In the speech therapy clinic of the University of South Florida, student clients are treated in groups and as individuals. Tests for differences between clients treated in groups for the total period of their therapy and those treated individually for part of their therapy period showed no significant difference in the results of the two methods of treatment. However, other areas contrasting individual and group approaches to therapy remain to be explored, including understanding symbolic transformations that accompany life experiences, the relationship of behavior in interpersonal exchanges, and detailed causes for variant types of communication behavior. (CH)
THE EFFECTS OF PEER GROUPING ON CARRY OVER OF LEARNED VERBAL COMMUNICATION

by

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Statement of Problem:

Each quarter, the University of South Florida's incoming students are screened for speech disorders -- problems by the Counseling Center for Human Development, Speech and Hearing staff. Of those students screened, approximately $4 \frac{1}{2}\%$ to $5\%$ are found to need some further work in oral communication. The present staff carries a full load of therapy and maintain several hours per week (15%) for walk-in evaluations from certain academic areas such as the College of Education, the Department of Speech Communications, and the Speech Pathology and Audiology Department.

It has been found that in some cases a client can achieve adequate speech in one quarter of therapy while some require more time. Of those who need more than one quarter of speech therapy, there are both short and long term continuing cases. The problem to be considered in this study deals with short term continuing students for whom the clinician predicts dismissal within no more than the number of sessions provided in a second academic quarter. If these students are continued as individual cases, which is the traditional mode of treatment, each client requires at least one hour of therapy per week and depends largely on fulfilling assignments outside the clinic to test his ability to maintain adequate speech. If, on the other hand, such clients could be grouped for peer stimulus-control, the client could participate in an actual situational conversation setting and concomitantly free up several hours for the clinician. Therefore, the problem to be examined is: If clients are grouped in the final weeks of speech therapy, when each has reached the speech modification goals set for him in individual
therapy, will they make significantly more errors in learned speech behavior than those clients who remain in individual therapy?

Conceptualization of a Solution:

A search of the literature shows that terminal therapy or carryover is the nemesis of many therapists. This stage of therapy is essentially the "problem of extending stimulus control over desired speech responses to daily life." (Perkins p. 381)

One strength of a clinical setting for treatment of speech disorders lies in the fact that the clinical environment removes the client from his daily life conditions. In this way, there is less likelihood that undesirable responses will be carried into the clinic. However, since the context within which the new speech responses are learned tend to control their emission, the constant danger arises that the desirable responses will occur only in the clinic.

According to Schultz, the two prevalent models for speech therapy are clinician-teacher and psychotherapeutic. He further contends that neither of these models alone but rather some combination of the two is desirable for the shaping of therapy. O'Steen points out that clinician habituation can be the outcome of some forms of therapy instead of client change. Some therapists suggest that after the terminal speech behavior is reached, carryover of learned responses can be increased by alteration of the clinical situation by bringing in crucial persons from the client's non-clinical environment. Others suggest that carryover can be achieved by use of specific assignments outside the clinic which are client-monitored and reported to the clinician at subsequent therapy sessions.
In the University of South Florida Speech and Hearing Clinic where the clients are adults away from home - either residential or commuter students - the most immediate population and certainly a crucial one in the non-clinical environment is made up of the other university students, the clients' peers. Of those University students, the most readily available to participate in peer group reinforcement of the speech behaviors learned in therapy are other clients of the same speech therapy service. If, in terminal therapy, after the desired speech behavior is established in the individual, the clients are grouped to practice their new speech behaviors with each other, each member will have the opportunity to experience peer stimulus-control (during therapy sessions) in addition to that of the clinician. This is a variation of the more traditional method by which family members or others from the home environment are brought into the therapy session.

Interest in this study began with the realization that certain clients do not have access to or will not avail themselves of communication opportunities and do not, in fact, fulfill even carefully planned out-of-clinic programs when left to their own devices. By rescheduling the one hour individual sessions per week so as to cluster the indicated students, it is possible to provide a mutually convenient conversation opportunity in an informal atmosphere which will allow the clinician to observe and record performance so as to determine satisfactory continuance of learned responses in unstructured conversational language.

In addition to providing an extended audience for clients, effective grouping of students frees up several hours per week which the clinician can readily use for evaluations of new clients, other therapy, record
keeping, and research. If these two benefits to both the staff and new clients are likewise compatible with the maintenance of the present high quality of therapy achievement, then the suggested mode of terminal therapy grouping would be a procedure worthy of adopting in the Speech and Hearing Clinic at the University of South Florida and bears some value to similar clinical settings.

