Portland State University

PDXScholar

Dissertations and Theses

Dissertations and Theses

9-1-1969

A quantification and analysis of verbal interaction between clinician and client in a public school setting

Norma C. McAleer Portland State University

Follow this and additional works at: https://pdxscholar.library.pdx.edu/open_access_etds

Let us know how access to this document benefits you.

Recommended Citation

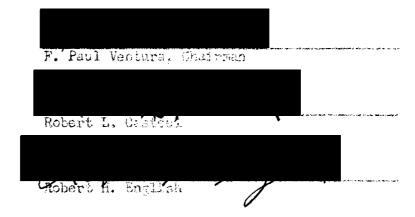
McAleer, Norma C., "A quantification and analysis of verbal interaction between clinician and client in a public school setting" (1969). *Dissertations and Theses.* Paper 263. https://doi.org/10.15760/etd.263

This Thesis is brought to you for free and open access. It has been accepted for inclusion in Dissertations and Theses by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: pdxscholar@pdx.edu.

AN ABSTRACT OF THE THESIS OF Somme O. McAleer for the Mester of Science in Speech Parnalogy presented August 12, 1969

Tible: A Quantification and Analysis of Verbal Interaction between Clinician and Client in a Public School Setting.

APPROVED BY MEMBERS OF THE THESES COMMECTERS



The purpose of this study was to assess the amount of time spent by the clinician and client in verbelization and to make an enalytic of the kind of verbalizations employed by the clinician in apacch therapy sessions. Experience was given consideration as a possible variable in the study.

Nine clinicians in a public school satting were used as subjects.

They were divided equally into the three following categories:

- (a) clinicians having loss than one year's experience.
- (b) elimidians having 1-3 years experience.
- (c) clinicions having more than 3 years experience.

 Six thorapy sessions of each clinician were tape-recorded and analyzed.

It was found that experience was not a significant variable in either of the two categories under study. It was shown, however, that there was a negative correlation between the amount of verbalization of clinician and client. Eight out of nine shininians talked more than the clients. A high correlation was noted between the amount of verbalization used by the clinicians and their use of positive and descriptive utterances. The amount of client verbalization seemed to bear little or no relationship to the kinds of utterances used by the clinician. Analysis of positive and descriptive utterances showed a high positive correlation, while most of the other categories showed evidence of a moderate negative relationship.

A STATE OF THE STA

Further study was suggested for the following:

- (a) a survey of the different techniques used by clinicians
- (b) the effect of different techniques on the amount of verbalization used by both climician and client
- (c) the modification of the content of the client's responses by the kinds of utterances used by the clinician

The present study may be of most value in indicating a possible means of constructing a profile of the kinds of utterances used by each clinician.

A QUANTIFICATION AND AMALYSIS OF VERBAL INTERACTION BETWEEN CLINICIAN AND CLIENT IN A PUBLIC SCHOOL SETTING

by

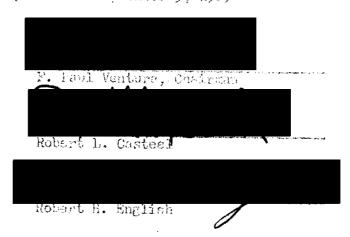
NORMA C. McALEER

A thesis submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE in SPEECH PATHOLOGY

Portland State University September 1969 TO THE OFFICE OF ORGHASS STUDIES:

The members of the Committee approve the chasis of Norma C. McAlcor presented September 5, 1969



ACTRO750:

Frances F. Ulbson, Head pro tem., Department of Speech

September 12, 1969

ACKNOWLEDGHENTS

The author wishes to acknowledge the assistance of the many who made this study possible particularly the Portland Public Schools, Ruth M. DaPuis and the nine clinicians who participated. The advice of Dr. Milton K. Davis also did much to speed the progress of the final analysis. The patient co-operation and understanding of my husband and family contributed in no small measure to the final completion of this endeavor. Last but by no means least, I wish to acknowledge the assistance of my committee chairman, Dr. F. Paul Ventura, who provided large doses of encouragement and timely constructive criticism along the way.

