The paper notes the difficulties with most formal tests of language skills when applied to the assessment of communication and precommunication skills in individuals with severe and multiple handicaps. General principles for assessment and a flexible assessment device are summarized. The Functional Communication Assessment is offered as a basic structure for a more flexible evaluation process. The instrument provides a catalog of basic questions and data sources to be considered in each evaluation. Information collected then provides the basis for specific recommendations or program development. The eight parts of the assessment are described: (1) basic identification and purpose, (2) client background information, (3) information from significant others in the client's major environment, (4) client's communication behavior in the natural environments, (5) elicitation of communication behavior, (6) descriptions of client's physical summary and recommendations, and (8) equipment needs associated with recommendations. A copy of the assessment instrument is appended.
Assessing Communication and Precommunication Skills in Clients with Severe and Multiple Handicaps

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Abstract

Assessment of communication and precommunication skills in individuals with severe and multiple handicaps is essential for determining goals, selecting the most appropriate communication system, targeting a functional lexicon, establishing which training methods are potentially effective, and evaluating progress. Unfortunately, most tests of language skills have minimal application to individuals with severe communication delays. This paper presents some general principles for assessment and a flexible assessment device. The Functional Communication Assessment is designed to tap information about the client and the client's environment from a variety of sources. This information can then be used as a basis for communication programming decisions.
Assessing Communication and Precommunication Skills in Clients with Severe and Multiple Handicaps.

Most formal assessments of language and communication are unsatisfactory for assessing severely and multiply handicapped clients. Common problems with available instruments include: (1) assumption of client intent to participate fully in evaluation procedures, (2) emphasis on skills too advanced for individuals with severe delays, (3) focus on the individual without consideration of the environment, (4) inadequate sampling of target behaviors, (5) results useful only for comparing the client to a norm group, and (6) a lack of consideration for functional alternatives.

Most tests assume that the client understands that an evaluation is in progress and will attempt to follow the directions presented by the examiner. If the client lacks the basic communication modalities and academic skills essential to active participation, it can be extremely difficult to measure any other communication skills.

Many assessments begin with the assumption that the client has some speech and begin evaluation at or above that level. Limited information about performance or potential can be obtained for clients who fail to meet the basic entry level.

Failure to consider the client's environment is another weakness of many assessments. Environmental requirements, opportunities and support must be considered along with a client's abilities and disabilities in developing successful communication programs. This is especially critical when dealing with nonvocal communication systems because of the time and effort involved in message transmission for the severely handicapped person.
Developmental gaps between sampled behaviors often make assessment instruments fail for clients with severe handicaps, even when the entry level behavior is basic enough for the client. For example, the verbal expression section of the AAMD Adaptive Behavior Scale lists only six levels from its basic behavior, "nods head or smiles to express happiness," through its most advanced item, "is able to talk." These large steps do not allow for much sensitivity to client behavior at intermediate levels.

Norm-based tests that reveal how the client compares with some group (e.g., age peers) are not generally helpful. When we observe the client with severe and multiple handicaps, it is quickly apparent that this individual differs radically from the "normal" peer. Confirming this through the use of quasi-scientific tests contributes little new information, and determining just how abnormal the client is in terms of percentile scores or developmental ages rarely is helpful in making program decisions.

A final problem with most assessments is their lack of flexibility. They typically require specific communication responses and fail to recognize atypical responses that serve the same communication function. Since cognitive, motor and sensory delays frequently interact in clients with severe handicaps, communication functions are often served through a variety of atypical modes. These responses must be considered and evaluated through flexible assessment procedures.

These criticisms of communication and language assessments for individual with severe delays are not intended to imply that these tests are without value. Many are useful for specific purposes. For example, the Pre-Speech Assessment Scale, developed by Suzanne Evans Morris, provides an extremely comprehensive evaluation of prerequisite skills for speech. It evaluates normal
and abnormal behavior in twenty-seven categories (grouped into six major areas). Since the evaluation is almost entirely oriented toward the potential emergence of speech, however, it cannot function as a primary communication assessment for children for whom speech has not yet been determined a practicable communication alternative.

Many language programs (e.g., DISTAR Language I) have built-in assessment devices. This makes the assumption that the program (at some level) is suited to the child and cannot be helpful in the more basic process of program selection.

The Functional Communication Assessment that follows is not suggested as a standardized evaluation protocol. It is intended to provide basic structure for a more flexible evaluation process. This assessment provides a catalog of basic questions and data sources to be considered in each evaluation. Information collected should then be used for specific recommendations or program development.