Development of a Practicum Design:

In order to test the effectiveness of group versus individual terminal therapy, a practicum was designed. Short term continuing cases should be selected on the basis of the progress they have made in terms of individual potential. It is desirable to pull together clients who have worked on a broad range of verbal communication disorders; voice quality, neuro-muscular imbalance, articulation, cleft palate speech, rate and rhythm, and oral communication with hearing loss.

Clients are video taped in routine performance. These tapes are then viewed by the professional staff and the clinical judgments are based on the observable success in attaining individual goals set in the initial therapy sessions with each client and are dependent upon his organic and functional capacities. When this list of terminal therapy cases -- potential subjects -- is compiled, the clients will be randomly placed in two sets: Experimental - Grouped and Control - Individual. (In order to minimize confusion, the two sets of subjects will be identified hereafter in this paper as E-G and C-I.) Assignments to be fulfilled outside of therapy session by both sets of clients will be designed to include a number of conversations of prescribed length.
with a variety of people ranging from those easily approachable to feared authority figures.

During the C-I therapy periods, casual conversation with the clinician will be the primary target. The clinician will stimulate the desired speech responses when necessary and record the number of such stimuli required. The same clinician will manage all individual sessions as well as the experimental group session.

The clients scheduled into the group will meet in a large, comfortable room in the clinic. The room is neither an office nor a therapy laboratory. Each student will be given a pencil and paper listing the individuals in the group. During the ensuing hour each student will attempt to elicit at least one conversational response from each other member of the group and indicate each successful exchange by placing a mark after the name of the responding student. This technique is to be used not as a data gathering process but rather to provide the client with a means to insure that he participates to some extent in the conversation, and, thus, provides a sample of speech. At the same time, the clinician will continue to code-in, as needed, those corrections of speech behavior by simple one word, single syllable, or gestural reminders. An accurate count of these reminders will be kept by the clinician.

Both the experimental and control subjects will be encouraged to practice the learned speech behavior as much as possible by talking to friends and making new acquaintances outside the clinic and to report on their experiences in the therapy session.
Some basic assumptions which accompany this practicum design include the following:

A) Increase in therapy group number from two (client plus clinician) to five or more will initially increase the perceivable evidences of tension and decrease the proficiency with which the newly learned speech behavior is used.

B) Successive sessions will be accompanied by reduction of tension and a rapid return to the proficiency that the student had achieved prior to the grouping procedure.

C) At the end of the designated number of sessions, the grouped students will not demonstrate a need for any more reminders of the desired speech behaviors than the control subjects who are on an extended individual program.

Approximate Required Inputs:

Human efforts

a) Reviewing student performance in order to designate those who are potential subjects. (41/2 hours)

b) Re-scheduling of clients and clearing of schedules with an effort on the part of the student to arrive at the designated time. (3 hours)

c) The researcher used approximately 31/2 hours to organize and carry out the calculations.

Facilities and Other Means

a) A group therapy room is provided by the clinic.

b) No other means are necessary.
The Time Factor

a) Data collection was done during scheduled clinic hours.

b) Subjects were available during therapy sessions without any required additional time.

c) Organization and calculation of data was treated after the last therapy session of the quarter when students were on holiday. (3½ hours)

Definition of Terms:

CLIENT -- a fulltime student who has been enrolled in speech therapy to eradicate or modify a speech behavior which either "calls attention to itself, interferes with communication, or causes its possessor to be maladjusted." (Van Riper, p. 16)

Further consideration imposed by the function of the University itself, is the inclusion of the degree of effectiveness of oral communication ability necessary in the academic and career plans of the student.

SPEECH THERAPY -- an individualized program of step by step modification of speech in one or more of the respiratory, phonatory, articulatory or resonatory processes, achieved by successive approximation of the terminal behavior and a continuous diagnostic approach.

TERMINAL SPEECH BEHAVIOR -- that level of competence in which the client can, with ease, produce the desired speech behavior at the proficiency judged by the clinician to be maximum for his organic and functional potential.

SECONDARY CHARACTERISTICS OF COMMUNICATION DISORDERS -- (frequently applied to those people who stutter) the non-verbal mannerisms which are perceived by the listener as distracting, excessive, unpleasant, or improper
for the setting (i.e., nervous laughter, excessive talkativeness, excessive gestures both in number and size, bored or passive facial expression, rapid swinging or tapping of an extremity).