TABLE OF CONTENTS

																								PAGE
ACKNO	WLEDGMENTS .	÷ ÷	ਰ •		•	*		•	•	•	•	~	•	•		•	•	•	٥		٠	c	¢	iii
LIST	OF TABLES .					•	•		•	*	•	,		•	٠	¢					•	٠	•	v
CHAPT	PER																							
I.	INTRODUCTION	٠. ا			•	•		•		•	•		•			٠	•		e	•	•	•	•	1
II.	HISTORY AND	STAT	EME	NT	OF	r 1	'HE	E I	PRO	BI	EΝ	1	•	•		•	•	*	٠	•	٠	•	•	3
	Statement	of t	che	Pre	obl	Len	n	•		•		•		•	•	•	•	•	•	•	¢		•	6
III.	PROCEDURES.	• •			•	•	•	•	•	•	•				•	•	•	•		•	•	٠	•	8
	Subjects					•		•		•		•	•	•	٠	•	4	٠	•	•		٩	•	8
	Analysis		٠,		ı	₹	÷	1	,*	-	•	*	-	•	•	•	•		•	•	•	•	r	8
IV.	DISCUSSION		•		•		e		•	•	a	•		۰	•	•	•	,	٠	b	•	•	٠	32
ν.	CONCLUSIONS	AND	SUI	(A)	RY			•	•	•		•		•	•	•	•	•	٠	e	•	•		22
REFE	RENGES	• a	•		•	*	•	•	•	•	•	•	•	•	•		•		•			٠	•	26
V bben	NDTX			· •											•	•						£		27

LIST OF TABLES

TABLE		PAGE
I,	Mean percentages of amount of verbalization in six	
	sessions using 20 minutes as the average length	9
II.	Group mean percentages of amount of verbalization	9
III.	Kinds of utterances represented in average number	
	per minute	11
IV.	Rank order analysis of amount of clinicians' verbalization.	13
V.	Rank order analysis of amount of clients' verbalization .	14
VI.	Rank difference correlation between amount of verbaliza-	
	tion and kinds of utterances used by the clinicians	15
VII.	Rank order analysis of the number of positive atterances	
	used	17
VIII.	Rank order analysis of the number of negative utterances	
	used	18
IX.	Rank order analysis of the number of descriptive utterances	
	used	19
X.	Rank order analysis of the number of extraneous utterances	
	used	20
XI.	Rank difference correlation between kinds of utterances	21
XII.	Profiles of clinicians' verbalizations	23

CHAPTER I

INTRODUCTION

Progress and improvements in any profession come about as the result of research and revision of contemporary techniques. Speech clinicians as professionals may find it of value to do some stock-taking of what they do in therapy sessions. By modifying their own behavior, perhaps they in turn may find it easier to modify the behavior of their clients. Clinicians have many acceptable methods that can be employed in speech therapy sessions, but the methods may be greatly modified in their effectiveness by the manner of presentation. Much has been written about the techniques, methods and skills that the clinician might consider, but investigations about the amount of verbalization the clinician might use in a typical therapy session have been sparse. Verbal interaction is another area that has not been adequately covered.

The clinician is largely free to use methods and techniques which seem to him appropriate at the moment. These may require varying amounts of verbalization on his part, and some clinicians may tend to be more verbal than others, thus influencing the amount of time remaining for the clients to practice speach. Furthermore, the kinds of utterances used may play an important part in modifying the speach behavior of the clients. For instance, increasing the amount of positive utterances may subsequently increase the client's desire to respond and, conversely, negative utterances may inhibit the client's responses. It also is

possible that experience may prove to be an important variable in determining the amount and kind of verbalization used. With these factors in mind verbal interaction in speech therapy was considered a valid subject for investigation.

CHAPTER II

HISTORY AND STATEMENT OF THE PROBLEM

Few studies seem to have been made concerning verbal interaction with special references to speech therapy. In reviewing the literature it has been found, however, that investigations have been made with regard to analyzing the verbal interaction in an interview situation. It would seem that the speech clinician in a sense is analogous to the interviewer. Chapple (1949) attempted to standardize, and therefore make objective, the interview as a research instrument. He invented the Interaction Chronograph which recorded graphically the amount of time used for any audible verbalization. It could be used "like a very elaborate electrical stopwatch," allowing an observer to quantify with a high degree of precision the verbal interaction of two individuals. He found that:

. . , not only do different interviewers have different interaction patterns when behaving in their own characteristic manner, but that, as a result of these interviewer differences, different interaction patterns were elicited from the same patient when seen by two different interviewers.