Part I provides basic identification of the client and individuals involved in the assessment process. At least two interviewees from the two most frequented client settings should be assessed. For example, a parent and teacher would be most appropriate for an individual who spent most of his or her time at home and in school. Perhaps the most important feature of Part I is the "Purpose of Assessment..." It is essential that the purpose is clearly identified and stated at this time, so that its relevance to each subsequent evaluation item can be determined. Assessments that lack clearly prespecified goals are rarely valuable. If one cannot clearly identify the purpose of the assessment, it might better be abandoned until and unless a good reason arises. Some reasons for assessing a client might include: (a) determining whether a
vocal, gestural or symbolic mode might be desirable, (b) determining an appropriate system within a mode (e.g., Picsymbols, Blissymbolics, Rebuses), (c) determining a functional vocabulary, (d) selecting teaching methods or (e) evaluating progress.

Part II summarizes some of the client's background information. Data may be collected from information in the client's records, but interview information is particularly helpful since it may reveal the feelings and concerns of significant others in addition to mere facts. Information on present or previous programs should include the amount of time in the program and the amount of progress made. If a program has been discontinued, the reason for its termination should be stated.

Part III gathers information from significant others in the client's major environments. Experience has shown us that a second interview always provides additional information, if the interviewees interact with the client in different environments. Lack of agreement between interviewees on some test items should not be treated simply as a measure of inter-observer agreement, since interviewees are observing at different times under different conditions. Instead, disagreements should be treated as important clues indicating areas that require closer examination. For example, one teacher indicated that a student never used speech functionally but would occasionally repeat single words. The parent, however, indicated that this child used sentences functionally. On direct observation, we found both interviewees were correct. Communication at home was much different than communication in school. This finding had led to recommendations for radical program revisions. Thus, discrepancies can be a rich source of information.
Although the interview section is set up in checklist format, the interviewer should not be limited to this approach. Comments stimulated by the questions are generally more valuable than mere ratings of "consistent" or "inconsistent" performance. Interviewers should encourage, not discourage, spontaneous information provided. This is generally best accomplished by adopting an interview style that the interviewee feels comfortable with. While this may vary from person to person, a general explanation of what is being done and why is most helpful. Establishing an "equal partners' relationship with the interviewee usually encourages open responses. Always avoid a condescending attitude (intentional or otherwise) toward interviewees. It blocks communication of potentially useful information. Be sure, also, to avoid the "psychological stripsearch" approach to interviewing. "Psychological stripsearch" refers to the probing of sensitive and/or private areas of the interviewee without the normal regard for his or her privacy. In the name of "Professionalism," some interviewers may mistakenly believe that they are immune from the normal reactions to these probes, but such probing inevitably alienates the interviewee and blocks communication.

During the interview, it may be necessary to condense comments, but caution should be taken not to interpret them at this stage. After completing other components of the interview, the information may be processed differently. Typically, the most valid conclusions are reached when interpretation is saved for the final step before developing recommendations.

Interviewers are advised to go through all odd-numbered questions in a subsection and then return immediately to even-numbered questions. In addition to providing a measure of split-half reliability, this method has three other advantages. First, because each area is discussed twice, interviewees have a
second opportunity to bring in relevant information. Second, since the items are arranged roughly in developmental sequence, after the first cycle, areas of the assessment well above or below the client's current performance level are easily identified. On the second cycle, these areas should receive only cursory attention with major focus placed on sections that range from a little below to a little above the client's current range of performance. Finally, such an approach limits the tendency of interviewees to bias their responses to "fit" a developmental sequence.

Part IV provides a format for recording the clients communication behavior in the natural environments. Although observation in a single setting is sometimes used, observation in at least two major environments is desirable. In some cases, additional environments should also be evaluated. This would be true if interview indicated that behavior in a third or fourth setting was substantially different than in the major environments or if the client regularly spends a large portion of time in a third or fourth environment.

Some evaluators may prefer to carry out all or part of this observation prior to the interview segment of the assessment, but most frequently it is carried out after the interview. Information collected during interview may be useful in determining when, where and what activities to observe. If interviews are conducted at the school, home, workshop or other natural setting, it is generally possible to schedule the natural observation for the same visit and thereby conserve travelling time.

Events that precede and follow a client's behavior should be noted since communication is an interactive process. The time between these events is sometimes recorded, especially if there is a longer than normal latency between
the stimulus and the client's response or between the child's response and environmental consequences.

Part V required elicitation of communication behavior. This should be undertaken after completion of the previous four sections since the choice of appropriate assessment activities and stimuli depends upon the information gathered in earlier phases. Some hypotheses about interventions may be tested during this session. For example, if a communication board seems like a suitable alternative based on information already gathered, testing the child's ability to point or touch reliably might be an important part of the elicited communication sample.

Part VI involves describing the client's physical and communication environment. Although data relevant to this has already been collected throughout previous sections, this section is provided to integrate and summarize the most important environmental factors. The physical environment includes who and what can be found in the setting. The language environment includes what, when, and how interactions occur.

