ABSTRACT
        Focusing on the realities and constraints operating
in public school settings, this book suggests ways that school
personnel with responsibilities for hearing-impaired and other
language-delayed children can produce effective language assessments
and interventions. Following an overview of language development, the
book is organized into sections which constitute "steps" in the
assessment process. The first step, "Evaluating Tests," covers the
purpose of a language assessment and issues such as norms, validity,
and reliability, and concludes with a checklist for evaluating
language tests. "Selecting a Test Battery" defines a test battery,
discusses formal-informal testing, reprints the Kendall Communicative
Proficiency Scale, provides examples of test batteries, and cites
test modification techniques. "Administering the Test Battery" lists
general considerations for administering tests and special
considerations for testing the hearing-impaired child. "Obtaining and
Using Language Samples" describes ways to obtain written, elicited,
and spontaneous language samples; discusses methods of recording and
analyzing spontaneous language; and gives sample recording forms. The
final section contains descriptions and critiques of 36 available
language tests, including ordering information, ages for which the
tests are designed, instructions for test administration, norms,
reliability, validity, advantages, disadvantages, and other notes.
(JDD)

## Contributors

W. Gary Allinger    - Teacher
Cathy L. Berg      - *Communication Disorders Specialist
Kathleen Black    - Teacher
Carolyn Burns     - *Communication Disorders Specialist
Pam Forbush       - Teacher
Kerry Harder      - *Communication Disorders Specialist
Connie Jorgensen  - Teacher
Rosanne McCall    - *Communication Disorders Specialist
Kathy Oliver      - *Communication Disorders Specialist
Kay Opfer         - Teacher
Courtney Reed     - Teacher
Stan Serafin      - Teacher
Joclyn Stedman    - Teacher
Laura Stedwick    - *Communication Disorders Specialist
Elaine Talbot     - Teacher
Karen Taylor      - Teacher
Joe Whalen       - *Communication Disorders Specialist


*In Washington State, Speech-Language Pathologists and
Audiologists who work for the schools are referred to as
Communication Disorders Specialists, or CDS.

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# Language Assessment

# of Hearing-Impaired School Age Children

*Marie Thompson*
*Patricia Biro*
*Susan Vethivelu*
*Constance Pious*
*Nancy Hatfield*

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## PREFACE

This book is the product of a collaborative effort between public school speech-language pathologists and teachers and university educators, all of whom are professionally involved in the education of hearing-impaired students and others with problems in learning language. The book was developed in a series of work sessions over the course of 2 years. The role of the public school teachers of the hearing impaired, speech-language pathologists, and others was to bring to this project, based on their own experience, a strong sense of what is needed in the public school setting to help children who have a hearing loss, and who are learning English, to develop language as competently as possible, and to keep the work realistic in terms of what can be done in the schools. Throughout the work sessions, the authors, contributors, and consultants focused on the realities and constraints operating in schools and on suggesting ways that school personnel with responsibilities for hearing-impaired and other language delayed children can work together to make language assessments and intervention productive rather than overwhelming tasks. In this sense, the book is not concerned with abstractions or "ideal" but infeasible procedures. Rather, it acknowledges that language deficits are severe educational and social consequences of hearing impairment, that these problems are present in many hearing children, and that teachers and ancillary specialists face a challenging task in helping to remediate these deficits. The book does not approach teachers and speech-language pathologists as though they were linguists or psycholinguists. Expectations cannot be the same for both groups. Teachers and clinicians must perform as carefully as possible but efficiently. They must function under constraints of time and mandated requirements of their school districts and are not always free to function as researchers. It is preferable that they assess each student's language—even if it means using only commercial tests—than not assessing language at all, which happens all too often. The book was written because of the

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authors' strong belief that "...language, through communica-
tion and reading, forms the foundation of the educational
career for all students" (Hasenstab & Horner, 1982, p. 140)
and that hearing-impaired children and others with language
delays can achieve language levels more like those of their
nonhandicapped peers. In order to do this, however, they must
first receive appropriate assessment, which is the first step
toward developmentally sound programming. The book is design-
ed for those who are required to evaluate the language of
their students, but who may not be sophisticated in all areas
of language nor have readily available all of the information
they need about assessment. Professionals using this book
will find that, although the emphasis is placed upon hearing-
impaired children, the skills discussed and tests reviewed
will be helpful in evaluating the language of other students
with communicative delays. The work was supported by a Pro-
gram Assistance Grant from the United States Department of
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principal investigator.

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# LANGUAGE ASSESSMENT: INTRODUCTION

## Purpose

The greatest deficit sustained by hear'       .ired persons
occurs in language development and use.  Res.._.ch reports are
full of results illustrating how severely language delayed
most hearing-impaired students are, and these students rarely
gain full use of the English language as do their hearing
peers.  One way to begin to attack this problem is for speech-
language pathologists and teachers of the hearing impaired to
work together as a team in order to assess language, develop
intervention goals and objectives, and monitor progress of the
hearing-impaired child's language.  In order to facilitate
such a plan, these professionals must be knowledgeable about
both normal language and the language of the hearing impaired
and know how to assess language.

We recognize that many teachers of the hearing impaired do
not have a strong background in normal language development
theory and assessment.  Likewise, many speech-language patho-
logists are trained in language development and assessment
procedures, but are unfamiliar with the special problems in-
herent in evaluating the language skills ' hearing-impaired
children.  One result is that there are all too few profes-
sionals who are equipped to evaluate the language of hearing-
impaired students.  A second result is that hearing-impaired
students are being taught language out of the normal sequence
of development and at levels that are too difficult for them
to absorb, and that the students' _use_ of language or ability
to communicate what they mean is being ignored.  The conse-
quence is a language system full of holes and groups of stu-
dents who are totally frustrated.  An additional problem oc-
curs because many professionals believe that the language of
hearing-impaired children cannot be evaluated unless all of
the assessment tools are specifically developed for this
group.  Whether or not this view is accurate depends upon how
the professional wishes to use the results.  Adequate assess-
ment is essential for developing appropriate intervention

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plans or strategies for individual students and ensuring that
they make progress. Our intention is to ;  .  _ speech-
language pathologists and teachers of the hearing impaired who
are responsible for assessing the language of hearing-impaired
students within the school program with information that will
assist them in working together to perform this important task
within the educational program.

The purpose of this book is to provide teachers of the
hearing impaired and speech-language pathologists with the in-
formation necessary to assess the English language skills of
their hearing-impaired students reasonably and within the con-
straints imposed by time and school district regulations. The
goal is to help professionals develop skills that will in-
crease their flexibility, creativity, and effectiveness in
meeting the language needs of these students. These skills
include:

1)  evaluating language tests
2)  formulating goals for assessment
3)  planning individualized test batteries
4)  administering language tests appropriately
5)  compiling and interpreting test results.

At the outset, it is important to recognize that assess-
ment is only one part of the total management process for
hearing-impaired children, and that language assessment is
only one subset, albeit an important one, of the total assess-
ment process. Under ordinary circumstances, language is glo-
bal and intrinsic to all aspects of life, academic or other-
wise. Assessment of parts of language, or language only under
contrived conditions, is obviously less than ideal but may be
the most efficient way to obtain information in the school
setting. The teacher and clinician must remember this and
analyze all results together, relating them as much as possi-
ble to the total language environment.

The objectives of language assessment will be: 1) to plan
an appropriate placement, and, in that placement, 2) to ob-
tain baseline measures of a student's strengths and weaknesses
in language; 3) to plan intervention strategies based upon

baseline measures; and 4) to monitor a student's progress to
determine whether the intervention is effective. The focus of
this book is to help speech-language pathologists and teachers
of the hearing impaired develop the tools needed to do an ef-
fective job of language assessment of hearing-impaired chil-
dren who are learning English, either through an oral or man-
ually coded approach, because the largest group (approximately
96%) of children with a hearing loss are born to hearing par-
ents and English is the primary language both at home and at
schoc Children from homes in which English is not the pri-
mary language are learning English at school.

Next, we must define the word "language" as used in this
book; that is, what do you measure when you assess a student's
language performance? Language in normally hearing children
is commonly understood to mean the understanding (reception,
comprehension) and use (expression, production) of a formal
system in spoken form, as well as knowledge about rules that
govern how language is used for communication, which include
communicative intentions, presupposition, and social organi-
zation of discourse (Roth & Spekman, 1984). When language
development follows a different course, as in the case of
hearing-impaired children, the term "language" is not as
clear-cut. In assessing the language of a hearing-impaired
child, we could conceivably be measuring any or all of the
following skills: speechreading, speech, use of residual
hearing, reading, writing, or signing. To further complicate
matters, there may be more than one language involved: Eng-
lish, American Sign Language. Spanish (in a Spanish-speaking
home), and so on.

This book emphasizes assessment of receptive and expres-
sive English in simultaneously signed/spoken form as well as
the communicative/social framework of language. In selecting
this emphasis, we do not imply that the other language skills
listed above are not important or need not be assessed. These
skills are certainly crucial to a child's success in academics
and in communicating with others, and should be assessed.
Likewise, we realize that a child's ability to use residual
hearing, speech, and speechreading affects his or her skills
in receiving and using English in any form. Because these
skills are so important, we believe they need special atten-
tion and should be addressed separately. It is our conten-
tion, however, that a hearing-impaired child's development of

the ability to receive and use English in spoken/signed form,
although delayed, most closely parallels the case of the
hearing child developing receptive and expressive skills in
spoken English.

Obviously, a working knowledge of normal language devel-
opment is necessary for assessing language skills effective-
ly. Although a brief review of normal language development is
provided below, extensive background knowledge is essential
and should be acquired through appropriate coursework and
training. Numerous references about language and language
development are provided for the reader in the reference sec-
tion at the end of the book.

## Organization of This Book

Following a brief overview of language development, the
book is organized into sections which constitute "steps" in
the assessment process. The final section. Section VI, con-
tains descriptions and critiques of available language tests.
The "steps" in the assessment process are:

Evaluating Tests
Selecting a Test Battery
Administering the Test Battery
Obtaining and Using Language Samples

By becoming skilled in each of these areas, teachers and
speech-language pathologists will be able to effectively ob-
tain the baseline measures upon which to build appropriate
intervention strategies and to use these same techniques for
later monitoring of progress.

## SECTION I: OVERVIEW OF LANGUAGE DEVELOPMENT

Language includes both knowledge about and appropriate use
of rules that enable us, as humans, to communicate with each
other in our society. As adults, we may not be able to des-
cribe these rules, but we use them every day when we read,
write, or talk to others. Children must eventually learn
these adult rules but cannot and do not learn the adult forms
of expressing them immediately. Normal hearing infants begin
to learn about their language during the first few months of
life. They attend to adults talking and smiling and begin the
process of turn-taking even though it may be limited to a re-
turned smile or gurgle (Snow, 1977). They listen, watch, and
learn more about the entire communication process and begin to
use their first words at about the same time they begin to
walk (Berko Gleason, 1985). Sometime during the second year,
they begin to combine their single words into two-word combi-
nations without the grammatical modifications required in
adult language (Brown, 1973). By the time they reach kinder-
garten age, normally developing children have a vocabulary of
approximately 8,000 words and most of the basic grammatical
forms of their language (Berko Gleason, 1985). This type of
cumulative learning suggests that normal hearing children
begin to understand the language system as infants and grad-
ually, systematically begin to use it expressively. They com-
prehend certain language constructs (receptive skills) before
actually producing them (expressive skills). For example, a
child will be able to point to or pick up a shoe or ball on
command before producing the word shoe or ball. As a child
develops better understanding about her language, she begins
to attain linguistic competence or inner understanding about
the rules, including those that control social discourse as
well as the grammar, of her community. The use of these rules
on a daily basis is known as performance.

## The Major Components of Language

When children are learning their language system, they must learn about a variety of parts or subsystems such as phonology, morphology, lexicon, semantics, and syntax. They must learn not only how to combine these components into a comprehensible language system, but also how to use this language system in appropriate ways on different occasions with different individuals or groups of people.

### Use (pragmatics)

Pragmatics is the framework within which other subsystems of language operate. It is the nonlinguistic part of language that assists the listener in interpreting the speaker's intent, because understanding a communication depends upon more than decoding grammar alone (Dore, 1976; Kramer, 1977). According to Roth and Spekman (1984), there are three major aspects of the use of language: a) the functions of language or why people speak, b) the way in which people make decisions about the language form they will use in order to reach the communication goal they have in mind, and c) the social organization of discourse. Muma (1978) sums it up by stating that pragmatics is concerned with the rules that most people know and use to determine "...who says what to whom, how, why, when and in what situation" (p. 137).

(a) The functions of language or communicative intentions have, in the past, been identified as asking a question (interrogative), making a statement (declarative), making a strong statement or demand (imperative), or expressing excitement or surprise (exclamative). More recently, functions of language have been identified in more social terms that refer to interaction and personal control (Halliday, 1975; Dore, 1975; Lucas, 1980). The social use of language provides a basis for discussing language in terms of the "speaker's" goals or communicative intentions. These intentions are identified as separate from grammatical structure (Dore, 1975) and therefore can be observed and discussed either with or without linguistic corollaries. Recent studies have suggested that very young children are successful in expressing a variety of intentions when only at the one-word stage (Halliday, 1975; Dore, 1975; Bates, 1976). They are simultaneously learning a

grammatical system and the ways they must modify this system
according to the social demands of the situation. Examples of
communicative intentions of young children are presented in
Table 1. Although they are presented separately in terms of
linguistic and nonlinguistic behaviors, it is important to
recognize that a linguistic communication is often accompanied
by a gesture.

(b) The second aspect of use, language form, or presuppo-
sition, refers to the entire situational context: who is
being spoken t^ how much information is known and unknown by
the listener, whether the objects or persons discussed are
present or absent, and whether the speaker's action is initia-
ted or is made in response to someone else's message. New in-
formation is obligatory whereas given information is option-
al. There is a tendency, in the "typical" English sentence,
to start off with information which is shared by speaker and
hearer—called given information—and to move to "new" infor-
mation. Given information may have been supplied by previous
conversation, or by the context (non-verbal).

For example, if two people are going for a walk, and they
see some houses built by one person's grandfather, there are
two possibilities. If they are already having a conversation
about the person's grandfather, the comment would be "He (My
grandfather) built those houses." "He" (Grandfather) is the
given information, "houses" the new information. If the two
people see the houses, without previous reference to the
grandfather, the comment might be "They (Those houses) were
built by my grandfather." "They" (houses) is given by con-
text, and "grandfather" is new information. The new infor-
mation is signaled by stress and, often as in this case, by
using the passive voice. Thus, even if the sentence is organ-
ized differently, as in "My grandfather built those houses,"
the stress indicates which information is new.

You can view the passive voice as a way of keeping the
given information to the left of the verb. Thus, if you have
the sentence "The President stepped off the airplane," the
next sentence would probably not be "Newspapermen immediately
surrounded him," but rather "He was immediately surrounded by
newspapermen." The speaker or writer assumes that the lis-
tener can recover the information, and so the given informa-
tion may be pronominalized, as in the above sentence, where
"he" is substituted for "president." A speaker may also

delete given or old information, as in this dialogue: "What's your name?" "Tommy." The second person has deleted the un-necessary information, "My name is."

Hearing-impaired children often do not understand the re-lations between sentences and that only given (or old) infor-mation can be deleted. They delete new information, which produces communication that is difficult or impossible to interpret. Or their writing may contain no given information to link sentences together so that the sentences are not cohesive but appear to be random observations. This may be inadvertently fostered by teaching. The class goes on an outing together, then comes back and writes about it. The teacher asks "What happened first?" "What happened next?" If only facts are written down, without sentence connection, the story may come out as an unrelated list. The students get the impression that each sentence is independent, that one does not shape the next or that one could be embedded in another.

The abbreviated language and slang we use with peers is not used in more formal circumstances. Lakoff (1977) refers to this as a social signaling function, a formal register used with superiors and strangers and an informal register with close friends or those believed to be socially inferior. A person must consider all factors about the contextual situa-tion and his listeners in order to determine the appropriate "use" of language. "Social signaling" is learned intuitively by normal hearing children who begin to hear these differences from birth, but it must be assessed and often taught to hear-ing-impaired children.

(c) The third aspect of language use, the social organi-zation of discourse, refers to social interaction and communi-cation. This social organization refers to "discourse mecha-nisms" (McGinnis, 1985, p. 108) that assist people in struc-turing a variety of communications. Such mechanisms include greetings, topic continuity or topic change, beginning and ending a conversation, repairing communication when it breaks down or is interrupted, and turn-taking, which is learned at a very early age. Pragmatic aspects of communication must be considered at all age levels, especially when one is assessing and developing intervention plans for those who are not devel-oping language normally, such as students who are hearing im-paired.

Table 1

PRAGMATIC BEHAVIORS IN YOUNG CHILDREN

| Category | Definition | Examples Non-linguistic | Linguistic |
|---|---|---|---|
| Requesting | Solicitation of a service from a listener: | | |
| Object requests | Gestures or utterances that direct the listener to provide some object for the child. | C holds out hand toward car mother is playing with and vocalizes loudly. | C reaches for bottle on table, says "milk." |
| Action requests | Gestures or utterances that direct the listener to act upon some object in order to make it move. The action, rather than the object, is the focus of the child's interest. | C, unable to push a peg through hole, utters "uh uh uh" while looking at mother. | C sitting on swing says "push." |
| Information requests | Gestures or utterances that direct the listener to provide information about an object, action, or location. | C brings a worm to mother, looks up inquisitively. | C picks up book, looks at mother, and says "book?" with rising terminal contour. Mother answers, "Right, it's a book." |

| Category | Definition | Examples Non-linguistic | Linguistic |
|----------|------------|------------------------|------------|
| Greeting | Gestures or utterances subsequent to a person's entrance that express recognition. | C sees mailman through the window and waves. | C says "hi" when teacher enters room. |
| Transferring | Gestures intended to place an object in another person's possession. (May be accompanied by an utterance.) | C hands father a book, nods, and says "da." | C hands mother her key, says "here." |
| Showing off | Gestures or utterances that appear to be used to attract attention. | C repeatedly sticks tongue out at mother, laughing. | C says "lookit" before turning somersault. |
| Acknowledging | Gestures or utterances that provide notice that the listener's previous utterances were received. | Mother asks, "See the doggy?" and C nods. | Father asks "Want a spanking?" C shakes head and says "uh-uh." |
| Answering | Gestures or utterances from the child in response to a request for information from the listener. | Mother asks, "Show mommy your nose?" C points to nose. | Mother points to a picture of a dog and asks, "What's that?" C answers "bow-wow." |

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| Labeling | Word utterance from child while attending to object or event. Child does not address adult or wait for a response. | ------- | C touches a doll's eyes and says "eyes." |
|---|---|---|---|
| Repeating | Repetition of part or all of previous adult utterance. Child does not wait for a response. | ------- | C overhears mother's utterance of "doctor" and says "doctor" |
| Practicing | Use of word or prosodic pattern in absence of any specific object or event. Child does not address adult. Does not await response. | C vocalizes while playing with telephone as if having a conversation. | C utters "Daddy" when he is not present. |
| Calling or attention getting | Calling adult's name loudly and awaiting response, or child waves to or taps adult in order to gain attention. | C taps adult while standing beside her, looking up. | C shouts "mama" to his mother across the room. |
| Negating | Denial, resistance to, cr rejection by child of adult statement, request, or question. | C shakes head (no) when mother says, "O.K., time to go." C shakes head (no) when mom asks, "Did you push baby?" C, when his mother attempts to put on his shoe, repeatedly pushes it away. | C says "no! no!" and runs away. C says "no" or "no push." Mother attempts to feed C a bite of vegetable; C loudly says "No-no-no." |

Form:  Phonology, Morphology, and Syntax

Phonology:  Each language is composed of a variety of
speech sounds that, when combined in specific, ordered ways,
form the basic words or lexicon of a given language.  Speech
sounds that are specific to a given language are referred to
as phonemes because they are the smallest unit of sound that
can signal a difference in what is being said, such as the
difference between bed and bid.  Phonemes are families of
sounds that are very similar (Owens, 1984), and the study of
phonology includes a review of these phonemes, their distribu-
tion and sequencing, and the different ways in which they are
produced.  Young children's understanding of the phonological
system is usually expressed through speech production.  Be-
cause speech production in hearing-impaired children is usual-
ly considered to be of such importance that it is treated
separately, it will not be addressed in this book.  For an
excellent treatment of this subject, the reader is referred to
Ling, 1976.

Morphology:  The smallest meaningful unit of language is a
morpheme.  The rules for forming words by combining morphemes
is called morphology.  There are two types of morphemes: free
and bound.  A free morpheme carries its own meaning and can
stand alone; e.g., bird, girl, run.  A bound morpheme does not
carry meaning by itself and therefore cannot stand alone;
e.g., -ly, -ness, -s.  Bound and free morphemes are combined
in order to develop the variety of words in our language;
e.g., walk, walked; girl, girls; great, greatest.  Brown
(1973) reported on young children's acquisition of their first
14 morphemes as evidenced by use in the language of three
children he studied extensively.  He observed a reliable order
of acquisition by using a criterion of 90% correct usage.
Table 2 suggests the developmental stage and approximate age
range during which specific morphologic structures are acquir-
ed by young children and reflects the findings of several re-
searchers.

Syntax:  Within the English language, there is a certain
word order or syntax that is standard; for example, it is
appropriate to say "The girl is wearing the red sweater," not
*"The is girl wearing is the sweater red."  Developmentally,
somewhere around 18 months of age, young children begin to

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Table 2

FIRST FOURTEEN MORPHEMES

| *Develop-mental Stage | Approx. Age | Morpheme | Example | Meaning |
|---|---|---|---|---|
| II | 27–30 months | -ing | me play<u>ing</u> | ongoing activity, presently occurring |
| | | plural | that book<u>s</u> | number agreement |
| | | in | cookie monster <u>in</u> there | containment |
| III | 31–34 months | on | doggie <u>on</u> car | support |
| | | possessive | mommy'<u>s</u> shoe | possession |
| V | 41–46 months | regular past | He walk<u>ed</u>. | earlier in time relative to time of occurrence |
| | | irregular past | She <u>came</u>.<br>We <u>went</u>. | |
| | | regular third person singular | It jump<u>s</u>.<br>She play<u>s</u>. | occurs with regularity |
| | | articles:<br>"a" | That's <u>a</u> puppy. | indefinite |
| | | "the" | Here is <u>the</u> paper. | definite |
| | | contractable copula "be" | Here'<u>s</u> my coat.<br><br>There'<u>s</u> Johnny. | number agreement |
| V+ | 47+ months | contractable auxiliary "be" | <u>They're</u> playing.<br><br><u>I'm</u> coming. | ongoing activity, presently occurring |
| | | uncontractable copula "be" | (Who's here?)<br>I <u>am</u>.<br><br><u>Are</u> they the boys? | number agreement |
| | | | <u>Was</u> that a dog? | earlier in time |
| | | uncontractable auxiliary "be" | <u>Is</u> he running? | number agreement; ongoing activity, presently occurring |
| | | | <u>Were</u> they at home? | earlier in time |
| | | irregular third person singular | <u>Does</u> the dog bite? | number agreement |

Adapted from: Brown (1973), deVilliers and deVilliers (1973), and Clark and Clark (1977)

* Included are only those developmental stages when morphemes reportedly are acquired.

produce two-word utterances that are stated in the appropriate
word order that an adult would use in order to convey a speci-
fic semantic relation such as:

| | | |
|---|---|---|
| agent + action: | boy run | N+V |
| action + object: | push wagon | V+N |
| agent + object: | mommy truck | N+N |
| patient + action: | doll broke | N+V |
| action + locative: | sit chair | V+N |
| entity + locative: | cup table | N+N |
| possessor + possessed: | mommy sock | N+N |
| entity + attribute: | coat blue | N+M |
| demonstrative + entity: | that ball | M+N |

N = noun
V = verb
M = modifier

As children mature and their knowledge about the world
increases, the length and complexity of their sentences grad-
ually increase, always following the general rules of their
native language. As sentences increase in length, the com-
plexity of the language within the sentences increases also
(see Table 3). As the child's language complexity increases,
the number of nouns, verbs, and modifiers expands, thus in-
creasing the richness of his or her language. Normal hearing
children, with constant auditory input, are able to use appro-
priate word order and, at the same time, are able to generate
a variety of sentences they have never heard because they have
learned the rules of syntax and the correct semantic-syntactic
relationships.

Table 3

EXAMPLES OF SYNTACTICAL DEVELOPMENT BASED ON MLU*

| MLU | APPROX. AGE | TYPE OF UTTERANCE | PRIMARY SYNTACTICAL FEATURES |
|---|---|---|---|
| 1.7 – 2.2 | 18 – 24 months | "boy chair" "boy walk" | Uninflected forms; 2-word semantic relations |
| 2.2 – 2.7 | 24 – 30 months | "boy on chair" "boy walking" | Emergence of grammatical morphemes such as preposition or "ing" form |
| 2.7 – 3.5 | 30 – 36 months | "boy sitting on chair" "he walking" | More consistent use of grammatical forms, wider variety. Primarily active, declarative sentences. |
| 3.5 – 4.0 | 36 – 42 months | "He sat on my chair." "They are not walking." "Where are they walking?" "Make them walk!" | Transformation of basic sentence into: negative sentence, question form, imperative. |
| 4.0 – 5.2 | 42 – 50 months | "They are walking up the hill." "He doesn't want to walk." | More consistent use of auxiliaries and obligatory "do," use of subordinate clauses and phrases. |
| 5.2 – 6.0 | 52 – 60 months | "When it's raining the boys don't walk." "They walk fast because they'll get wet." | More complex sentence structures, use of dependent and independent clauses. |

*Mean Length of Utterance

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Content:   (semantics and lexicon)
    Content refers to both the <u>words</u> (lexicon or vocabulary)
known and used by an individual and the semantic component, or
the rules that govern the meanings conveyed by words within a
given syntactic structure.  "A word does not contain a unitary,
unalterable, or static meaning"  (Wiig & Semel, 1980); rather,
meanings change as words are combined or as new words, such as
slang, are added.  For instance, the meaning of the word
"glasses" changes:  "I can read better when I wear my glasses."
"The dirty glasses are in the sink."  "The glass in the window
is broken."  "John hit the ball so hard, his bat was broken."
"John was a big hit at the party."  Consider the following list
of words and identify the "verbs."

             hit   walk   bat   name   leave

    This is really an impossible task when words are presented
in isolation because each of the above words changes meaning
and grammatical identification when placed in a different rela-
tionship with other words.  The meaning of relational terms
such as yesterday, today, and tomorrow is difficult to learn
because these word- have no single referent.  Instead, each
time the word is used, its <u>meaning</u> changes depending upon the
specific time it refers to.  "You know what, Mommy?  Yesterday
toc  was tomorrow."*
    Children's first words relate very much to themselves and
their immediate environment.  Consequently, the very young
child will first learn to <u>understand</u> the names of mother, fath-
er, siblings, family dog or cat, clothing, and favorite food
and toys, as illustrated in Table 4, and to <u>produce</u> these same
categories of words when he or she first starts to talk, as re-
flected in Table 5.  As children mature and gain greater cogni-
tive skills, both their knowledge about the various meanings of
words as well as their actual lexicon or vocabulary increase.

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*Elizabeth, age 3-1/2 years, from deVilliers and deVilliers,
1978.

Table 4

FIRST WORDS UNDERSTOOD BY HEARING CHILDREN
8 TO 18 MONTHS OLD

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First Words Understood:  8 to 12 Months

| | |
|---|---|
| mommy | shoe |
| daddy | ball |
| names of family members and pets | cookie |
| (often known idiosyncratically) | juice |
| bye-bye | no-no |
| baby | wave bye-bye |

First Words Understood:  12 to 14 Months

| | | |
|---|---|---|
| hi | hair | chair (highchair) |
| kitty (cat) | come here | book |
| dog (doggy) | sit down | socks |
| cup | stand up | dance |
| cracker | get up | patty-cake |
| care | stop that | peek-a-boo |
| eyes | hug | kiss |
| ears | water | bring |
| feet | drink | give mommy, me... |
| kiss me | throw the ball | brush your hair |

First Words Understood:  14 to 18 Months

| | | |
|---|---|---|
| milk | bed | coat (jacket, sweater) |
| spoon | cereal | apple |
| telephone | bottle | teeth |
| keys | horse | brush your hair, teeth |
| blanket | hat | where is, are... |
| go get... | show me | don't touch |
| let's go... | do you want... | open, close the door |
| find | go get... | |

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Table 5

SUMMARY OF NELSON'S ANALYSIS OF
FIRST 50 WORDS PRODUCED BY 18 CHILDREN

| Word Category | Example | % of 1st 10 words | % of 1st 50 words |
|---|---|---|---|
| I. Nominals—Specific (total) | | 24 | 14 |
| People | "mummy" | | |
| Animals | "Dizzy" (name of pet) | | |
| Objects | "car" | | |
| II. Nominals—General (total) | | 41 | 51 |
| Objects | "ball" | | |
| Substances | "milk," "snow" | | |
| Animals & people | "doggie," "girl" | | |
| Letters & numbers | "e," "two" | | |
| Abstractions | "good," "birthday" | | |
| Pronouns | "he," "that" | | |
| III. Action Words (total) | | 16 | 13 |
| Demand-descriptive | "go," "bye-bye," "up" | | |
| Notice | "look," "hi" | | |
| IV. Modifiers (total) | | 8 | 9 |
| Attributes | "big," "red," "pretty" | | |
| States | "hot," "dirty," " 'll gone," | | |
| Locatives | "there," "outside" | | |
| Possessives | "mine" | | |
| V. Personal-Social (total) | | 5 | 8 |
| Assertions | "no," "yes," "want" | | |
| Social-express: ) | "please," "ouch" | | |
| VI. Function words (total) | | 6 | 4 |
| Questions | "what," "where" | | |
| Miscellaneous | "is," "to," "for" | | |

Note: Data from "Structure and Strategy in Learning to Talk"
by K. Nelson, Monographs of the Society for Research in Child
Development, 1973, 38, No. 149. Reprinted by permission of
the Society for Research in Child Development.

## Summary of Language Acquisition

The following summary of language acquisition offered by Hasenstab and Horner (1982) must be considered whenever any form of language evaluation is to occur.

- Language acquisition is developmental.
- Hearing-impaired children and most language delayed children are more similar to than they are different from normal children in the acquisition process.
- Hearing-impaired children and most language delayed children have the potential for acquiring language and its various communicative functions in speaking/signing, reading, writing and thinking.
- Language systems are rule-governed and observations of instances of these rules can assist the diagnostician in formulating a hypothesis regarding a child's language system.
- Language acquisition is a hypothesis testing process.
- The sequence of language acquisition is fairly stable while the rate is variable.
- Pragmatic, semantic, syntactic [morphologic] and phonologic components are interactive in language/communicative acquisition.                                    [p. 140]

## Overview of Language Development in Hearing-Impaired Children

The acquisition of signed language, American Sign Language (ASL), by young deaf children of deaf parents follows the same general course as that of hearing children in comparable language-learning contexts. Like hearing children, deaf children in a signing environment babble at approximately 6 months of age - but with their hands. At about 1 year, they begin to produce single signs. Two-word signed utterances are formed at about 18 to 24 months of age. The rate of deaf children's increase in mean length of utterance (MLU) in signed language parallels that of hearing children acquiring English as a native language, and the acquisition of certain syntactic mechanisms, e.g., negation, follows a course similar to that for English (Siple, 1978). By early childhood, deaf children of deaf parents are native "speakers" of the signed language in which they were immersed from birth.

For the hearing-impaired child of hearing parents, language development is quite a different matter. Because the use of the auditory system is implicit in acquiring spoken language, the defective hearing of congenitally hearing-impaired children (or those who acquire a loss at an early age) often presents an insurmountable obstacle to their

learning language as do their normal hearing peers. Even if
parents continue to provide verbal input, the language message
may be terribly distorted before it reaches the point where
the child processes it. For normal hearing parents, the addi-
tion of signs is usually a difficult task, and they often
learn and use signs imperfectly (Swisher & Thompson, 1985).
In either case the language input to the child is severely
restricted.

The acquisition of English skills by both groups of deaf
children, those with deaf parents and those with hearing par-
ents, lags far behind that of their hearing peers. In a study
of reading achievement, Furth (1966) found that by age 11,
only 1% of deaf children were functionally literate (having
reading scores of Grade 4.9 or better), and that even by age
16, only 12% of deaf children reached this level. Similar
findings were described in the 1969 Annual Survey of Hearing-
Impaired Children and Youth: by age 15-1/2 to 16-1/2, the
mean reading achievement grade equivalent was 3.5 (Brooks,
1978). Later studies have concurred in the conclusion that
deafness from an early age is universally associated with
serious problems in reading English (e.g., Conrad, 1977;
Hammermeister, 1971; Berko Gleason, 1985). The Winter, 1985
issue of the Gallaudet Research Institute Newsletter states
that the median achievement level of 14-year-old deaf children
is third grade in reading comprehension and sixth grade in
math computation; no figures are given for math problem-
solving, which involves language comprehension (Harkins,
1985). Although tests of reading achievement do not measure
language ability, they do reflect the reader's knowledge about
and understanding of the language system.