He suggested that analysis of the time variable during the interview reflected personality and devised a method using the Interaction Chronograph whereby the interview could be standardized. This method since has been reviewed by Matarazzo et al. (1956) and further investigated by Saslow and Matarazzo (1958). Results of an experiment using the standardized method with 20 patients and 2 interviewers would indicate that the interaction variables reflect the specific personality.

differences of the two interviewers.

Goldman and Eisler (1952) described how three doctors influenced the interaction patterns of the same ten patients in different ways. Thus, depressed patients talked more with one doctor than another while these same doctors had opposite effects on talkative patients. The author wondered if speech clinicians might have similar effects on their clients.

a strong effect on the responses of the client. As Skinner (1957) puts it: "Verbal behavior is behavior reinforced through the mediation of other persons." Following this line of thought, Krasner (1958) used a storytelling technique to study the relationship between examiner behavior cues and patients' verbal behavior. The results indicated that changes in a preselected class of verbal behavior varied as a function of the systematic application of behavior cues by the examiner. Kanfer and McBrearty (1962) investigated the specific effect of minimal interviewer cues on verbal material obtained in clinical interviews and found that minimal social reinforcement resulted in increased communication on those topics for which it is given.

Rhodes, Shames and Egolf (1968) have suggested that, as clinicians, we should provide a clinical situation in which language content is manipulated subtly. Eight subjects participating in stuttering therapy received verbal approval or disapproval following the emission of critical responses about their stuttering behaviors. Desirable language was positively reinforced. Half of the subjects were informed which kind of language was being reinforced while half were not. Results showed that, in both groups, desirable language increased. It was

suggested that the use of similar reinforcement might be of value as a clinical tool for other speech disorders.

Later Kanfer (1958) wrote of the increased recognition by interviewers of their own capacity for systematically biasing the rate, volume, or content of patient productions. He suggested that the interviewer's thought processes, but as interactional behavior which can be systematically influenced by environmental variables. Showne and MacAulay (1958) further substantiated this thinking. They wrote that approaches to understanding speech and language must be based upon an environmental analysis in order to have any direct implication for remedial work. The environment created and the part played by the clinician in a therapy session would appear to be important variables in the modification of speech behavior.

Mowrer (1969) believes that the verbal statements used by clinicians as consequent events should be drastically reduced.

Clinician statements tend to be disruptive and often lead to the termination of connected speech. The time consumed in issuing verbal statements competes with the time during which the child should be responding.

Pilot studies at Arizona State University indicate that the number of correct responses is increased nearly 300 per cent when a visual display system using a buzzer and lights is used instead of verbal statements as consequent events in therapy sessions. These studies seem to support the theory that speech clinicians engage in too much verbalization.

A study involving seven speech clinicians selected randomly in the metropolitan Phoenix area was recently reported by Mowrer (1969). A tape-recording was made of one therapy session of each clinician. The

verbalizations of both the clinician and clients were then analyzed. was determined that for each utterance the client produced, the clinician produced 10.5. Of the utterances produced by the clients, only .05 per cent contained the sound to be worked on. An analysis of the kinds of verbalizations revealed that almost half of the clinician's instructional time was spent in eliciting a sound or word, usually an echoic utterance. A relatively small amount of time was spent in demonstration cues, listering activities and feedback. Nearly one half of the utterances were in no way related to correction of misarticulations, auditory training or speech correction in general. The results seem to indicate that clients are provided with extremely few opportunities to emit target responses during therapy. In addition, it would seem that much irrelevant verbalization is permitted. However, since the above study involved a relatively small sample, it would seem amiss to make a sweeping generalization about all clinicians based on these findings. Further research involving larger samples seems to be indicated.

STATEMENT OF THE PROBLEM

This author dealt with only two general aspects of therapy sessions, first the amount of time spent by the clinician and client in verbalization and second the kind of verbalizations employed by the clinician. This investigation did not intend to assess the effectiveness of therapeutic techniques. An attempt was made, however, to compare the percentage of verbalizations and the type of utterances made by:

- (a) Clinicians having less than one year's experience
- (b) Clinicians having 1-3 years experience
- (c) Clinicians having more than 3 years experience.

Other factors taken into consideration sere:

- (1) the kind of correlation which existed between the amount of verbalization of climician and client,
- (2) the relationship of the kinds of utterances to the amount of verbalization by the clinician, and
- (3) the relationship of the kinds of utterances used by the clinician to the amount of verbalization by the client.