Limitations of the Study:

This study is limited in scope to those adult clients of college age who have reached, through therapy in the Speech and Hearing Clinic at the University of South Florida, the desired speech behavior goals and who continue to exhibit non-verbal behavior which interferes with communication. The size of the group itself must be limited in order to initiate and maintain a reasonable conversation in which all the group members can participate within the length of a single session (one hour).

Although this organization could readily lend itself to additional studies such as improvement of self-concept, reduction of tension, elimination of secondary speech characteristics, reduction of tension, and learning growth in conversation techniques, this study is aimed at the consideration of the speech errors made - stimuli needed - in therapy sessions to maintain the newly learned speech behavior.

Factors which can be sources of error in the study include the daily stress changes in the subjects, personality variations, ethnic and cultural backgrounds, and the subjects' major areas of study and interests. Methodological errors may occur in the clinical judgment method of selection of subjects, as well as in the method of recording the recognized errors in speech.
Evaluation of the Practicum and the Results:

In order to ascertain the feasibility of this study, and with the generous cooperation of the staff and students, a pilot study was undertaken during Quarter 1, 1972. Ten students-clients were found to fit the criteria for terminal therapy treatment. The variety of speech disorders were in eight categories. The distribution and assignment (random) are summarized in Figure 1. Of these ten university students, seven were Education majors, and there was one major in each of Nursing, Pre-law, and Broadcasting. All of these careers require a high degree of proficiency in verbal communication performance.

The numbers of speech behavior errors per subject were recorded and the difference of the means for the two sets was examined. (See the graphs in Figures 2 and 3.) The graphs for the different subjects (Figure 2) show that the general trend of each was one of decreasing the number of errors. The E-G subjects demonstrated more speech behavior errors in sessions number one and two (Figure 3) but fewer in session 3. The fourth and fifth sessions fell in the segment of the school term with class mid-term examinations. During the week of session number six, two E-G subjects were absent and two others had severe colds. One C-I subject was quite ill during the sixth session and was absent from the seventh session. The clinician believes that these stress and health factors are relevant to the numbers of errors recorded as peaks on the graphs. Based on an obtained t of .25 (t = .05: df = 9), there is not evidence that a difference in the number of errors made in learned speech behaviors resulted in grouping peers for terminal therapy.
<table>
<thead>
<tr>
<th>SPEECH DISORDERS</th>
<th>NUMBER OF SUBJECTS</th>
<th>ASSIGNED SETS</th>
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</thead>
<tbody>
<tr>
<td>voice quality - intensity</td>
<td>1</td>
<td>C-I</td>
</tr>
<tr>
<td>nasality</td>
<td>1</td>
<td>E-G</td>
</tr>
<tr>
<td>multiple articulation</td>
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<td>E-G &amp; C-I</td>
</tr>
<tr>
<td>prognathic jaw and tongue mobility</td>
<td>2</td>
<td>C-I &amp; E-G</td>
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<tr>
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<td>E-G</td>
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<tr>
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<td>C-I</td>
</tr>
<tr>
<td>moderate hearing loss</td>
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<tr>
<td>/s/ distortion with tongue thrust</td>
<td>1</td>
<td>C-I</td>
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<tr>
<td>neuromuscular incoordination</td>
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<td>E-G</td>
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Figure 1
Figure 3

Experimental Group

Control Individuals
Further Applications:

If, as this pilot study indicates, there is no significant difference in the mean number of speech errors when students from various speech problem categories are grouped for terminal therapy, many co-tangent effects of grouping can be examined in relation to communication effectiveness.

Some areas which could be explored concurrently with such a terminal group therapy and which are of particular interest to the college age student fall within what Backus terms removing the barriers to growth. Some of the learning areas in interpersonal communication are: 1) the understanding of symbolic transformation that accompanies an experience; 2) the relationship of behavior in interpersonal exchanges; 3) the causes for behavior in communications such as awareness, feelings, or unexpected responses; 4) the variety of interpretations and tolerance of discussion of all of number three; 5) the understanding of the above four leads to change in power and extent of observation abilities.

Within the realm of these possibilities, then, the areas listed as limitations in this study could be examined in turn, to test the improvement of self-concept, the reduction of and perhaps elimination of secondary speech characteristics, reduction of tension, and learning growth in conversation techniques.
BIBLIOGRAPHY