Typically, hearing-impaired people also perform poorly in
the expression of English, producing written and spoken lan-
guage that is simpler and more stereotyped than that of nor-
mally hearing people. Reviews of the kinds of errors made and
their prevalence may be found in Quigley and Paul (1984) and
Swisher (1976). In her review article, Swisher concluded
that: 1) Compared to hearing persons, deaf people use shorter
sentences for spoken and written language and they overuse
nouns and articles, with frequent errors of omission, substi-
tution, addition, and word order. 2) Functors (small words

such as a, the, an) are especially difficult for the deaf,
leading to spoken and written output which is frequently
referred to as "telegraphic." 3) Deaf children use phrases or
sentences in a stereotyped manner (see Table 6).

Cooper (1967) noted the superiority of hearing subjects,
compared to a group of hearing-impaired students, in the
ability to apply morphological rules, pointing out that the
average 19-year-old deaf student could not compare to the
average 9- to 10-year-old hearing student. Quigley, Smith,
and Wilbur (1974) found similar retardation in hearing-
impaired children's understanding of all aspects of relative
clauses, and Power and Quigley (1973) found that at 17 and 18
years of age, nearly 40 percent of their hearing-impaired pop-
ulation failed to understand the passive voice. Additional
studies of hearing-impaired students provide similar informa-
tion. However, although available research results suggest
that hearing-impaired children's language development is simi-
lar to but slower than that of normal hearing children, no
complete developmental sequence of language in hearing-
impaired children has been established.

It must be emphasized that an overriding characteristic of
the hearing-impaired population is its diversity. The actual
language performance of deaf children varies greatly from
child to child, according to factors such as: age at onset,
type, degree, and etiology of the hearing impairment; the
child's age at identification of the hearing loss; type of
language input the child receives; education; parental accep-
tance of deafness; parental hearing status; and hearing aid
use. In fact, as Meadow (1978) points out, variations within
groups of deaf subjects are often greater than variations bet-
ween deaf subjects and hearing control groups.

Pragmatics

Little research has been done in the area of pragmatics
with the hearing-impaired population. Curtis, Prutting, and
Lowell (1979) and Schirmer (1985) examined very young hearing-
impaired children and found that these children used the same
range of nonverbal pragmatic strategies as normal hearing
children but that they were delayed compared to hearing peers
of the same chronological age. Although extensive research

Table 6

EXAMPLES OF THE LANGUAGE OF DEAF CHILDREN

| Structural Environment in Which Construction Occurs | Description of Construction | Example Sentences |
|---|---|---|
| Verb system | Verb deletion | The cat under the table. |
| | Be or have deletion | John sick. The girl a ball. |
| | Be-have confusion | Jim have sick. |
| | Incorrect pairing of auxiliary with verb markers | Tom has pushing the wagon. |
| | By deletion (passive voice) | The boy was pushed the girl. |
| Negation | Negative outside the sentence | Beth made candy no. |
| Conjunction | Marking only first verb | Beth threw the ball and Jean catch it. |
| | Conjunction deletion | Joe bought ate the apple. |
| Complementation | Extra for | For to play baseball is fun. |
| | Extra to in POSS-ing complement | John goes to fishing. |
| | Infinitive in place of gerund | John goes to fish. |
| | Incorrectly inflected infinitive | Bill likes to played baseball. |
| | Unmarked infinitive without to | Jim wanted go. |
| Relativization | NPs where whose is required | I helped the boy s mother was sick. |
| | Copying of referent | John saw the boy who the boy kicked the ball. |
| Question formation | Copying | Who a boy gave you ball? |
| | Failure to apply subject auxiliary | Who the baby did love? |
| | Incorrect inversion | Who TV watched? |
| Question formation, Negation | Overgeneralization of contraction rule | I amn't tired. Bill willn't go. |
| Relativization, Conjunction | Object-object deletion | John chased the girl and he scared. (John chased the girl. He scared the girl.) |
| | Object-subject deletion | The dog chased the girl had on a red dress. (The dog chased the girl. The girl had on a red dress.) |
| All types of sentences | Forced subject-verb-object pattern | The boy pushed the girl. (The boy was pushed by the girl.) |

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still needs to be accomplished in the area of pragmatics and
the school-age hearing-impaired population, many teachers
recognize and discuss their students' inappro- priate use of
language. Specific examples of these problems have been
provided by Kolzak (1983):

Turn-taking. Hearing-impaired children, especially those
with severe losses, do not initiate a communication. If, on
occasion, they do initiate, they do not have the skills to
take turns in order to maintain the interaction. Very often,
they do not understand the social use of language and there-
fore do not e' :hange greetings or use "please," "thank you,"
and "you're welcome" as required in certain situations.

Sustaining or repairing conversations. Beyond turn-
taking, hearing-impaired children often are unable to carry on
an extended conversation considering the original communica-
tor's frame of reference and interests and using a variety of
appropriate structures: questions, statements, exclamations.
They have great difficulty asking the other speaker/communi-
cator for clarification, repetition, or confirmation; e.g.,
"Please repeat that," "What did you say?" "Could you write
that [number, page, name] down for me?" "Did you say the
report was due tomorrow or Wednesday?" [Kolzak, 1983, pp.
134-135].

Conclusion

As noted earlier, language deficits are the most serious
consequences of hearing impairment: they affect a child's
educational progress and social development. From what we
know, based on research and the cumulative experience of pro-
fessionals who work with this population, hearing-impaired
children can develop language in the same sequence experienced
by their hearing peers, although often at a slower rate of
acquisition (e.g., Schirmer, 1985), and that "improving lan-
guage skills" is the most often chosen goal of deaf students
attending college (Ouellette, 1985, cited in Report on Educa-
tion Research). Therefore, it is their right to be provided
with adequate evaluation of their language in reference to
normal language development in order that appropriate develop-
mental language plans for remediation can be established and
monitored. This is important because, as Luetke-Stahlman

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(1982) points out, the goal of those educating hearing-
impaired children is to teach English literacy skills that
will lead to a job and social skills equal to the student's
intellectual potential. This goal has implications for the
child's lifelong adjustment.

## SECTION II: EVALUATING TESTS

### Purpose of A Language Assessment

A well formulated language assessment plan is essential for gathering .evant information and to assist you in making decisions about an individual student's goals and objectives. It can assist you in determining whether or not a student's language is deviant or delayed and in what particular area(s) problems are present. An accurate picture of the child's abilities and deficits should lead to an appropriate language program and monitoring process for each student. Making a language assessment plan is not a once-only procedure, however. Language assessment must be an ongoing process, and is not "finished" after a single instance. Each time you intend to assess a child's language, you will need to consider all of the factors that are included in the initial plan.

Although, as Bates has observed, "...language is acquired and used in a social context" (1976, p. 412), "...the other psycholinguistic components should not be ignored" (Hasenstab, 1983, p. 96). What is needed then is an approach that, as much as possible, allows language to be studied or assessed within a variety of contexts and uses communicative interaction as the framework within which grammatical competency is analyzed. As Hasenstab states, "The pragmatic base fosters an understanding of the purpose, function and interactive nature of each of the components" (1983, p. 96).

The most obvious technique to use in order to evaluate the variety of ways in which language is used within different contexts is to obtain the spontaneous language sample, which is "...the centerpiece of child language assessment" (Gallagher, 1983, p. 2) and is discussed in detail in Section V of this book. Using the language sample, however, presupposes that each and every child is able to use all of the subcomponents of language in an expressive fashion. Such a supposition is not necessarily accurate. For example, the very young hearing-impaired child may be able to demonstrate certain pragmatic intentions, such as requesting or greeting, only through gestural communication or gesture and vocalization;

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an orthopedically impaired student may not be able to speak
or sign. However, it is essential to obtain information about
what these students comprehend when a communication is trans-
mitted to them from another person using a conventional lan-
guage system and before intervention strategies are developed.
For children from whom an expressive language sample can be
obtained, it is important to determine how much language they
understand beyond that which they are using. For example, a
hearing-impaired student may not use the plural form in a sam-
ple of expressive language. Is this because the student does
not understand the concept of plurality, because he under-
stands it and chooses not to use it, or because he has not
been encouraged to use the plural form on a regular basis? An
initial step in attempting to analyze what these various stu-
dents understand is to evaluate their receptive language
skills. Thus, tools to assess receptive language need to be
part of every teacher's and clinician's repertoire.

Knowledge about a variety of expressive language assess-
ment tools (in addition to the language sample) may assist the
teacher or clinician in obtaining information about selective
language subcomponents. For example, information from an ex-
pressive language test may demonstrate that within a struc-
tured situation, with contextual cues, a student can correctly
use tense markers but does not do so during unstructured com-
municative interactions. Such information provides valuable
clues for developing intervention strategies. For, if this
student is to be completely communicatively effective, adding
tense markers during normal discourse will assist in clari-
fying the student's information to the listener.

Knowledge about a variety of tests and what they can and
cannot help with is critical for all teachers and clinicians
because tests that are appropriate for one child may be total-
ly inappropriate for another. A thorough evaluation of a
spontaneous language sample may provide all of the information
necessary to develop intervention plans for one student but
may provide only partial information about another.

## Language Tests

Language tests are those tests that have been specifically designed to analyze the various areas of language—form, content, and use—both receptively and expressively. They may be commercially developed or written by teachers and/or speech-language pathologists. They can be formal or informal, such as an expressive language sample. The main point is that they were designed to evaluate some aspect of language. Before you select tests to use in language assessment, there are several steps that will assist you in selecting them.

Review your reasons for testing. It is important to determine why you are testing the student before compiling a test battery (see Table 7). If you are testing in order to provide numerical results to your school district or state office, it is important to select standardized tests that are normed on a similar hearing-impaired population; if they are not, be prepared to justify your interpretation of the results. It also means that you must follow the test protocol exactly because any deviation from the protocol will diminish the validity of the quoted norms. However, if you are interested in obtaining baseline data for a particular student so that you can establish his or her developmental level and provide intervention plans, as well as measure progress, you may want to modify existing tests, use parts of many tests, and include tests you or other teachers/clinicians have developed. Make the tests your own and make them useful.

Review many tests. Before you can assemble an appropriate test battery, you must be familiar with a wide range of language tests that are available and select for yourself a variety of "good" tests to have on hand.

Once you have a number of tests on hand and have established why you are testing, there is only one way to determine, to your own satisfaction, if a test is appropriate. READ THE MANUAL. This may not always be a pleasant task, but it is the only way to evaluate a test's strengths and weaknesses. The test descriptions in this book will help guide you in choosing a test to examine, but you cannot avoid the task of reading that test's manual. If upon reading the manual you are satisfied that the test is appropriate for your purposes, then you must practice giving it and become skilled at using it. (See Section IV: Administering the Test Battery.)

Table 7

LANGUAGE ASSESSMENT OF HEARING-IMPAIRED SCHOOL AGE CHILDREN:
REASONS FOR TESTING

---

WHY:   To compare the hearing-impaired student's language to:
    (1)  the language of those who have normal hearing
       and/or
    (2)  the language of those who have a hearing loss or
    (3)  his own past record

       - To provide numerical scores to school districts
         or state offices
       - To identify a developmental language level and
         specific language targets for remediation
         purposes
       - To measure efficacy of intervention based upon
         change in language behavior

---

WHAT:  Content:      Lexicon and semantics

      Form:         Phonology (units of sound)
                Morphology (units of meaning)
                Syntax (ways in which units are combined)

      Use:          The different ways language is used

      Receptive
      Language:      How well units of language or combined
                units of language are understood

      Expressive
      Language:      How well and in what form language is
                produced

---

HOW:   Standardized Tests
      Used strictly, adhering to all stated rules in order
      to obtain scores
      Used informally in order to gain more information
      about an individual student

     Non-standardized Tests
      Teacher made; Criterion referenced

     Developmental Scales

     Observation of the student in different situations

---

Obtain tests. It may be difficult to obtain a variety of
language tests to examine, but there are several ways to do
so: 1) consult with other professionals in your district
(school psychologists, speech-language pathologists, and/or
teachers) to determine which language te⁻⁺⁻ they have access
to; 2) contact your local speech and hear  .j clinic (private
or university); or 3) write to publishers of specific tests,
who are sometimes willing to send a sample of the test and the
manual for review.

Evaluate tests. At this point you need more information
about how to evaluate the "goodness" of a test. As you read
the test manual, keep in mind seven basic questions:

   - Why do I want to test?
   - For whom was the test designed? (Who is the norm
     group?)
   - What does the test claim to measure? (Does it mea-
     sure receptive or expressive skills, morphology,
     syntax, semantics, or pragmatics?)
   - Does the test truly measure what it claims to mea-
     sure?  (Is it valid?)
   - Are the test results consistent?  (Is the test
     reliable?)
   - How usable is the test? (Evaluate factors such as
     cost, length of time to administer and score, group
     vs. individual testing, etc.)
   - Will a portion of it provide additional information
     1) not found elsewhere or 2) to supplement infor-
     mation found through informal means?

Several of these questions contain statistical/testing
terms you may not be familiar with, e.g., norm group, valid-
ity, reliability. A working knowledge of these terms is
essential as you read and evaluate tests. Each term will be
discussed, with examples, as it appears in this section.

## Preliminary Issues

### For Whom Was the Test Designed?  (Who is the norm group?)
#### 1)  Norm Group
A NORM GROUP is simply a large, well defined group of in-
dividuals who were given this test, and whose raw scores are
then compiled in various ways and presented as numbers (NORMS)
against which you can compare your students' scores.  It is
essential that the test developers inform the user how they
chose their norm group—that is, what criteria they used to
select individuals ("subjects") tested.  If the test was de-
signed for hearing individuals, then you must be aware that
you will be comparing your deaf students to hearing children.
This does not mean that the test may not be used — only that
you must be aware of how the norm group selection affects your
interpretation of a student's performance on that test.

Likewise, be cautious in evaluating tests designed for use
with hearing-impaired subjects.  What criteria were used to
choose the norm group?  It is extremely difficult to obtain
data on large numbers of hearing-impaired students, all of
whom have the same background such as:  age, sex, age at onset
of hearing loss, amount of time in an educational program,
degree and extent of hearing loss, amplification, communica-
tion methods used by the subjects' parents and/or school,
socioeconomic status, IQ, etc.  Was the test designed to be
administered using speech alone, written English, or simul-
taneously signed/spoken English?  For example, the Maryland
Syntax Evaluation Instrument (MSEI) was normed on students
attending residential schools.  Therefore the scores may not
be valid to use with students attending public or private day
schools because the populations may not be the same.  The Test
of Auditory Comprehension-Revised (TACL-R) was normed on nor-
mal hearing children and therefore its norms cannot be com-
pared to students' scores when the test is administered in
sign unless there is interest in determining type and amount
of delay.  The TACL-R might, however, be an appropriate test
to administer orally before mainstreaming a hearing-impaired
child into a hearing classroom; or you could administer it,
using total communication, to identify problem language areas
of an individual student for whom a management plan will be
developed.

Further, how many subjects constitute the norm group and how many are in the various age categories within the norm group? There is no magic number that is "right," but numbers of subjects vary greatly and you can judge for yourself whether a particular norm group contains "enough" subjects. Generally, the more subjects, the more you can trust the normative data, provided these subjects were selected carefully and meet the defined criteria. To give you an example, the Maryland Syntax Evaluation Instrument has 220 students in the total norm group and as few as 15 in some age categories, as compared to 4,000+ norm subjects in the Peabody Picture Vocabulary Test, and 200 subjects in each of the 21 age categories. Obviously, the Peabody is the stronger test because of the larger overall number of subjects and the larger number within each age category. However, obtaining such a large number of matched deaf students for one test would be impossible because this is such a low-incidence population.

2) Norm-Referenced vs. Criterion-Referenced Measurement

One last distinction must be made here: norm-referenced versus criterion-referenced measurement. Assessment that uses normative data is called NORM-REFERENCED MEASUREMENT. This type of test is concerned with how a student performs relative to the members of a well defined norm group, or how the behavior of one child compares with the behavior of other children. Virtually all standardized tests are norm-referenced. If you intend to compare your students' performance to a test's norms, you must follow carefully the instructions for administering and scoring the test. (See Section IV: Administering the Test Battery.) However, if you simply wish to obtain information about an individual student's language, you may use the test or part of it and not compare the results to the test's norms. What you are doing is changing the test to meet your and the student's needs. The test, in this case, is no longer "standardized" nor norm-referenced.

By comparison, CRITERION-REFERENCED MEASUREMENT is concerned with whether or not a particular performance measure achieved by your student exceeds or falls below a predetermined cutting point. It determines whether or not a child has

established a particular behavior, rather than indicating how
he or she compares with others.  Any normed test may be used
as a criterion-referenced test.  Or you may choose to use the
results of a test for both purposes: comparing your students
to a specific population and determining whether a specific
behavior or behaviors are present.  One example of these dual
purposes would be using the results of the Boehm Test of Basic
Concepts, which was normed on hearing children in Grades K, 1,
and 2.  The results of this test might be used to compare
hearing-impaired students' use of these concepts to that of
their hearing peers (the norm group) in order to determine
whether there is a delay and, if so, how extensive it is
(e.g., Davis, 1974); or it may be used as a criterion-refer-
enced measurement for hearing-impaired students of any age to
determine whether or not they know certain concepts, and to
monitor individual progress in learning these concepts.

To summarize, in evaluating a test, you must know who the
norm group is, and whether or not you can or want to compare
the performance of a particular student with that of the norm
group or whether you would prefer to modify the test and use
it differently.

## Validity:  Does the Test Measure What it Claims to Measure?

Validity or "truthfulness" of the results is a major con-
sideration when you choose a test.  A test is said to be VALID
if it is an accurate way of measuring what it sets out to mea-
sure.  For example, if you tried to measure the weight of one
of your students with a ruler, you could not obtain accurate
results.  If, however, you measured the length and width of
the student's desk with a ruler, you would be measuring units
the ruler was designed for and your results would be valid.
Validity is the single most important property of a test.
Look in the test manual for information on how the test's
validity was established.  There are many ways to determine
the validity of a test, the four principal means being: con-
tent validity, face validity, criterion related validity, and
construct validity.  Recognize that face validity is not ack-
nowledged by all psychologists as an acceptable method for
reviewing the validity of tests and may be combined within the
discussion of content validity in some test manuals.  Ideally,

either three or four types of validity should be discussed in
the test manual; at worst, the test's validity may not be men-
tioned.  If the latter is the case, peruse the test items
yourself to get an idea of the test's face validity, but re-
cognize that you will be the sole judge as to whether or not
the test is appropriate.

CONTENT VALIDITY:  The test is contructed so that it
assesses the content area you are interested in measuring.
The test items must be both content- and age-appropriate.  For
example, if you want to measure a student's knowledge of Amer-
ican history, you would not select a test that had questions
primarily about German, African, and Japanese history because
its content validity would be poor.  If so-called language
tests contain items primarily relating to history or require
mathematical computation, they are not really testing the ba-
sic elements of language but are confounded by the intrusion
of other content areas; their content validity would be low.
If a test developed for third graders uses vocabulary normally
assigned to twelfth graders, content validity would be low.
It is likely that a student will be able to respond quite dif-
ferently to a language test presented in sign versus one he
must read.  To determine content validity requires careful
analysis of the test to ensure that it is both representative
of and suitable for the area it presumes to test.

FACE VALIDITY:  This type of validity is often referred to
as content validity because it also evaluates the content of
the test.  However, strictly speaking, face validity is less
stringent than content validity, and usually implies that a
single individual has perused the material to see if the test
appears to contain content-appropriate questions.  Establish-
ing content validity, on the other hand, requires careful
analysis by many "experts."  However, if:

- the test is based upon recent theory and research,
- the items are specific to the content area identified,
- there are sufficient numbers of items to measure each
  specific area, and
- new appropriate items could easily be added by the user

it is likely that the content is valid.

CRITERION-RELATED VALIDITY: Establishing criterion-related validity involves determining the degree of relationship between the scores on a particular test and measures on some external criterion variable with which the test scores should have something in common. For example, a test of music aptitude should have a high correlation with a criterion measure of music achievement.

CONSTRUCT VALIDITY: Construct validity is often difficult to establish and therefore is usually the least reported (Taylor, 1984). Construct validity is often established through carefully designed empirical studies "...in which the constructs 're defined operationally and used as independent variables" (p. 65). Another way of viewing construct validity is to compare one test with others that have long been recognized as appropriate tests. If scores on the test of concern have a very high correlation with scores on other tests designed to measure the same trait, and have a low correlation with scores on other tests which are designed to measure some other trait, then the test possesses a high degree of construct validity. For example, if you were developing a receptive test of vocabulary, you would want your scores to have a high correlation with the Peabody Picture Vocabulary Test scores for the same groups of subjects, and a low correlation with a test of math aptitude. If both conditions occurred, you could be reasonably sure that your measure indeed assessed receptive vocabulary, and was not confounded by tapping unrelated skills.

CORRELATION is a summary of the strength of the relationship between two factors or "variables." A high correlation indicates that the variables "go together" or have common elements, whereas a low correlation suggests that the variables are relatively independent of one another. In reading the test manuals, you will notice that symbols such as r, R, or the Greek $\rho$ are used to indicate correlation coefficients. A perfect relationship between two variables would yield an "r" of 1.00; if the two variables were not related at all, the correlation coefficient would equal zero. If one variable is inversely related to another, the correlation is "negative." Whether a particular correlation coefficient is "high enough" (statistically significant) depends on many factors such as

the number of subjects involved in determining the correla-
tion, but generally speaking, the higher the coefficient, the
more closely the variables go together. For example, r = .90
is a very high correlation coefficient, while r = .10 is very
low.

Guilford (1956), cited in Williams (1979), offers the
following rough guide:

      < .20   slight; almost negligible relationship
    .20-.40   low correlation; definite but small relationship
    .40-.70   moderate correlation; substantial relationship
    .70-.90   high correlation; marked relationship
      > .90   very high correlation; very dependable
              relationship

[p. 128, Williams]

## Reliability: Are the Test Results Consistent?

RELIABILITY is concerned with the dependability or consis-
tency of the measures obtained. If a test is not reliable, it
is not stable, dependable, or accurate (Kerlinger, 1973). A
test with high reliability will yield the same relative mag-
nitude of test scores for a group of people under differing
conditions or situations. Test scores are never perfectly
reliable, and test reliability can never be determined direct-
ly. Instead, reliability is estimated by one or more statis-
tical techniques. The four most commonly used procedures for
estimating the reliablity coefficient of a test are: the
test-retest method, the parallel forms method, the split-
halves method, and the Kuder-Richardson method.

TEST-RETEST METHOD: This is probably the form most eval-
uated and reported. If authors report a reliability coeffic-
ient without specifying type of reliability, it is usually a
test-retest coefficient (Taylor, 1984). It is a measure of
the stability of the test scores over time. Thus, one finds
the correlation coefficient by comparing the test scores of
the first test of a group of individuals with the scores of
the second test of the same group of individuals. Usually,
the time between tests is 2 weeks.

PARALLEL FORMS METHOD: Here, in cases where a test has
two forms, both forms of a test are administered to the same
groups of subjects, with the order of administration counter-
balanced. The correlation between the scores on Form A and
Form B is obtained.

SPLIT-HALF TECHNIQUE: This involves a single administration of the test, scoring each subject on two equivalent halves of the test (e.g., oddand even-numbered items), determining the correlation between the halves, and estimating the reliability of the whole test through the use of a special formula (usually the "Spearman-Brown" formula).

KUDER-RICHARDSON METHOD: The Kuder-Richardson (K-R) formulas are equations (derived by psychologists Kuder and Richardson) for estimating the reliability coefficient of a test. These formulas are used mainly in the situation where an investigator would like to get an estimate of the homogeneity, or internal consistency, of a set of test items.

A test can be reliable but not valid; however, it is more difficult to find a valid test that is not reliable. Obviously, both qualities are important. If a test manual makes no mention of how its authors established test reliability, be wary! If the test appears to have good content validity, you might want to get an idea of its reliability yourself by administering it to several students once, then again after a reasonable — but not too lengthy — period of time (e.g., 2 weeks). Or give a student both forms if these are available and determine the stability of the scores for both forms.

For further reading, see Sowell and Casey (1982), Popham (1981), and Kazden (1980).

## Is it a Screening Tool or a Diagnostic Test?

In examining test reliability it is important to identify whether the test is a screening instrument or a diagnostic test. Screening tests are designed to quickly assess a student's language abilities in a gross manner before diagnostic testing or intervention. Because they frequently contain only a few items, or focus on the developmental highlights at a particular stage, their reported reliability may be lower than that of a diagnostic test (perhaps .60 to .80). This is not a reflection of the test itself, but rather an acceptable characteristic of the type of test.

Screening tests are used primarily for identification purposes. In language assessment they can help to identify a) students who require further assessment and b) specific areas

of a student's language which need further diagnostic assess-
ment.  The Early Language Milestone Screening Test and the
Northwestern Syntax Screening Tool are examples of screening
tests which attempt to identify children who require further
assessment.  The screening test of the Test of Syntactic
Abilities helps the examiner to pinpoint specific syntactic
structures which require an in-depth assessment.

Screening tests do not diagnose students' language prob-
lems.  They are not intended to be, or substitute for, a com-
plete diagnostic evaluation.  They are most appropriately used
before a complete language assessment.  In some cases it may
be appropriate to readminister a screening test periodically
during intervention.

A diagnostic test attempts to examine in depth the range
of a student's skill in a particular language area—for exam-
ple, receptive vocabulary.  In order to achieve this, it
should contain a large number of items.  In general, diagnos-
tic tests have a narrower focus than the screening test and
require more time to administer.  The outcome of a diagnostic
test is a score that leads to a "diagnosis."  Diagnostic tests
are best used for program placement and intervention program-
ming.  Diagnostic tests or parts of diagnostic tests are often
useful in developing a test battery.

The majority of tests referred to in this book are diag-
nostic tests.  Some tests contain both a screening version and
a diagnostic test, such as the Miller-Yoder Test of Grammati-
cal Comprehension (M-Y), and the Test of Syntactic Abilities
(TSA).  It is important to clarify for yourself the objective
of the test and what your intended purpose is.

## Guidelines for Evaluating Language Tests (How usable is the test?)

New language tests are published daily.  You must ask
yourself if a particular new test is better or different than
the tests you are presently using, or will provide you with
information that is different than what they yield.  Just
because a test is new or "in" does not mean that it will
provide you with additional information about your student.

If you plan to use a test formally, including normative
data, you should use it only if it meets the following con-
ditions:

a)  The norms were obtained from a population
    demographically similar to your student,
b)  test-retest reliability is high,
c)  interexaminer reliability is high,
d)  variability data are reported (mean, percentile
    rank, standard deviation), and
e)  the test really tests what it purports to test.
                            [Launer & Lahey, 1981, p. 13]

Before you order a test, find out how "usable" it is and
how expensive is it. Determine how long it takes to adminis-
ter and score the test and whether it must be given to groups
or can be given to individual students or modified to be given
to individuals. Be sure you know how many sheets of paper or
objects must be manipulated at once in administering the
test. If all other factors are equal regarding the reliabili-
ty, validity, and norms of two similar tests, then the usabil-
ity factor may be the deciding issue in your selection of a
test. Some tests, designed specifically for the hearing im-
paired, may superficially appear to be "better" tests. How-
ever, you may be able to achieve the same results, i.e., iden-
tifying specific problem areas in language, with assessment
tools you already have.

In Table 8, there are guidelines, incorporated into a
checklist, which were developed to help the examiner evaluate
unfamiliar test materials for possible inclusion in a test
battery. The guidelines cover four important facets of a
test: 1) test content, 2) test administration and scoring,
3) test norms, reliability, and validity, and 4) the test
materials. Each of the 37 questions is written to produce a
"yes" score for each positive aspect of a test. Thus, a score
close to 37 may indicate that a test is suitable for your
needs. The score form also contains room for comments and
additional questions. Tables 9 and 10 provide examples of how
the Checklist might be used.

Reminder—your major goal is to identify the specific lan-
guage problems of your students so that you can develop an
appropriate program for remediation and monitoring.

Begin by examining the manual. Much of the information
needed to answer the guideline questions is found there.

Examination of the scoreforms or record books is also impor-
tant. If the test includes pictures, objects, or other separ-
ate items, these also should be carefully examined. Pictures,
in particular, can be very deceiving and misrepresent the lan-
guage item to be evaluated. Depending upon the experiences of
the hearing-impaired child, the pictures may represent items
or activities not within the student's conceptual knowledge or
lexicon. If you plan to administer the test in total communi-
cation, you must determine if there is a sign equivalent for
each picture or decide what you will do if signs are not
available. If there are many objects, you may wish to see if
they may be individually replaced or if you must purchase the
entire set to replace items, if they really contribute to
obtaining the information you need, and if the individual
hearing-impaired students know what each of the objects repre-
sents.

The information obtained from the guidelines can be used
for a variety of purposes:

1) To aid in selection of tests in order to develop an
   appropriate test battery.
2) To select test materials for future purchase.
3) To validate the appropriateness of a test you are
   currently using.
4) To validate the use of a test instrument for IEP
   purposes.

The guidelines give the examiner a brief overview of the
salient features of a test. However, they should never be
considered a replacement for adequate preparation for adminis-
tering the test.

Refer to Section VI for test descriptions and reviews of a
variety of language tests. These will assist you in evaluat-
ing tests, but cannot substitute for actually examining a test
and reading the manual.

After you have examined and evaluated a variety of lan-
guage tests, you should know for whom the tests were designed,
what they claim to measure, how valid and reliable they are,
and how usable they are. Now you are prepared to move on to
Section III: Selecting a Test Battery.

Table 8

CHECKLIST FOR EVALUATING LANGUAGE TESTS

**The Content**                                                    <u>Yes</u>     <u>No</u>

1. Is the test geared to the <u>ability level or developmental level</u> of the child you are going to assess?

2. Are the objectives of the test clearly stated? (e.g., "This is a test of receptive vocabulary.")

3. Is the material arranged in developmental sequence, or levels of increasing difficulty?

4. Are there sufficient numbers of items for each area (vocabulary, morphology, syntax) tested if more than one area is evaluated?

5. Are the test items appropriate for the hearing-impaired population (for example, not too dependent on auditory discrimination or auditory memory)?

6. Are there "practice" test items to ensure that the task and the required response are understood by the child?

7. Is it a screening instrument?

8. Is it a diagnostic instrument?

9. Will it aid in programming/remediation plan development?

10. Would this test enhance your diagnostic/screening effectiveness?

11. Will the test increase your knowledge about the language of your student?

12. Are there parts of this test not available in other tests that could improve a test battery?


**Administration - Scoring**                                      <u>Yes</u>     <u>No</u>

1. Can the test be given, scored, and interpreted in a reasonable amount of time?

2. Can the test be given without extensive training in administration and scoring?

3. Can the test be easily administered in total communication (e.g., are there signs for all of the words)?

4. Are the directions/manual written clearly?

5. Can you locate information within the manual quickly?

6. Are there samples of scoring techniques in the manual?

7. Can the test be administered over a period of time to allow for rest breaks?

<u>Norms - Validity - Reliability</u>:

<div style="text-align: right"><u>Yes</u>    <u>No</u></div>

1.  Are there normative data on hearing-impaired children?

2.  If hearing-impaired children are included in the norms, are they similar to your students, i.e., are deaf, all from residential schools, oral, hard of hearing and deaf, etc.?

3.  How many children were included in the norm group?
    a.  how many hearing impaired?
    b.  how many normal hearing?

4.  Are there reasonable numbers of norm group subjects for each age level (e.g., at least 25 within each group)?

5.  Are there different norms for boys and girls?

6.  Are there different norms based on socio-economic status?

7.  Are the norms arranged at 6-month intervals or less for younger children (5 years and below); 1-year intervals or less for older children (5 years and above)?

8.  Is the test-retest reliability good?

9.  Has the validity of the test been demonstrated?


<u>The Materials</u>:

<div style="text-align: right"><u>Yes</u>    <u>No</u></div>

1.  Are the pictures or visual materials clear and unambiguous?

2.  Are the materials an appropriate size for young children or others with visual problems?

3.  Are the pictorial items arranged in such a way that they do not appear "crowded?"

4.  Are the materials easy to manipulate?

5.  Are the test materials not so stimulating that they cause distraction?

6.  Are the required materials easily transportable?

7.  Is the price reasonable for the materials provided?

8.  If the test materials are lost or destroyed can they be easily replaced?

9.  Are the pictures geared to the age and interest level of the student?

Other:

10.