CHAPTER III

INCOMPURED

Subjects

The subjects in this investigation were nine clinicians from the Portland, Oregon, Public Schools divided equally according to the following three groups:

Group II: clinicians having less than one year's experience Group II: clinicians having 1-3 years of experience

Group III: clinicians having more than 3 years experience. Six sessions conducted by each of these clinicians working in a typical therapy situation were tape recorded using a Craig #212 recorder. The elementary school students participating had been diagnosed as having primarily an articulation problem. The number of students in each session ranged from 1 to 6 with the average consisting of 3. The sessions varied in length from 15 minutes to 34 minutes, with the average consisting of 20 minutes.

Analysis

The clinicians, the primary subjects for this study, were each assigned a letter designation, those in Group I (see above) being assigned A, B and C, Group II D, E and F and Group III G, H and I.

With the aid of a stop watch, the duration of each clinician's verbalization was recorded, totalled and expressed as a percentage of the total time the session lasted. These results were then converted to equivalent percentages using 20 minutes as the average length for

each session. A similar procedure was followed with the client's verbalizations. The two percentages were added and subtracted from 100 per
cent and this provided a percentage indication of the total time spent
in silence. A mean percentage of amount of verbalization for both
clinician and client for all six sessions was then computed. The results
are listed in Table I.

TABLE I

MEAN PERCENTAGES OF AMOUNT OF VERBALIZATION IN SIX SESSIONS
USING TWENTY MINUTES AS THE AVERAGE LENGTH

	A	В	С	D	E	F	G	Н	I	
Clinicians	51.	46	46	46	22	45	50	47	52	
Clients	35	36	41.	44	51	34	11	36	39	
Silence	14	1.8	13	10	27	21	9	17	9	

From these results a group mean was derived. Table II shows the access.

TABLE II
GROUP MEAN PERCENTAGES OF AMOUNT OF VERBALIZATION

ander a constitute for all a Physical P	Group I (A,B,C)	Group II (D,E,F)	Group III (6,2,1)	
Olinicians	<u>L</u> 8	#37	49	A Principal Prin
Clients	37	143	39	
Silenca	15	20	32	

Five two-minute segments chosen at random from each session were used to count the number of utterances made by the clinician, these being listed under four categories:

- (a) positive (e.g. good, right, that's fine, that's what we like to hear)
- (b) negative (e.g. no, that's wrong, don't do that, I didn't like that)
- (c) directive or descriptive (e.g. say. . . . , repeat, look at the picture; any description of placement of articulators; modelling of sounds or words)
- (d) neutral or extraneous (e.g. any remarks about events or objects having no relationship to the therapy session)

The number of utterances per minute for each session was computed. An average of utterances per minute under the four categories was then computed for the six sessions of each clinician. These results can be seen in Table III.

TABLE III

KINDS OF UTTERANGES REPRESENTED IN AVERAGE NUMBER PER MINUTE

Clinician	Positive	Negative	Descriptive	Extraneous
A	4.6	.2	9 . h	1.2
В	4.4	.6	6.2	.8
С	2.3	.3	7.1	1.2
D	4.7	•5	7.?	1.4
E	•7	.6	2.1	2.4
F	1.8	•5	4.3	2.0
G	5.0	.3	11.9	.4
H	•9	1.0	5.4	•5
I	2.0	•7	7.9	•9

DISCUSSION

A comparison of the three groups of clinicians provided an assessment of the following facets of the therapy situation.

- (a) Any difference existing in the amount of time spent in verbalization.
- (b) Any difference existing in the kinds of utterances used.

In comparing the means of each of the three groups for both (a) the amount of time spent in verbalization and (b) the kinds of utterances used, a Single-Factor Analysis of Variance and the t-Test were used with the significance level set at p < .05. Results indicated that p > .05. The observed difference between the means of the three groups, therefore, did not indicate statistical significance.

Using a formula suggested by Guilford (1950), a rank order analysis of amount of clinicism verbalization indicated that the T scores for each clinicism ranged from 65 to 3h with the average T score for Group I being 51, Group II hG, and Group III 58. (Refer to Table IV.) According to these results, Group III tended to be more verbal than the other two with Group II being the least verbal.