Part VII provides a basic outline for a summary and recommendations. Typically, some sections will require significantly more space than others, depending on the client's abilities and the environmental demands. Although, most headings will require more space than is provided on the assessment form, brief summary statements can be included on the form, if desired, and expanded recommendations written elsewhere.

A final section, Part VIII, has been added to list equipment needs associated with recommendations. Specific listing of these needs here helps ensure their consideration during program planning.
A copy of the evaluation form follows. Anyone interested in using all or part of the assessment is encouraged to do so. No specific consent is required. Acknowledgement of the source would be appreciated. The authors would be pleased to receive feedback from anyone using this instrument regarding strengths, weaknesses and modifications that have proven helpful.
FUNCTIONAL COMMUNICATION ASSESSMENT
FOR PERSONS WITH SEVERE HANDICAPS

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1983
Part I: Client Identification

Name: ___________________________  Sex: ________  ________

Date of Birth: ___________________  Chronological Age: ________

Program Placement: ____________________________

Key Worker: ____________________________

Residential Placement: ____________________________

Key Worker: ____________________________

Evaluator: ______________  Date of Assessment: ______________

Diagnosis:

________________________________________________________________________

________________________________________________________________________

Purpose of Assessment: ____________________________

________________________________________________________________________

Part II: Client History and Profile

Medical History:

________________________________________________________________________

Hearing and Vision Assessments:

________________________________________________________________________

Motor Assessments:

________________________________________________________________________

Cognitive and Language Assessments:

________________________________________________________________________

Self-Care Abilities:
Behavioral Concerns:

Previous Placements:

Previous Programs:

Present Programs:

Likes:

Dislikes:

Part III: Interview with significant other(s)

Interviewee(s): __________ Relationship to client: __________

Instructions: This section focuses on the client's prelinguistic, vocal, gestural and symbolic communication skills. For each of the four subsections, present all odd-numbered items within the subsection first followed by all even-numbered items within the same subsection.

Ask if the client performs each behavior listed below. Indicate in the parentheses whether the behavior occurs consistently (C), inconsistently (I), rarely (R) or not at all (N). If the interviewee does not know, mark (U) for unknown. Request specific examples of those behaviors the client reportedly performs.

NOTE: Avoid assuming the absence/presence of client behaviors.
Ensure that responses to items are based on interviewee report. Direct observation may be necessary in the case of unknowns.

A. **PRELINGUISTIC COMMUNICATION SKILLS**

**Attention**
1. physically attends to task by sitting for training ( ) for a maximum of __ seconds/minutes

2. visually attends to task by watching what he/she is doing ( ) for a maximum of __ seconds/minutes

3. makes eye contact ( ) for a maximum of __ seconds

**Oral-Motor/Respiratory Functioning**
4. displays structural deformities or deviations of the oral mechanism ( )

5. demonstrates good lip control ( ) (e.g. able to open/close lips as for sucking, protrude/retract lips as for kissing/smiling), jaw control ( ) (e.g. able to open/close jaw, as for chewing), and tongue control ( ) (e.g. able to lick lips, swallow without tongue thrust), during eating.

6. displays tongue thrust ( ) at rest/while eating/both

7. drools ( ) at rest/while eating/both

8. eats a regular/special diet ( )

9. breathes without difficulty with mouth closed ( )

**Communicative Intent**
10. approaches or seeks contact with others ( )

11. makes distress known ( )

12. makes specific need(s) known ( )

13. demonstrates preference for specific people/objects/events( )
14. indicates preference if offered a choice between 2 objects/events ( )

15. engages in turn taking routines ( )

Sensory Activity
16. responds to an auditory stimulus ( )

17. reacts to relatively loud noises or the sudden introduction of sounds ( )

18. looks directly at specific people/objects ( ) for a maximum of _ seconds

19. follows a moving object with eyes ( )

20. visually scans an array of objects for a desired item ( )

Cognitive Skills
21. aware of his/her cause-effect ability ( )

22. will search for a hidden object ( )

23. recognizes names of caregivers and/or peers ( )

Resonance/Coactive Movement/Deferred Imitation
24. reacts to touch ( ) with hypersensitivity/resistance/compliance/withdrawal

25. coordinates movements with another when being lifted, carried or led ( )

26. anticipates and executes appropriate movements prior to physical contact during feeding, dressing, toileting ( )

27. imitates movement while watching model ( ) (e.g. claps hands with you)

28. imitates movement after model completes the movement ( ) (e.g. claps hands after you)
Motor Abilities and Control
29. maintains upright head position in sitting ( )

30. independently moves head laterally ( ) vertically ( )

31. has complete/partial/limited range of motion of arms ( )

32. voluntary control of gross arm movements ( )

33. able to grasp ( ) and release ( ) objects

34. exhibits hand dominance/preference ( ) R/L/neither

35. has fine motor finger control ( )

B. GESTURAL COMMUNICATION SKILLS
1. communicates via facial expressions ( ) or body language ( )

2. has a clear method for signalling "Yes" ( ) and "No" ( )
   How?