11.

TOTALS

ents:                                53

Table 9

EXAMPLE OF COMPLETED CHECKLIST

Test Name : __Northwestern Syntax Screening Test (NSST)__

CHECKLIST FOR EVALUATING LANGUAGE TESTS

| The Content: | Yes | No | Comments |
|---|---|---|---|
| 1. Is the test geared to the <u>ability level or developmental level</u> of the child you are going to assess? | x | | |
| 2. Are the objectives of the test clearly stated? (e.g., "This is a test of receptive vocabulary.") | x | | |
| 3. Is the material arranged in develop-mental sequence, or levels of increasing difficulty? | x | | |
| 4. Are there sufficient numbers of items for each area (vocabulary, morphology, syntax) tested, if more than one area is evaluated? | x | | Screening tool for syntax |
| 5. Are the test items appropriate for the hearing-impaired population (for example, not too dependent on auditory discrimination or auditory memory)? | x | | |
| 6. Are there "practice" test items to ensure that the task and the required response are understood by the child? | x | | |
| 7. Is it a screening instrument? | x | | Screening use only |
| 8. Is it a diagnostic instrument? | | x | |
| 9. Will it aid in programming/remedia-tion plan development? | x | | Identifies those who require additional assessment |
| 10. Would this test enhance your diag-nostic/screening effectiveness? | x | | |
| 11. Will the test increase your knowledge about the language of your student? | x | | |
| 12. Are there parts of this test not available in other tests that could improve a test battery? | | x | |

## Administration - Scoring:

| | | Yes | No | Comments |
|---|---|---|---|---|
| 1. | Can the test be given, scored, and interpreted in a reasonable amount of time? | x | | |
| 2. | Can the test be given without extensive training in administration and scoring? | x | | |
| 3. | Can the test be easily administered in total communication (e.g., are there signs for all words)? | x | | |
| 4. | Are the directions/manual written clearly? | x | | |
| 5. | Can you locate information within the manual quickly? | | x | No table of contents for manual |
| 6. | Are there samples of scoring techniques in the manual? | | x | |
| 7. | Can the test be administered over a period of time to allow for rest breaks? | | x | Manual recommends giving entire test at one time |

## Norms - Validity - Reliability:

| | | es | No | Comments |
|---|---|---|---|---|
| 1. | Are there normative data on hearing-impaired children? | | x | |
| 2. | If hearing-impaired children are included in the norms, are they similar '. your students; i.e., all deaf, all from residential schools, oral, hard of hearing and deaf, etc.? | | n/a | |
| 3. | How many children were included in the norm group? a. how many hearing impaired? b. how many normal hearing? | | | 0 h.i. 344 hearing |
| 4. | Are there reasonable numbers of norm group subjects for each age level (e.g., at least 25 within each group)? | | x | |
| 5. | Are there different norms for boys and girls? | | x | |
| 6. | Are there different norms based on socio-economic s tus? | | x | |

Evaluating Tests

7. Are the norms arranged at 6-month   x   1 yr age
   intervals or less for younger child-     level for
   ren (5 years and below); 1-year inter-   3-8 years.
   vals or less for older children          No infor-
   (5 years and above)?                     mation
                                            provided

8. Is the test-retest reliability good?   ?   No infor-
                                              mation
                                              provided

9. Has the validity of the test been      ?   No infor-
   demonstrated?                              mation
                                              provided

The Materials:                          Yes  No  Comments

1. Are the pictures or visual materials   x
   clear and unambiguous?

2. Are the materials an appropriate size  ‹
   for young children or others with
   visual problems?

3. Are the pictoral items arranged        x     Expressive
   in such a way that they do not               section has 2
   appear "crowded?"                            pictures per
                                                page/Recep-
                                                tive, 4 to a
                                                page

4. Are the materials easy to              x
   manipulate?

5. Are the test materials not so          x
   stimulating that they cause
   distraction?

6. Are the required materials easily          x
   transportable?

7. Is the price reasonable for the        x
   materials provided?

8. If the test materials are lost or de-  x
   stroyed can they be easily replaced?

9. Are the pictures geared to the age     x
   and interest level of the student?

Other:

10.

11.

TOTALS                    ·56

Comments:

The repetitive format can become overtiring for younger
children.  Pages containing four stimuli are sometimes
distracting.

The absence of reliability and validity information makes it
difficult to evaluate the quality of the test construction.

This test may be preferable for <u>receptive</u> screening.  Have the
student identify one item (receptively) all the way through
test, then repeat entire test using second item.  This
strategy reduces the possibility of selecting the correct
answer by chance.

Use a different method for reviewing expressive language.

Table 10

EXAMPLE OF COMPLETED CHECKLIST

Test Name : <u>Test of Expressive Language Ability (TEXLA)</u>

CHECKLIST FOR EVALUATING LANGUAGE TESTS

| <u>The Content</u>: | <u>Yes</u> | <u>No</u> | <u>Comments</u> |
|---|---|---|---|
| 1. Is the test geared to the <u>ability</u> <u>level or developmental level</u> of the child you are going to assess? | x | | |
| 2. Are the objectives of the test clearly stated? (e.g., "This is a test of receptive vocabulary.") | x | | |
| 3. Is the material arranged in developmental sequence, or levels of increasing difficulty? | | x | |
| 4. Are there sufficient numbers of items for each area (vocabulary, morphology, syntax) tested, if more than one area is evaluated? | | | Only syntax is evaluated |
| 5. Are the test items appropriate for the hearing-impaired population (for example, not too dependent on auditory discrimination or auditory memory)? | x | | |
| 6. Are there "practice" test items to ensure that the task and the required response are understood by the child? | x | | |
| 7. Is it a screening instrument? | x | | Use short form as screening test <u>OR</u> long version |
| 8. Is it a diagnostic instrument? | x | | |
| 9. Will it aid in programming/remediation plan development? | x | | |
| 10. Would this test enhance your diagnostic/screening effectiveness? | ? | ? | Response: read, write in missing word is different from other tests, may be too difficult for some h.i. students |

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| | Yes | No | Comments |
|---|---|---|---|
| 11. Will the test increase your knowledge about the language of your student? | x | | If they can follow pre- scribed format of reading and writing in missing word, results would have litte rela- tionship to signed- oral langu- age in con- text. |
| 12. Are there parts of this test not available in other tests that could improve a test battery? | | x | |

Administration - Scoring:

| | Yes | No | Comments |
|---|---|---|---|
| 1. Can the test be given, scored, and interpreted in a reasonable amount of time? | x | | |
| 2. Can the test be given without extensive training in administra- tion and scoring? | x | | |
| 3. Can the test be easily administer- ed in total communication (e.g., are there signs for all words)? | n/a | n/a | Response: read and write in missing word |
| 4. Are the directions/manual written clearly? | x | | |
| 5. Can you locate information within the manual quickly? | x | | |
| 6. Are there samples of scoring tech- niques in the manual? | x | | |
| 7. Can the test be administered over a period of time to allow for rest breaks? | x | | |

Norms - Validity - Reliability:

| | Yes | No | Comments |
|---|---|---|---|
| 1. Are there normative data on hearing-impaired children? | x | | |
| 2. If hearing-impaired children are included in the norms, are they similar to your students; i.e., all deaf, all from residential schools, oral, hard of hearing and deaf, etc? | | x | Residential schools in Canada |

Evaluating Tests

3. How many children were included in
   the norm group?
   a. how many hearing impaired?                    82 total
   b. how many normal hearing?                      65 h.i.
                                                    17 hearing

4. Are there reasonable numbers of norm          x
   group subjects for each age level
   (e.g., at least 25 within each
   group)?

5. Are there different norms for boys            x
   and girls?

6. Are there different norms based on            x
   socio-economic status?

7. Are the norms arranged at 6-month     x
   intervals or less for younger chil-
   dren (5 years and below); 1-year
   intervals or less for older
   children (5 years and above)?

8. Is the test-retest reliability good?          No infor-
                                                 mation

9. Has the validity of the test been    x
   demonstrated?

The Materials:                          Yes  No  Comments

1. Are the pictures or visual materia's  x       most, but
   clear and unambiguous?                        not all

2. Are the materials an appropri-        x
   ate size for young children or
   others with visual problems?

3. Are the pictoral items arranged in    x
   such a way that they do not appear
   "crowded?"

4. Are the materials easy to manipulate? x

5. Are the test materials not so stimu-  x
   lating that they cause distraction?

6. Are the required materials easily     x
   transportable?

7. Is the price reasonable for the       x
   materials provided?

8. If the test materials are lost or     x
   destroyed can they be easily
   replaced?

9. Are the pictures geared to the age    x
   and interest level of the student?

Other:

10.

11.

TOTALS

Comments:

A number of items have multiple answers which could be
correct. Specific information to determine an acceptable
answer is not provided. Further, no breakdown of specific
test item numbers and the structure tested is provided. For
example, the manual and score form report 5 items to test
plurals, but no test item numbers are given.

Could modify test and sign it to students so they could "fill
in" missing word. More students would understand how to
"take" test.

Several pictures are ambiguous and therefore misleading as to
actual language knowledge.

SECTION III:   SELECTING A TEST BATTERY

## What Is a Test Battery?

"Because language is profoundly complex, language evalu-
ation must also be complex if it is to provide a total des-
cription of the child's facility with the process" (Hasenstab
& Horner, 1982, p. 139).  It is for this reason that language
data should be obtained, as much as possible, within meaning-
ful contexts such as snack time, show-and-tell, group art
activities, field trips, etc.  It is not always possible to
obtain information about both receptive and expressive langu-
age for all students in this manner.  This is particularly
true when you are attempting to gather information about re-
ceptive language.  During this part of the assessment process,
it may be necessary to use a combination of a formal-informal
approach, such as recording some data within a classroom sit-
uation and supplementing this informal activity with formal
tests or parts of formal tests, or using teacher/clinician
made tests.  Whatever approach is selected for assessing re-
ceptive language, a single test will not suffice.  Instead, a
test battery comprising many tests or parts of tests must be
developed in order to evaluate all aspects of the child's lan-
guage system.

A test battery is a compilation of several tests, parts of
tests, or teacher/clinician made tests that will measure var-
ious aspects of language both receptively and expressively for
an individual child.  It may include formal and/or informal
methods of assessing both receptive and expressive language as
well as parts of formal tests or modified tests.  The selec-
tion of the various tests or parts of tests to be included in
an individual battery is based upon why you are testing, or
how you wish to use the results, and on the child's functional
age.  The functional age reflects the age at which a child is
operating, rather than his or her chronological age.  For ex-
ample, it is very likely that a 3-year-old hearing-impaired
child just entering a public school program will be function-
ing more like an 18-month or 2-year-old hearing child.  There-
fore tests would be included in the test battery that were
designed for children under 3 years, especially if these tests

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had been developed for hearing children. Neither tests nor programs should <u>ever</u> reflect the chronological age alone.

## Receptive-Expressive Language

When you measure a child's receptive language, you are attempting to learn about what a child <u>understands</u>. In order to learn about what children understand, you can have them follow directions or point to pictures. You do not expect them to speak and/or sign or write. You expect them to follow the direction or point to an object or picture. When you assess expressive language, you want to review what a student is able to <u>produce</u> and how he or she uses the language being produced. Therefore, you would expect the response from the child to be speech and/or sign or writing.

## Formal-Informal Testing

An assessment battery may include both formal and informal assessments or informal assessments only.

<u>Formal assessment</u>. It is our view that formal assessment may include:

1)   Administration of a commercially available test, following the protocol for administration, scoring as outlined in the manual, and utilizing the normative data as provided in the test. Information from this assessment might provide information: a) to assist in placement, b) to document delay, c) to measure ability in using total communication or oral mode, or d) to compare the hearing-impaired student's language to that of hearing or hearing-impaired peers. Results of such testing might help in determining the appropriateness of main-streaming, changing placement, and so forth.

2)   Administration of a commercially available test, following the protocol described in the manual, and using all test materials as described, <u>but not using the norms provided</u>, thereby changing the test from "normed" to criterion referenced. Valuable information can be obtained from actually scoring the test and abstracting the information you want about an individual child from those scores. One example would be to administer the <u>Bankson Language Screening Test</u> to an older student whose chronological age is beyond the age of the children in the test norms but who still has language

deficits in areas evaluated by the Bankson. This procedure
allows the examiner to measure the student's performance
against himself or a predetermined standard or criterion.

Informal assessments. Informal assessments are frequently
used for evaluating hearing-impaired students. They can pro-
vide valuable information not obtained in other assessments.
They are most commonly used for ongoing assessment and moni-
toring rather than for diagnoses or placement decisions. Ex-
amples of informal assessment include:

1) Informal use of formal tests: Many formal tests pro-
vide excellent materials which can be used for other purposes.
For example, a teacher could use the objects provided in the
Grammatical Analysis of Elicited Language, but she would de-
velop her own "script" for administration, and use her own re-
cording and scoring method; or she could use the pictures in
the Test of Expressive Language Ability but sign the sentences
instead of having the student read them.

2) Teacher/Clinician-made tests: These tests are com-
monly used to measure a student's knowledge based on what the
teacher believes he should know or what has been taught.
These are helpful for ongoing assessment and monitoring as
well as for obtaining baseline measures. Teacher-made tests
are very subjective and are likely to vary a great deal in
quality based on the training and expertise of the teacher.
However, if the same test is given for both pre- and posttest
results, these results can provide helpful information about
the child's progress. Also, parts of normed tests can be
adapted and made into teacher made tests. An example of a
teacher/clinician developed checklist is found in Table 11.
This particular checklist provides an effective and easy way
to measure language use over time.

3) Language/Communication scales: Scales are generally
checklists of language skills or behaviors arranged in a de-
velopmental progression. Both the SKI-HI Language Development
Scale and the Kendall Communicative Proficiency Scale Work-
sheet (Table 11) are examples of different types of check-
lists. Scales can be administered in question and answer
format, or through observation, or a combination of approach-
es. Language scales are widely used in the assessment of very
young children. Because scales generally do not use a basal

or ceiling cut-off score, children may demonstrate a wide
range of skills. However, because the scales are developmen-
tal, the results provide important information about how close
a specific child is to others his age, how solid his skills
are at a given age, or whether they are splintered and scat-
tered below and above the target age.

4) <u>Observation</u>: Informal observation can provide ex-
tremely valuable information regarding a student's language,
especially production and <u>use</u> of language. Observation and
data collection in natural contexts are particularly important
for obtaining information about expressive language of the
hearing-impaired student. Many different types of information
can be obtained from watching the student throughout his day.
For example:

- Does the student use language voluntarily in class? On
  the playground? In other settings?
- Is his language different with peers than with teachers?
- Does the student initiate conversation or is he usually
  the responder?
- Does he respond at all? Appropriately?
- Does he use good eye contact, facial expression, or
  other non-verbal communication?
- Is he able to respond to and ask questions?

These are just a few of the many language and communication
skills which can be identified through observation. Obser-
vation is an appropriate informal technique for all age levels
and is most often used when one is obtaining an expressive
language sample (see <u>Section V</u> for a complete discussion).

Table 11

KENDALL COMMUNICATIVE PROFICIENCY SCALE WORKSHEET

Kendall Demonstration School, Gallaudet University

Student: _____

| Year: | Teacher: | Current Proficiency Level: (P-Level) | Language Proficiency Goal: (P-Level) |
|---|---|---|---|
| 1985-86 | _____ | _____ | _____ |
| 1986-87 | _____ | _____ | _____ |
| 1987-88 | _____ | _____ | _____ |
| 1988-89 | _____ | _____ | _____ |
| 1989-90 | _____ | _____ | _____ |

Used by permission of Outreach Pre-College Programs, Gallaudet University.

LEVEL 0+ CRITERIA

<u>CIRCLE ONE</u>

0.1. Does the child determine what another
person 's talking about by looking in
the sa... direction as the other person?         yes       no

0.2. a. Does the child communicate about
his or her own comfort, pleasure,
and distress (non-verbally)?                  yes       no

b. Does the child communicate about
clothing or other things associ-
ated with his or her person?                  yes       no

0.3. a. Does the child usually respond atten-
tively to turn-taking activities,
such as peek-a-boo (but does not
usually initiate the activity)?               yes       no

b. Does the child request objects by
reaching for them and sometimes open-
ing and closing his or her fists?             yes       no

c. Does he or she call attention to novel
things in the environment by holding
them for others to see or by pointing?        yes       no

0.4. Does the child use non-verbal signals,
such as following another's gaze or
looking in the direction that someone
is pointing, to achieve cohesion?                yes       no

0.5. Does the child communicate by stretching
and holding gestures, facial expressions,
and differentiated cries?                        yes       no

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## LEVEL ONE CRITERIA

CIRCLE ONE

1.1. Does the child refer to objects by
holding them, looking at them, point-
ing, and touching?                          yes      no

1.2. Does the child communicate about toys,
lights, animals, and particular foods (or
(or other things he or she can control)?    yes      no

1.3. a.  Does the child initiate peek-a-boo
and other turn-taking activities?       yes      no

b.  Does the child imitate the movements
of others although not necessarily
to bring about action?                  yes      no

1.4. Does the child use non-verbal means to

a.  call attention to physical needs?       yes      no

b.  express personal reaction?              yes      no

c.  request help by shifting his or her
gaze back and forth between the object
and the person whose help he or she
wants in getting the object?            yes      no

1.5. Does the child sometimes imitate the
signs produced by others, although with
imperfect hand configurations and
movements?                                  yes      no

LEVEL TWO CRITERIA

CIRCLE ONE

2.1. Does the student often use conven-
tional signs or words to refer to
the immediate physical context?            yes      no

2.2. Does the student identify objects
upon request?                              yes      no

2.3. Does the student sometimes repeat
what was just said?                        yes      no

2.4. Does the student often use the lan-
guage t

    a. request a few objects and simple
       services?                           yes      no

    b. get the attention of others or to
       call them to his or her location?   yes      no

    c. greet others?                       yes      no

    d. protest other peoples' actions that
       he or she wishes to avert?          yes      no

    e. label objects (without cueing)?     yes      no

    f. note the presence of objects?       yes      no

    g. note or call for the disappearance
       (or removal) of objects?            yes      n

2.5. Does the student leave it to others to
figure out what he or she leaves unsaid?
Does the student use non-verbal signals
to extend meaning?                         yes      no

LEVEL THREE CRITERIA*

CIRCLE ONE

3.1. Does the student refer primarily to things that are of interest to him or her?     yes    no

3.2. Does the student communicate about

    a. a substantial number of objects and actions affecting him or her (that is, too many to keep track of readily)?     yes    no

    b. the location of objects?     yes    no

    c. the destination of objects when they are moving or being moved?     yes    no

    d. both temporary as well as more or less permanent characteristics of people and objects?     yes    no

    e. who owns what and what belongs to whom?     yes    no

3.3. Does the student link in any way what he or she says to what others say?     yes    no

3.4. Does the student use the language to

    a. represent a broad range of his or her actions?     yes    no

    b. affirm the presence of a substantial number of objects, (note or call for) their absence, disappearance, or removal, and note (or try to bring about) their return or recurrence?     yes    no

    c. request a broad range of objects and services?     yes    no

    d. identify objects and actions in pictures?     yes    no

3.5. a. Does the student usually use utterances consisting of at least two syntactically related components?     yes    no

    b. Does the student rely often on others to figure out what has been left unsaid?     yes    no

*See Bloom, L. (Ed.). (1978). Readings in language development. New York: John Wiley and Sons, for definitions of referential/semantic categories.

LEVEL FOUR CRITERIA

4.1. Does the student

    a. refer to actions he or she is about to take, and does he or she express the intention to take action?      yes    no

    b. refer to actions (taken by others) that do not affect him or her?      yes    no

4.2. Does the student

    a. use a broad variety of combinations of semantic categories of meaning in a single utterance? (See Bloom, 1978, for more information.)      yes    no

    b. talk about several coordinated but independent events and states at the same time?      yes    no

4.3. Does the student achieve cohesion in conversation by using elements (words or phrases) from the prior utterances of his or her conversational partners?      yes    no

4.4. Does the student use the language to

    a. establish the identity of things and people?      yes    no

    b. create and maintain worlds of make-believe (as opposed to simply participating in make-believe worlds created by others)?      yes    no

4.5. Does the student

    a. usually express most of what he or she means to say, rarely leaving unsaid things that should be expressed?      yes    no

    b. usually understand friends and familiar adults, and can they understand him?      yes    no

LEVEL FIVE CRITERIA

5.1. Does the student communicate confidently
and intelligibly on topics that go en-
tirely beyond the immediate physical
context and that require him or her to
interrelate objects, states, and events
located outside present time and space?          yes      no

5.2. Does the student express explicitly a
variety of relationships between events
(or states): relationships involving
time, causality, contradiction, states
of knowledge?                                    yes      no

5.3. Does the student carry on a conversation
contributing details or comments relevant
to his or her partner's theme without
changing the subject?                            yes      no

5.4. Does the student use the language to
find out

   a.  what is happening?                          yes      no

   b.  who is taking what action?                   yes      no

   c.  what state things are in?                    yes      no

   d.  why people are doing what they are
      doing?                                   yes      no

5.5. Does the student

   a.  usually tell stories or provide descrip-
      tions with clear overall meaning and
      structure? (Hazy details are readily
      clarified by questioning the student.)   yes      no

   b.  communicate with ready intelligibility
      on a one-to-one basis with strangers
      accustomed to deaf children?             yes      no

LEVEL SIX CRITERIA

<u>CIRCLE ONE</u>

6.1. Does the student

    a.  refer to objects, actions, events,
and states in a hypothetical mode
(that is, without regard to their
reality or truth) and consider the
implications?                yes      no

    b.  refer expressly to nonroutine and
comolex actions and feelings of a
more or less perceptible sort?    yes      no

6.2. Does the student communicate successfully
on any topic within his or her experience?   yes   no

6.3. Does the student

    a.  engage in sustained dialogue and
narrative with strangers with a
high degree of intelligibility and
corprehension?              yes      no

    b.  follow with accuracy (but not
necessarily full detail) the gen-
eral meaning of multi-cornered
conversatio.s even though they do
not bear on closely familiar topics?  yes      no

6.4. Does the student use the language
explicitly to influence opinion and
attitudes as well as actions?        yes      no

6.5. Joes the student

    a.  maintain a steady flow of accurate
and fully intelligible expression
only occasionally having to circle
around it or use un-idiomatic language?  yes     no

    b.  provide sufficient contextual background
to enaole conversational partners to
interpret mes-ages containing a consi-
derable amount of new information?   yes    no

    c.  communicate with sufficient clarity so
that only occasional clarifying ques-
tioning by his or her conversational
partner is required?           yes      no

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## LEVEL SEVEN CRITERIA

CIRCLE ONE

7.1. Does the student build referential
contexts sufficiently rich to allow
him or her to explain the details of
moderately elaborate systems, such as
the rules of a game or how something
works, to others who are unfamiliar with
what is being explained?                    yes        no

7.2. Does the student communicate with stran-
gers in one-on-one situations and multi-
cornered conversations with a high degree
of intelligibility?                         yes        no

7.3. Does the student

a.  paraphrase and amplify his or her
own comments to accommodate the
needs of his or her conversational
partner?                                yes        no

b.  pinpoint the information he or she
needs to clarify an ambiguous message?  yes        no

7.4. Does the student use the language to
express general principles for the pur-
pose of influencing opinions, attitudes,
and actions of others?                      yes        no

7.5. Does the student usually maintain a steady
flow of fully idiomatic expression free
of circumlocution?                          yes        no

## Considerations for Compiling a Test Battery

No single test can be used alone to provide a comprehensive language assessment. After considering your information needs, you can select tests which may become part of your test battery. The development of a test battery is an important step. Give yourself ample time to review available tests. Also consider the test and its performance requirements in relation to the student you are going to assess. For example, small test pictures may not be suitable for a very young or visually impaired student. When you have selected a group of tests that suit your needs you can then familiarize yourself with these tests, decide which ones to use intact, which to modify, and what parts (if any) you will develop. Select those tests, parts, etc. that will measure the different language areas and put them together to form your test battery. Practice giving each of the tests many times before using it with a student. If you modify the test to make it more practical by writing a new script or using objects from the test in a different manner than the one prescribed, you must still practice. This will permit you to feel confident when administering the test and will avoid disruption during the evaluation. Remember, if you plan to use the test as a norm-referenced measurement, which may be more appropriate for your testing needs, any modification of the administration, stimuli, or response invalidates the test as it was developed and normed.

When you are reviewing a test for possible inclusion in a test battery, maintain a flexible attitude. For instance, you may find that a portion of the test appears to be superior to the rest of the test, or may contain some diagnostic information not found elsewhere. Examples of this would be the Categories and Functions sub-tests of the receptive portion of the Bankson Language Screening Test. You might want to remove these from the test, add a few other cnes, and make this a part of your test battery. Another example of functions is found in the Sequenced Inventory of Communication Development where the child is required to follow directions such as pointing in response to "What do you wear on your feet?" It may be far more appropriate to use only the portion of the

test that assesses receptive language and not use the expres-
sive portion at all. Or you might choose to use selected
expressive items from various commercial tests to supplement
an expressive language sample. The administration of a test
in its present form may not be appropriate for your student.
For example, although the receptive One Word Picture Vocabu-
lary Test and the Peabody Picture Vocabulary Test are designed
to be given orally, you may want to administer either one in
total communication to a particular student. These factors
should not deter you from including the test or portions of
the test in your final test battery.

1) Attempt to Match your Information Needs to Students'
   Performance Abilities

A test battery can be compiled after careful review of
available test materials. It is important to consider the
individual student to be evaluated when you select items for
your battery. A good test battery reflects both the exam-
iner's information needs and the student's functional level
and performance abilities. For example, a test of expressive
vocabulary could be administered through identification and
labeling of either pictures or real objects. A visually im-
paired or very young child may be able to perform better using
real objects. Both methods would provide similar diagnostic
information.

2) Consider: Normal Language Development

The professional who attempts to evaluate the language
development of a hearing-impaired student must be well pre-
pared in order for her efforts to be successful. An important
part of this preparation must be a thorough understanding of
normal language development. Current research findings have
important implications for the assessment and remediation of
language disorders related to deafness. It is imperative that
both teachers and speech-language pathologists remain current
in information about both normal language and language of the
hearing impaired in order to select and use the most appro-
priate language tests and to be able to use the results for
remediation.

3) Consider: Developmental Age

When one has a firm understanding of normal language ac-
quisition, the task of determining a student's developmental

age is made easier. Developmental or functional age and chro-
nological age are not necessarily the same. <u>Chronological age</u>
(CA) refers to the child's physical age in years and months,
based on his birthdate. If the child was born prematurely,
this should be considered in calculating his chronological
age, which is then often referred to as a <u>corrected age</u>.
<u>Developmental age</u> (DA) or <u>functional age</u> (FA) refers to the
level of development of a student's skills and can be used as
a composite statement of the student's functional level in a
specific area. For example, a child's chronological age (CA)
may be 5 years but his developmental age (DA) or functional
age (FA) for language may be 2-1/2 years. Knowing the child's
developmental age is critical for selecting language tests and
for planning intervention because tests, activities, and ma-
terials selected should reflect the child's DA and not neces-
sarily his CA.

4) <u>Consider: Reasons for Assessment</u>

As discussed previously, the examiner must identify his
reason(s) for testing in order to select appropriate test
materials. Most evaluation materials state clearly their in-
tended purpose. There should be a match between the examin-
er's need for information and the selected assessment tool.
Failure to consider the reason for testing could result in a
waste of valuable time and produce information that is of
limited value. Misleading test results may also hinder the
child's progress or placement.

5) <u>Consider: Biases</u>

Objective assessment should be the goal of the examiner.
Personal biases toward the student or his family must not be
allowed to interfere with the assessment. Especially danger-
ous is permitting your biases about what the student "should"
know to color your assessment. If you "expect" either failure
or success from a student, your results may not be objective.

Biases towards evaluation materials abound. Selection of
specific tests should not be based solely on the recommenda-
tion of a supervisor, colleague, or school district. Their
information needs may differ from yours. The inclusion of a
test in a battery should be based only on the merits of the
test, the child's abilities, and your information needs.

6) <u>Consider: Form, Content, and Use</u>

As you will note in <u>Examples of Language Test Batteries</u> later in this section, tests have been selected in consideration of the major language components. Because no one test can provide all the information needed, a well planned battery will be composed of a number of tests, parts of tests, or made-up tests which can provide information regarding the student's receptive and expressive language in all areas of language.

7) <u>Include Informal and Formal Assessment</u>

While this book does discuss the use and interpretation of formal assessment tools, <u>the major emphasis for language assessment of hearing-impaired children should concern the social use of language</u> and, therefore, informal assessment or informal use of formal assessment tools may provide the most and best information. Observation is an outstanding means of viewing a child's language within the social context. One way to observe and record your observations is found in Table 11. Observing the student in class, on the playground, or with various people can provide information regarding her comprehension of directions and vocabulary or her ability to <u>use</u> language in a variety of situations. Non-linguistic factors such as eye contact, body language, and gesture can also be observed in this way. Informal observations can provide valuable diagnostic information and should be a) shared with others working with the student and b) documented as part of the final report or IEP. Careful selection and use of a well rounded test battery will yield assessment data that best reflect the student's overall language ability and will assist teachers and speech-language pathologists in implementing an <u>appropriate</u> educational program for each student.

8) <u>Consider: Developing a Screening Test of Your Own</u>

Put together a variety of grammatical skill items from other tests or your own with which you can easily and quickly screen each student's receptive skills. Once you have screened quickly and have found what appear to be grammatical errors, you can use your test battery to test those specific areas.

## Summary

Consideration of the points discussed above can help to make assessment an activity that produces valuable information for all those who work with the student. Assessment does not have to be an annual or ongoing drudgery! Although the eight considerations discussed may seem like a large array of issues to cope with before you even begin to assess each student, they are based on common sense and dovetail with the ideas that are emphasized throughout this book. They can be considered a checklist of the most important factors to consider in compiling a test battery, and, with practice, should become easily integrated into the testing process.

## Examples of Language Test Batteries

To illustrate how you might go about putting together a language test battery, we have provided a summary chart and four sample batteries for four age categories of hearing-impaired children: the 3-year-old child just entering school, 3 to 5-year-olds, 6 to 10-year-olds, and 11+-year-olds. These are only samples. Your choice of tests or parts of tests will depend upon your student's characteristics, your testing objectives, and the various tests and parts of tests that you prefer and have available.

On the Test Battery Summary Chart (Table 12), language tests are categorized by three main parameters: Age Group that the test is designed for (0-5 years, 6-12 years, 13-18+ years); Language Component to be tested (morphology, syntax, semantics, other); and Communication Mode tested (receptive, expressive, or both). This chart can help you select tests that are appropriate for a particular child. For example, if you are putting together a test battery for an initial evaluation of a 10-year-old hearing-impaired child, you can select several tests from the 6-12 year column that will help tap the child's receptive and expressive ability in various areas of language.

