

The Application of a Process Evaluation Form for
Aphasic Individuals in a Small Group Setting

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Previous investigations in Sociology, Business and Psychology have been successful in applying models for the evaluation of individual performance in group settings (Bales, 1950, 1970; Bradford, Stock and Horowitz, 1953; and Gardner, 1974). These investigations relied on the definition of specific individual roles and their interactions to assess the group process both at an individual and total unit level. One such evaluation model, developed by Bales, 1950, utilizes a multidimensional system for classifying communication interactions in small groups. Bales proposed that all group interactions emerge from either task or maintenance issues. Task issues refer to accomplishment of job and solving the problem at hand, while maintenance issues refer to servicing the emotional needs of the group's members. Bales found that effective group functioning requires both task and maintenance performance from its members. Thiss (1974) corroborated Bales' results and produced a process evaluation form for the assessment of individual performance in a small group setting. Thiss found that both task and maintenance description in an evaluation protocol enabled a scorer reliably to dissect individual and group performance as well as to provide feedback to group members. Both Bales and Thiss concluded that effective groups could be created and made more effective by providing direct feedback regarding the basic attributes of each individual, their communicative abilities, and positions within the group.

Investigations in speech and language pathology have documented the effectiveness and merits of group treatment with the brain damaged population (Agranowitz, Boone, Ruff, Seacat and Terr, 1954; Derman and Manaster, 1967; Strauss, Burrucker, Cicero and Edwards, 1967; Eisenson, 1973; Marquardt, Tonkovich and DeVault, 1976; Aten, Caligiuri and Holland, 1980). Wepman (1951) and Eisenson (1981) hypothesized that aphasia group treatment offers moral support, increases interpersonal relationships, and gives important psychological support as well as speech and language treatment. Brookshire (1978) described four types of aphasia groups; language treatment, transition, maintenance and support groups. According to Brookshire, the purpose of language treatment groups is to generate improved communication ability of group members through clinician-directed, relatively structured, task-oriented activities. Unlike language treatment groups, transition groups' emphasis is placed on preparation of the patient for discharge from the treatment setting. Treatment within this group's structure usually focuses on experiences which will facilitate communication in daily environments. In describing maintenance groups, Brookshire states that their purpose is to insure that the patient's communicative abilities

remain at or near maximum levels and do not deteriorate. Maintenance group activities incorporate social interaction and language stimulation in social contexts. Two types of support groups have been described by Brookshire; patient-family groups, and spouse or family-member groups. Patient-family groups provide both social and educational experiences for patients and families. Spouse groups provide education regarding differing aspects of aphasia as well as opportunities for spouses and family members to vent their feelings concerning the effects of the patient's abilities and disabilities upon the family unit.

Even though aphasiologists know the importance of group treatment for aphasic patients, a truly practical way of assessing patients' roles within group settings is limited. Past research and evaluation protocols for aphasia group treatment have consistently relied upon the assessment of only speech and language abilities without regard to task or maintenance issues. This makes evaluation of individual and total group performance unreliable, cumbersome, time consuming and difficult. As a result, evaluation of aphasia groups is often overlooked, making it difficult to measure daily performance change and to provide necessary feedback.

In a cooperative VA study (Wertz *et al.*, 1981) a checklist was used to assess activity-related and language-related behaviors. Even though this protocol addresses both language and nonlanguage behaviors, it does not allow for the assessment of task, maintenance or nonfunctional role behavior. It was the purpose of this investigation to develop an evaluation instrument incorporating task, maintenance and nonfunctional behavioral descriptors to identify and measure subject performance in an aphasia group setting.

Subjects. The subjects for this investigation were four aphasic adults who were undergoing their initial group treatment session. All subjects had confirmed left hemispheric brain damage, were at least six months post onset and were not receiving individual treatment when they received group treatment. Subjects ranged from a Porch Index of Communicative Ability (PICA) overall percentile of 54th percentile to the 94th percentile.

Experimental Evaluation Form. In this investigation, an experimental process evaluation form was used to analyze task, maintenance and non-functional performance levels for each of the four subjects studied. Each of these performance areas (task, maintenance and nonfunctional) was made up of differing behavioral descriptors on a five-point continuum from "yes" the behavior was noted to the opposite performance, which was indicative of nonfunctional behavior. The task descriptors included in the evaluation protocol were diagnosing, evaluating, initiating, elaborating, summarizing, consensus taking, information giving and information seeking. The maintenance descriptors were composed of encouraging, harmonizing, gatekeeping, following, and standard setting. The nonfunctional role descriptors included blocking, self directing, disrupting, distorting, and rejecting. As illustrated in Table 1, for example, the task descriptor "initiating" can be seen with its opposite performance dimension of "blocking" on the five point continuum.

Table 1. An example of the rating scale used for rating patients and a task behavior.