A rank order analysis of amount of clients: verbalizations seemed to reflect inverse results from that of the clinicians, at least in the Average group T scores. (Refer to Table V.) Upon examining the individual results, it was found that in only one instance (E) did the

TABLE IV

RAWE ORDER ANALYSIS OF AROUNT OF CLIEFCIANS! VERBALIZATION

Cliaicier	Score	Renk	Centile Posi	tion T Sco.	Fe?
T	52%	navolateta Phantainaja art to ori to interval (amaio tan art	94	65	
Ą	51%	2	83	60	
G	50%	3	72	56	
ři	h7%	4	61	53	
В	16%	6	39	47	
G	16%	6	39	47	
D	1,5%	6	39	47	
F	45%	δ	35	40	
E	22%	9	5	34	
				Av. T Score	
		Group 3	(ABC)	51	
		Group I	ii (def)	ЦO	
		Group I	tre (ent)	58	

TABLE V

RANK ORDER ANALYSIS OF AMOUNT OF CLIENTS' VERBALIZATION

Clients	Score	Renk	Centile Position	T Score
E	513	and arrange and arrangement are selected and arrangement of the selected and arrangement of the selected and are selected as and arrangement of the selected and are selected as a selec	94	65
D	िर्गिद	2	83	60
G	413	3.5	66	54
С	41%	3.5	66	54
I	3 %	5	50	50
Н	36%	6.5	33	45
В	3 6%	6.5	33	45
A	35%	0	16	40
F	34%	9	. 5	34
			Av. T S	core
		Group I	(ABC) 46	

		Av. T Score
Group I	(ABC)	46
Group II	(DEF)	53
Group III	(GHI)	50

client verbalize more than the clinician. Note that E ranked #9 in amount of clinician verbalizations and #1 in amount of client verbalizations.

Computation of the rank difference correlation between clients' and clinicians' amount of verbalization resulted in a coefficient of -.20.

Although a higher negative correlation might have been anticipated, the amount of silence involved probably influenced the results to some extent.

The rank difference correlations between the amounts of verbalization and kinds of utterances employed by the clinicans can be seen in Table VI.

TABLE VI

RANK DIFFERENCE CORRELATION BETWEEN AMOUNT OF VERBALIZATION
AND KINDS OF UTTERANCES USED BY THE CLINICIANS

Kinds of Utterances	Amount of Verbalizat Glinicians	ion Used By Clients
Positive	+.43	+.07
Negative	- • Olt	+. 07
Descriptive	+.82	+.03
Extraneous	63	+•33

There was a very high positive correlation, .82, between the amount of verbalization used by the clinician and the use of descriptive utterances. A moderate but positive relationship was apparent between the amount of verbalization and the use of positive utterances, while an apparently chance relationship existed between amount of verbalization and negative utterances. A high negative relationship, -.63, was indicated between the amount of verbalization and extraneous utterances. The amount of client verbalization seemed to bear little relationship to the kinds of

utterances used by the clinician, since all the coefficients revealed low positive correlations.

When the kinds of utterances were submitted to rank order analysis (see Tables VII, VIII, IX and X), it was found that Group I tended to be more positive, less negative and about average in the descriptive and extraneous categories. Group II tended to use more extraneous utterances, less positive and descriptive and about an average amount of negative utterances. Group III tended to use more negative and descriptive utterances, fewer extraneous and an average amount of positive utterances. The author felt, however, that examination of the individual results proved to be more enlightening.

It was noted that there was a wide variation between the scores of the top-ranking clinician and the lowest ranking clinician in both the positive and descriptive categories. Clinician 6 ranked highest in both categories while clinician E ranked lowest in both. In the extraneous category, E ranked highest while 6 ranked lowest. A further examination of the tables showed that clinician 6 tended to use a greater amount of positive and descriptive utterances while using a lesser amount of negative and extraneous. Clinician E, on the other hand, used fewer positive and descriptive utterances while using more negative and extraneous. The pattern of kinds of utterances could be traced for each clinician in a similar manner.

A rank difference correlation analysis between different kinds of utterances can be seen in Table XI.

TABGE VII

RANK ORDER ANALYSIS OF THE NUMBER OF POSITIVE UTTERANCES USED

Clinician	Utterances per min. Score	Rank	Centile	T Score
G	5.0	man produce in territorial personal personal personal personal personal personal personal personal personal pe Territoria	9կ	66
D	4.7	2	83	60
A	4.6	3	72	56
В	4.4	Ħ	61	53
C	2.3	5	50	50
I	2.0	6	39	48
F	1.8	7	28	45
H	•9	8	17	1,1
E	.7	9	5	34

	AV. I	score
Grou	рI	53
Grou	p II	46
Grou	p III	52

TABLE VIII

RANK ORDER ANALYSIS OF THE NUMBER OF NEGATIVE UTTERANCES USED

	Utterances per min.	ustranamica cocare en avraçamice que en el virte en el cocare en el co	Annual Company	teritorio de la companya de la comp
Clinician	Score	Rank	Centile	T Score
H	1.0	· · 1	94	66
I	» 7	2	83	60
В	.6	3.5	66	55
E	.6	3.5	66	55
D	•5	5.5	lift	49
म्	•£	5.5	44	L19
G	•3	7.5	22	43
С	•3	7.5	22	143
A	•2	9	5	34
			Av. T Scor	re
		Group I	1:11	
		Group 11	51	
		Group III	56	

TABLE IX

RANK ORDER ANALYSIS OF THE NUMBER OF DESCRIPTIVE UTTERANCES USED

Clinician	Jtterances per mi Score	n. Rank	Centile	T Score
G	11.9	1	94	66
A	9.14	2	83	60
I	7.9	3	72	56
D	7.7	4	61	53
С	7.1	5	50	50
В	6.2	6	39	48
Н	5.4	7	28	45
F	4.3	. 8	17	41
E	2.1	9	5	34
			Av. T.	Score
		Gro	oup I 53	
		Gro	oup II 43	
		Gro	oup III 55	

TABLE X

RANK ORDER ANALYSIS OF THE NUMBER OF EXTRANEOUS UTTERANCES USED

Clinician	Utterances per Score	min. Rank	Centile	T Score
E	2.4	3.	914	66
F	2.0	2	83	60
D	1.4	3	72	56
A	1.2	4.5	5 5	52
c	1.2	4.5	55	52
ı	•9	6	39	48
В	.8	7	28	45
Н	•5	8	17	41
G	.4	9	5	34
			Av. T	Score
		Gi	roup I	50
		G	roup II	61.
		G	roup III	41

TABLE XI

RANK DIFFERENCE CORRELATION BETWEEN KINDS OF UTTERANCES

Correlation	
61	Managar Andrews (Construction)
+.83	
40	
50	
10	
50	
	61 +.83 40 50 10

A high positive correlation could be seen between positive and descriptive utterances, while all other categories, except negative and extraneous, showed a moderate negative relationship. Only a chance relationship existed between negative and extraneous.

CHAPTER V

CONCLUSIONS AND SUMMARY

In this investigation it seems that experience did not influence significantly the amount of verbalization used by the clinician in speech therapy. There did appear, however, to be a tendency for the more experienced clinicians to talk more than the less experienced. In every instance but one, all the subjects talked more than the students even though the amount of silence varied. It would appear that in the one instance where results differed considerably from the others (subject E), some other variable may have been present. Perhaps the type of technique used did not require much verbalization on the part of the subject. Since various techniques were used by the different subjects ranging from a game-oriented type of technique to a behavior modification program, the techniques used should be a variable worthy of further study.

It was apparent that the more verbal the clinician, the more positive and descriptive and the less negative and extraneous utterances she used. Yet, the kinds of utterances used did not appear to have much relationship to the amount of verbalization produced by the students. If the goal for therapy would be to have the children talk more, it seems the clinician should talk less. It seems, however, that not only the quantity of the client's responses but the content of his responses would need to be taken into consideration in any evaluation of the clinician's use of certain kinds of utterances. A further study of the

relationship between clinician's Lines of utterances and the client's kinds of responses seems to be indicated.

Since grouping the clinicians resulted in a much too generalized impression of the kinds of utterances used, it would be of more value to use Tables I and III to construct a profile for each clinician individually. These profiles can be seen in Table XII. Such a profile could be valuable in further investigations.

TABLE XII

PROFILES OF CLINICIANS: VERBALIZATIONS

Management of the Assess of Control of Section 1997 Appropriate Test of Section 1997 Approximate Control of Co	<u>A</u>	В	С	D	E	Ţ'	G	H	<u> </u>
Amount of verbalizat	don 51%	इध	46%	146%	22%	145%	50%	47%	52%
Amount of client verbalization per session	35%	3 6%	41%	1414%	51%	34%	41%	36%	39%
Silence per session	14%	18%	13%	10%	27%	21%	9%	17%	9%
Positive utterances per minute	4.6	և. և	2.3	4.7	•7	18	5.0	•9	2.0
Negative utterances per minute	.2	.6	.3	•5	. 6	.5	•3	1.0	.7
Descriptive utter- ances per minute	9.4	6.2	7.1	7.7	2.1	4.3	11.9	5.4	7.9
Extraneous utter- ances per minute	1.2	.8	1.2	1.4	2.4	2.0	-4	.5	.9