## Table 12

### TEST BATTERY SUMMARY CHART

Communication Mode:
E = Expressive
R = Receptive
* = Designed for Hearing Impaired Children

| Language Component | Age Groups | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **0 to 5 Years** | | | **6 to 12 Years** | | | **13 to 18 Years** | | |
| | Test | R/E | Years | Test | R/E | Years | Test | R/E | Years |
| Morphology (Form) | BLST | R/E | 4 to 8 | BLST | R/E | 4 to 8 | *TAGS Complex | R/E | 9+ |
| | CELI | E | 3 to 8 | CELI | E | 3 to 8 | | | |
| | SPELT-II | E | 4 to 9.5 | SPELT-II | E | 4 to 9.5 | | | |
| | TACL-R | R | 3 to 10 | TACL-R | R | 3 to 10 | | | |
| | *TAGS Pre-sentence | R/E | 0 to 5 | *TAGS Simple Complex | R/E | 5 to 9 9+ | | | |
| | TEEM | E | 3 to 8 | TEEM | E | 3 to 8 | | | |
| | VANE-L | R/E | 2.6 to 6 | *TERLA | E | 3 to 8 | | | |
| | | | | *TEXLA | E | 7 to 12 | | | |
| | | | | VANE-L | R/E | 2.6 to 6 | | | |

| Language Component | | | | Age Groups | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|

| | 0 to 5 Years | | | 6 to 12 Years | | | 13 to 18 Years | | |
|---|---|---|---|---|---|---|---|---|---|
| | Test | R/E | Years | Test | R/E | Years | Test | R/E | Years |
| Lexicon/Vocabulary (Content) | ACLC | R | 3 to 6 | ACLC | R | 3 to 6 | EOWPVT-UE | E | 12 to 16 |
| | BEAR-CAPS | R | 1.6 to 5.9 | BTBC | R | 5 to 8 | PPVT-R | R | 2.6 to 40 |
| | BTBC | R | 5 to 8 | BBCS | R | 2.6 to 8 | | | |
| | BBCS | R | 2.6 to 8 | CPVT | R | 4 to 11.6 | | | |
| | CPVT | R | 4 to 11.6 | EOWPVT | E | 2 to 12 | | | |
| | EOWPVT | E | 2 to 12 | EOWPVT-UE | E | 12 to 16 | | | |
| | PPVᵀ-R | R | 2.6 to 40 | PPVT-R | R | 2.6 to 40 | | | |
| | ROWPVT | R | 2 to 12 | ROWPVT | R | 2 to 12 | | | |
| | *SECS | R/E | 2 to 8 | *SECS | R/E | 2 to 8 | | | |
| | *SKI-H. RI T | R | 3 to 6.6 | *SKI-HI RLT | E | 3 to 6.6 | | | |
| | TACL-R | R | 3 to 10 | TACL-R | R | 3 to 10 | | | |
| | *TCRVT | R | 3 to 12 | *TCRVT | R | 3 to 12 | | | |
| | VANE-L | R/E | 2.6 to 6 | TWT | E | 7 to 12 | | | |
| | | | | VANE-L | R/E | 2.6 to 6 | | | |

| Language Component | | | | Age Groups | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|

**Age Groups**

| | 0 to 5 Years | | | 6 to 12 Years | | | 13 to 18 Years | | |
|---|---|---|---|---|---|---|---|---|---|
| | Test | R/E | Years | Test | R/E | Years | Test | R/E | Years |
| Semantic Relation-ships/Semantic Knowledge (content) | ACLC | R | 3 to 6 | ...C | R | 3 to 6 | *RITLS | R | 5 to 17+ |
| | BLST | R/E | 4 to 8 | BLST | R/E | 4 to 8 | *TAGS Complex | R/E | 9+ |
| | BEAR-CAPS | R | 1.6 to 5.9 | BTBC | R | 5 to 8 | | | |
| | BTBC | R | 5 to 8 | BBCS | R | 2.6 to 8 | | | |
| | BBCS | R | 2.6 to 8 | BLST | E | 4 to 8 | | | |
| | ELM | R/E | 0 to 3 | PLAI | R/E | 3 to 6 | | | |
| | PLAI | R/E | 3 to 6 | *RITLS | R | 5 to 17+ | | | |
| | *RITLS | E | 5 to 17+ | *SECS | R/E | 2 to 8 | | | |
| | *SECS | R/R | 2 to 8 | *SKI-HI RLT | R | 3 to 6.6 | | | |
| | *SKI-HI RLT | E | 3 to 6.6 | *TAGS Simple Complex | R/E | 5 to 9 9+ | | | |
| | *TAGS Presentence | R/E | 0 to 5 | TWT | F | 7 to 12 | | | |
| | VANE-L | R/E | 2.6 to 6 | VANE-L | R/E | 2.6 to 6 | | | |

Language Component            Age Gr ps

| | 0 to 5 Years | | | 6 to 12 Years | | | 13 to 18 Years | | |
|---|---|---|---|---|---|---|---|---|---|
| | Test | R/E | Years | Test | R/E | Years | Test | R/E | Years |
| Pragmatics (Use) | CTI | E | .7 to 2 | ILSA | E | 8 to 14 | ILSA | E | 8 to 14 |
| | PLAI | R/E | 3 to 6 | PLAI | R/E | 3 to 6 | | | |
| Other | BLST | R/E | 4 to 8 | BLST | R/E | 4 to 8 | | | |
| | BEAR-CAPS | R | 1.6 to 5.9 | | | | | | |
| | BTBC | R | 5 to 8 | BTBC | R | 5 to 8 | | | |
| | ITPA | R/E | 2.7 to 10 | ITPA | R/E | 2.7 to 10 | | | |
| | RIDES | R/E | 0 to 4 | | | | | | |
| | SICD | R/E | .4 to 4 | | | | | | |
| | *SKI-HI LDS | R/E | 0 to 5 | | | | | | |
| | VANE-L | R/_ | 2.6 to 6 | VANE-L | R,E | 2.6 to 6 | | | |

| Language Component | | | | Age Groups | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|

**Syntax**

| 0 to 5 Years | | | 6 to 12 Years | | | 13 to 18 Years | | |
|---|---|---|---|---|---|---|---|---|
| Test | R/E | Years | Test | R/E | Years | Test | R/E | Years |
| BLST | R/E | 4 to 8 | BLST | R/E | 4 to 8 | *RITLS | R | 5 to 17+ |
| CELI | E | 3 to 8 | CELI | E | 3 to 8 | *TAGS Complex | R/E | 9+ |
| ELM | R/E | 0 to 3 | *GAEL | : | 5 to 9 | *TSA | R | 10 to 19 |
| *GAEL | E | 5 to 9 | M-Y | R | 4 to 8 | | | |
| M-Y | R | 4 to 8 | *MSEI | E | 6 to 12 | | | |
| NSST | R/E | 3 to 8 | NSST | R/E | 3 to 8 | | | |
| *RITLS | R | 5 to 17+ | *RITLS | R | 5 to 17+ | | | |
| *SECS | R/E | ` to 3 | *SECS | R/E | 2 to 8 | | | |
| SPELT-II | E | 4 to 9.5 | SPELT-II | E | 4 to 9.5 | | | |
| TACL-R | R | 3 to 10 | TACL-R | R | 3 to 10 | | | |
| *TAGS Pre-sentence | R/E | 0 to 5 | *TAGS Simple Complex | R/E | 5 to 9 9+ | | | |
| VANE-L | R/E | 2.6 to 6 | *TERLA | R | 7 to 12 | | | |
| | | | *TEXLA | E | 7 to 12 | | | |
| | | | *TSA | R | 10 to 19 | | | |
| | | | VANE-L | R/E | 2.6 to 6 | | | |

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Test Battery for A Hearing-Impaired Child:  Functional Age,
Pragmatics, Cognition, and Vocabulary

When developing a test battery for hearing-impaired stu-
dents, it is important that you evaluate the tests, as des-
cribed previously.  There are several other issues you must
consider.  First, it is essential that you pay close attention
to the functional age of the child because that will often
differ from his or her chronological age; the ages identified
on many of the tests often refer to a chronological age and
functio. ¹l age that are the same.  Because hearing-impaired
students are usually delayed in language compared to their
hearing peers, you will often have to use a test designed for
younger hearing children.  Table 13 provides a.. example of a
battery developed for the hearing-impaired child at C.A.
(chronological age) of 3 years who has just entered school and
is functioning as a much younger child.  This child may have
little or no language.  The child's language may be so limited
that the usual tests designed for 3-year-olds are not appro-
priate.  In addition, 3-year-old hearing-impaired children
have not usually acquired test-taking skills such as making a
correct response to "show me..." or "point to the..."  There-
fore, a hearing-impaired child who is chronologically 3 years
old is often functioning well below 3 years and must be tested
differently or test results will either be inaccurate or unob-
tainable.

Because of the differences in C.A. and F.A., we need to
use diferent means of assessing this hearing-impaired child.
Although not everything in this battery is truly "linguistic,"
much of it relates to communication and all of it will assist
in developing intervention and monitoring plans.  We feel that
you will need some sort of developmental checklist or develop-
menta" profile (such as the Rockford Infant Developmental
Evaluation Scales) which will provide information about gross
motor, fine motor, adaptive, and school readiness ability as
well as a screen of receptive and expressive language.  The
"normal" hearing-impaired child should be functioning within
normal range in areas other than language.  Thus you will
obtain general information about how the child is functioning
and how you might expect the child to perform.  This informa-
tion will also assist you in establishing a functional age.

Table 13

SAMPLE TEST BATTERY:
3-YEAR-OLD HEARING-IMPAIRED CHILD ENTERING SCHOOL

| ASSESSMENT TOOL | INFORMATION PROVIDED |
|---|---|
| Developmental Scale/Check-<br>list; e.g., Rockford<br>Infant Developmental<br>Evaluation Scales<br>(RIDES) | Gross motor; fine motor,<br>social/adaptive, school<br>readiness, overview of<br>receptive-expressive<br>communication |
| Language Scale; e.g., SKI-HI<br>Language Development<br>Scale (LDS) | Receptive-Expressive language |
| Checklist of Pragmatic<br>Behaviors<br>(Observations accom-<br>plished over time within<br>a meaningful context) | Non-linguistic and beginning<br>linguistic use of language |
| Charts of First Words; e.g.,<br>Burton White (receptive)<br>Katherine Nelson<br>(expressive) | Receptive and expressive vocab-<br>ulary of normal hearing<br>children within categories |
| Plus list of words used by<br>individual student obtained<br>in class and from parents | Expressive vocabulary of each<br>individual student |
| BEAR-CAPS<br>Bare Essentials in Asses-<br>sing Really Little Kids;<br>Concept Analysis Profile | Comprehension of conceptual<br>relationships that contri-<br>bute to language development |
| Cognitive Developmental<br>Checklist:<br>e.g., Uzgiris Hunt or<br>modification | Cognitive skills/levels |
| Observation | Summary of above that will<br>reinforce, add to, or modify<br>your previous results |

Because the very young hearing-impaired child just enter-
ing school may not be using sign or voice to express language,
it is even more important to look at how this child does com-
municate and what the range of communicative behaviors is.
Tools you could use to evaluate these behaviors, in addition
to the developmental checklist, would be a checklist of prag-
matic behaviors (Table 1), and portions of the Kendall Com-
municative Proficiency Scale, Level 0+, Table 11. The young
hearing-impaired child may or may not have some of these prag-
matic behaviors but because they are part of the communica-
tive/language process, it is important to determine which, if
any, are present and which are absent in order to be able to
include these in your intervention plans.

Another nonverbal area to explore would be that of cogni-
tive development. A checklist of cognitive skills can be de-
veloped and a complete inventory of concept development such
as BEAR-CAPS (Hasenstab & Horner, 1985) can be used. It is
important to know the cognitive levels of the hearing-impaired
child in order to modify the environment accordingly and, if
necessary, provide a more cognitively enriched environment.

After using procedures to assess the child's developmental
levels, pragmatic behaviors, and cognitive status, a fourth
procedure would provide you with a simple method of evaluating
vocabulary and comparing this vocabulary to the "first words"
of normal hearing children. You can make a list for each stu-
dent that will include both vocabulary that is understood and
that which is expressed. Information can be obtained from
parents, staff of programs the child previously attended, or
through direct interaction and observation. For example,
vocabulary that the child comprehends might be compared to
White's "First Words Understood" (Table 4) or the expressive
vocabulary might be compared to Nelson's "First Fifty Words
Produced" (Table 5). If the hearing-impaired child under-
stands or uses only a limited category of vocabulary, this
information will assist you in formulating intervention plans.
For example, it is very common for some young hearing-impaired
children to be limited to understanding and using only a nam-
ing vocabulary and therefore not use action words, modifiers,
function words, and so on. It is also often true that the
child's naming vocabulary itself is more restricted than that

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of normal hearing peers and needs to be expanded. It is es-
sential that the teacher and speech-language pathologist iden-
tify such omissions immediately in order to develop appropri-
ate intervention plans for each child that will facilitate
qualitative as well as quantitative growth.

Tables `` through 16 provide examples of test batteries
that might be used with older children. A team including the
teacher and speech-language pathologist might have their fav-
orites that could overlap several age levels, such as the
TACL-R and the Rhode Island Test of Receptive Language, or
they may have a sequence of directions using toy figures that
they have laid out developmentally and that will provide them
with knowledge about receptive vocabulary, semantics, and syn-
tax over a broad age span. There is no "best" set of tests
but all areas of language must be evaluated.

# Table 14

## SAMPLE TEST BATTERY FOR AGE CATEGORY:  3 TO 5 YEARS OLD

| | RECEPTIVE | EXPRESSIVE |
|---|---|---|
| **MORPHOLOGY** | Test for Auditory Comprehension of Language-Revised (TACL-R) | Language Sample recorded within meaningful contexts<br><br>Test for Examining Expressive Morphology (TEEM) |
| **SYNTAX** | TACL-R | Language Sample |
| **SEMANTICS** | SKI-HI Receptive Language Test (SKI-HI RLT)<br><br>Made-up phrases using objects and vocabulary known to the child and used naturally in the classroom; e.g., "push the ball," "big truck" | Language Sample<br>Parts of the SICD; e.g., "What do you wear on your feet?" |
| **LEXICON** | Total Communication Test of Receptive Vocabulary<br><br>SKI-HI Receptive Language Test (SKI-HI RLT)<br><br>Parts from the SICD; e.g., following simple directions ("Give me the _____"), function of vocabulary ("What does mom cook on") | Expressive One-Word Picture Vocabulary Test (EOWPVT)<br><br>Language Sample |
| **PRAGMATICS** | Informal Observation of Child | Communicative Intentions Inventory (CII)<br><br>The Kendall Communicative Proficiency Scale |

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Table 15

SAMPLE TEST BATTERY
FOR FUNCTIONAL AGE LEVEL:  6 TO 10 YEARS OLD

|  | RECEPTIVE | EXPRESSIVE |
|---|---|---|
| MORPHOLOGY | Test of Receptiv Language (TERLA) | Language Sample recorded within meaningful contexts |
|  |  | Structured Photographic Expressive Language Test-II (SPELT-II) (supplemental) |
|  |  | Test for Examining Expressive Morphology (TEEM) |
| SYNTAX | Rhode Island Test of Receptive Language Structure (RITLS) | Teacher Assessment of Grammatical Structures (TAGS) |
|  |  | Language Sample recorded within meaningful contexts |
| SEMANTICS | Boehm Test of Basic Concepts (BTBC) | Language Sample recorded within meaningful contexts |
|  | Parts of the Bankson; e.g., function and categories |  |
|  | Rhode Island Test of Receptive Language Structure (RITLS) |  |
| LEXICON | Total Communication Receptive Vocabulary Test (TCRVT) | Expressive One-Word Vocabulary Test (EOWPVT) or The Word Test (TWT) |
| PRAGMATICS (USE) |  | Informal Observations/ Recording |
|  |  | Kendall Communicative Proficiency Scale |
| OTHER |  | Visual and Auditory Perception Subtests of the .TPA |

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Table 16

SAMPLE TEST BATTERY
FOR FUNCTIONAL AGE LEVEL: 11+ YEARS OLD

| | RECEPTIVE | EXPRESSIVE |
|---|---|---|
| MORPHOLOGY | Test for Auditory Comprehension of Language (TACL-R) | Language Sample recorded within meaningful contexts<br><br>Teacher Assessment of Grammatical Structures (TAGS) |
| SYNTAX | Test of Syntactic Ability (TSA)*<br><br>Test for Auditory Comprehension of Language (TACL-R) | Language Sample recorded within meaningful contexts |
| SEMANTICS | Rhode Island Test of Receptive Language Structure (RITLS) | Language Sample recorded within meaningful contexts |
| LEXICON | Peabody Picture Vocabulary Test (PPVT)<br>Rhode Island Test of Language Structure (RITLS)<br>or<br>Teacher-made test of vocabulary used in social studies and science | Expressive One-Word Picture Vocabulary Test (EOWPVT)<br>or<br>Expressive One-Word Picture Vocabulary Test Upper Extension |
| PRAGMATICS | | Language sample recorded within meaningful contexts<br><br>Interpersonal Language Skills Assessment (ILSA)<br><br>Subtests of the Detroit Test of Learning Aptitude** (1967); e.g., pictorial and verbal absurdities, pictorial and verbal opposites, visual attention span for objects. |

* The TSA requires that the student be able to read.
** Note that this refers to the 1967 edition (Baker & Leland, 1967). These subtests are not included in the newer (1984) edition but the types of subtests can be very helpful. This test is not described in Section V. because the older edition may no longer be available.

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## Test Modification Techniques

When you are reviewing assessment materials for possible
inclusion in a test battery, maintain a flexible attitude.
For instance, you may find that a portion of a test appears to
be superior to the rest of the test, or may eventually yield
some diagnostic information not found elsewhere.  The admin-
istration of the test in its present form may not be appro-
priate for your student.  These factors should not deter you
from including portions of the test in your final battery or
using them as a model in order to develop your own materials.
While any modification in the administration, required re-
sponse, or scoring of the test invalidates the norms as they
were developed, it is far more important to gain information
about language status for planning intervention or monitoring
rather than to simply obtain scores.  Therefore, modifying
tests and using parts of tests may be highly desirable in or-
der to enhance the match between examiner needs and the stu-
dent's needs, abilities, and performance.

Below are three examples of test modifications that you
might make:  modification of test administration, required
response, and scoring techniques.

1)  **Modification of Test Administration**

One of the most common test modifications is to administer
a group test such as the Boehm Test of Basic Concepts to an
individual child.  This is essential when one administers the
test to hearing-impaired students.  The examiner may also wish
to administer such a test, which was developed for normally
hearing students, to a student whose primary communication
mode is simultaneous communication.  This change represents
another form of test modification.

Or the examiner may wish to give Form A of the Boehm or-
ally to the student to assess his understanding of concepts
through the auditory mode alone.  The test may be repeated,
with Form B, and administered in simultaneous communication,
or sign only.  These modifications may provide valuable in-
formation about a child who is being considered for "main-
streaming" into the regular classroom or simply provide more
information to the teacher about signed vs. oral input.

In the case where a specific test contributes information not found in other evaluation tools, ^` examiner may wish to administer only certain subtests or spec.fic items.  An example is found in the <u>Bankson Language Screening Test</u>.  The subtests for Categories or Functions, which are generally not found in other language tests, may be administered independently of the other subtests as part of the total language battery.

2)  <u>Modification of Required Response</u>

Where a test protocol requires an oral response, allowing the student a <u>change</u> to simultaneous communication is a common modification.  For a student with limited motor or expressive skills, a possible modification from an oral or signed response to a pointing response may permit more extensive and profitable testing to occur.

3)  <u>Modification of Scoring Techniques</u>

It is sometimes important to know how a hearing-impaired student compares in language development to her hearing peers; for example, when she is being placed in a mainstream classroom.  In this case, you might use part of the test and results exactly as developed and part modified to incorporate the use of total communication.  A comparison against a) norms and b) use of total communication may provide important predictions about the child's success in the regular classroom. At other times, you will not want to make this comparison, but you will want to obtain baseline data on a student before intervention.  It is still possible to use the same test with hearing norms but use it as a <u>criterion- referenced test</u> rather than as a <u>norm-referenced test</u>.

REMEMBER:  There are no "perfect" tests.  Don't eliminate a test from a possible test battery without considering using portions of it or making modifications which may improve its usability.  When considering test modifications, think creatively and be flexible.

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SECTION IV:

ADMINISTERING THE TEST BATTERY

<u>Testing the Hearing-Impaired Child: Special Consider.tions</u>

Hearing loss is not a "simple" impairment. nor is it
usually a ( )le one.  For this reason, as mentioned previous-
ly, hearing-impaired students exhibit great variability; e::h
student is very different from another.  Their learning
styles, behavior, academic achievement, and use of residual
hearing are all dependent on a number of variables which help
to create the extreme dissimilarities among them.  Variables
that contribute to these differences are the child's age at
onset of the hearing loss, age at the time of first interven-
tion, degree of loss, impact of hearing loss on auditory dis-
crimination, parental support and effectiveness of communica-
tion in the home, length of time that hearing aids have been
used, effectiveness of past school programming, and additional
handicaps.
        The differences among str'ients caused by these variables
will also contribute to the students' ability to take tests,
especially standardized, commercial tests that do not usually
relate d?rectly to their environment and often limited body of
knowledge.  Therefore, the process of assessing the language
of the iearing-impaireJ student is more complex than one might
expect, largely because of the complexity of the factors noted
above that, in various combinations, affect each hearing-
impaired child.  The following section identifies numerous
issues that you must consider when assessing the language of
hearing-impaired students.

<u>Natural Context vs. Use of Commercial Tests</u>
        <u>Receptive language</u>.  The ideal method for obtaining the
most information when you are assessing language is to conduct
the assessment within the daily contextual environment.  Thus,
to obtain information about receptive language, you might
"test" to see if all students in a given classroom <u>understand</u>
1) all of the vocabulary being used socially and academically,
2) different types of directions being given, and 3) a variety

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of grammatical constructions. This type of assessment of re-
ceptive language is not impossible, but could be very time-
consuming. It might be more appropriate to use these tech-
niques for individual students in order to obtain baseline
data and to monitor their progress after you have identified
areas of strength and weakness using a more formal approach.
It is far less time-consuming to put together a battery of
tests or parts of tests in order to make the initial observa-
tions and identify problems within the different areas of re-
ceptive language. Once problem areas have been identified,
you could test them further using a natural context if desired.

Using commercial tests that relate to everyday activities,
vocabulary, and concepts will obviously provide more meaning-
ful information than any others. An example is the Boehm Test
of Basic Concepts, which includes vocabulary and concepts used
daily in the school experience. However, when you select com-
mercial tests or teacher-made tests designed for other groups,
you must take precautions when using them with hearing-
impaired students. (See below.)

Expressive language. The preferred method for evaluating
language production of hearing-impaired children is to take a
language sample from each student, within the student's normal
setting. It is the only meaningful way to obtain information
about how an individual hearing-impaired student uses lan-
guage. Hearing-impaired students often use language inappro-
priately, even when they produce sentences that are syntacti-
cally correct. The language sample may be supplemented by
standardized testing (Klee, 1985) or by more structured evoca-
tion procedures (Roth & Spekman, 1984). One example of this
would be to supplement the language sample with a more formal
test of expressive vocabulary. Although the language sample
would enable you to observe the student producing some vocabu-
lary and would show whether or not he used the words appropri-
ately in context, you might wish additional information about
the breadth of his vocabulary and whether he was using the
same word over and over again when a different word would pro-
vide variety and improve the style of the message he is com-
municating. The more formal test might provide this addition-
al information.

Vocabulary. The vocabulary understood and used by hear-
ing-impaired students is often more limited than that of their
hearing peers. Therefore, whenever instructions or direct'ons
are given in preparation for testing and for explaining what
is expected of the student, it is imperative that you use vo-
cabulary that the student understands. This applies both to
commercial and teacher/clinician-made tests. It is also es-
sential to use vocabulary known to the individual student when
you are checking his or her comprehension of grammatical
structures. If you use vocabulary that the student does not
understand, the test results are confounded and you will not
obtain accurate information about the grammatical structures.

If you use commercial tests of vocabulary, be sure that
the pictures depicting the object or event are conceptually
understood by the child. Hearing-impaired children often do
not have as rich and varied experiences as their norma! hear-
ing counterparts and, therefore, their vocabulary may be more
limited. For example, if a test picture shows children jump-
ing over waves in the ocean, and the student has never seen
the ocean or pictures of it, an erroneous answer might reflect
lack of knowledge about the picture of the ocean rather than
of a particular language structure.

Many hearing-impaired children have difficulty "clozing"
or "filling in" one word in a sentence, especially if they
have never been exposed to this technique. You are most like-
ly testing a student's ability to learn a new technique rather
than a particular language form if you use the cloze procedure
in a test situation unless the student has used the procedure
previously.

Practice items. Not all tests include practice items. If
the ones you are considering do not, develop some yourself.
Hearing-impaired students often do not understand instructions
and you want to be sure your hearing-impaired student under-
star'- what he or she is expected to do before testing begins.

Functional Age vs. Chronological Age
It is important to at least estimate the age level at
which a student is functioning. Language tests are most often
designed for normal hear.ng children of certain chronologi-
cal ages. and hearing-impaired students are usually language

delayed. Therefore, it is not appropriate to give a test or
test items that are beyond the hearing-impaired student's
functional age.

## Hearing Aids

If the student wears a hearing aid or aids on a daily ba-
sis, the aids must be worn during testing; they must also be
in good operating condition, with good batteries.  If the stu-
dent is not usually aided, amplification should not suddenly
be introduced for the testing situation.

## Health

Because of colds and allergies, hearing-impaired students
can also have a conductive hearing loss superimposed on their
sensorineural hearing loss.  For those who rely on auditory
input for all or part of the incoming message, the addition
of a conductive loss can severely reduce the ability to un-
derstand. If there is any doubt about the health of the stu-
dent's ears, do not test until until the problem is remediated.

## Comfort and Attention Span

Many writers have noted that hearing-impaired children
tend to have a shorter attention span than their hearing
peers, and that they are more distractible.  Don't be afraid
to take a break; get a drink of water, stretch, walk around
the room.  This is especially important when you are testing
younger children, and will increase the comfort of all hear-
ing-impaired children you test as well as increase the valid-
ity of the test results.

## Lighting

Because most hearing-impaired students rely upon their
ability to read lips and/or signing and fingerspelling, light
must be adequate and never be located so that it shines in the
student's eyes.

## Mean Length of Utterance

Mean length of utterance (MLU) has been identified as a
simple index of grammatical development because, as the
child's knowledge about new grammatical structures increases,

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so does the length of his or her utterances (Brown, 1973).
MLU has often been used clinically to measure the effects of
intervention with language disordered children, but recently
has been shown not to be reliable or sensitive to grammatical
changes in normal children beyond Brown's Stage II (approxi-
mately 2 years of age), and does not seem to be useful in mat-
ching normal to language disordered children (Klee, 1985). It
may not be useful in comparing the hearing-impaired student's
language to that of his or her hearing peers either, because
when the hearing-impaired child's utterance increases in
length, the complexity of the utterance may not be greater
than it was previously. Rather, it may simply be a longer
string of utterances that are grammatically incorrect.

## Communication Modes

The preferred communication mode of the student to be
tested — e.g., simultaneous communication, American Sign
Language, spoken English — should be identified before the
evaluation. If the preferred mode involves sign language, the
examiner should be proficient in the form of sign language the
child uses in order to administer the test. If not, resource
personnel who are proficient in the student's preferred mode
may facilitate assessment. An interpreter, teacher's aide, or
parent may serve in this way. A caution must be noted here:
If your goal is to assess a student's comprehension of English
in signed/spoken form (simultaneous communication) and you are
using a resource person to help administer a test to a student
whose preferred mode is ASL, make sure that the resource
person clearly understands your testing objectives. In this
situation, all instructions should be given in ASL to ensure
that the student understands the task, but the test itself
would be presented in signed/spoken English. Reasons for
testing in this manner might be to determine how much assis-
tance this student will need in understanding reading assign-
ments (which are written in English), just how much the stu-
dent really does understand of English communication so that
he or she might enjoy greater success in a mainstream situa-
tion, or whether it is preferable for this student to be edu-
cated using ASL only. When a resource person is called in to
help, you must have a conference with that person before the

testing in order to clarify the test objectives, administra-
tion, reinforcement, and signs to be used.  Practicing toge-
ther will help you to deliver a smooth presentation.  (See
Using Resource Personnel in Test Administration, below, for
further discussion.)

Total Communication
    When you are testing students who are in a total communi-
cation program and usually speak and sign simultaneously, it
is helpful to obtain information about how much they under-
stand using 1) the auditory system, 2) sign alone, and 3) a
combination of the two.  Therefore, part of the testing of
receptive language would be performed orally, part in sign
only, and part using total communication.  When you record a
sample of language, it is important to note the same informa-
tion regarding language production.

General Considerations for Administering Tests

    In addition to the special considerations just discussed,
we recommend that you also consider the following general
issues, which affect test administration.
1) Consider: Reinforcement
    The test manual may delineate a specific reinforcement
schedule as part of the test administration.  If so, follow
it; if not, decide what type of reinforcer you may use and
what the schedule of reinforcement will be.  Consider also
your own behavior when scoring the test or reinforcing the
student.  Unconsciously you may be unfairly helping the child
to answer through your body language or facial expression.
Consider whether your reinforcement is effective.  These fac-
tors may influence the child's performance.  Each individual
has different requirements for reinforcement — consider each
child's unique needs.  Many students become anxious when the
examiner scores items during a test.  Scoring or writing some-
thing for each item, not just those items that are wrong, or
covering your score form may help modify this reaction.
2) Consider: Organization
    The testing environment, materials, and scheduling should
all be organized before the assessment begins.  Multiple ses-

sions are often very important for hearing-impaired students
and therefore testing may need to be scheduled over a period
of several days  Specific environmental factors to be consid-
ered are found below.  The examiner should also prepare the
student before the test.  An explanation of the test procedure
and what is expected may reduce a great deal of "test anxie-
ty."  For the speech-language pathologist, getting to know the
student through classroom observation will help.  Talking with
parents, teachers, and others who work with the child will
give the examiner valuable background material.  For the
teacher, reviewing files, talking to parents, allowing time
for a new child to become comfortable in the classroom, and
sharing information with the speech-language pathologist will
assist in establishing appropriate test conditions and obtain-
ing better test results.

3) Consider:  Behavior During Testing

    Be aware of the student's behavior during testin~:  is he
upset, anxious, sleepy, or hyperactive?  The stude' 's beha-
vior during the assessment can provide useful information.  If
the child appears to be tiring, stop rather than continuing to
test.  If the child is new to the school situation and appears
uneasy, he or she may need more reinforcement or need to have
the test continued at a later date.  Tuning in to the emotion-
al state of the child can make assessment easier and the re-
sults more accurate.

4) Consider:  Coordinating Administration of the Tests

    Once the speech-language pathologist and teacher have
decid~d upon the battery of tests to be used, consider divid-
ing the actual administration of the tests or parts of tests
between you.  For example, the teacher and her aide might ob-
tain the expressive language sample, while the speech-language
pathologist might administer the tests for receptive language.
Scoring and interpretation might be done together.  Such an
approach lessens the burden of testing while encouraging a
team effort which results in better intervention for the
student.

5) Consider: Integration of Results

    Group staffings, teacher consultations, and parent inter-
views can provide a means of integrating and evaluating as-
sessment data.  If the speech-language pathologist and teacher

of the hearing impaired work together as a team, they can
split the various tasks involved in obtaining the language
data, then share their results, plan intervention together,
provide information to the parents, and suggest ways for them
to reinforce your intervention plans at home. The hearing-
impaired student will benefit greatly from this teamwork.

### The Test Enviroiment

Before attempting a formal evaluation of the language
skills of any child, the examiner should create a good testing
environment; however, the environment may be even more criti-
cal when one is testing a hearing-impaired child. Many hear-
ing-impaired children have problems with maintaining attention
and are easily bothered by extraneous visual and auditory dis-
tractions. Thus other students wandering around the classroom
could interfere with testing. It would be preferable for you
to develop a quiet area, possibly using room dividers so that
the student is removed from the general traffic flow and vis-
ual distractions. If sign plus voice are to be used, it will
be important for the examiner to wear a sweater, blouse, or
shirt that contrasts with his or her hands. If the student
must rely upon lipreading, it will help if female examiners
wear lipstick; all examiners should make sure that they are
not sitting with the light behind them. What you are striving
for is an environment conducive to obtaining the best results.
Creating a good test environment is the first step in a suc-
cessful formal evaluation. Before testing the student, consi-
der the factors noted in Table 17, An Environmental Checklist
(some apply to the speech-language pathologist, some to the
teacher, some to both):

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Table 17

ENVIRONMENTAL CHECKLIST

1. <u>The Location</u>                                                    <u>Yes</u>      <u>No</u>

   a.  Are auditory and visual distractions eliminated
       or reduced?

   b.  Is the temperature controllable?

   c.  Does the space provide adequate ventilation?

   d.  Can you sit so that you are at eye level with
       the child?

   e.  Is the lighting adequate for lip-reading and
       other visual input?

   f.  Will you, the examiner, be placed appropri-
       ately for the best use of lighting?

   g.  Is the testing location away from the
       traffic flow of other adults/children?

2. <u>The Examiner</u>                                                    <u>Yes</u>      <u>No</u>

   a.  Is your appearance distraction-free?

   b.  Have you arranged all necessary materials
       close by?

   c.  Have you familiarized yourself with the test
       procedures?

   d.  Have you scheduled several short test blocks
       rather than one long one?

   e.  Have you considered the child's optimum test
       time in planning your schedule?

   f.  Have you acquainted yourself with the child
       and prepared her for the assessment and
       what is expected?

3. <u>The Student</u>

   a.  Does the student use an oral approach?

   b.  Does the student use a total communication
       approach?

   c.  If necessary, have you arranged for and
       discussed testing with an interpreter?

   d.  Does the student use amplification?

   e.  Have the aids been checked to ensure that
       they are in good working condition?

   f.  If necessary, have you made the appropriate
       modifications for other handicapping con-
       ditions?