YES	POSSIBLE YES		POSSIBLE NO	NO
5	4	3	2	1
Initiating: Suggestion of ideas, new definitions of problem		Absence of behavior		Blocking: Arguing, re- jecting ideas before they are heard

Procedures. Subjects were videotaped while in aphasia group treatment. This group resembled Brookshire's (1978) description of a transition group. The group was given a specific task to complete within a 45-minute session. All members were seated around a table with a pen and a paper pad placed in front of them. The task for the session was to organize a two-day trip to the beach for a group of teenagers. This task required the group to generate temporal, locative, causal, and instrumental relationships and to make decisions from a preconceived factual data base. No behavioral roles were assigned to or discussed with any subject prior to the session. The group acted independently without input other than initial instructions from a staff speech pathologist. After the task was completed, the videotape was viewed independently by three speech and language pathologists who were novice users of this experimental evaluation protocol. Each judge viewed the same two 10-minute, randomly selected segments. Each subject's verbal and nonverbal interactions were characterized according to the respective behavioral descriptors and rated on the five point continuum.

Results. The reliability among scorers in this investigation was estimated by computing seven Pearson product-moment correlations (Crow, Davis and Maxfield, 1960). A correlation coefficient was computed individually between each combination of scorers across both evaluation sessions, as well as for all scorers across all sessions. The results of these analyses are provided in Table 2. The overall reliability among the three scorers using this process evaluation form was .87. The computed r's for session one for scorers 1 and 2 was .85; for scorers 1 and 3, .85, and for scorers 2 and 3, .86. The computed r's for session two for scorers 1 and 2 was .87; for scorers 1 and 3, .85 and for scorers 2 and 3, .84.

Internal consistency for each of the three scorers was estimated with four Cronbach Alpha Reliability measures (KR-20). A within-scorer reliability coefficient was computed for each scorer as well as for all scorers combined. The results of these analyses are provided in Table 3. The overall within scorer reliability for this evaluation instrument across all scorers was .97. In addition, the results for scorer 1 indicated a reliability coefficient of .97; for scorer 2, .91 and for scorer 3, .96. Reliability for each descriptor was estimated by averaging between-scorers

Table 2. Summary of correlations for inter-tester reliability across each viewing session.

CATEGORY DESCRIPTION	PEARSON PRODUCT MOMENT CORRELATION COEFFICIENT
Overall scorer correlation for both sessions	.87*
Scorer 1 and 2 correlation for session <u>one</u>	.85*
Scorer 1 and 3 correlation for session <u>one</u>	.85*
Scorer 2 and 3 correlation for session <u>one</u>	.86*
Scorer 1 and 2 correlation for session <u>two</u>	.87*
Scorer 1 and 3 correlation for session <u>two</u>	.85*
Scorer 2 and 3 correlation for session <u>two</u>	.84*

*Significant at .05

Table 3. Summary of Cronback Alpha Reliability for total internal consistency and within scorers.

CATEGORY DESCRIPTION	INTERNAL RELIABILITY COEFFICIENT
Overall within reliability for all scorers	.97*
Scorer 1 for both sessions	.97*
Scorer 2 for both sessions	.91*
Scorer 3 for both sessions	.96*

*Significant at .05

Table 4. Average correlations between scorers and across viewing sessions.

CATEGORY DESCRIPTION	AVERAGE PEARSON PRODUCT MOMENT CORRELATION COEFFICIENT	
Task	Diagnosing	.19
	Evaluating	.89
	Initiating	.95
	Elaborating	.70
	Summarizing	.72
	Information Giving	.78
	Information Seeking	.71
	Maintenance	Encouraging
Harmonizing		.98
Gatekeeping		.62
Standard Setting		.78
Following		.82
Consensus Taker		.17
Nonfunctional	Blocking	.82
	Self Directed	.81
	Disruptive	.98
	Distorting	.70
	Rejecting	.24

correlation coefficients across viewing sessions. These data are given in Table 4. All coefficients were above .62, except for "diagnosing" (.19), "consensus taker" (.17), and "rejecting" (.24).

Conclusions. The results of this investigation suggest that an evaluation process which addresses task, maintenance and nonfunctional issues is a viable method for measuring aphasic performance in small groups. The obtained correlations suggest that scorers can estimate patient performance reliably without previous training or experience with this procedure. All but three of the descriptors which made up the differing role categories were consistent between scorers as well as across the two viewing sessions. These three descriptors (diagnosing, consensus taking and rejecting) should be eliminated from evaluation protocols addressing task, maintenance and nonfunctional behavior in aphasia groups. In addition the internal consistency of scorer's ratings was established. These consistency data indicate that a single rater can be effective in describing individual aphasic performance across task, maintenance, and nonfunctional roles for subjects as well as for sessions. These findings suggest that raters can reliably assess individual performance within aphasia groups.