For instance, clinician G ranked high in both the positive and descriptive categories and relatively low in the negative and extraneous categories. Clinician E, on the other hand, ranked high in the negative and extraneous categories and relatively low in the positive and descriptive. Depending on our criteria as to the desirability of using certain kinds of language, we could make an evaluation concerning each clinician. Clinician G tended to use much positive and descriptive language with few negative or extraneous remarks in her therapy approach. Clinician E tended to be more negative and to use more extraneous utterances while using relatively few positive and descriptive utterances. Perhaps this kind of evaluation might be useful in suggesting ways of modifying clinician verbal behavior, and possibly improving the quality of therapy sessions.

SUMMARY

A study was made of nine clinicians in a public school setting. Six therapy sessions of each clinician were tape-recorded and analyzed, to determine if experience were an important variable in the amount of verbalization used by the clinicians and clients. An assessment was made also of the importance of this variable in the kinds of utterances used by the clinicians.

It was found that experience was not a significant variable in either of the two categories under study. It was shown, however, that there was a negative correlation between the amount of verbalization of clinician and client. Eight out of nine clinicians talked more than the clients. A high correlation was noted between the amount of verbalization

used by the clinicians and their use of positive and descriptive utterances. The amount of client verbalization seemed to bear little or no relationship to the kinds of atterances used by the clinician. Analysis of positive and descriptive utterances showed a high positive correlation, while most of the other categories showed evidence of a moderate negative relationship.

Further study was suggested for the following:

- (a) a survey of the different techniques used by clinicians
- (b) the effect of different techniques on the amount of verbalization used by both clinician and client
- (c) the modification of the content of the client's responses by the kinds of utterances used by the clinician.

The present study may be of most value in indicating a possible means of constructing a profile of the kinds of utterances used by each clinician.

REFERENCES

- CHAPPLE, E., "The Interaction Chronograph; its evolution and present application." Personnel, 25, 295-307 (1949).
- GOLDMAN, H., and EISLER, F., "Individual differences between interviewers and their effect on interviewee's conversational behavior."

 J. Ment. Sci., 98, 660-671 (1952).
- GUILFORD, J., Fundamental Statistics in Psychology and Education. 551-555 New York: McGraw-Hill (1950).
- KANFER, F. in DIXON, T. (Ed.), Verbal behavior and General Behavior Theory. 254-290 Englewood Cliffs: Prentice-Hall (1988).
- KANFER, F., and McBREARTY, J., "Minimal social reinforcement and interview content." J. Clinical Psychology, 18, 210-215 (1962).
- KRASNER, L., "A technique for investigating the relationship between the behavior cues of the examiner and the verbal behavior of the patient." J. Consult Psychology, 22, 364-366 (1958).
- MATARAZZO, J. et al., "The Interaction Chronograph as an instrument for objective measurement of interaction patterns during interviews." J. Psychology, 44, 347-367 (1956).
- MOWRER, D., Modification of Speech Behavior: Ideas and Strategies for Students. Arizona State University (1969).
- RHODES, R., SHAMES, G. and EGOLF, D., "An investigation of the verbal conditioning of language themes in therapeutic interviews with stutterers." Paper presented to A.S.H.A. Convention, Denver, 1968.
- SASLOW, G., and MATARAZZO, J., "A Technique for Studying Changes in Interview Behavior." U. of Oregon Medical School. Research paper. 1958.
- SKINNER, B., Verbal Behavior. Ch. I. New York: Appleton-Century-Crofts (1957).
- SLOANE, H., and MACAULAY, B., Operant Procedures in Remedial Speech and Language Training. Ch. I. Boston: Houghton Mifflin (1988).

APPENDIX

TRANSCRIPT OF SESSION # 1 - SEGMENT # 2 (CLINICIAN G)

Look at me and say "sleep." Sleep. Let's get it to the front. Make your sound. Make your "s" sound. "sleep." C. Sleep. T. Try it again. Sleep. again. Sleep. Good. Again. C. Sleep. good. Right down the front. Here we are. C&T. Sleep. Very good. Five tallies. All right. Say "Sneezy was sleepy." T. Sneezy was sleepy. T. Good talking. What was -- tell me again. Sneezy was sleepy. D T. Who was sleepy? C. Sneezy

Tell me about Sneezy.