## Using Resource Personnel in Test Administration

Integrating resource personnel into a language assessment plan is a practice that can be extremely productive when appropriately managed and planned beforehand. The decision to use a resource person in your language assessment will vary with the needs of the student, your skills, and the skills of the resource person.

Throughout this book, the speech-language pathologist and teacher of the hearing impaired are encouraged to act as a team. In fact, each can serve as a resource person for the other. For example, when working as a team they might divide the work so that the teacher signs the information and the speech-language pathologist records and interprets the results; or the teacher may act as interpreter for part of the testing and complete other parts of the testing herself, in the classroom. Be flexible in thinking about who else may serve as a resource in your assessment: an interpreter, a parent, an aide, or other school personnel may serve a variety of functions in assessing language effectively. For example, they may serve: 1) to put the young or difficult-to-test child at ease; 2) to supplement the examiner's signing skills; or 3) to obtain extra information during the assessment. Each of these functions is discussed below.

### 1) To Put the Young or Difficult-to-Test Child at Ease

If you are the speech-language pathologist, you may want to include a parent, the teacher, or the aide when assessing a very young child. The presence of a parent or other primary caretaker may reduce the child's anxiety and permit you to obtain a better indication of his language skills. By permitting the parent or the teacher to accompany the child and perhaps aid in the administration of the test, you are more likely to obtain the child's optimal performance and have an opportunity to observe him in spontaneous communication with a person he is close to. This might be an opportune time to obtain a meaningful language sample. The presence of a parent or teacher may also effectively mollify the difficult-to-test child, one who is new to the system, or one who has other behavioral problems.

2) To Supplement the Examiner's Signing Skills

a) Assessment of simultaneous communication: If the examiner's skill in simultaneous communication is not adequate to ensure smooth administration of the test items without error or confusion, the services of an interpreter, teacher, or classroom aide who knows the student and is fluent in that communication mode should be obtained. This resource person would sign the test items and verbalize the student's responses to the examiner.

b) Assessment of American Sign Language (ASL): For the examiner who is not fluent in ASL, there are several situations in which a resource person may provide needed services. A resource person who is fluent in ASL may help in assessing a student who is more fluent in ASL than in signed English by presenting instructions for a test and asking and answering questions to ensure that the student understands the task. If the purpose of the test is to assess receptive or expressive skills in signed English, however, it is essential that the test items themselves be presented in the target communication mode. Thus, a resource person skilled in both ASL and signed English may present instructions in ASL and test items in signed English, or may only give instructions in ASL and have the examiner (if she is fluent in signed English) administer the test items. Whatever the child's mode of communication — Pidgen, ASL, or other modifications — it is critical that he or she be given INSTRUCTIONS in that mode. The testing should then proceed with the child using the mode being examined.

3) To Obtain Added Data During Assessment.

During most assessments, the examiner has little time to record information other than the student's responses. In this situation a resource person could be used effectively to record spontaneous language, or to tape record or videotape the child during the assessment. A great deal of valuable information can be obtained from this type of recording. Additionally, when the examiner wishes to obtain information regarding a student's pragmatic use of language, the resource person can record a number of behaviors, such as eye contact with the examiner, non-verbal communication, and turn-taking. If the use of a resource person is not possible, talking into a tape recorder will provide you with additional information.

Obviously, the greatest amount of information will be obtained
by videotaping, because the tape can be reviewed many times,
each time the examiner looking for and scoring a different
aspect of the communicative process.

Suggestions

If you decide to ask a resource person to participate in
your assessment procedures, we recommend the following steps:

1) Before assessment, meet with the resource person to
discuss your test objectives, what you hope to accom-
plish, and what his or her role will be in the as-
sessment.

2) Familiarize the resource person with the assessment
materials.

3) Schedule time to practice together in a "dry run"
situation.

SECTION V:

OBTAINING AND USING LANGUAGE SAMPLES

## Introduction

Previous discussion in this book has covered procedures
for using published tests or parts of tests in order to assess
language. The use of a test battery has been emphasized be-
cause no single test can address all aspects of language know-
ledge. Although a careful evaluation of a spontaneous lan-
guage sample may provide all the information needed for some
students, it is always a critical part of any test battery for
all students.

There are three basic ways to obtain a language sample:
1) Students review pictures and write about the pictures,
e.g., when assessed with the Maryland Syntax Evaluation In-
strument (MSEI). 2) Students imitate what the tester has
said/signed, e.g., from such instruments as the Carrow Elic-
ited Language Inventory (CELI), and the Grammatical Analysis
of Elicited Language (GAEL). Here the tester elicits the re-
sponse to be imitated by using a specific stimulus. 3) Stu-
dents talk about pictures, activities, or "happenings," and
all responses are recorded in written form and on audio- or
videotape. This is referred to as a spontaneous language
sample because there is no specific sentence to be repeated
and therefore children are able to talk about pictures or ob-
jects as they choose. Both Lee ('974) and Tyack and Gottsle-
ben (1974) provide standardized techniques for obtaining the
language sample and for scoring it which have been very popu-
lar with speech-language clinicians. These techniques were
d ;loped for clinicians who assess the language of hundreds
of children suspected of language delay or language disorder
and who wish to establish procedures that will allow them to
systematically review data across all children.

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## Ways to Obtain a Language Sample

### Written Language Samples

Students' written language samples are important academi-
cally and are usually gathered readily from the students' work
in social studies, language arts, and reading.  One may make a
formal analysis by using a test such as the Written Language
Syntax Test (Berry, 1981) or make an informal analysis using
samples of writing.  However, such tests do not provide in-
formation about a student's everyday use of language when they
are communicating with peers, teachers, parents, or others in
spoken/signed exchange.  Analysis of written language samples
will not be discussed in this book.

### Elicited Language Samples

Elicited language samples (obtained through such tests as
CELI and GAEL) are often popular because they are compact and
self-contained, and specific scores can be obtained in a re-
stricted period of time.  Measures eliciting language samples
are relatively easy to administer and always follow the same
format.  Elicited language samples are designed to bypass the
problems inherent in obtaining a spontaneous language sample
in that the stimuli are provided for the child and therefore
specific grammatical structures may be tested.  Although this
type of sampling does ensure that specific grammatical con-
structions are assessed, the number of examples given to
"test" each structure are limited and the format is somewhat
restrictive:  no new knowledge is gained about the child's use
of language in the everyday environment and the grammatical
constructions used are limited to those within a given test.
Prutting, Gallagher, and Mulac (1975) suggest that a language
sample obtained from a structured test does not provide the
same information as one obtained in a more informal, natural,
and relaxed environment.  Longhurst and Grubb (1974) found
that less structured, more natural settings elicited more lan-
guage and more complex language than did the structured, pre-
scribed tasks or talking about pictures.  In addition, con-
cerns have been raised that the results of elicited language
sampling are not the same as results obtained during spon-
taneous discourse (McDade, Simpson, & Lamb, 1982).  During

spontaneous speech, the speaker has a specific communicative
intent (Schlesinger, 1971) and applies rules to produce the
appropriate vocabulary, syntax, and meaning. When one re-
quires a response through elicitation there is no communi-
cative intent on the part of the speaker. Rather, the speaker
must memorize what the other person is saying in order to re-
peat it back. Without the speaker's interest and need to
comment, this approach may merely test short-term memory; a
high score may simply imply that the speaker has rote memor-
ized surface structure (Miller, 1973; Slobin & Welsh, 1973).
Or the material to be repeated may exceed the memory of the
child and he or she may rephrase the sentence in order to more
evenly match current memory span (Miller & Chapman, 1975).
Two studies have snown srontaneous language samples to be
better than imitated ones (Menyuk, 1969; Slobin & Welsh, 1973).


Spontaneous Language Samples

Spontaneous language samples provide information about the
speaker's use of language as well as appropriate production of
form and content. This type of sampling can provide infor-
mation about all aspects of language depending upon how the
sample is obtained.

Formal approach to obtaining language samples. The quali-
ty and quantity of the 'hild's spontaneous utterances will
depend partly upon the examiner's skill and partly upon the
environment in which the sample is obtained. Variables that
affect the language output include the topic of a conversa-
tion, the tasks and toys provided the child, the child's fa-
miliarity with the examiner, and the type of questions asked
(Cazden, 1970). For example, "why," "how," and "how come"
appear to elicit more elaborate answers than do other question
forms (Turnure, Buium, & Thurlow, 1976). Unfortunately, these
particular question forms are often the most difficult for
hearing-impaired children to answer. An additional problem is
that the sample may not contain all structures the child is
capable of using and may include stereotyped utterances.

A formal approach to obtaining a language sample involves
following certain procedures both for eliciting production and
for scoring the results. Descriptions of these procedures may

be found in Lee (1974), Brown (1973), and Tyack and Gottsle-
ben (1974). These procedures, developed for use in clinics,
were designed to assist clinicians in obtaining the most
accurate language samples and results that could be scored
consistently across children. Developers m recommendations
regarding use of materials that are both and interest-
appropriate, taping all productions of e. .nild, and elicit-
ing complete sentences. For example, Tyack and Gottsleben
suggest using the same visual stimuli (pictures), in the same
order, and with the same verbal stimuli (such as "Tel me
about this" and "What else do you see?") so that comparisons
between samples will be meaningful. The corpus to be eval-
uated must contain 50 or 100 complete sentences which are in
consecutive order. There are specific rules for what consti-
tutes a complete sentence, what utterances must be eliminated,
and how to score the results.

Lee's _Developmental Sentence Analysis_ (1974) analyzes
eight categories of grammatical forms. The examiner derives
scores by giving weighted points for forms that meet all re-
quirements for adult standard English. Thus a child may re-
ceive a point for correct use of indefinite or personal pro-
nouns, main verbs, secondary verbs, negatives, conjunctions,
inte rogative reversals, and wh- questions, plus an additional
point for a complete sentence. The total of these points is
divided by the total number of sentence., providing the De-
velopmental Sentence Score (DSS). The child's DSS can then be
compared with a table of language norms for normally develop-
ing chi.dren of the same chronological age. The evaluator can
see, for instance, whether or not an individual child falls
below the 10th percentile and, if so, how much.

In the Tyack and Gottsleben (1974) approach, the evaluator
finds a mean of words and morphemes, assigns a linguistic
level, and analyzes all forms and constructions; goals selec-
ted for training are based upon this analysis. Such an ap-
proach can be useful when you analyze grammatical structures,
although sentences may be somewhat stilted, as suggested from
the following example of a 9-year-old deaf student talking
about a picture:

The man and the boy is petting the dog.

The man is older than the bo       ~~     -g.

The man is bigger than the boy.  The boy is bigger
     than the dog.

The man and boy has a little machine.

It is also time-consuming and may not be the most appro-
priate approach for the classroom teacher who has eight or so
students to evaluate within the first 2 or 3 weeks of school
and who does not necessarily want to standardize all proce-
dures for comparison across children, but is more interested
in developing and monitoring appropriate individual inter-
vention targets.  Additionally, neither the Lee nor the Gott-
sleben and Tyack approach makes provision for describing or
analyzing the individual student's skill level in the areas of
semantics and pragmat`.-s.

Informal approach to obtaining language samples.
(1) What it is.  An informal approach to obtaining a language
sample is less constrained than the formal procedures, and
would yield no formal scores that would result in percentiles,
scaled scores, and so forth.  However, this procedure can pro-
vide easily acquired language information about each student
that, combined with the results of other testing and compared
to normal developmental stages in language acquisition, can
lead to appropriate goals and objectives.  In order to obtain
information about all aspects of the student's expressive lan-
guage, it is essential that the language sample be obtained in
contexts that are meaningful, varied, and a part of the stu-
dent's daily experience.  The more contrived the assessment
situation, the less likely it is that the language sample re-
presents the child s communicative ability and that the infor-
mation can be generalized to other situations (Roth & Spekman,
1984).  Recording language utterances in natural environments
is a sampling procedure.  Therefore, it is very likely that
certain features may not appear within the time(s) of the sam-
pling.  If specific features are missing, the teacher/clin'-
cian may want to use a part of an expressive language test or
establish a more structured situation in order to elicit the
desired response.  If the particular language feature is pro-
duced in a more restricted manner, this should be noted and

the feature should be looked for within a more natural context
at a later date.

2) Information needed. It is important to obtain information
about pragmatics and discourse as well as grammatical struc-
ture, although analysis will be difficult because taxonomies
have not yet been completed in the area of use. Although
these three areas are inseparable within the context of normal
language, it may be necessary to attempt to artificially sep-
arate them for assessment purposes. This is especially true
cor-idering the difficulties that arise when one is recording
the language output of a hearing-impaired child who uses total
communication. It will be important to record and analyze
breadth of vocabulary and semantic appropriateness, grammati-
cal completeness, communicative intent, discourse strategies,
as well as if and how sign and verbal production differ. Kol-
zak (1983) identifies a number of language skills necessary
for hearing-impaired students if they are to be mainstreamed
in regular classrooms successfully. However, these same
skills contribute to successful interactions with English
users both in and out of school and will lay the groundwork
for eventual job success. You should consider these same lan-
guage skills when analyzing the expressive language of any
hearing-impaired student.

   a) What are the child's syntactic competencies? As the
      child matures, he or she should be able to use simple
      sentences, a wide range of transformations, and com-
      plex structures and be able to generate new structures
      with an expanded vocabulary.
   b) Can the student use language for a variety of com-
      municative purposes? Structures that are grammati-
      cally correct will not suffice unless the student can
      understand and use directions, statements, questions,
      and explanations and be able to discuss events se-
      quentially.
   c) Does the child show turn-taking skill in verbal com-
      munication? This skill requires that the student be
      able to communicate about experiences, wait, and un-
      derstand that the communication will gain a response.
      It also requires that the student reciprocate with
      appropriate greetings and understand that requests for
      information require a response.
   d) How skillfull is the student at sustaining or using
      adaptive dialogues? The student must learn to carry
      on extended conversations, asking and answering ques-
      tions, making statements, and understand and respond
      to the emotional content of the topic [Kolza'', 1983,
      pp. 133 - 134].

Language Samples

Simon (1981) points out that syntactic skills are only one component of a comprehensive communication system. Those with competent communication skills can "...use language effectively for any purpose, in any context, and in any role that arises" (p. 38).

Simon lists some specific components of an <u>ineffective</u> communicative style which would interfere with development of appropriate pragmatic skills.

> - There is an egocentric communication style due to referents that are not clear. The perspective of the listener is not taken into consideration when information or instructions are related...
> - Messages are characterized by static, uncreative structural patterns...
> - There is very little planning of the message prior to its delivery...
> - Carrying on a dialogue is a difficult task...
> - The language system has not been molded to flexibly adapt to varying communication needs...
> [Simon, 1981, pp 38-39]

Simon elucidates these components by mentioning such factors as the speaker's failure to consider the listener's age and background or ability to comprehend the message; the speaker's use of simple sentences lacking details or nuances; the lack of sequence in the speaker's messages, "false starts," and revisions mid-message. Dialogue may be difficult because of "difficulty maintaining the 'flow of meaning'...a cluttering of words, or sometimes slurred speech..." The listener may hear only the surface structure of "tactfully devious" messages without understanding their underlying meaning. Simon cites the example of the teacher who says "Peanut butter all over the lunch table annoys me," when what he means is "Next time, clean up the table after you have finished your lunch." The listener may not infer the underlying message. Finally, Simon discusses the person's failure to understand that what may be an adequate language for social situations is not acceptable in more formal or intellectual circumstances. All of these communicative components must be considered when you evaluate the hearing-impaired student's use of language.

## Guidelines for Obtaining Informal Language Samples

Guidelines for obtaining informal language samples follow
and should be modified as needed. The team of the teacher and
speech-language pathologist could easily share the responsi-
bility for obtaining these language samples, compare their re-
sults, and plan intervention together. Such a team effort
will result in more appropriate targets and a more cohesive
language intervention plan for the hearing-impaired student.

### Specific Suggestions
1) Obtain a sample of each student's language at least two
   times per year, at the beginning and end of the year.
2) Obtain eight to ten utterances of each student's language
   for 5 days, for a total of 40 to 50 utterances. Make
   every effort to obtain samples of running discourse.
   Otherwise you will not be able to fully assess use of
   language. You do not have to sample all students during
   the same week. For example, if you have eight students,
   sample four during one week and four the next.
3) Each day obtain the eight to ten utterances at different
   times when the student is communicating with different
   people in different circumstances so that you sample use
   of language in different contexts. For example, on Monday
   you might write down four or five utterances when the stu-
   dent arrives for class and four or five at recess. On
   Tuesday, you might choose different times and places such
   as lunch time in the lunch room or when the student is in
   the school office talking to the secretary or principal,
   and so forth. Or you might obtain eight utterances on one
   day when the student arrives and eight the next day at re-
   cess, etc. Part of the decision will be based upon how
   much communicating an individual student does at any given
   time. This provides an opportunity to evaluate, for exam-
   ple, if a student knows how to use appropriate language
   with the principal or another teacher and different lan-
   guage (incomplete sentences, slang) with peers, how to
   take turns, and how to provide additional information at
   the appropriate time.

Language Samples

4) Always record some continuous dialogue because this will
help you to evaluate discourse strategies the student is
using. An effective way to accomplish this is to ask a
student to describe a favorite T.V. show or movie or talk
about a recent trip or experience.

5) Record the setting (environment) and the gist of the other
person's comments. For example, if you are recording a
language sample early in the morning and talking to the
student about what he did last night, identify that situa-
tion. If you have to ask questions in order to obtain
language from the student, record that also. Including
these elements will provide the examiner information about
turn-taking, approriateness of initiation and response,
and intended meaning. A recording sheet might look like
the following:

| Context | Antecedent Event or Stimulus | Response | Other Behaviors/ Comments | Use |
|---------|------------------------------|----------|---------------------------|-----|
| Bob arriving for class in a.m. | T."What did you do last night?" T."Tell me about what you saw." | "Saw T.V." | Maintained eye contact. Needed con- stant promp- ting to con- tinue. | |

6) Don't talk too much yourself. The goal is to get the stu-
dent to do the talking.

7) Avoid using questions that elicit a yes/no answer such as
"Did you like it?" "Was it good?"

8) Use questions like "What happened next?" "What do you
think will happen?" or "That's interesting. What else can
you tell me?"

9) Write (or ask an aide or someone else to write) what the
student says or speak it into a mike to record it on
audiotape. Videotaping may catch all the signing and
gesturing but it may be expensive, it may not always eli-
cit the most spontaneous language, and the equipment is
not always readily transportable when you are recording
spontaneous language within different environments.

10) Keep a clipboard handy or use a wall chart in order to be
able to record language utterances quickly and at any time
for each student.

11) After you have identified the student's grammatical error
patterns, identify his functional language level by com-
paring the results of your sampling to normal language
development forms.  You can do this by using information
about normal language development such as that found in
Limber (1973), Appendix A in Miller (1981), and the charts
that follow in this section.*

12) If all grammatical elements do not appear within the in-
formal approach, supplement with "formal" tests, parts of
formal tests, or teacher/clinician tests.

13) Be sure to use the Pragmatic Checklist, the Kendall Com-
municative Scale, or any other scale, checklist, etc. that
will supplement your grammatical analyses of the language
sample and assist you in reviewing how your student uses
language.

## Additional Suggestions for Assessing Pragmatics

Roth and Spekman (1984) provide an excellent summary of
information needed for assessing the pragmatic abilities of
children and many methods for eliciting the type of infor-
mation desired.  They recommend evaluating communicative in-
tentions, presupposition, and social organization of dis-
course.  In addition to formal tests and/or observation of

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*NOTE

Language develops on a continuum, usually following a se-
quence:  pre-language skills, then one-word, two-word, and
three-word utterances which eventually expand in both length
and complexity.  Different children develop these skills at
different ages.  Therefore, the only reason for referring to
normative data would be to look at sequence—what type of lan-
guage behavior precedes or follows another.  Being aware of
the sequence of language along the continuum will help you
prevent the teaching of skills far beyond the ability level of
the child.  Also, following a developmental sequence will help
prevent the "holes" and scatter so predominant in the language
of hearing-impaired students.

ongoing classroom activities, they suggest specific activities
that could be adapted for hearing-impaired students, as fol-
lows.

Presupposition. One person is responsible for trans-
mitting information to another so that the other person can
draw or select a picture, build a structure, make a design,
find a hidden object, and so forth.

1) Keep both students in view of each other so that both
   visual (sign, lipreading) and auditory cues will be avail-
   able.
2) Have them take turns being the initiator and receiver.
3) Have one student sign/say descriptive information about
   one picture when three or four are available.
4) If possible, observe both the informant and the receiver
   and take data on how well one gives information and how
   well the other receives and understands the information.
5) Use any variation such as hiding a surprise and giving
   directions to find it.

Discourse strategies. Have one person (adult or student)
provide only partial information in carrying out a task. Ob-
serve if the second student can ask questions in order to "re-
pair" the breakdown in the communication.

Role play and group decision making are additional means
to elicit communicative interactions, observe, and collect
data.


## Recording and Analyzing Spontaneous Language

### Grammatical Recording and Analysis

There is no single "best" method for describing language
skills in any detail. Although some prepackaged forms on
which to record a child's grammatical utterances are available
(e.g., Tyack & Gottsleben, 1974), it may be preferable for
each teacher and speech-language pathologist to devise proce-
dures that suit his or her own preferences and needs or to
modify existing techniques and forms.

One method of evaluating the development of expressive
verbal language in young children is the Mean Length of Utter-
ance (MLU). This technique is appropriate to use until chil-
dren are producing four to five words (Bloom & Lahey, 1978).

It has been identified as a reasonable way to compare the language development of one child to other children because many similar forms occur at the time a child reaches a certain MLU (Brown, 1973). The MLU, however, does not provide information about specific grammatical structures used by the child and therefore cannot account for difference in grammatical competence found in children who may have the same average utterance length (Cazden, 1968). This problem is certainly one that could apply to many hearing-impaired children, especially young ones whose number of utterances increases but whose use of appropriate grammatical constructions does not keep pace.

A variant of the Tyack and Gottsleben (1974) approach could be used for older children who are attempting to formulate complete structures. The following example of language (Table 18) is part of a language sample taken in a self-contained classroom for hearing-impaired students. The 10-year-old child was talking to a new student teacher about classroom, family, and home activities. Two columns are provided in order to identify the student's errors and the ages at which normally developing children would be expected to produce these forms. Although not complete, such a simple analysis could be done easily and quickly and at least provide the teacher and clinician with guidelines for developing be-ginning intervention objectives for grammatical structures. Information about some aspects of the student's use of language could be obtained informally; i.e., the teacher/clinician could keep track of turn-taking, topic maintenance, and appropriateness of responses. A quick scan of the sample shows that the student is using some variety in his communication such as informing and requesting information. He is also capable of changing the topic when the student teacher writes something he doesn't understand and then returning to the original topic when requested to do so. This information would be noted and used in the summary statement leading to beginning intervention plans.

## Table 18

### LANGUAGE SAMPLE AND ANALYSIS

| Student's Language | Standard Form | Errors | Expected Ages |
|---|---|---|---|
| **Alan** | | | |
| 1. I went to Port Angeles. | 1. O.K. | 1. none | 1. O.K. |
| 2. I ride two ferry boats. | 2. I <u>rode on</u> two ferry boats. | 2. irregular past – main verb (two-part verbs or particle) | 2. 41–46 months |
| 3. I open the present and I got necklace and bracelet. | 3. I open<u>ed</u> the present and I got a necklace and bracelet. | 3. regular part – main verb; article | 3. 41–46 months; 41–46 months |
| 4. I went to Carla house. | 4. I went to Carla<u>'s</u> house. | 4. possessive | 4. 31–34 months |
| 5. Larry and Peter and me learn how to sign. | 5. Larry, Peter, and <u>I are</u> learn<u>ing</u> how to sign. | 5. subject pronoun in compound subject; is verb-ing—first person plural | 5. 46+ months |
| 6. Do you ever play before? | 6. <u>Did</u> you ever play before? | 6. irregular past–auxiliary do | 6. 47+ months |
| 7. Miss Smith, you do this way? | 7. Miss Smith, <u>do</u> you do <u>it</u> this way? | 7. auxiliary do in interrogative reversal; object pronoun | 7. 35–38 months |
| 8. What that say? | 8. What <u>does</u> that say? | 8. irregular 3rd person singular–auxiliary do-in-interrogative reversal | 8. 47+ months |

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| Student's Language | Standard Form | Errors | Expected Ages |
|---|---|---|---|
| 9. That supposed to be 14. | 9. That _is_ (that's) supposed to be 14. | 9. contractable copula (to be)–3rd person singular | 9. 41–46 months |
| 10. Why you do that? | 10. Why _are_ you do_ing_ that? | 10. present progressive–interrogative reversal | 10. 35–40 months |
| 11. Why you don't know how to sign yet? | 11. Why _don't_ _you_ know how to sign yet? | 11. interrogative reversal | 11. 35–40 months |
| 12. My brother went to play with his fire truck. | 12. O.K. | 12. none | 12. O.K. |
| 13. He get his fire truck for Christmas. | 13. He _got_ his fire truck for Christmas. | 13. irregular past–main verb | 13. 41–46 months |
| 14. I get fire truck and light. | 14. I _got a_ fire truck and a flash light. | 14. irregular past–main verb; article | 14. 41–46 months; 41–46 months |
| 15. He ju_ed down from the roof. | 15. O.K. | 15. none | 15. O.K. |
| 16. I went this way through the front. | 16. O.K. | 16. none | 16. O.K. |
| 17. He eleven and I'm ten. | 17. He _is_ (He's) eleven and I'm ten. | 17. contractable copula (to be)–3rd person singular | 17. 41–46 months |

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The Teacher Assessment of Grammatical Structures (TAGS)
(Moog & Kozak, 1983) provides an alternative to recording an
entire sample of the child's language.  Instead, the TAGS pro-
vides a checklist format that lists pre-sentences and simple
and complex syntactic structures that follow a normal develop-
mental sequence.  Such a checklist would provide a relatively
easy way for a teacher/clinician to look for a specific struc-
ture or structures in several different settings before check-
ing that the child uses the structures 1) in imitation, 2)
with a prompt, or 3) spontaneously.  Because this is a check-
list format for syntax, there is no place to record the stu-
dent's utterances or social use of language.  However, the
teacher/clinician could develop an additional recording form
that would include these other aspects of expressive language.
    The test is described in detail in Section VI but a sample
of the recording form for one portion of the Simple Sentence
Level is provided in Table 19.

Table 19
TAGS RECORDING FORM

| THREE-WORD COMBINATIONS | C | I | P | S | PRONOUNS IN THREE-WORD COMBINATIONS | C | I | P | S |
|---|---|---|---|---|---|---|---|---|---|
| NOUN-NOUN-NOUN<br>  boy ball chair | | | | | 1st PERSON SUBJECTIVE<br>  I | | | | |
| NOUN-VERB-NOUN<br>  boy throw ball | | | | | 1st PERSON POSSESSIVE<br>  my, mine | | | | |
| NOUN-NOUN-VERB<br>  boy girl throw | | | | | INDEFINITE<br>  everybody, everyone | | | | |
| NOUN-VERB-VERB<br>  boy run jump | | | | | 3rd PERSON SUBJECTIVE<br>  he, she | | | | |
| NOUN-PREPOSITION-<br>NOUN<br>  ball on chair | | | | | 1st PERSON PLURAL<br>SUBJECTIVE<br>  we | | | | |
| NOUN-COPULA-NOUN<br>  mom is doctor | | | | | 3rd PERSON PLURAL<br>SUBJECTIVE<br>  they | | | | |
| NOUN-COPULA-<br>ADJECTIVE<br>  ball is red | | | | | DEMONSTRATIVE<br>  this, that | | | | |

A very complete method for analyzing preschool language,
The Bare Essentials in Assessing Really Little Kids (BEAR),
was developed by Hasenstab and Laughton (1982). The technique
described for analyzing syntactic, morphological, semantic,
pragmatic, and phonological components of language includes
charts describing a continuum of language from prelinguistic
behaviors to complex transformations and a suggested form that
provides space for recording the setting, stimulus, observed
linguistic response, related behavior, and comments.

A method of evaluating expressive language that includes
the semantic component is the Language Sample Analysis de-

veloped by Bloom and Lahey (1978), where the examiner class-
ifies the child's utterances according to semantic categor'es.
This method of evaluating spontaneous language progresses from
single-word usage, to two- and three-word combinations showing
syntactic-semantic relationships, to more complex sentences
including modals, connectives, and relative clauses. The
evaluation of grammatical morphemes is also included.

A very sophisticated approach to analyzing language sam-
ples has been developed by Kretschmer and Kretschmer (1978).
This particular technique was developed in order "...to ac-
count for language differences as well as delays" (p. 184) and
is appropriate to use when one is evaluating oral, written,
pidgen sign, gesture, and fingerspelling (p. 192). The method
of analysis includes techniques for identifying preverbal
skills, communicative competence, and semantic and syntactic
production, from simple to complex.

Miller and Chapman (1983) have developed a computerized
method of analyzing expressive language called the Systematic
Analysis of Language Tra...cripts (SALT). After the language
sample is transcribed into the SALT format, all analyses are
performed by the computer. These analyses include number of
utterances by word and morpheme length, number of utterances
per speaker turn, type-token ratio for words, MLU compared to
age expectation, and so on. Using the program SEARCH, a
teacher/clinician can specify exactly what parts of the stu-
dent's language she wishes to analyze.

Recording forms. There are many variations of forms that
could be used in order to record a language sample. Teachers
or speech-language pathologists could develop forms for their
own use or develop forms that would be used in one building or
throughout their district. In order to develop forms, it is
necessary to consider the following. It is essential to iden-
tify the context within which the sample is taken, and to pro-
vide space for recording (1) what the antecedent or stimulus
event is, (2) what the response is, and (3) descriptions of
the student's behaviors such as maintaining eye contact, etc.
It is also critical to record exactly what the target student
is producing. If it is not clear from the data recorded who
is initiating and who is responding, be sure to identify who
these people are. If desired, a key could be added that would
identify T (teacher), S (student), P (peer), etc. as well as
the mode of communication: gesture, vocalization, sign, and
so forth. Table 20 provides an example of a recording form.

Table 20

LANGUAGE SAMPLE RECORDING FORM

Key:  O  = oral          Student's Name _____
      S  = sign          Date _____
      TC = Total Communication   C.A. _____
      __ = Child's initial
      T  = Teacher
      __ = Other

| Context (describe) | Antecedent Event or Stimulus | Response | Other behavior/ Comments | Use |
|---|---|---|---|---|
|  |  |  |  |  |

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The information from this form could be transferred to the forms that follow for analysis, or one could analyze the sample by using any one of the methods discussed above. The analysis forms that follow do not identify every structure that could occur at any given period, but they do include the most salient ones. They could easily be modified to meet the needs and/or requirements of the individual teacher/clinician, and can be added to as additional information about language development becomes available.

Children normally develop new language structures while still using old (already learned) ones. Thus, although a child might begin to use two- and three-word utterances, he or she will continue to use one-word utterances as well. The same behavior can be observed in hearing-impaired children. For example, as the clinician and teacher analyze the language structure of a hearing-impaired student, they may find that the student is producing some language at Phase 2 and some at Phase 3 (see Tables 21-26 on the following pages). The caution here is that, although normal hearing children may be using some advanced structures, they usually have full command of the prerequisite structures. The same is not always true of the hearing-impaired child. Therefore, it is essential that the person(s) responsible for analyzing language in order to develop and monitor intervention plans be sure that those plans include teaching the prerequisite language structures so that the student does not have language gaps.

Table 21

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|

LANGUAGE ANALYSIS FORM

Phase 1

Student's Name_____
Date_____
Age_____

**Communicative Intentions:**
    object request
    action request
    information request
    'reeting
    transferring
    showing off
    acknowledging
    answering

**Labeling:**
    Nominals
        people
        animals
        objects
        food
        toys
        other

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Non-Nominal | | |
|     gone | | |
|     that | | |
|     down | | |
|     there (completion of task) | | |
|     more | | |
|     pretty | | |
|     others | | |
| | | |
| Imitation | | |
|   simple motor; e.g., | | |
|     pat-a-cake | | |
|     wave bye-bye | | |
|     peek-a-boo | | |
|     smile | | |
|   vocal/verbal; e.g., | | |
|     animal sounds | | |
|     attempts to imitate sounds/ | | |
|     words made by others | | |
|   turn-taking; e.g., | | |
|     adult vocalizes, child vocalizes, | | |
|       etc. or | | |
|     adult claps, child claps, etc. | | |

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Table 22

Student's Name_____

Date_____

Phase 2

Age_____

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Noun Phrase:**<br>    Proper nouns<br>        Mommy, Daddy, Aunt Susan, Rusty<br><br>    Count nouns<br>        human; e.g.,<br>            boy, baby<br>        non-human; e.g.,<br>            ball, truck<br>        mass nouns; e.g.,<br>            sugar, milk<br><br>**Modifiers:**<br>    color names—at first the actual<br>    color may not be correct; e.g.,<br>    red truck, red ball—ball and truck<br>    may be green, ᵕlue, etc.<br><br>    big + N.  Used <u>without concept</u> of<br>    big/little.  May represent delayed<br>    imitation of adult input. | | |

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Sentences:** | | |
| Action—Object; e.g., | | |
| throw ball | | |
| see puppy | | |
| | | |
| Action—Locative; e.g., | | |
| sit chair | | |
| fall bed | | |
| | | |
| Agent—Object; e.g., | | |
| mommy sandwich | | |
| boy ball | | |
| | | |
| Entity—Locative; e.g.. | | |
| sweater chair | | |
| boy bed | | |
| | | |
| Possessor—Possessed; e.g., | | |
| puppy dish | | |
| daddy eye | | |
| | | |
| Entity—Attribute; e.g., | | |
| truck red | | |
| girl pretty | | |
| | | |
| Experience—State; e.g., | 128 | |
| I (me) want, love, need | | |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Dative-Receiver; e.g., <br>    give mommy <br>    bring teacher | . | |

**Functional Relations**
  Existence:
    this, that, it, a; e.g.,
        that cookie
        it a truck

  Recurrence:
    more, another, 'nother; e.g.,
        more milk

  Non-existence
    no, all gone, away, no more; e.g.,
        all gone juice

  Rejection:
    no, indicating opposition on
    part of the child; e.g.,
        no sit no outside

  Denial; e.g.,
    no push
    no break
    not gone

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Simple Questions:**<br>    yes/no; e.g.,<br>        new + point<br><br>    wh- ; e.g.,<br>        what + point<br>        what do?<br>        where go?<br>        what this? or<br>        what's this? | | |

Table 23

            LANGUAGE ANALYSIS FORM          Student's Name_____

                                                          Date_____

                  Phase 3                              Age_____

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Noun Phrase: | | |
|   Proper nouns | | |
|     siblings, playmates | | |
| | | |
|   Plurals | | |
|     regular; e.g., | | |
|       trucks, balls | | |
|     irregular | | |
|       feet (may use feets, foots) | | |
| | | |
|   Determiners | | |
|     the, a; e.g., | | |
|       the ball | | |
|       a doll | | |
| | | |
|   Pronouns | | |
|     me, I; e.g., | | |
|       I want | | |
| | | |
|   Possessive marker; e.g., | | |
|     mommy's dress | | |

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Possessives**<br>    hers, his, mine, my; e.g.,<br>        That his teddy | | |
| **New modifiers**<br>    some, a lot, two, hers, his,<br>    mine, colors | | |
| **Demonstrative pronouns**<br>    this, that, there, those; e.g.,<br>        that a big truck | | |
| <u>Verb Phrase</u><br>Main verb<br>  Simple present | | |
| Action:<br>    play, run; e.g,<br>    baby sit here | | |
| Process:<br>    want, need, love; e.g.,<br>        want more cookie | 132 | |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Present progressive:**<br>"be" omitted in beginning; e.g.,<br>    me (I) going<br>    doggie running<br><br>**Regular past**<br>   walked, talked<br>   (often overgeneralized to<br>   irregular verbs—runned); e.g.,<br>    I walked<br>    I no spilled it<br>    I runned<br><br>**Occasional verb + participle; e.g.,**<br>   pick up, put on<br><br>**Regular third person singular; e.g.,**<br>   she/he plays<br><br>**Modals:**<br>   can't, don't,<br>   Later:<br>    can + not<br>    do + not | | |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Beginning auxiliary:<br>    gonna, hafta, wanna; e.g.,<br>        I wanna go<br><br>Contractable copula; e.g.,<br>    Here's my coat.<br>    There's Johnny.<br><br>Use of be + -ing; e.g.,<br>    mommy going (to store).<br><br>Sentences<br>    NP + VP + NP; e.g.,<br>        Daddy throw ball.<br>        Tommy goes to school.<br>        Mary has a new coat.<br><br>    NP + (neg) + VP + NP; e.g.,<br>        Doggie no bite you.<br>        Mommie not kiss me. | 134 | |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| NP + (neg) + V; e.g., | | |
| Tabby no bite. | | |
| I can't go. | | |
| Don't do that. | | |
| He (he's) not big. | | |
| | | |
| NP + be (copula) + adj; e.g., | | |
| I pretty. | | |
| I'm pretty. | | |
| The house is brown. | | |

Questions

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| What + (N) + V; e.g., | | |
| What you eat? | | |
| | | |
| Where + (N) + V; e.g., | | |
| Where Daddy go? | | |
| Eventually, appropriately | | |
| inverted; e.g., | | |
| Where is my sweater? | | |
| Where did Daddy go? | | |
| What did you eat? | | |
| Rising intonation often continues to | | |
| be used as yes/no question forms, e.g., | | |
| Go now? | | |
| We're going now? | | |

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Table 24

| | | |
|---|---|---|
| LANGUAGE ANALYSIS FORM | | Student's Name_____ |
| | | Date_____ |
| Phase 4 | | Age_____ |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Noun Phrase** | | |
| All nouns singular and plural, regular and irregular; e.g., boxes, deer, children | | |
| Predeterminer + definite article + plural; e.g., Some of the pencils are red. | | |
| Predeterminer + possessive + Plural noun; e.g., All of my shirts are dirty. | | |
| Predeterminer + possessive + mass noun; e.g., I drank all of my milk. | | |
| Cardinal number + singular noun + plural noun; e.g., one time five marbles | 136 | |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Beginning noun derivations; e.g., | | |
|     hitter, painter, fisher | | |
| | | |
| Beginning comparatives; e.g., | | |
|     smaller | | |
| | | |
| Pronouns | | |
|     him, her, it, me, that's | | |

Verb Phrase
   Past
      regular; e.g.,
         He walked.
      irregular; e.g.,
         She .me.

   Past modals
      could, would, should

   Past modals + negative – beginning uses
      couldn't, wouldn't, shouldn't

   Future
      We will (we'll) go shopping later.
      I am (I'm) going to John's party.
      Are we going to the park this afternoon?

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Contractable auxiliary "be"; e.g.,<br>　　They're playing.<br>　　I'm coming. | | |
| Uncontractable "be" (copula); e.g.,<br>　　Are they the boys?<br>　　Was that the right book? | | . |
| Uncontractable auxiliary "be"; e.g.,<br>　　Is he running? | | |
| Irregular third person singular; e.g.,<br>　　He came.<br>　　She ran. | | |
| Contracted modals; e.g.,<br>　　He'll come. | | |
| Contracted "be" + negative; e.g.,<br>　　He isn't nice.<br>　　It's not hot. | | |
| Contracted auxiliary "do" + negative; e.g.,<br>　　Don't go!<br>　　He didn't come. | 133 | |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Sentences**<br>    NP + VP + NP + (adv); e.g.,<br>        John ran home fast.<br><br>    NP + VP + unmarked infinitive; e.g.,<br>        She made him (to) come today.<br>        Help me (to) cut these flowers.<br>        Watch me (to) run.<br><br>    NP + be (copula) + adj. (contracted); e.g.,<br>        The kitty's sick.<br><br>    NP + be (copula) + NP; e.g.,<br>        That boy's name is John.<br><br>    Beginning passives; e.g.,<br>        Jenny got hit.<br>        The dog got hurt.<br><br>    Beginning use of complement as object of<br>    verbs guess and think. May use different<br>    word order at first; e.g.,<br>        I know what is that.<br><br>    Later, use of appropriate word order; e.g.,<br>        I think (that) Mary is a good runner. | | |

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Questions** | | |
| yes/no - present, past; e.g., | | |
| Were you swimm ng? | | |
| | | |
| With modals and "be"; e.g., | | |
| Can I talk to grandma? | | |
| Is Rusty hungry? | | |
| | | |
| With "do"; e.g., | | |
| Do you have a green sweater? | | |
| | | |
| Wh- questions; e.g., | | |
| where, who, why, how many, how much | | |
| | | |
| **Conjunctions** | | |
| Daddy ate it and we didn't get any. | | |
| We're going swimming 'cause it's hot. | | |

Table 25

Student's Name_____

Date_____

Phase 5

Age_____

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Noun Phrase**<br>All possessive pronouns; e.g.,<br>    his, hers, ours<br><br>Reflexive pronouns; e.g.,<br>    myself, himself, herself<br><br>Prenominalization to show old or known<br>information; e.g.,<br>    John gave Mary candy and she ate it.<br><br>Comparatives; e.g.,<br>    nicer, bigger<br><br>Plural demonstratives; e.g.,<br>    those, there<br><br>Prepositions; e.g.,<br>    until, along, among | | |

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Indefinite pronouns; e.g., <br>    anyone, everything, everybody | | |
| Use of "the" and "a" to identify specific/<br>non-specific, old/new information; e.g.,<br>    the White House<br>    a white house on our block | | |
| Noun phrases expanded by use of adjectives,<br>nouns used as adjectives, prepositional<br>phrases; e.g.,<br>    the one at the top<br>    an exciting card game | | |
| Additional noun derivations; e.g.,<br>    pianist | | |

Verb Phrase
Past progressive; e.g.,
    I was running.

Past modal + have; e.g.,
    I could have gone.

Past modal + have + negative; e.g.,
    I couldn't have gone.

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Auxiliary have + verb (present, perfect); e.g., <br>    I have (I've) read that book before. <br><br>Auxiliary have + verb (present, perfect) + negative; e.g., <br>    I haven't been swimming this week. <br>    I haven't seen the puppy. <br><br>Adverbial clauses; e.g., <br>    We'll go to recess after we finish math. <br>    Before we go, I want a drink. <br><br>Adverb derivations; e.g., <br>    gently <br><br>Modals and modal-like forms; e.g., <br>    have to, need to, ought to <br><br>**Sentences** <br>    Earlier sentences plus: <br>        Relative clause in the final position; e.g., <br>        like the man that has the dog | | |

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| All "do" support; e.g.,<br>    I did go. He didn't go.<br>    Do you want to go?<br>    Don't you want to go?<br>    Did you have one? | | |
| Conjunctions but, unless, or; e.g.,<br>    We can't go skating unless it freezes.<br>    We can go to the movies or watch T.V.<br>    I'd like to go but my mom said "no." | | |
| Verb reductions; e.g.,<br>    I want the ball and (I want) the bat. | | |
| Indirect questions; e.g.,<br>    I don't know where to go.<br>    I don't know how to work that. | | |
| "That" complement; e.g.,<br>    I thought that she was nice. | | |
| Ability to shift adverbial clause; e.g.,<br>    I was happy when I went swimming.<br>    When I went swimming, I was happy. | 144 | |

| STRUCTURE | EXAMPLES | COMMENTS |
|-----------|----------|----------|
| When questions; e.g.,<br>    When will we go?<br>    When are we going?<br><br>Gerund as subject; e.g.,<br>    Running is the hardest sport. | | |

Table 26

LANGUAGE ANALYSIS FORM

Phase 6

Student's Name_____
Date_____
Age_____

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Noun Phrase**<br>Replacement of the noun phrase with<br>a noun clause; e.g.,<br>  What he said was very interesting.<br><br>Plural reflexive pronouns:<br>  ourselves, themselves<br><br>Superlatives;<br>  nicest, darkest<br><br>**Verb Phrase**<br>Use of adverbs to show cause and effect; e.g.,<br>  Because he was tired, he went to bed.<br><br>Use of adverbs to express conditions; e.g.,<br>  I'll finish my homework, if I have time.<br>  We'll go even if it rains. | 146 | |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Present perfect progressive; e.g.,<br>I have been learning<br>      going<br>      studying<br><br>Addition of new prepositions:  beyond, except<br><br>**Sentences**<br>  Irreversible passive; e.g.,<br>    That huge pizza was eaten by two boys.<br><br>  Indirect quotations; e.g.,<br>    He said that he liked to swim.<br><br>  Tag questions; e.g.,<br>    He can't have that, can he?<br><br>  Conjunctions; e.g.,<br>    I can go only if I have written permission.<br>    Bill laughs whenever you sing.<br><br>  Gerund as object of verb; e.g.,<br>    I like eating outside.<br><br>  Gerund as object of a preposition; e.g.,<br>    Everyone was interested in flying. |  |  |

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| If-then clauses; e.g.,<br>    If you finish your work, then we can paint.<br><br>Relative clause in medial position; e.g.,<br>    The dog that chewed my shoe ran away. | | |

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General Information to Consider Within the Language Sample

After recording the language sample, review the ways the
student is using language. If you have carefully recorded
context and what others have signed/spoken, this will not be
difficult and will assist you in formulating impressions about
the appropriateness of the student's interpersonal communi-
cation skills.

Vocabulary. Look for qualitative as well as quantitative
use of vocabulary. Be sure the student is not using certain
words over and over again when he or she should be learning to
use new words that provide the same meaning, thus expanding
his or her lexicon. Make sure the student is beginning to
understand that a single word can have several meanings depen-
ding upon context thus finding "new" uses for "old" vocabulary.

Modifiers. Look for expanded use of adjectives, adverbs,
and adverbial phrases such as:

John ate his dinner (quickly, fast).

John ate his hot dinner slowly.

John ate his very delicious dinner with gusto.

Expanded discourse. Look for expanded use of the various
grammatical structures. Students must not continue to only
make statements or comment. They must also ask questions, re-
spond to others by informing, asking additional questions,
providing directions, etc.

Social language. Look for turn-taking, "polite" language,
topic maintenance, and repair. Although there are no develop-
mental guidelines, these behaviors should increase as students
acquire greater facility with using language. Once you begin
to search for these characteristics, it is amazing how quickly
you find occasions where the behaviors should have occurred
but did not. Hearing-impaired students often do not use these
language skills; e.g., they do not wait for a turn, do not
recognize that it is their turn and their responsibility to
carry on the conversation, and do not ask appropriate ques-
tions to repair a breakdown in communication.

Syntax. Because the building of a "simple sentence gram-
mar" has long been identified as being important to teach to
hearing-impaired children (Streng, 1972; Canaglia, Cole, How-
ard, Krohn, & Rice, 1973; Blackwell & Hamel, 1971; Heidinger,
1984; Blackwell, Engen, Fischgrund, & Zarcadoolas, 1978), the
five basic sentence patterns and the semantic roles employed

within these patterns follow. The teacher/clinician could
look for the various patterns as well as the different
semantic relationships in the language of younger children.
Sound knowledge and use of these basic sentence constructions
are the "...basis upon which all subsequent development will
take place" (Blackwell, Engen, Fischgrund, & Zarcadoolas,
1978, p. 68) and will assist hearing-impaired children in ex-
panding their language skills to include more complex struc-
tures. The teacher/clinician needs to look for gradual and
consistent use of different types of simple sentence struc-
tures which eventually expand to more complex structures and
an increased variety of semantic relationships.

### (1) Semantic Roles of Nouns

According to Heidinger (1984), nouns have the following
semantic meanings.

Pattern #1  NP + $V_i$ + (Adv)

   mover - like agent - but
doesn't affect another person
or object;
reflects action performed or
indicated by the verb

patient - receives effect of
action (The cup fell.) (The
trees swayed.). The action
is caused by something unknown
(the wind) or some person.

experiencer - person or thing
that experiences a change or
has an internal experience (he
died)

instrument - used by someone to
do something (The knife cuts.)

entity - subject of stative
verb; something or someone who
exists without action being
performed on it (or them) (She
stayed.)

Pattern #2
$NP^1$ + V + $NP^2$ + (Adv)

agent – performs action that affects another or action on an object

patient – receiver of action or being (The man kicked the door.) (Lou has a dog.)

instrument – (Mary cut the cake with a knife.)

complement – comes into being as a result of some action or process (She sang the song. He painted a picture.)

beneficiary (recipient) – profits from action or process; receive, accept, get (Dad got the package for mother.)

possessor – (owner)
(Lou h? ˉ parrot.)

Pattern #3
NP + $V_L$ + Adj + (Adv)

entity-stative-attribute
(The coffee is cold.)
(The coffee tastes good.)
(Her eyes became bigger.)

Pattern #4
$NP^1$ + $V_L$ + $NP^1$ + (Adv)

entity-stative-equivalent
(John is a man.)
(The girls stayed good friends for years.)

Pattern #5

| NP + V$_{be}$ + Adv + (Adv) | entity – stative – location |
| | time |
| | season |
| | beneficiary |
| | duration |

location – The three little girls were <u>in the pool</u>.

time – Mary should have been l )me <u>sooner</u>.

beneficiary – The gloves are <u>for Mary</u>.

### (2) Semantic Classification of Verbs

Verbs are usually categorized as action, process, or stative.* A particular verb cannot always be categorized as one type only, however, because its meaning may change within different contexts as its relationship to other grammatical elements within the sentence alters.

Action verbs: represent external activity or movement such as: pull, walk, talk, shave, sing, climb, etc.

Process verbs: represent internal activity of the mind such as thinking, a change in condition that can be observed, or other activities that occur internally. Examples are: want, feel, think, like, melt, daydream, die, digest, etc.

Stative verbs: describe a state of being or a change in state such as: be, seem, remain, look, appear, turn, turn into, change into, stay, etc.

*For a more detailed description of verbs such as process-stative and action-process, see Kretschmer and Kretschmer (1978).

It is important to look for earlier forms such as NP + $V_i$ + (Adv), "Daddy go," gradually used in more sophisticated fashion, "The raccoons crept through the garden," as well as new sentence forms being added. The following list provides examples of the various sentence patterns and their corresponding semantic relationships.

Sentence Pattern 1: $\underline{NP + V_i + (Adv) + (Adv)}$

This pattern obviously represents a direct outgrowth of early two-word utterances; "Daddy go," "Mommy come," "Bobby fall." The verb is intransitive, represented by $V_i$, and may therefore be used alone or followed by one or two adverbs. The simplest forms of Pattern 1 would be mastered in preschool (Blackwell, Engen, Fischgrund, & Zarcadoolas, 1978).

| | |
|---|---|
| The ice cream melted. | Patient—process |
| The ice cream melted fast. | Patient—process—manner |
| Mary learns quickly. | Experiencer—process—manner |
| The raccoons crept through the yard. | Mover—action—location |
| The raccoons crept stealthily through the garden. | Mover—action—manner—location |
| The man swam every day for his health. | Mover—action—frequency—reason |

Sentence Pattern 2: NP + V + NP + (Adv)

Pattern 2 is the most frequently used of the five basic sentence patterns and the one most likely to be overused by hearing-impaired children (Blackwell, Engen, Fischgrund & Zarcadoolas, 1978).

| | |
|---|---|
| John hit Susie. | Agent—action—patient |
| John hit Susie hard. | Agent—action—patient—manner |
| John hit Susie with a stick. | Agent—action—patient—instrument |
| Andy grows corn. | Experiencer—process—complement |
| Andy grew corn last summer. | Experience—process—complement—time |
| Andy painted a beautiful picture. | Experiencer—process—complement |

(Sentence Pattern 2, continued)

| | |
|---|---|
| Andy wants some cake. | Experiencer-process-patient |
| Don gave Mary a ring. | Agent-action-receiver*-patient |
| Mary received a ring. | Receiver-action-patient |
| Don gave a ring to his fiancée. | |
| (Don gave a ring to fiancée.) | Agent-action-patient-receiver |
| (Don has a fiancée.) | Possessor-process-patient |

*receiver or beneficiary

Sentence Pattern 3:  NP + V$_L$ + Adj. + (Adv)

   In this pattern, the verb is a linking verb V$_L$ that con-
nects the modifier or attribute (Adj) to the noun phrase (NP).
In traditional grammer, the adjective is referred to as a pre-
dicate adjective.  It has been identified as being the most
difficult of the initial five patterns for hearing-impaired
children to learn (e.g., Blackwell, Engen, Fischgrund, &
Zarcadoolas, 1978).  The general semantic relationship ex-
pressed in Pattern 3 is entity-stative-attribute.  The attri-
bute may identify age, size, color, quality, shape or con-
dition (Heidinger, 1984).

| | |
|---|---|
| Mommy is pretty. | Entity-stative-condition |
| The man became ill on the street. | Entity-stative-condition-location |
| The kitten was very small. | Entity-stative-size |
| The window was red. | Entity-stative-color |
| She is twelve years old now. | Entity-stative-age-time |
| It is rectangular. | Entity-stative-shape |
| He became unhappy. | Entity-stative-condition |
| That circle should be rounder. | Entity-stative-shape |
| The answer seems appropriate. | Entity-stative-quality |
| The soup tastes good today. | Entity-stative-condition-time |

Sentence Pattern 4:  NP + V$_l$ + NP + (Adv)

In this sentence pattern, the second noun phrase (NP) is equivalent to the first and is connected by the linking verb (V$_1$) which is usually the copular "be," especially in the language of young children.  Other stative verbs that can be used in this pattern are:  seem, remain, stay, become, appear, and a few particle verbs such as turn into, change into, and change to (Heidinger, 1984).

| | |
|---|---|
| Daddy is a man. | Entity-stative-equivalent |
| The men remained friends for years. | Entity-stative-equivalent-duration |
| Joe will become a lawyer. | Entity-stative-equivalent |
| Cinderella turned into a princess. | Entity-stative-equivalent |
| The rain turned into hail. | Entity-stative-equivalent |
| That man may have been a bully at one time. | Entity-stative-equivalent-time |

Sentence Pattern 5:  NP + be + Adv + (Adv)

Pattern 5 always includes some form of the verb "be" and is always followed by an adverbial; a second adverbial may be added.

| | |
|---|---|
| Everyone is here now. | Entity-stative-location-time |
| The principal could be outside. | Entity-stative-location |
| The spray is for sore throats. | Entity-stative-reason |
| He is never outside. | Entity-stative-frequency-location |

## Examples of Using Expressive Language
### Recording and Analysis Forms

Two examples of language assessment follow; the first is
that of an 11-1/2-year-old student, "Larry"; the second is
that of a 3 year, 4-month-old girl, "Kate."

The language samples are not complete; that is, they are
not the minimum 40 to 50 utterances discussed previously.
However, when they were coupled with the results of formal
testing, sufficient information was available in a very short
amount of time and each teacher was able to develop inter-
vention plans and short-term objectives for the beginning of
the school year. Structures not observed at this time were
either tested for or looked for later.

### Larry

Larry is a student who is enrolled in a classroom for
hearing-impaired students where total communication (both
speech and sign) is used. He has a severe bilateral sensori-
neural hearing loss. Larry uses both speech and sign to com-
municate.

The teacher compiled a test battery that included formal
assessment tools as well as the spontaneous language sample to
measure both receptive and expressive language skills. The
results of the formal testing complemented the findings from
the language sample.

A review of Larry's language sample (see Tables 27 and 28)
shows that Larry is using a variety of appropriate communi-
cative signals such as informing, responding, commenting, re-
questing and, possibly, attention-getting. There are several
instances of turntaking and one of repair where Larry requests
clarification from the teacher about what they are going to
do. Socially "polite" language is not apparent in that Larry
asks to use the other student's eraser and returns it without
using a "polite" language form such as "please" or "thank
you." This information substantiated what the teacher had
noticed previously and she decided to write one objective that
would include work on social skills and "polite" language. It
is obvious that Larry uses his language communicatively; stu-
dents, teacher, and aide were all able to understand the in-
tent of what Larry was communicating.

Reviewing the grammatical structures in the sample, the teacher observed that Larry was using structures primarily at the Phase 5 level, and most of these correctly. The one structure he used correctly one time and incorrectly another time was the indirect question form. The teacher felt that this was an emerging construction and ad'~d it to her list of intervention objectives for Larry. Other structures not found in the sample would be looked for later. One area that concerned Larry's teacher was that the sen'ences he was using were short and simple. There were several instances when he could have used either a conjoining or embedding process in order to develop more complex structures, but he did not. Therefore, work on complex structures was also added to the list of intervention objectives for Larry.

Results of formal testing of receptive language suggested that Larry exhibits problems with subject-verb agreement, future aspect "will," the derivational "-ist," and certain prepositions. Larry could have appropriately learned all of these structures earlier, and therefore the teacher decided to include them also in her list of intervention objectives. In expressive language, results derived from using formal tests suggested that Larry knew the generic identity of a number of items, but not the name of specific items or parts within a category; e.g., tool but not wrench, axe, or hammer. He also exhibited problems with comparatives and superlatives, subject-verb agreement, and opposites.

Table 27

LANGUAGE SAMPLE RECORDING FORM

Key: T = Teacher
     L = Larry
     P = Pat
     A = Aide
Note: All recording is in Total Communication

Student's Name ___ Larry ___
Date ___ 9/13/85 ___
C.A. ___ 11 years, 6 months ___

| Context (describe) | Antecedent Event or Stimulus | Response | Other behavior/ Comments | Use |
|---|---|---|---|---|
| At computer— correcting spelling errors in a letter with another student, Pat (P.) | L. I'm finished. I'm on my final draft. | P. So What! | | informing |
| | L. Can I borrow your eraser? | P. Here (hands to Larry) | takes without looking or thanks<br><br>L. returns eraser— no comment such as "thanks" | requesting |
| | P. Help me with this word. | L. Wait. I have to talk to Debbie for a minute. | | responding |
| L. returns to computer--continues response to P. | | L. That's a tricky one (word P. was working on). | returned to help Pat with spelling a word | commenting |
| Classroom, getting ready for reading— L. talking to teacher | L. Are we starting to work in our workbooks? | T. In a minute | Looks at T. | requesting information |

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| Context (describe) | Antecedent Event or Stimulus | Response | Other behavior/ Comments | Use |
|---|---|---|---|---|
| | L. I'm falling asleep. | No response | Looks at T. | informing |
| | L. I don't think well when I'm tired. | No response | Looks at T. | informing (getting attention?) |
| | L. I need to blow my nose. | T. The kleenex is on the window sill. | | informing |
| Lunchtime: Larry talking to Pat (another student) | Pat drops some food | L. Don't be a pig. You dropped it on the table. | Pointed to food. | regulating |
| | Pat picks up pickle | L. That's your nose | | commenting |
| | Pat points to pickle and says "your nose." | L. No it's not! | | responding/ negating |
| Working at computer in classroom with Teacher | T. gives direction but it is not clear. | L. What are we going to do? I don't understand. | Looking at T. | requesting information— repairing communication |
| | T. We are going to try a new program. | L. Oh, I see. O.K. The other disk is missing. I found it. It was hiding. | Looks around— under | acknowledging information informing |
| The Speech-Language Therapist (COS) enters room and signals L. to come with her. | COS. Come on, Larry. Time to work with me. | L. I'm coming. I'm coming. I have to put my stupid stuff away. It takes an hour. | Looks at COS. Puts things away and leaves room. Too many short choppy sentences? | responding acknowledging commenting |

| Context (describe) | Antecedent Event or Stimulus | Response | Other behavior/ Comments | Use |
|---|---|---|---|---|
| Talking to another student in class, Jan (J.) | L. Jan, do you know the weather report? | J. No. | | questioning |
| | L. 80% chance of snow. I heard it's supposed to snow—maybe tonight— or Thursday or Friday! Maybe we'll stay home. | | | informing |
| | | J. I don't want to. | | supposition |
| Correcting spelling words | L. I don't know how to spell this one (points to a word). | T. I'll help you. How does it start? | good attending skills | statement—but really a request for assistance. |
| During reading, talking to class- | L. Everything's finished now. | A. Good, you can put your things away and get your library book. | | |
| | L. When do we start the new book? | A. Tomorrow, I think. | Looks at aide | requesting information |
| | L. I thought we were going to start today. | A. No. | | commenting |
| Getting ready to go to recess—talking to teacher | L. I hate these papers. | T. You need to take your time and work carefully. | Typical comment when he doesn't do his best work. | informing |
| | L. Yes, I could have done it right. | 160 | | |

Table 28

Phase 5

Student's Name___Larry_____
Date___9/13/85_____
Age 11 years, 6 months

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Noun Phrase | | |
| All possessive pronouns, e.g., his, hers, ours | our (workbooks), your (nose) (eraser) my (final draft) | |
| Reflexive pronouns; e.g., myself, himself, herself | none in sample | |
| Prenominalization to show old or known information; e.g., John gave Mary candy and she ate it. | You dropped it (food) on the table. I found it (disk). | pointed to food |
| Comparatives; e.g., nicer, bigger | none in sample | |
| Plural demonstratives; e.g., those, there | there (books) | |
| Prepositions; e.g., until, along, among | none in sample | |

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Indefinite pronouns; e.g., anyone, everything, everybody | Everything's finished. | |
| Use of "the" and "a" to identify specific/non-specific, old/new information; e.g., the White House a white house on our block | none in sample | |
| Noun phrases expanded by use of adjectives, nouns used as adjectives, prepositional phrases; e g., The one at the top. An exciting card game. | tricky one,      final draft other disk,      st oid stuff | |
| Additional noun derivations; e.g., pianist | | |
| **Verb Phrases** Past progressive; e.g., I was running. | I was working on this yesterday. | |
| Past modal + have; e.g., I could have gone. | I could have done it right. | |
| Past modal + have + negative; e.g., I couldn't have gone. | none in sample      162 | |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Auxiliary have + verb (present, perfect); e.g., | | |
| I have (I've) read that book before. | none in sample | |
| Auxiliary have + verb (present, perfect) + negative; e.g., | | |
| I haven't been swimming this week. | none in sample | |
| I haven't seen the puppy. | | |
| Adverbial clauses; e.g., | | |
| We'll go to recess after we finish math. | When I'm tired . . . . | |
| Before we go, I want a drink. | . . . . for a minute | |
| Adverb derivations; e.g., | | |
| gently | | |
| Modals and modal-like forms; e.g., | | |
| have to, need to, ought to | I need to blow my nose. | |
| | Can I borrow your eraser? | |
| | I have to talk to Debbie. | |
| | I have to put my stupid stuff away. | |

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| <u>Sentences</u><br>   Earlier sentences plus:<br>      Relative clause in final<br>      position; e.g.,<br>         Like the man that has<br>         the dog. | none in sample | |
| All "do" support; e.g.,<br>   I did go.  He didn't go.<br>   Do you want to go?<br>   Don't you want to go?<br>   Did you have one? | Don't be a pig!<br>I don't understand.<br>I don't think well. | |
| Conjunctions but, unless  or;<br>e.g.,<br>   We can't go skating unless<br>   it freezes.<br>   We can go to the movies or<br>   watch T.V.<br>   I'd like to go but my mom<br>   said "no." | none in sample | |
| Verb reductions; e.g.,<br>   I want the ball and<br>   (I want) the bat. | none in sample   164 | |

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Indirect questions; e.g.,<br>    I don't know where to go.<br>    I don't know how to work that. | I don't know how to spell this one. | Used indirect question correct-ly here but not consistent; e.g., "Jan, do you know the weather report?" Maybe emerging. |
| "That" complement; e.g.,<br>    I thought that she was nice. | I thought we were going to start today. | |
| Ability to shift adverbial clause; e.g.,<br>    I was happy when I went swimming.<br>    When I went swimming, I was happy. | none in sample | |
| When questions; e.g.,<br>    When will we go?<br>    When are we going? | When do we start the new book? | |
| Gerund as subject; e.g.,<br>    Running is the hardest sport. | none in sample. | Have never observed this structure. |

## Kate

The second child, Kate, is 3 years, 4 months old, has a
sever-to-profound bilateral sensorineural hearing loss, and
has worn ear-level hearing aids since she was 17 months old.
She is enrolled in a preschool classroom for hearing-impaired
children. Informal observations and the Test of Auditory Com-
prehension of Language-Revised (TACL-R) were used to assess
her receptive language ability.

Kate performed well on the TACL-R, missing only a few
items such as one plural item, personal pronouns, and one
interrogative. Although there are few items on the tests to
check these language skills, informal observation and record-
ing during class corroborated the more formal results. Kate's
expressive language was evaluated as follows: a language sam-
ple was obtained at various times during the school day for a
period of 4 days, and the SKI-HI Receptive Language Test was
modified and used expressively. The language sample follows,
in Table 29; analysis of the sample is found in Table 30.

Reviewing the data from receptive and expressive assess-
ment which included ongoing observation of general behavior,
the teacher came to the following conclusions. There are no
major concerns about Kate's receptive language but Kate does
need help in expanding her receptive vocabulary. Kate has the
potential for developing good language but needs a great deal
of help in language use as well as in improving expressive
language skills; she often demands attention by using non-
verbal tactics such as hitting and pulling.