3. produces natural gestures which code meaning ( ) (e.g. waving)

4. imitates natural gestures produced by others ( )

5. produces learned signs which code meaning ( ) (e.g. ASL sign for "eat")

6. imitates learned signs produced by others ( )

7. makes two-handed gestures ( ) (e.g. clapping)

8. gestures to request items/events ( ), identify items/events ( ), reject items/events ( ), request information ( )

C. SYMBOLIC COMMUNICATION SKILLS
1. uses some object for intended function ( )
2. associates objects with activities involving the objects

3. able to match object to object

4. associates photographic pictures with objects they represent

5. associates line drawings with objects they represent

6. able to match picture to picture

7. knows the alphabet

8. able to spell

9. reads and writes

10. points to objects How?

11. able to touch a requested/desired object/picture

12. can combine flexion of head with extension of arm and hand in a sitting position without loss of control

13. points with gaze

14. currently uses a communication board (Ask about type, number, and spacing of symbols, means of indicating, and present success/concerns)

D. VOCAL COMMUNICATION SKILLS

Receptive Abilities
1. responds differentially to changes in tone of voice

2. responds to name

3. responds appropriately to "Yes" and "No"
4. identifies requested objects (e.g. 'Show me cup')

5. identifies requested pictures (e.g. "Show me the picture of cup")

6. follows simple one-step directions (with/without contextual support such as gestures?)

7. follows simple 2-step directions (with/without contextual support such as gestures?)

Expressive Abilities

(Communicative Intent)

8. vocalizes at random times for no apparent reason

9. vocalizes in emotional situations (e.g. when in pain)

10. demonstrates situation-specific vocalizations

11. attempts to communicate with speech

12. speaks to request items or events, identify items or events, request information, reject items or events

(Phonetic Level - Suprasegmentals)

13. uses tone of voice to express mood

14. produces variations in pitch/loudness when vocalizing

15. uses adequate loudness when speaking

(Phonetic Level - Segmentals)

16. already produces several distinct sounds:
   - single Vowels: e.g. S_R_A
   - single Consonants: e.g. S_R_A
   - CV combinations: e.g. S_R_A
   (S - sustained; R - repeated; A - alternated)

17. imitates vocalizations Is imitation immediate/delayed?
(Phonological Level - Sounds with meaning)

18. produces single words (under spontaneous/elicited/imitative conditions?) ( ) Number? __

19. labels objects/actions/pictures ( )

20. uses 2-word phrases (under spontaneous/elicited/imitative conditions?) ( ) Number? __

21. uses 3-word phrases (under spontaneous/elicited/imitative conditions?) ( ) Number? __

22. uses grammatically complete sentences (under spontaneous/elicited/imitative conditions?) ( ) Number? __

23. engages in conversation ( )

24. speech is appropriate to the situation ( ) Is speech echolalic/perseverative?

(Clarity)

25. clarity of speech deteriorates with increased rate ( )

26. speech is easier to understand for those familiar with the client ( )

E. GENERAL CONSIDERATIONS

(Client)

1. What words or concepts are most important for this client to communicate?

2. What communication methods or programs have been tried?

3. What communication systems are used by others in the client's environment?
(Keyworker(s))

4. What communication systems are you familiar with?

5. Are you willing to learn and implement a new means of communication with this client?
Part IV: Natural communication behavior

This section involves observation and recording of the client's natural communication behavior in a familiar situation.

Date(s): ________________  Setting(s): ________________
Activity(s): ________________  People Present: ________________
Duration of Observation: ________________

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Part V: Elicited communication behavior

This section involves elicitation and recording of the client's communication behavior.

Date(s): _______________ Setting(s): _______________

People Present: ______________________________________

Person(s) Presenting Stimuli: __________________________

Duration of Elicitation: ________________________________

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Part VI: Physical and language environment

This section is provided to describe environmental factors which need to be taken into consideration when planning a communication system for this client.

Part VII: Summary and Recommendations

A. Prelinguistic Communication
   Summary:

   Recommendations:

B. Gestural Communication
   Summary:

   Recommendations:

C. Symbolic Communication
   Summary:

   Recommendations:

D. Vocal Communication
   Summary:

   Recommendations:
Part VIII: Equipment Needs

Indicate equipment which may be needed based on the recommendations above:

A. Prelinguistic Communication:

B. Gestural Communication:

C. Symbolic Communication:

D. Vocal Communication: