual Loss (20/200 in better eye)	1 2 3 4 5 6 7
Amputations (in one arm or one leg)	1 2 3 4 5 6 7

PLEASE DO NOT PROCEED TO FOLLOWING PAGE UNTIL ALL ITEMS HAVE BEEN RATED!

APPENDIX C: RATING SCALE II

Six speech disorders are listed below. Please rate the disorders on the degree of handicap that you feel is presented by each specific speech disorder by circling the corresponding number.

1 means "Not At All Handicapping"
2 means "Slightly Handicapping"
3 means "Mildly Handicapping"
4 means "Moderately Handicapping"
5 means "More Than Moderately Handicapping"
6 means "Markedly Handicapping"
7 means "Severely Handicapping"

Cleft Palate (speech affected by cleft lips and/or palates)	1 2 3 4 5 6 7
Delayed Speech Development (failure of speech to develop at expected level for age group)	1 2 3 4 5 6 7
Cerebral Palsied (speech of persons with cerebral palsy)	1 2 3 4 5 6 7
Misarticulation (speech with defective and incorrect sounds)	1 2 3 4 5 6 7
Stuttering (disruption of speech fluency characterized by involuntary repetitions or prolongations)	1 2 3 4 5 6 7
Voice Defects (speech characterized by disorders of pitch, loudness, or quality of voice)	1 2 3 4 5 6 7

PLEASE DO NOT PROCEED TO FOLLOWING PAGE UNTIL ALL ITEMS HAVE BEEN RATED!

APPENDIX D: RATING SCALE III

Speech Therapy is often used in the rehabilitation program of persons with speech disorders. Of the following types of speech disorders, please estimate the degree of success of speech therapy that you feel would be or has been attained by your clients. Circle the corresponding number.

1 means "No Success As A Result of Speech Therapy"
2 means "Slight Success As A Result of Speech Therapy"
3 means "More Than Slight Success"
4 means "Moderately Successful"
5 means "More Than Moderate Success"
6 means "Marked Success"
7 means "Extremely Successful"

Cleft Palate Speech	1 2 3 4 5 6 7
Delayed Speech Development	1 2 3 4 5 6 7
Cerebral Palsied Speech	1 2 3 4 5 6 7
Misarticulation	1 2 3 4 5 6 7
Stuttering	1 2 3 4 5 6 7
Voice Disorders	1 2 3 4 5 6 7

THANK YOU VERY MUCH