As the teacher analyzed the language sample, it was evi-
dent that Kate did have turn-taking skills, could maintain a
topic, and had some other pragmatic skills. Kate knows the
names of classroom items and colors, and follows simple direc-
tions such as "Get the scissors," "Use your voice," "Go to the
bathroom," etc. She is very inconsistent in responding appro-
priately to simple whquestions such as "What is your name?"
"What do you want?" or yes/no questions such as "Do you want a
cookie?" A major deficit appeared to be that she almost never
initiated communicative interaction with either adults or
peers, at least using language as a vehicle. Almost her en-
tire expressive repertoire was in response to another person's
(usually the teacher's) initiation; in a few instances she
talked to herself spontaneously.

Kate is able to label objects but action words are prac-
tically non-existent. Many of her labels are incorrect. Of
the utterances recorded in the language sample only four ac-
tion verbs are used spontaneously. Other action words are
present but always occur in structured situations or in situ-
ations in which Kate repeats part of a comment another person
just expressed. Most of her expressive language is composed
of one-word utterances. Two-word utterances appear to be
emerging. In order to gather additional information about
Kate's expressive language, the teacher used a receptive pic-
ture test—but used it expressively. Thus the teacher would
point to a picture and either ask Kate to name it—e.g., cup;
describe it—e.g., dirty; or tell what was happening—e.g.,
fall down. Kate was unable to name a number of foods, appli-
ances, and tools and she was able to identify only one out of
15 actions (sit). Because Kate's understanding of language
appears to exceed her expressive use of language, the teacher
decided to emphasize work in the expressive area by helping
Kate label and describe things that she sees and what is
happening in the classroom. By focusing on increasing Kate's
expressive language, the teacher hoped to help her manipulate
her environment by increased use of verbal/signed communi-
cation and reduce her inappropriate physical contact with
other children.

Table 29

LANGUAGE SAMPLE
RECORDING FORM

Key:  T = Teacher
      B = Bill
      K = Kate
      S = Sally
Note: All recording is in Total ...munication

Student's Name __Kate__
Date __1/12/86__
Age __3 years, 4 months__

| Context | Antecedent Event or Stimulus | Response | Other Behaviors/ Comments | Use |
|---|---|---|---|---|
| K. pushed B. | K. saw T. watching her | K. "no push" | denying that she pushed B. | negation |
| Getting ready to go out | K. points to B.'s name by his coathook | K. "Bill" and points to name | | informing |
| T. and K. look-ing at book | T. points to person in picture, "Who is that?" | K. "bear" and points | wrong label | labeling |
| T. and K. look-ing at a book | T. says "That's a bear?" "No, that's my girl." | K. "girl" | | repeating |
| Free time - getting toys | picks up toy - not addressing anyone | K. "soft" | | labeling |
| Children returning to group | T. tells K. to sit in "This chair" (a small one) | K. points to and moves toward big chair, says "big" | Does not want to sit in small chair; moves towards big chair; really wants to sit there. | informing/ rejection |
| Children returning to group | T. says "No, this is your chair (pats small one) | K. sit. | Sort of pouty. Probably upset be-cause she has to sit in little chair. | |
| "Language" group | T. points to K., says, "Are you here?" | K. "I am here." | This is a learned response; delayed repetition. | answering |

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| Context | Antecedent Event or Stimulus | Response | Other Behaviors/ Comments | Use |
|---|---|---|---|---|
| "Language" group | T. "Are you a boy or a girl?" | K. "no" | incorrect answer | answering |
| "Language" group | T. "Who is here?" | K. "I am here." | learned response | answering |
| "Language" group | T. "Who else is here?" | K. says "Carol" and points | Points to picture of herself and Carol. | answering |
| "Language" group | T. says K. is not at school today | K. "tomorrow" | | informing |
| Language group is finished | T. tells K. to go to the bathroom | K. "me sit" | Points to floor. | informing |
| Informal play with dolls, etc. in "home corner" | T. "How old are you?" | K. "two" | appropriate response – although wrong age | answering |
| Informal play with dolls, etc. in "home corner" | T. "No, you are three" | K. "three" | | repeating |
| Informal play with dolls, etc. in "home corner" | T. holds up apple, "What is this?" | K. "orange" and point | incorrect answer but knows it is food | answering |
| Informal play with dolls, etc. in "home corner" | T. "Orange? No - apple" | K. "apple" | | repeating |
| Informal play with dolls, etc. in "home corner" | K. holds up baby, says "baby" | T. "Yes, you have the baby." | | informing |
| Informal play with dolls, etc. in "home corner" | T. asks K. to tell B. it's time to stop now. | K. "Bill, stop, stop" | goes to Bill | regulating when requested to do so |

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| Context | Antecedent Event or Stimulus | Response | Other Behaviors/ Comments | Use |
|---|---|---|---|---|
| Informal play with dolls, etc. in "home corner" | K. "Bill stink" | NR | | commenting/informing |
| Getting ready to go to bathroom | Trying to undo her overalls | K. "hard" | self-initiated to teacher | informing |
| Getting ready to go to bathroom | T. "Say – 'it is hard'" | K. "It is hard." | | repeating |
| Children are drawing pictures | T. points to picture of another child, asks K., "What's that?" | K. Smiles and points | | answering |
| Children are drawing pictures | T. "What is that?" pointing to picture of a bird | K. "riy fiy" | | answering |
| Children are drawing pictures | T, "Yes, it's a bird." | K. "bird" | | repeating |
| Children are drawing pictures | K. is naming things she drew | K. "face" "sun" "green" "blue" "red" | talking to herself | informing |
| Children are drawing pictures | There is a doll "sitting" close to where K. is is drawing | K. "watch, watch" and points to doll | self-initiated command to doll | attention-getting; command |
| Children looking at calendar | T. says "The month is January" | K. "January" | | repeating |
| Children looking at calendar | T. "The name of the month is January" | K. "month January" | | repeating |
| Children looking at calendar | Picture of winter scene on wall next to calendar | K. "winter today" | self-initiated statement to teacher | informing |

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| Context | Antecedent Event or Stimulus | Response | Other Behaviors/ Comments | Use |
|---|---|---|---|---|
| Children looking at calendar | K. goes to get the picture and T. says "Do not touch." | K. "not touch" | | repeating |
| Finishing group – children getting up | K. turns to S. | K. "come" | | requesting action |

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Table 30

LANGUAGE ANALYSIS FORM

Phase 1

Student's Name ___Kate_____
Date ___1/12/86_____
Age ___3 yrs. 4 mo._____

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Communicative Intentions: | | |
| object request | | |
| action request | | |
| information request | | |
| greeting | | |
| transferring | | |
| showing off | | |
| acknowledging | | |
| answering | | |
| negation | no | correct response to yes/no question but not appropriate answer |
| Labeling: | | |
| Nominals | | |
| people | Carol | |
| | Larry | |
| | Girl | |
| animals | bear | calling a picture of herself a bear |
| objects | | |
| food | orange | wrong name but knew it was food |
| toys | baby (doll) | |
| other | face | |
| | sun | |

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| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| **Non-Nominals**<br>gone<br>that<br>down<br>there (completion of task)<br>more<br>pretty<br>others | soft   green<br>big    blue<br>hard   red<br>two    watch (verb)<br>fly    come<br>name  tomorrow | |
| <u>Imitation</u><br><br>simple motor<br>vocal/verbal<br><br><br><br>turn-taking | <br><br><br>three         January<br>apple       month January<br>it is hard   bird<br>not touch<br>"Who is that?"  Bear<br>"Are you here?" "I am here"<br>"How old are you?" "Two" | <br><br><br><br><br><br><br>Kate takes turns consistently-<br>when someone else takes the<br>lead.  This may be a problem,<br>however, bec  se she almost<br>never initates a communication |
| <u>Sentences</u><br><br>Action-Object<br>(throw ball, see puppy)<br>Action-Locative<br>(sit chair, fall bed)<br>Agent-Object<br>(mommy sandwich, boy ball)<br>Entity-Locative<br>(sweater chair)<br>Agent-Action | <br><br>me sit<br><br><br><br><br><br><br><br>Larry stop, stop;<br>me sit | |

Phase 2

| STRUCTURE | EXAMPLES | COMMENTS |
|---|---|---|
| Functional Relations | | |
| Existence<br>(This, that, it, a; e.g.,<br>that cookie)<br>Recurrence<br>(more, another; e.g.,<br>more milk)<br>Non-existence<br>(no, allgone, away; e.g.,<br>allgone juice)<br>Rejection<br>(no milk) | | |
| Denial<br>(no push, no break)<br>other | no push<br><br>entity-time:  winter today | |
| Simple Questions | | |
| What this?<br>What do(ing)?<br>Where go? | 174 | |

## Summary

The above examples illustrate how two teachers combined information from both formal and informal methods of collecting receptive and expressive language data in order to establish initial intervention objectives. They were also able to identify some specific language structures to look for in the weeks to follow. By periodic assessment and ongoing monitoring of their students' language, these teachers are able to provide a systematic, developmentally sound intervention program. Because knowledge about language tests is one prerequisite to developing and using an appropriate test battery, descriptions of 36 tests follow.

SECTION VI:

TEST DESCRIPTIONS

<u>Introduction</u>

This section contains descriptions of 36 tests designed to
assess receptive and/or expressive language or language relat-
ed skills. Most were designed for use with hearing students,
but are either being used to assess language skills of hear-
ing-impaired students or could be used with them, with some
adaptation. The remaining tests were intended to be used with
hearing-impaired students. This section is organized in the
following way:

1) <u>Alphabetical list of tests covered in this book</u> (Table
   31).

2) <u>Summary Chart by Test Characteristics</u> (Table 32). On
   this chart, tests are listed in alphabetical order for
   quick reference. The following characteristics of
   each test are presented: target age group; norm group
   characteristics (hearing, hearing-impaired, etc.);
   communication mode tested (receptive, expressive, or
   both); language area tested (morphology, syntax, se-
   mantics, other); how test scores are reported or con-
   verted (age-equivalent, grade-equivalent, percentiles,
   other). This chart will help you evaluate and select
   tests appropriate for a particular category of stu-
   dents—for example, receptive tests of syntax for 6-
   to 9-year-old children.

3) <u>Test Battery Summary Chart</u> (Table 33). This chart is
   a duplicate of Table 12 found in <u>Section III</u>. It pro-
   vides summary information about which test to use for
   given ages in order to assess the various areas of
   language.

4) <u>Test Descriptions</u>. Each test, presented in alpha-
   betical order, is described and the following infor-
   mation is included: name, publisher, publisher's
   address, and approximate cost of test; a general de-
   scription of the test; information on instructions

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and test administration; norms and reliability and
validity data; advantages and disadvantages of the
test;and miscellaneous notes on the test, if appli-
cable. All information included about norms, reli-
ability, and validity is drawn from the test manuals,
unless otherwise noted.

The purpose of this section is twofold: 1) To help you
select tests to examine and buy for inclusion in your dis-
trict's collection of language tests; and 2) To help you
select tests from an existing collection for inclusion in a
test battery for a particular student or group of students.
It must be emphasized that there are no tests appropriate for
use with all hearing-impaired students.  Further, no single
test is "perfect," and the comments about the disadvantages
and advantages listed for each language test are subjective.
They are, however, the result of input from the teachers of
the deaf and speech-language pathologists who participated in
the development of this book.  In the end, the decision about
which tests are included in a battery must be yours, and hin-
ges on your asessment needs, the characteristics of a parti-
cular student, and your judgement of a test.

Table 31

ALPHABETICAL LIST OF TESTS

* designed for hearing-impaired students

1. Assessment of Children's Language Comprehension (ACLC)
2. Bankson Language Screening Test (BLST)
3. Bare Essentials in Assessing Really Little Kids - Concept Analysis Profile Summary (BEAR-CAPS)*
4. Boehm Test of Basic Concepts (BTBC)
5. Bracken Basic Concept Scale (BBCS)
6. Carolina Picture Vocabulary Test (CPVT)*
7. Carrow Elicited Language Inventory (CELI)
8. CID Scales of Early Communication Skills for Hearing-Impaired Children (SECS)*
9. Communicative Intention Inventory (CII)
10. Early Language Milestones (ELM)
11. Expressive One-Word Picture Vocabulary Test (EOWPVT)
12. Expressive One-Word Picture Vocabulatory Test - Upper Extension (EOWPVT-UE)
13. Grammatical Analysis of Elicited Language (GAEL)*
14. The Illinois Test of Psycholinguistic Abilities (ITPA)
15. Interpersonal Language Skills Assessment (ILSA)
16. Maryland Syntax Evaluation Instrument (MSEI)*
17. Miller-Yoder Language Comprehension Test
18. Northwestern Syntax Screening Test (NSST)
19. Peabody Picture Vocabulary Test-Revised (PPVT)
20. Preschool Language Assessment Instrument (PLAI)
21. Receptive One-Word Picture Vocabulary Test (ROWPVT)
22. Rhode Island Test of Language Structure (RITLS)*
23. Rockford Infant Developmental Evaluation Scales (RIDES)
24. Sequenced Inventory of Communication Development (SICD)
25. SKI-HI Receptive Language Test (SKI-HI RLT)*
26. SKI-HI Language Development Scale (SKI-HI LDS)*
27. Structured Photographic Expressive Language Test-II (SPELT-II)
28. Teacher Assessment of Grammatical Structures (TAGS)*
29. Test for Auditory Comprehension of Language-Revised (TACL-R)
30. Test for Examining Expressive Morphology (TEEM)
31. Test of Expressive Language Ability (TEXLA)*
32. Test of Receptive Language Ability (TERLA)*
33. Test of Syntactic Abilities (TSA)*
34. The Word Test (TWT)
35. Total Communication Receptive Vocabulary Test (TCRVT)*
36. Vane Evaluation of Language Scale (Vane-L)

Table 32

SUMMARY CHART BY TEST CHARACTERISTICS

| TEST NAME | TARGET AGE GROUP | NORM GROUP | MODE | | AREA TESTED | | | | | TEST RESULTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *=commonly used with hearing-impaired students | | | REC. | EXP. | Lexicon (VOC.) | MORPH. | SYNTAX | SEM. REL. | OTHER | AGE EQUIV. | GRADE EQUIV. | PERCENT-ILE |
| Assessment of Children's Comprehension (ACLC) | 3 to 6 years | 365 hearing children, Fla. and Vermont areas, mixed SES | X | | X | | | X | | | | X |
| Bankson Language Screening Test (BLST) | 4 to 8 years | 637 hearing children middle SES, Wash., D.C. area | X | X | | X | X | X | auditory/ visual perception | X | | |
| Bare Essentials in Assessing Really Little Kids--Concept Analysis Profile Summary (BEAR-CAPS) | 1-6 to 5-9 years | None | X | | X | | | X | concepts | | | |
| Boehm Test of Basic Concepts (BTBC) | Grades K, 1, 2 | 9700+ hearing children, range of SES, across U.S. | X | | X | | | X | concepts | | X | |
| Bracken Basic Concept Scale (BBCS) | 2-6 to 7-11 years | 1109 hearing children across U.S. for diag-nostic test, 879 hear-ing children across U.S. for screening test | X | | X | | | X | | X | | X |
| Carolina Picture Vocabulary Test (CPVT) | 4 to 11-6 years | 767 hearing-impaired children in U.S. using manual com-munication | X | | X | | | | | X | | X |

| TEST NAME *=commonly used with hearing-impaired students | TARGET AGE GROUP | NORM GROUP | MODE | | | AREA TESTED | | | | TEST RESULTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | REC. | EXP. | Lexicon (VOC) | MORPH. | SYNTAX | SEM. REL. | OTHER | AGE EQUIV. | GRADE EQUIV. | PERCENTILE |
| Carrow Elicited Language Inventory (CELI) | 3 to 8 years | 475 hearing children, middle SES | | X | | X | X | | | | | X |
| *CID Scales of Early Communication Skills for Hearing Impaired Children (SECS) | 2 to 8 years | 372 oral hearing-impaired children | X | X | X | | X | X | | | | X |
| Communicative Intention Inventory (CII) | 8 to 24 months | none | | X | | | | | use of language | | | |
| Early Language Milestone (ELM) | 0 to 3 years | 191 hearing children, New York Medical Center | X | X | | | X | X | | | | X |
| Expressive One-Word Picture Vocabulary Test (EOWPVT) | 2 to 12 years | 1600 hearing children, San Francisco Bay area | | X | X | | | | | X | | X |
| Expressive One-Word Picture Vocabulary Test-Upper Extension (EOWPVT-UE) | 12 to 15-11 years | 465 hearing children, San Francisco Bay area | | X | X | | | | | X | | X |
| *Grammatical Analysis of Elicited Language (GAEL) | 5 to 9 years | 200 oral hearing-impaired children from 13 oral programs; 200 hearing children | | X | | | X | | | | | X |

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| Test | Age | Norms | | | | | | | Skills | | Scores |
|------|-----|-------|---|---|---|---|---|---|--------|---|--------|
| Illinois Test of Psycho-linguistic Abilities (ITPA) | 2-7 to 10 years | 962 "normal" hearing children; middle SES | X | X | | | | | psycho-linguistic skills | X | Psycho-linguistic Age," "Psycho-linguistic Quotient," and scaled scores |
| Interpersonal Language Skills Assessment (ILSA) | 8 to 14 years | 528 hearing children; 64 learning disabled children | | X | | | | | use of social language skills | | per-cen-tage |
| *Maryland Syntax Evaluation Assessment (ILSA) | 6 to 12 years | 220 hearing-impaired children | | X | | | X | | | | Computed syntax score and sentence ratio |
| Miller-Yoder Language Comprehension Test (M-Y) | 4 to 8 years | 172 hearing students, Madison, Wisconsin | X | | | | X | | | X | |
| Northwestern Syntax Screening Test (NSST) | 3 to 8 years | 580+ hearing children | X | X | | | X | | | | X |
| Peabody Picture Vocabulary Test (PPVT) - Revised | 2 1/2 to 40 years | 4200 hearing children and adolescents | X | | X | | | | | X | X |
| Preschool Language Assessment Instrument (PLAI) | 3 to 6 years | 120 hearing children matched for age, sex, and SES | X | X | | | | X | discourse skills | X | |
| Receptive One-Word Picture Vocabulary Test (ROWPVT) | 2 to 12 years | 1128 hearing children, San Francisco Bay area | X | | X | | | | | X Language Standard Score and Stanine | X |

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| TEST NAME | TARGET AGE GROUP | NORM GROUP | MODE | | | AREA TESTED | | | | TEST RESULTS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *=commonly used with hearing-impaired students | | | REC. | EXP. | Lexicon (VOC.) | MORPH. | SYNTAX | SEM. REL. | OTHER | AGE EQUIV. | GRADE EQUIV. | PERCENT-ILE |
| Rhode Island Test of Language Structure (RITLS) | 5 to 17+ years | 513 hearing-impaired children in east coast states; 304 hearing children, R.I. | X | | | X | X | | | | | X |
| Rockford Infant Develop-mental Evaluation Scales (RIDES) | 0 to 4 years | None | X | X | X | | | X | Social/ Fine Motor/ Gross Motor | X | | |
| Sequenced Inventory of Communication Development (SICD) | 4 months to 4 years | 252 hearing children; range of SES | X | X | | | | | Communica-tion beha-viors | X Communication Age | | |
| *SKI-HI Receptive Language Test (SKI-HI RLT) | 3 to 6 1/2 years | None | X | | X | | | X | | | | % correct |
| *SKI-HI Language Develop-ment Scale (SKI-HI LDS) | 0 to 5 years | None | X | X | | | | | Communica-tion beha-viors | X | | |
| Structured Photographic Expressive Language Test (SPELT-II) | 4 to 9-5 years | 1178 hearing children from North Central and Southern sections of U.S. | | X | | X | X | | | X | | |
| *Teacher Assessment of :al Structures | 0 to 9+ years | None | X | X | 182 | X | X | X | | | | |

| Test | Age | Normative sample | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test for Auditory Comprehension of Language-Revised (TACL-R) | 3 to 10 | 1003 hearing subjects in 20 states | X | | X | X | X | | | X | | X |
| Test for Examining Expressive Morphology (TEEM) | 3 to 8 years | 500 hearing children, Fresno, California | | X | | X | | | | X | | |
| *Test of Expressive Language Ability (TEXLA) | 7 to 12 years | 65 hearing-impaired children from Canadian Schools for the Deaf; 17 hearing children | | X | | X | X | | | X | | X |
| *Test of Receptive Language Ability (TERLA) | 7 to 12 years | 92 hearing-impaired children from Canadian Schools for the Deaf; 17 hearing children | X | | | X | X | | | X | | X |
| *Test of Syntactic Ability (TSA) | 10 to 18-11 years | 450 hearing-impaired children from 18 programs in U.S. | X | | | | | X | | X | | X |
| The Word Test (TWT) | 7 to 12 years | 467 hearing children; Milwaukee, Wisconsin | | X | X | | | X | | X | | |
| *Total Communication Receptive Vocabulary Test (TCRVT) | 3 to 12 years | 77 hearing, 95 hard-of-hearing, 251 deaf children | X | | | X | | | | X | | |
| Vane Evaluation of Language Scale (VANE-L) | 2-6 to 6 years | 740 hearing children, New York | X | X | X | X | X | X | Auditory/visual attention | | | X |

## Table 33

### TEST BATTERY SUMMARY CHART

Communication Mode:
E = Expressive
R = Receptive
* = Designed for Hearing Impaired Children

Language Component                                              Age Groups

| Language Component | | 0 to 5 Years | | | 6 to 12 Years | | | 13 to 18 Years | |
|---|---|---|---|---|---|---|---|---|---|
| | **Test** | **R/E** | **Years** | **Test** | **R/E** | **Years** | **Test** | **R/E** | **Years** |
| Morphology (Form) | BLST | R/E | 4 to 8 | BLST | R/E | 4 to 8 | *TAGS Complex | R/E | 9+ |
| | CELI | E | 3 to 8 | CELI | E | 3 to 8 | | | |
| | SPELT-II | E | 4 to 9.5 | SPELT-II | E | 4 to 9.5 | | | |
| | TACL-R | R | 3 to 10 | TACL-R | R | 3 to 10 | | | |
| | *TAGS Pre-sentence | R/E | 0 to 5 | *TAGS Simple Complex | R/E | 5 to 9 9+ | | | |
| | TEEM | E | 3 to 8 | TEEM | E | 3 to 8 | | | |
| | VANE-L | R/E | 2.6 to 6 | *TERLA | E | 3 to 8 | | | |
| | | | | *TEXLA | E | 7 to 12 | | | |
| | | | | VANE-L | R/E | 2.6 to 6 | | | |

| Language Component | | | | Age Groups | | | | | |
|---|---|---|---|---|---|---|---|---|---|

| | 0 to 5 Years | | | 6 to 12 Years | | | 13 to 18 Years | | |
|---|---|---|---|---|---|---|---|---|---|
| | Test | R/E | Years | Test | R/E | Years | Test | R/E | Years |
| Lexicon/Vocabulary (Content) | ACLC | R | 3 to 6 | ACLC | R | 3 to 6 | EOWPVT-UE | E | 12 to 16 |
| | BEAR-CAPS | R | 1.6 to 5.9 | BTBC | R | 5 to 8 | PPVT-R | R | 2.6 to 40 |
| | BTBC | R | 5 to 8 | BBCS | R | 2.6 to 8 | | | |
| | BBCS | R | 2.6 to 8 | CPVT | R | 4 to 11.6 | | | |
| | CPVT | R | 4 to 11.6 | EOWPVT | E | 2 to 12 | | | |
| | EOWPVT | E | 2 to 12 | EOWPVT-UE | E | 12 to 16 | | | |
| | PPVT-R | R | 2.6 to 40 | PPVT-R | R | 2.6 to 40 | | | |
| | ROWPVT | R | 2 to 12 | ROWPVT | R | 2 to 12 | | | |
| | *SECS | R/E | 2 to 8 | *SECS | R/E | 2 to 8 | | | |
| | *SKI-HI RLT | R | 3 to 6.6 | *SKI-HI RLT | E | 3 to 6.6 | | | |
| | TACL-R | R | 3 to 10 | TACL-R | R | 3 to 10 | | | |
| | *TCRVT | R | 3 to 12 | *TCRVT | R | 3 to 12 | | | |
| | VANE-L | R/E | 2.6 to 6 | TWT | E | 7 to 12 | | | |
| | | | | VANE-L | R/E | 2.6 to 6 | | | |

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| Language Component | Age Groups | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **0 to 5 Years** | | | **6 to 12 Years** | | | **13 to 18 Years** | | |
| | Test | R/E | Years | Test | R/E | Years | Test | R/E | Years |
| Semantic Relation-<br>ships/Semantic<br>Knowledge<br>(content) | ACLC | R | 3 to 6 | ACLC | R | 3 to 6 | *RITLS | R | 5 to 17+ |
| | BLST | R/E | 4 to 8 | BLST | R/E | 4 to 8 | *TAGS | R/E | |
| | BEAR-CAPS | R | 1.6 to 5.9 | BTBC | R | 5 to 8 | Complex | | 9+ |
| | BTBC | R | 5 to 8 | BBCS | R | 2.6 to 8 | | | |
| | BBCS | R | 2.6 to 8 | BLST | E | 4 to 8 | | | |
| | ELM | R/E | 0 to 3 | PLAI | R/E | 3 to 6 | | | |
| | PLAI | R/E | 3 to 6 | *RITLS | R | 5 to 17+ | | | |
| | *RITLS | E | 5 to 17+ | *SECS | R/E | 2 to 8 | | | |
| | *SECS | R/R | 2 to 8 | *SKI-HI RLT | R | 3 to 6.6 | | | |
| | *SKI-HI RLT | E | 3 to 6.6 | *TAGS | R/E | | | | |
| | | | | Simple | | 5 to 9 | | | |
| | | | | Complex | | 9+ | | | |
| | *TAGS Presentence | R/E | 0 to 5 | TWT | E | 7 to 12 | | | |
| | VANE-L | R/E | 2.6 to 6 | VANE-L | R/E | 2.6 to 6 | | | |

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| Language Component | Age Groups | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0 to 5 Years | | | 6 to 12 Years | | | 13 to 18 Years | | |
| | Test | R/E | Years | Test | R/E | Years | Test | R/E | Years |
| Pragmatics (Use) | CII | E | .7 to 2 | ILSA | E | 8 to 14 | ILSA | E | 8 to 14 |
| | PLAI | R/E | 3 to 6 | PLAI | R/E | 3 to 6 | | | |
| Other | BLST | R/E | 4 to 8 | B'ST | R/E | 4 to 8 | | | |
| | BEAR-CAPS | R | 1.6 to 5.9 | | | | | | |
| | BTBC | R | 5 to 8 | BTBC | R | 5 to 8 | | | |
| | ITPA | R/E | 2.7 to 10 | ITPA | R/E | 2.7 to 10 | | | |
| | RIDES | R/E | 0 to 4 | | | | | | |
| | SICD | R/E | .4 to 4 | | | | | | |
| | *SKI-HI LDS | R/E | 0 to 5 | | | | | | |
| | VANE-L | R/E | 2.6 to 6 | VANE-L | R/E | 2.6 to 6 | | | |

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**Language Component**                          **Age Groups**

| | 0 to 5 Years | | | 6 to 12 Years | | | 13 to 18 Years | | |
|---|---|---|---|---|---|---|---|---|---|
| | Test | R/E | Years | Test | R/E | Years | Test | R/E | Years |
| Syntax | BLST | R/E | 4 to 8 | BLST | R/E | 4 to 8 | *RITLS | R | 5 to 17+ |
| | CELI | E | 3 to 8 | CELI | E | 3 to 8 | *TAGS Complex | R/E | 9+ |
| | ELM | R/E | 0 to 3 | *GAEL | E | 5 to 9 | *TSA | R | 10 to 19 |
| | *GAEL | E | 5 to 9 | M-Y | R | 4 to 8 | | | |
| | M-Y | R | 4 to 8 | *MSEI | E | 6 to 12 | | | |
| | NSST | R/E | 3 to 8 | NSST | R/E | 3 to 8 | | | |
| | *RITLS | R | 5 to 17+ | *RITLS | R | 5 to 17+ | | | |
| | *SECS | R/E | 2 to 8 | *SECS | R/E | 2 to 8 | | | |
| | SPELT-II | E | 4 to 9.5 | SPELT-II | E | 4 to 9.5 | | | |
| | TACL-R | R | 3 to 10 | TACL-R | R | 3 to 10 | | | |
| | *TAGS Pre-sentence | R/E | 0 to 5 | *TAGS Simple Complex | R/E | 5 to 9 9+ | | | |
| | VANE-L | R/E | 2.6 to 6 | *TERLA | R | 7 to 12 | | | |
| | | | | *TEXLA | E | 7 to 12 | | | |
| | | | | *TSA | R | 10 to 19 | | | |
| | | | | VANE-L | R/E | 2.6 to 6 | | | |

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Test Descriptions

ASSESSMENT OF CHILDREN'S LANGUAGE COMPREHENSION (ACLC)

Hearing Norms
Ages 3-0 to 6-6 years
Receptive

Foster, R., Gidden, J.J., & Stark, J. (1972) Assessment of
Children's Language Comprehension. Consulting Psycho-
logists Press, Inc. 577 College Avenue, Palo Alto,
CA 94306. Approximate cost: $19.75.

General Description
The Assessment of Children's Language Comprehension (ACLC)
is a receptive test designed to measure children's compre-
hension of lexical items presented at different levels of dif-
ficulty. The firs' of the four subtests of the ACLC assesses
children's comprehension of a single-word (one critical ele-
ment) vocabulary; each subsequent subtest increases in the
level of difficulty by one critical element up to four criti-
cal elements. The ACLC may he used tc 1) identify the level
at which a child is unable to process and remember lexical
items in a syntactic structure and, more specifically, to 2)
identify the nature of those lexical items. The test is de-
signed for hearing children ages 3 to 6-1/2 years.

Instructions/Test Admi..istration
The test stimuli are arranged on a series of 40 plates
with each plate containing either four or five picture sti-
muli. The subject is required to "Point to" or "Show me" the
picture which corresponds to the verbal stimulus presented by
the examiner. The examiner records the child's response on a
recording sheet as either correct or incorrect. The incorrect
responses are marked according to which critical element is
missed (e.g., first element, second element, both elements
incorrect). The method for computing the c ld's score is
outlined in the test manual. The test requires approximately
10 minutes to administer.

Test Descriptions

## Norms

The ACLC was standardized on 365 Caucasian, Hispanic sur-
name, Asian-American, and Black nursery sc..ool and school-age
children. The mean scores for these subjects were collapsed
because of the fact that no significant differences were found
among the gr ios. The normative data for the four subtests
are present · according to age (taken at 6-month intervals)
and sex. Additional information regarding children diagnosed
as neurologically or educationally handicapped is also pre-
sented.

## Reliability

Odd-even reliability coefficients were computed for the
first subtest (Part A: Vocabulary) alone and for Subtests
B, C, and D combined, and are reported as .86 and .80,
respectively.

## Validity

No validity data are provided.

## Advantages

1) The test is easy to administer and score in a short
   ar.ount of time (approximately 15-20 minutes).
2) 'ne recording sheet provides a Spanish translation.
3) /he manual is easy to read.
4) The manual provides an introductory section on lan-
   guage development, as well as guidelines for appli-
   cation of the ACLC in a language training program.
5) Norms are grouped at 6-month intervals.
6) The same vocabulary is used throughout the entire test.
7) The test results identify the level at which the child
   is having difficulty understanding the syntactic
   structure.

## Disadvantages

1) No data are given regarding the validity of the test
   and the data for reliability are limited.
2) The pictures are dated.
3) The test does not have sample items for all four sub-
   tests, only for the single element vocabulary subtest
   (Part A).
4) Pictures are small black and white line drawings.
   They may be difficult for some children t: recognize.

BANKSON LANGUAGE SCREENING TEST (BLST)

Hearing Norms
Ages 4-0 to 8-0 years
Expressive/Receptive

Bankson, N.W. (1977). Bankson Language Screening Test. Pro
    Ed, 5341 Industrial Oaks Boulevard, Austin, TX 78735.
    Approximate Cost: $15.00.

General Description
    The Bankson (BLST) is designed to screen expressive lan-
guage skills in five general categories. These include both
psycholinguistic skills (semantic knowledge, morphological
rules, and syntactic rules) and perceptual skills (visual per-
ception and auditory perception). Directions are also pro-
vided for screening receptive language skills for seven out of
the eight subtests in the semantic knowledge category. Al-
though a score is not derived for the receptive portion, the
qualitative information obtained may be useful to the exam-
iner. The BLST is a screening instrument designed to be used
with children who may need further diagnostic language testing.