He was sleepy.

D

T. Let's have sleepy again.

C. Sleepy.

P E

T. Good. Five tallies. Say Erm

C. "r"

D

T. "nur"

C. "nur"

D

T. "nurse"

C. "nurse"

D

T. Say "nur"

C. "nur"

P D D

T. Right. Watch me. "r"

C. "r"

. D

T. "nur"

C. "nur"

. D . D

T. Again. "nur"

C. "nur"

D

T. "nurse"

C. "nurse"

P

T. Good talking. "nurse"

C. "nurse"

D

T. "nurse"

C. "nurse"

D

T. "r"

C. "r"

 \mathbf{p}

T. Try "nur"

C. "nur"

T. Again, "nur"

T & C. "Wur"

D

T & C. "Nur"

P

T. Good. That's ten tallies. Now, I want Kim to say "snow."

C. Snow.

D

T. Two times.

C. Snow, Snow.

T. Good, Again.

C. Snow

P D

T. Good. Again.

C. Snow

N D

T. Don't try to go too fast. Snow.

C. Snow

2

T. It's a hard one. Snow.

TRANSCRIPT OF SESSION #2 - SEGMENT #2 (CLINICIAN H)

- T. No, that's what you're doing for me. What's the first thing you start to do? What would you like to say when I say "1"?
- C. 111111

- T. No, but before that noise, what would you say?
- 11] if C.

- Make an "1" your way.
- C. nlu

O.K. She wants to do it her way. It sounds right, doesn't it? It sounds right for you to make it your old way, but we've learned a new noise instead. You've got to make the new noise. Put your tongue up there -- "1". Up there. Open your mouth, Steven. Don't you dare bite my finger! Right there. Put your tongue up. Now

turn on your voice. "1"

11] 11 C.

- T. nIn Down here.
- nIn
- n In T.
- n]n

C.

- What did he do Robbie? Could you see what he did?
- He swallowed it. Swallowed it. C.

- He put his tongue down. How hold your tongue up on the roof of your mouth. "1". All right, Robbie make an "r" for me.
- Hydl C.

```
Excuse me, Steven make an "r" for me.
   ngn
C.
   All right now put your tongue to the front."1"
C.
    11111
    Hold it up there, don't let it come down. "1"
T.
    n I n
G.
    Hold it up there. Don't you dare let that tongue go down. Do it
    again. "l"
    nja
C.
    All right. Now we're going to go "r..." and we're going to stick
T.
    "a" on the end of it.
    uru _ nan
C.
     . D
Τ.
    Again
     H - aH
 C.
     N
         E
    No. All right. "ra"
 T.
     "ra"
 C.
                D
     E
    "Oo". You do it.
     "ra", "ra"
 C.
     Perfect
 T.
     "ra"
 C.
                        D
     "ra". Something happened to the "r". Swallowed again.
 C. "ra"
    N.
  T. No. "r"
```

T. No. Keep it together. Don't let it separate.

C. "r - a"

TRANSCRIPT OF SESSION #I - SEGMENT #2 (CLINICIAN I)

Jeff, you weren't here the other day. Let's do your la, la, la. C. La, la, la. Good! Can you think of something that has that sound in it? T. C. Little? T. Little; Good! C. Nancy? 1) Nancy? No, our tongue goes up on that. But it isn't "l", It's "n". T. O.K. Let's take a picture, and see if we can find something that has our sound. Now Don, Don and Rod are just going to tell something about the picture and Nicky, tell me what is happening in the picture here--not now--but when it's your turn. O.K. There's one. Let's see if we can find one for Paula. That is a goose. Goose. This is a target. Pencil. Where do you hear the "l" in "pencil" -- at the beginning, the middle or the end? The end. C. D Right! Here's another one. See if you can figure out where the "l" T. is there. Nicky give me your sound. Remember this sound when we want somebody to be quiet? "sh" "sh" C. Back with your tongue, way back with your tongue and lift up. T.

Bring your tongue back. Bring your tongue way back.

C.

"sh"

C. "sh"
P
P
T. That's a boy! There's what we meant.

T ---- Therapist

C ---- Client

P ---- Positive

N ---- Negative

D ---- Descriptive or Directive

E --- Extraneous or neutral