The findings reported here appear to have significant clinical implications. As Bales (1950) and Thiss (1974) have indicated, effective groups consist of members who function at both the task and maintenance levels. The results of this study indicate that assessment of task, maintenance and nonfunctional behaviors can be measured quickly and efficiently in the aphasia group setting. Eisenson (1981) has stated that aphasia groups could be made more effective with good leadership, by subdividing the group, or by reassigning members to more appropriate groups. The application of this process to evaluate task, maintenance and nonfunctional behaviors might allow the speech and language pathologist to assess these behaviors and manipulate each group's membership to maximize individual performance. With a reliable measurement of individual performance based upon task, maintenance, and nonfunctional group behaviors, a clinician could reassign a member (or members) of one group to another group in order to assure an appropriate balance of roles necessary for effective group functioning. Finally, the use of this evaluation method could provide the speech and language clinician with information necessary to provide feedback to aphasic individuals regarding the roles that they fulfill as well as the roles that need to be addressed.

Figure 1 illustrates the final consolidation of task, maintenance, and nonfunctional role descriptors which were identified as occurring in aphasia groups. "Diagnosing," "consensus taker" and "rejecting" descriptors were considered to be ambiguous and were not included in this final protocol because of low correlations between scorers and across sessions. The application of this protocol to an aphasia group setting requires the observing speech and language clinician or clinicians to check off differing roles that each patient might play. Each group member might play one or more roles within the same session. The speech and language pathologist would check each role as he or she sees it occurring.

Presently, research is being conducted in our hospitals with differing types of aphasia groups in order to assess its applicability in facilitating aphasic patient group and individual communication functioning. The present study appears only to be the beginning of an area that needs further research and development. The limitations of this investigation

		Individual No.							
Role	Descriptor	1	2	3	4	5	6	7	8
Task	EVALUATING								
	INITIATING								
	ELABORATING								
	SUMMARIZING								
	INFO. GIVING								
	INFO. SEEKING								
Maintenance	ENCOURAGING								
	HARMONIZING								
	GATE KEEPING								
	STANDARD SETTING								
	FOLLOWING								
Non-Functional	BLOCKING								
	SELF DIRECTING								
	DISRUPTING								
	DISTORTING								

Evaluating - determine group difficulties and/or evaluate group progress
 Initiating - suggestion of ideas, new definitions of problem
 Elaborating - clarifying, envisioning an idea if adopted
 Summarizing - restating ideas after discussion
 Information Giving - offering facts or opinions, restating experiences
 Information Seeking - asking for ideas, wanting feedback
 Encouraging - willing to hear others, supportive to group
 Harmonizing - relieving dispute, compromising
 Gate Keeping - making sure all members are heard
 Standard Setting - expressing standards for group after discussion
 Following - going along with group norms and discussions
 Blocking - arguing, rejecting ideas before they are heard
 Self Directing - hidden agendas, self aggrandizement
 Disrupting - group clown, joker
 Distorting - distorting facts, ideas or decisions

Remarks:

Figure 1. Process evaluation form based on consolidation of task, maintenance and non-functional role descriptors.

are based upon use of a five point continuum with bipolar behaviors versus a three point continuum addressing only one behavioral descriptor. In this study, we used descriptors from either end of the continua and established descriptor categories for task, maintenance, and nonfunctional roles. What on the surface appeared to be a five-point continuum was actually a three-point scale for each descriptor, from "yes the behavior was noted," to possible observation of the behavior, to absence of the behavior.

As a result, the sensitivity of the evaluation method was decreased. In addition, a third "10 minute" viewing session was recorded and observed by the three judges in which subjects drifted from target, making it impossible adequately to describe individual performance or the locomotion of the entire group. It is, therefore, recommended that this evaluation method of analyzing task, maintenance, and nonfunctional role behavior include the assessment of an entire group session.

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DISCUSSION

- Q: What was the general make-up of the group used in this investigation?
- A: There were four subjects used undergoing their initial group treatment session. Based on PICA overall scores, there was a range of 40

percentile points, so there was quite a bit of variability with respect to the degree of aphasic involvement in these four subjects.

Q: Was the presence of a descriptor based only on verbal behavior?

A: No, they were also based on nonverbal behaviors.

Q: Did you just score single occurrences of each descriptor for individuals?

A: Yes, the initial behavior was scored. The purpose of this procedure was to identify that these behaviors do exist in aphasia groups.

Q: Was your agreement among judges rating these behaviors high or low?

A: Ratings were extremely consistent between judges as well as high point-to-point agreement.

Q: Did you know anything about these people prior to their strokes?

A: Just through case history information. All four subjects were independent business men prior to suffering a stroke. It would seem reasonable to assume, then, that all were able to fulfill leadership roles within the group setting.

Q: What was the criterion for a patient to get into this group?

A: All subjects were determined to have reached maximum benefit from individual treatment and were getting ready for discharge. Group treatment was initiated to help each patient better prepare for the no treatment phase.

Q: How long had this group been together?

A: This was their initial session as a group.

Q: What is the utility of a single behavioral measure for each descriptor and what were the patterns of behaviors exhibited by the subjects in each category?

A: A single measure is not the best measure of reliability. However, what we accomplished was to identify behaviors that exist in aphasia groups and behavioral descriptors which might serve as a method of evaluation of an aphasic group setting. In response to the second question, the patterns of behaviors for each individual were extremely consistent from scorer to scorer and across viewing sessions.