Instructions/Test Administration
    For most of the 17 subtests, the test administrator reads
aloud sentences with corresponding pictures depicting actions;
the child fills in the appropriate word or phrase. For exam-
ple: "This boy likes to run. In this picture he _____ (is
running)." The test battery consists of 17 nine-item subtests
(total = 153 items ) organized into the five categories listed
above.

Norms
    The BLST was normed on 637 children between the ages of
4-1 and 8-0 years living in semi-rural counties adjacent to
the Washington D.C. metropolitan area. The majority of these
children came from a strictly middle-class population.

Reliability
    Test-retest reliability was high (.96 overall reliability
index).

Validity

Content validity - A review of preschool and primary grade academic curricula indicated that items in the BLST are representative of the kinds of tasks learned by 4- to 8-year-old children. In addition, correlations between selected subtests of the BLST and other language tests designed to measure similar skills were high. For example, the correlation between the Boehm Test of Basic Concepts and the BLST subtest of semantic knowledge was high (r=.89). These data support the validity of the BLST as a screening measure of skills assessed by other instruments in a diagnostic fashion.

Concurrent validity - BLST scores of 70 children were compared with their performances on three other language tests. Pearson Product-Moment Correlations were as follows: BLST and Peabody Picture Vocabulary Test (r = .54); BLST and Boehm Test of Basic Concepts (r = .62); and BLST and Test of Auditory Comprehension of Language (r = .64).

Advantages

1) The BLST identifies children in need of further in-depth analysis by diagnostic language tests; for example, children scoring at the 30th percentile and below on any subtest need further assessment.

2) Only about 25 minutes are required to administer the complete battery.

3) It assesses perceptual skills as well as psycholinguistic skills. (This is one of the few language tests available that also taps visual perception.)

4) The BLST is one of the few existing tests that assesses expressive language skills. Expressive items missed may be tested receptively.

5) It is sensitive to developmental differences at the lower end of the age spectrum.

6) Normative data are grouped by 6-month intervals.

7) The examiner can do a mini-screening using the "most discriminating" 38 items.

8) Instructions and items are easily adaptable for presentation to hearing-impaired students.

9) The auditory memory subtest may provide information that is useful: a) in writing auditory training objectives and b) before mainstreaming a hearing-impaired student because such a test will provide some

information about how a student may function in a
hearing classroom.
10) The BLST provides some information about a child's
understanding of categories and functions which most
other tests do not.

Disadvantages
1) No guidelines are given for choosing an "appropriate
diagnostic test" for each subtest on the BLST, if
needed.
2) The BLST was normed on hearing children.
3) The auditory memory subtest may be of use only with
hard-of-hearing children, or when plans are being made
to mainstream a child.  See advantage 9 above.
4) Children often do not understand the required response
to the stimulus phrase (e.g., Items #90, #104-107).

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*BARE ESSENTIALS IN ASSESSING REALLY LITTLE KIDS -
CONCEPT ANALYSIS PROFILE SUMMARY (BEAR-CAPS)

!!o Norms
1-6 to 5-9 years
Receptive

Hasenstab, M.S., & Laughton, J. (1982). Bare essentials in
assessing really little kids: An approach. In M.S.
Hasenstab, & J.S. Horner (Eds.), Comprehensive inter-
vention with hearing-impaired infants and preschool chil-
dren (pp. 204-209). Aspen Publications, Aspen Systems
Corporation, 1600 Research Boulevard, Rockville, MD 20850.
Approximate Cost: $32.50.

General Description
    Bare Essentials in Assessing Really Little Kids - Concept
Analysis Profile Summary (BEAR-CAPS) is designed to assess a
child's conceptual understanding of relationships which appear
in language development between the ages of 1-6 to 5-0 years.
The concepts tested are divided into six categories: posi-
tion/location, quantity, quality, size, pronouns, and body
parts. BEAR-CAPS is a criterion-referenced tool; it yields
information which is helpful for developing instructional
objectives in a child's language program. It is based on the
authors' idea that conceptual development is needed in order
for the child to develop form, content, and use of language.
Therefore, a language program based on concept development can
be implemented.

Instructions/Test Administration
    The BEAR-CAPS "kit" contains simple and attractive mater-
ials that are manipulated by the child in response to the
examiner's instructions. The examiner instructs the child to
perform the appropriate manipulation for a specific concept
with simple and precise verbal instructions (e.g., "Put the
button in the box."). The child is given three trials, and
the directions for each trial become more simple. For
example, (1) "Put the button in the box," (2) the examiner

points to the button and says "put in," or (3) the examiner
gives the button to the child and says "in."  A score/summary
sheet, which is arranged in developmental squence, is used to
record the child's performance on each item.

## Norms
    BEAR-CAPS has not been normed.  However, each item is
given an age norm of comprehension for each concept.  These
age norms were taken from several sources.

## Reliability
    Not applicable.

## Validity
    Not applicable.

## Advantages
1)  BEAR-CAPS is designed for use with hearing-impaired
    children.
2)  The information obtained regarding concept development may
    be integrated into a child's language program.
3)  The test is designed for preschool-age children; other
    tests of concepts are designed for use with school-age
    children (e.g., Boehm).
4)  The test can be used for any child (18 months - 5 years
    old) with suspected language problems or delay.

## Disadvantages
1)  The test does not assess conceptual development below the
    age of 18 months.
2)  The test can not be purchased alone; it is found only in
    the book Comprehensive Intervention with Hearing-impaired
    Infants and Preschool Children.

BOEHM TEST OF BASIC CONCEPTS (BTBC)

Hearing Norms
Ages 5-0 to 7-11 years
Receptive

Boehm, A.E. (1967, 1969, 1970, 1971). Boehm Test of Basic
Concepts. The Psychological Corporation, 757 3rd Avenue,
New York, N.Y. 10017. Approximate Cost: $20.00.

General Description
    The Boehm Test of Basic Concepts (BTBC) is designed to
measure children's mastery of concepts considered necessary
for achievement in the first years of school (kindergarten,
first, and second grades). It may be used both to: 1) iden-
tify children with deficiencies in concepts representing four
context categories (space, quantity, time, and mis llaneous),
and 2) to identify individual concepts on which g. .ps of
children could profit from instruction. The BTBC is appro-
priate for use with hearing children in kindergarten, grade 1,
and grade 2. It may be used with older hearing-impaired chil-
dren as a criterion-referenced instrument.

Instructions/Test Administration
    The test consists of two alternate forms, Form A and Form
B. Each form consists of 50 groups of pictures arranged in
approximate order of increasing difficulty and divided equally
between two booklets, each containing 25 test questions. Both
booklets of a given form are administered. Each item consists
of a set of pictures; the examiner reads aloud statements
about these pictures to the children (e.g., "Look at the boxes
of eggs. Mark the box with the most eggs."). The children
mark the picture illustrating the concept being tested. Each
booklet requires 15 to 20 minutes to administer. Small groups
of 8 to 12 children may be tested by one examiner. It should
be used as a test for individual students when given to hear-
ing-impaired children.

Norms
    The standardization sample that served as the basis for
the beginning-of-the-year norms consisted of 9737 children

representing a range of socioeconomic backgrounds enrolled in kindergarten, grade 1, and grade 2 in each of 17 cities across the U.S.  These children were tested in September and October of the 1969-70 school year.  Data for midyear norms were obtained during the 1968-69 school year from testing conducted between mid-November and late February; this sample included 2647 children from schools in five cities.

Equivalence of scores on Forms A and B are demonstrated, as are equivalence of scores on corresponding items.

Norms are presented as percentage scores (percent of children passing each individual item, presented by grade and by socioeconomic level within each grade, for both beginning of the year and at midyear), and as percentile equivalents of raw scores by grade and socioeconomic level.

## Reliability

Both split-half reliability coefficients and standard errors of measurement were computed for the midyear standardization sample and demonstrated as adequate.  The former ranged from .68 to .90 for Form A and from .12 to .94 for Form B.  (The reliability coefficient of .12 was obtained for the grade 2 high socioeconomic level students.  The value of the BTBC for this group, therefore, lies only in the identification of children who are far below the group's average ability.)

## Validity

Only content validity is discussed. Test items were selected from relevant curriculum materials and represent concepts basic to understanding directions and other "oral communications" from teachers at the preschool and primary-grade level.

## Advantages
1)  As mentioned above, the BTBC may be used both to identify children with deficiencies in specific concepts needed to achieve in school, and to identify individual concepts on which large numbers of children in a class could profit from instruction.
2)  Items are arranged in order of increasing difficulty, so Part I and Part II could be administered at different times.

3) Administration of the test is simple, quick, and
straightforward.

4) The BTBC may be used with hearing-impaired students of
any age to determine whether the tested concepts have
been mastered. For older children, key concepts may
be fingerspelled.

Disadvantages

1) It was normed on hearing children (but see notes be-
low).

2) Some items are not easily administered in simultaneous
communication, i.e., some items may have no formal
equivalent sign. Fingerspelling of items, however,
may be inappropriate, unless the student uses this
system on a regular basis.

3) The illustrations are sometimes ambiguous.

Notes:

1) Davis (1974)* administered the BTBC to 24 hearing-
impaired children; 75% of the children scored at or
below the 10th percentile when compared to norms for
hearing children their age or younger. Item analysis
of the responses indicated that their poorest per-
formance was on time concepts, followed by quantity,
miscellaneous, and space concepts, in that order.

2) The pictures in the BTBC can be cut up and presented
individually to minimize visual confusion.

3) For some students you may wish to administer Form A
with signs and Form B with fingerspelling, and compare
results. Or administer one form orally for purposes
of pre-mainstreaming assessment.

4) A Boehm Resource Guide for Basic Concept Teaching is
available from The Psychological Corporation (address
listed above).

* Davis, J. (1974). Performance of young hearing-impaired
children on a test of basic concepts. Journal of Speech and
Hearing Research, 7, 342-351.

BRACKEN BASIC CONCEPT SCALE (BBCS)

Hearing Norms
Ages 2-6 to 7-11 years
Receptive

Bracken, A. (1984). Bracken Basic Concept Scale. Charles E.
Merrill Publishing Co., 1300 Alum Creek Drive, Columbus,
OH 43216. Approximate Cost: $69.00.

## General Description

The Bracken Basic Concept Scale (BBCS) was designed as a
means of assessing conceptual knowledge of children with re-
ceptive language difficulties ages 2-6 to 8 years. The BBCS
consists of two parts: a Diagnostic Scale to provide in-depth
assessment and a Screening Test to identify children who may
require further diagnostic assessment. The Screening Test is
designed only for children ages 5-0 to 7-0 years.

The author states that a child must have an understanding
of fundamental concepts in order to communicate effectively.
In developing the BBCS, the author surveyed several psycho-
logical tests and tests addressing basic concepts, including
the Boehm Test of Basic Concepts. Research in the study of
concepts by several authors of these tests (Boehm, 1967; Kauf-
man, 1978; Cummings & Nelson, 1980)* cite the incidence of
concept deficiencies among preschool and primary school-age
children, thus emphasizing the need for a test such as the
BBCS.

The BBCS consists of 11 subtests on the Diagnostic Scale.
They include: Color, Letter Identification, Numbers/Counting,
Comparisons, Shapes, Direction/Position, Social/Emotional,
Size, Texture/Material, Quantity, and Time/Sequence. The
Screening Test consists of 30 items which were selected from
all of the subtests, except three: Colors, Numbers/Counting,
and Letter Identification.

## Instructions/Test Administration

The administration of both the Diagnostic Scale and the
Screening Test is the same; the child is shown a plate with
four stimulus pictures and is instructed to "Show me ____."
or "Point to ____." A stimulus manual and separate record

form are provided for the Diagnostic Scale, whereas the
Screening Test consists of two alternate forms of the same
stimuli onto which the examiner records the child's score
directly. The BBCS is not a timed test. In addition, the
Screening Test may be given in a group.

Diagnostic Scale. Each child begins with subtests I-V and
continues through each subtest until he or she misses three
consecutive items. A School Readiness Composite is estab-
lished based on the child's score. The child's score obtained
on the five subtests is used to estimate the child's success
on subtests VI-XI. A basal and a ceiling are established on
subtests VI-XI. (The basal is the number of items the child
must answer correctly to continue taking the test.) Specific
directions for recording the child's correct and incorrect
responses and for deriving the child's score are provided in
the manual.

Screening Test. The Screening Test is administered in the
same manner as the Diagnostic Test. Two alternate forms of
the Screening Test are provided: Form A or Form B. One
scores the Screening Test by adding the number of items the
child answered correctly and then deriving a standard score
and corresponding percentile rank. This information is re-
corded on a Group Analysis Form in the Screening Test Direc-
tions booklist.

Norms

Diagnostic Scale. The Diagnostic Scale of the BBCS was
standardized on 1109 children located in 44 sites across the
U.S. The variables used in selecting children for the stan-
dardization sample were age, sex, ethnic group (Black, Cau-
casian, Hispanic, or other), geographic region, community
size, and socioeconomic status. Children from various so-
cioeconomic levels were selected.

Screening Test. The BBCS Screening Test was standardized
on 559 kindergarteners and 320 first-grade children located in
17 geographic locations throughout the U.S. The test was ad-
ministered in small groups. Half of the children completed
Form A on the first day of testing and Form B on the second
day; the other half completed the forms in reverse order. As
with the Diagnostic Scale, the children were selected from
various socioeconomic levels and ethnic groups.

Reliability

Diagnostic Scale. Internal consistency coefficients were
calculated for each 1-year level for the School Readiness Com-
posite (sum of scores for Subtest I-V), the remaining six sub-
tests, and the total test. The reliability range is reported
from .47 to .96 for the subtests and .94 to .98 for the total
test. The median subtest and total test reliabilities are .85
and .97, respectively.

Screening Test. Alternate-forms reliability coefficients
were calculated to demonstrate the correlation between the
scores on Form A and scores on Form B. The coefficients are
given in two age groups, 60 to 71 months and 72 to 83 months.
A correlation coefficient of .77 (first age group) and .71
(second age group) was indicated for students taking Form A
first. Students taking Form B first showed coefficients of
.77 and .80 for the respective age groups.

Internal consistency reliability coefficients for ages 60
to 71 months were .80 for Form A and .79 for Form B. The co-
efficients for ages 72 to 83 months was .79 for Form A and .76
for Form B.

Validity

Diagnostic Scale. Content validity - The author deter-
mined content validity of the BBCS by analyzing frequently
used test materials for the number of concepts in the test
directions assumed to be understood by the child. The tests
examined were the McCarthy Scales of Children's Abilities
(MSCA), Standford-Binet, Weschler Preschool and Primary Scale
of Intelligence (WPPSI), Kaufman Assessment Battery for Chil-
dren (K-ABC), and the Woodcock-Johnson Psychoeducational
Battery (W-J). Bracken (1984)* found that many concepts are
assumed to be known by the children when they are taking these
tests. Of the five tests examined, the K-ABC was the only
test measure which was limited in its number of concepts used
in the test directions.

Empirically derived validity - Because the BBCS is also a
test of receptive language, high correlations between it and
other receptive language tests would be expected. The results
show a moderate to high degree with other concurrent measures
(.68 to .88).

Test Descriptions

Screening Test. Content validity – Because the items on the Screening Test are derived from the Diagnostic Scale, the content validity need not be further examined.

Empirically derived validity – The difference in mean scores between Form A and Form B are greater than would be expected. This is partly because of the learning effect resulting from taking and benefitting from the previous form.

Bracken examined the effect of group administration of the Screening Test and concluded that the group administered screening tests correlate well with the individually administered Diagnostic Scale. However, it should be remembered that the Screening Test is designed to identify "at-risk" children rather than describe a performance level of low-functioning children.

Advantages

1) More concepts are included in the BBCS than on the Boehm Test of Basic Concepts: 258 vs. 50.

2) The Screening Test provided with the Diagnostic Scale allows for group administration and quick identification.

3) The normative sample was large: 1109 children for the Diagnostic Scale and 879 for the Screening Test.

4) Although the BBCS is normed on hearing children, a study by Bracken and Cato (1984) matched the scores from a group of deaf children to those of the BBCS standardization sample. Tne results showed that the deaf children scored aproximately 2 standard deviations below the mean.

5) Stimulus plates contain only four foils to a page; the pages are not cluttered.

Disadvantages

1) The information regarding normative data, reliability, and validity is difficult to understand in places.

2) The manual does not clearly state how many children represented specific age groups in the standardization sample or give information regarding what age intervals were sampled.

* Boehm, A.E. (1967). The development of comparative concepts
   in primary children. Unpublished doctoral dissertation,
   Columbia University.

Bracken, B.A., & Cato, L. (1984). Rate of conceptual
   development among deaf preschool and primary children as
   compared to a matched group of non-hearing-impaired
   children. (Manuscript in preparation.)

Cummings, J.A., & Nelson, B.R. (1980). Basic concepts in
   oral directions of group achievement tests. The Journal
   of Educational Research, 73, 159-163.

Kaufman, A.S. (1978). The importance of basic concepts in
   the individual assessment of preschool children. Journal
   of School Psychology, 16, 208-211.

## *CAROLINA PICTURE VOCABULARY TEST (CPVT)

> Norms for Hearing-
> Impaired Children using
> Total Communication
> Ages 4-0 to 11-6 years
> Receptive

Layton, T.L., & Holmes, D.W. (1985). Carolina Picture
Vocabulary Test. Modern Education Corporation, P.O. Box
721, Tulsa, OK 74101. Approximate Cost: $68.50

### General Description

The Carolina Pic' re Vocabulary Test (CPVT) is designed to
assess the receptive sign vocabulary of deaf and hearing-
impaired children ages 4-0 to 11-6 years.

### Instructions/Test Administration

The CPVT requires approximately 15 minutes to administer.
It consists of 130 plates; each plate contains four line draw-
ings. The 130 test items were selected from vocabulary lists
for deaf children (Silverman-Dresner & Guilfoyle, 1972)* and
lists of sign words in Signing Exact English (Gustason, Pfetz-
ing, & Zawolkow, 1972)*. In addition, a photographic stop-
action picture is provided to demonstrate how to produce each
sign. According to the manual, the sign may be either a com-
mon ASL or SEE sign.

When administering the CPVT, one obtains a basal and ceil-
ing level. The raw score may be converted to scale scores,
percentile ranks, and age equivalency scores.

### Norms

The CPVT was standardized on 767 deaf and hearing-impaired
children ranging in age from 2-6 to 16 years. The sample was
obtained nationwide of children who attend day or residential
school programs and who use manual communication as their
primary means of communicating.

### Reliability

Internal consistency - The split-half reliability method
was used to estimate the internal consistency of the CPVT.

This was done according to age level, and the overall fi.__ngs showed a total split-half reliability of .917.

Stability - Two studies were conducted to determine the test-retest reliability of the CPVT. In one study, 30 subjects were administered the CPVT 30 days af    the initial testing. A correlation coefficient of .‾    .omputed for test-retest reliability. In the second st.. _, 11 subjects were administered the CPVT 2 weeks after the initial testing. A correlation coefficient of .99 was obtained.

Standard Error of Measurement (SEM) - The SEM for the CPVT's raw scores was computed for each of eight age levels. The average SEM for the eigh⁺ age levels was 4.39.

Validity
    Content validity - The authors state that good content validity was met by their carefully selecting vocabulary items used by deaf children which are also adaptable for manual presentation.

    Concurrent validity - The Test of Auditory Comprehension of Language (TACL) (Carrow, 1976) was used in a study to compare che language functions it measures with those of the CPVT. The results of the study indicat⁴ that the CPVT is a reliable test of language comprehension.

    Construct validity - Age differentiation was used to measure the construct validity of the CPVT. Overall, the results suggested that a developmental trend in sign vocabulary could be found with children at the older age levels performing significantly better than the younger ones. However, significant differences were not found for adjoining ages. Based on these results, the authors suggest that although sign vocabulary scores improve with age, they do so after a 2-year period.

Advantages
    1) The test was normed on deaf and hearing-impaired children who use manual signs as their primary means of communicating.

2) The CPVT contains more test items than are found in other vocabulary tests for tr ~ ~f and hearing-impaired child (e.g., Total Communication Receptive Vocabulary Test).

Disadvantages

1) The authors do not explain why the standardization sample included ages 2-6 to 16 years whereas the test includes only the age range of 4-0 to 11-6 years.

2) The vocabulary used in the CPVT was received only from academic programs which teach sign language in their curriculum.

3) The photographs of the signs are not all SEE signs or ASL signs. They appear to be a mixture of both. However, the author does list Signing Exact English in the reference section.

4) The signs in the photographs do not include endings such as -ing, -y, or -tion, or -man as in policeman.

5) In several examples, the same sign is used twice to refer to two words with similar meanings (e.g., handkerchief, #22, and tissue, #56).

6) Photographs are all black and white and many appear dark and difficult to interpret. Facial expressions are somewhat distracting.

7) Additional time may be required to verify signs used by students, or to clarify the production of signs from Signing Exact English.

* Gustason, G., Pfetzing, D., & Zawolkow, E. Signing Exact English. Rossmoor, CA: Modern Signs Press, 1972. (Revised edition, 1980, Modern Signs Press, Los Alamitos, CA.)

Silverman-Dresner, T., & Guilfoyle, G. Vocabulary Norms for Deaf Children. Washington, D.C.: Alexander Graham Bell Association for the Deaf, 1972.

CARROW ELICITED LANGUAGE INVENTORY (CELI)

Hearing Norms
Ages 3-0 to 7-11 years
Expressive

Carrow-Woolfolk, E. (1974). Carrow Elicited Language
Inventory, DLM Teaching Resources, P.O. Box 4000, 1 DLM
Park, Allen, TX 75002. Approximate Cost: $65.00.

## General Description
The Carrow Elicited Language Inventory (CELI) is a diag-
nostic procedure designed to provide a reliable and efficient
means of measuring a child's productive control of grammar.
The test format employs elicited imitation of a sequence of
sentences, which were systematically developed to include a
comprehensive list of basic sentence constructions and spe-
cific grammatical morphemes. The test is designed for hearing
children ages 3-0 to 7-11 years.

## Instructions/Test Administration
The CELI consists of 52 stimuli (51 sentences and one
phrase) which range in length from two to 10 words (average
six words). The child's imitations of the stimulus sentences
produced by the examiner are recorded during test adminis-
tration. The child's responses are transcribed phonemically.
The scoring procedure is fairly complicated and requires
special training; errors are categorized by type (omissions,
substitutions, transpositions, and reversals). Both total
scores and subcategory scores (for performance on pronouns,
adjectives, verbs, negatives, etc.) are obtained. Time re-
quired for testing is 45 minutes.

## Norms
Norms were established on 475 Caucasian children, 3-0 to
7-11 years old, of middle socioeconomic status, none of whom
had apparent speech or language disorders.

## Reliability
Test-retest reliability was high ($r$ = .98). The author
obtained a measure of inter-examiner reliability by correla-

ting transcriptions and the scoring of two examiners; this was also high (.98).

Validity

Test scores improved with age in the norm sample, showing that the CELI does reflect developmental change. A study reported in the test manual showed that scores of children with language disorders differed significantly from scores of children with normal language. Also, correlations were high between scores on the CELI and Developmental Sentence Scoring obtained for 20 children with language disorders.

Advantages
1) The CELI is easy to administer; it does not require extensive training or knowledge of linguistics.
2) It permits identification of specific linguistic structures that are difficult for a particular child.
3) The CELI is adaptable for hearing-impaired children, if used with simultaneous communication. The tester could videotape the child's imitation of signed/spoken sentences and look at different aspects of his or her expressive performance (speech, signing, etc.).

Disadvantages
1) The CELI requires a long time to administer (45 minutes).
2) It requires training in scoring procedures (and possibly in using the International Phonetic Alphabet for transcribing responses).
3) The CELI was normed on hearing children.
4) Videotape equipment would be required to use the CELI effectively with hearing-impaired children.
5) Any articulation error necessitates scoring the response as an error; however, any modification of scoring techniques for use with hearing-impaired children invalidates the norms.

Notes:
1) The GAEL (see below) is similar and was developed for use with hearing-impaired students.
2) Refer to Section V of this book for cautions regarding use of elicited imitations to obtain an expressive language sample.

CENTRAL INSTITUTE FOR THE DEAF
*SCALES OF EARLY COMMUNICATION SKILLS FOR
HEARING-IMPAIRED CHILDREN (SECS)

> Norms for hearing-
> impaired children in
> oral school programs
> Ages 2-0 to 8-0
> Expressive/Receptive

Moog, J.S., & Geers, A.V. (1975). CID Scales of Early
Communication Skills for Hearing-Impaired Children. Cen-
tral Institute for the Deaf, 818 South Euclid Avenue, St.
Louis, MO 63110. Approximate Cost: $15.00

## General Description

The CID Scales of Early Communication Skills for Hearing-
Impaired Children (SECS) is designed to assess the receptive
and expressive speech and language skills of hearing-impaired
children ages 2-0 to 8-0 years. The test is divided into four
scales: Receptive Language Skills, Expressive Language Skills,
Nonverbal Receptive Skills, and Nonverbal Expressive Skills.
Each scale contains test items which are arranged and numbered
according to developmental level.

## Instructions/Test Administration

The SECS is administered by the child's teacher rather
than through a parent interview or a one-time structured test-
ing session. The test items in each level of a scale are pre-
sented in two ways; "A" items are presented in a structured
teaching situation, and "B" items in a natural spontaneous
situation. All of the "A" items are scored together as are
all of the "B" items.

When administering the test, the teacher rates each test
item according to whether or not the child demonstrates that
particular behavior. A (+) rating is given if the child de-
monstrates the skill consistently; a (±) is given if the be-
havior is only emerging but the child does demonstrate the
behavior on occasion; or a (-) is given if the child does not
demonstrate the behavior at any time. One obtains a raw score
by assigning a value to the number of +, ±, and - ratings ob-

tained. From the raw score, a standard score and a percentile rank according to age group can be derived.

## Norms

The SECS was normed on 372 hearing-impaired children who were enrolled in 14 different oral school programs across the U.S.

## Reliability

Two teachers from CID rated 31 CID students between the ages of 4-0 and 8-0 years. The Spearman-Brown formula was used to calculate reliability coefficients for each scale. Overall, the coefficients were high; the mean for the two Receptive scales was .81 and .88 for the two Expressive Scales.

## Validity

No data on validity were provided.

## Advantages

1) The test is normed on hearing-impaired children.
2) The test assesses speech and language skills as low as the 2-year-old level.

## Disadvantages

1) Although the test is normed on hearing-impaired children, normative data were obtained from oral school programs only; there is no allowance made for children using total communication.
2) The test language is often inappropriate and there are too few test items.

## COMMUNICATIVE INTENTION INVENTORY (CII)

No Norms
8 months to 2-0 years
Expressive

Coggins, T.E., & Carpenter, R.L. (1981). The Communicative
Intention Inventory: A system for observing and coding
children's early intentional communication. Applied
Psycholinguistics, 2, 235-251.

### General Description

The Communicative Intention Inventory (CII) is an obser-
vational system designed to classify uses of language in de-
velopmentally young hearing children. It is intended to be
used as a criterion-referenced measure of a child's inten-
tional communication, where "intent" is defined as "... the
deliberate pursuit of a goal by means of instrumental beha-
viors subordinated to that goal."

### Instructions/Test Administration

The child interacts with his or her primary caretaker in a
free-play situation for 45 minutes; this interaction is video-
taped and then the examiner scores it, using criteria outlined
in this article, as soon as possible. Eight categories of
communicative behaviors are assessed: Comment on Action, Com-
ment on Object, Request for Action, Request for Object, Re-
quest for Information, Answering, Acknowledging, and Protest-
ing. Each of these categories is described in terms of 1)
Gestural or Gestural-Vocal behaviors, and 2) Verbal behaviors
that the examiner looks for in assessing the child's commu-
nicative intentions. These behaviors are thought to be neces-
sary for the child's acquisiton of subsequent conversational
skills. See Coggins & Carpenter (1981) for detailed instruc-
tions on administering, scoring, and interpreting results.

### Norms

The Communicative Intention Inventory is a criterion-
referenced measurement; therefore, no norms are provided.
However, data on 16 children, all developing normally, are
offered to provide the user with a perspective regarding the

frequency of these behaviors in a group of 16- month-old children.

## Reliability

Content reliability - Sixteen normally developing children consistently produced the eight communicative intentions of the Inventory with the same frequency, suggesting that the scale assesses similar behaviors across children.

Observer-scorer reliability - Ten graduate students train-ed in scoring the CII rated 33 behavioral sequences in speci-ally constructed videotapes. The mean proportion of correct coding of the sequences was .91. This high degree of inter-scorer reliability suggests that the brief training procedure allows observers to recognize and accurately code intentional behaviors described in the CII.

## Validity

Content validity - The authors selected the content of the CII by examining available literature on early communication and language development in children, including the authors' work on mother-child interactions. The test format attempts to reproduce a home-like setting in which the mother or other caretaker and the child interact in an unstructured play sit-uation, thereby increasing the likelihood of obtaining a re-presentative behavior sample.

## Advantages

1) The CII assesses communication skills of very young children.
2) It does not rely on verbal behaviors and can easily be used with young hearing-impaired children.
3) Results may be used in planning intervention strate-gies for nonverbal cognitively delayed children, or for nonverbal children at a more advanced cognitive level. That is, behaviors shown to be poorly devel-oped or lacking on the CII can become the target be-haviors or objectives in an intervention program. (Examples are provided in the article.)

Disadvantages

1) Observer-scorers must be specially trained in coding techniques.

2) The caretaker-child pair must be videotaped for 45 minutes.

3) As the authors state, simply counting the number of specific communicative intents appearing in a sample may reveal little about a child's functional use of language.

Note: The CII is not a commercially available test. It may be found in the journal cited above.

EARLY LANGUAGE MILESTONE SCALE (ELM)

Hearing Norms
Ages 0 to 3-0 years
Receptive/Expressive

Coplan, J. (1983). Early Language Milestone Scale, Modern
Education Corporation, P.O. Box 721, Tulsa, OK 74101.
Approximate Cost: $55.00.

## General Description

The ELM Scale was created to provide physicians and other
professionals with a reliable method of screening young chil-
dren, 0 to 3-0 years old, for potential communication and lan-
guage problems. The format is similar to that of the Denver
Developmental Profile: 41 items cover three divisions—Audi-
tory Expressive, Auditory Receptive, and Visual Skills. Each
behavior is developmentally sequenced and percentiles for each
age are given for these behaviors.

## Instructions/Test Administration

The administration of the test results in either a pass or
a fail. All 41 items are arranged in developmental order on a
one-page graph. After determining the child's chronological
age, the examiner asks questions of the parents or caregivers.
Three consecutive behaviors below the CA must be passed to
determine a basal. This procedure is repeated for all three
sections. A ceiling is determined in two ways;
   a) The child achieves a basal without failing any beha-
      viors at the 90th percentile.
   b) The child fails three consecutive items in any one of
      the three divisions.
Exceptions and limitations regarding the establishment of
ceilings and basals are further illustrated in the manual.
The child passes the ELM Scale only if he or she passes all
three divisions. Included is a bag of objects containing a
bell, crayon, cup, spoon, and block.

## Norms

The normative group for the ELM Scale was drawn from pa-
tients of private practice pediatricians and outpatients of

the New York Upstate Medical Center.  A total of 191 children,
95 boys and 96 girls, were tested as part of routine well
child care visits; 80% of the children were private practice
patients and 20% were clinic children.  Eighty percent of the
children were Caucasian.

## Reliability

No reliability data are reported.

## Validity

The author reports that validation of the scale was
achieved by administration of the scale to several groups of
high-risk (cerebral palsied, mentally retarded) children.  He
and his colleagues contend that "the ELM Scale is able to
discriminate between normal versus language delayed children
in over 95% of cases."*

## Advantages

1) The ELM Scale uses a format familiar to most physi-
   cians and health care professionals.
2) Both a manual and a training tape are included to
   familiarize the examiner with the scale.
3) Samples of scoring technique are included.
4) The scale generally takes only 3-4 minutes to ad-
   minister.

## Disadvantages

1) Follow-up after a child fails the ELM Scale is not
   well covered.
2) Items may be passed on parent report only, making the
   item dependent on the parent's powers of observation
   and reporting skills.
3) Validity information is sketchy and no data are re-
   ported about reliability.
4) The normative group included primarly Caucasian, pri-
   vate patients in upstate New York.

*Coplan, J., Gleason, J., Ryan, R., et al. (1982).  Validation
of An Early Language Milestone Scale in a high risk po-
pulation.  Pediatrics, 70, 677-683.

EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST (EOWPVT)

Hearing Norms
Ages 2-0 to 11-11 years
Expressive

Gardner, M.F. (1979, 1981). Expressive One-Word Picture Vocabulary Test. Academic Therapy Publications, 20 Commercial Boulevard, Novato, CA 94947. Approximate Cost: $47.00.

## General Description

The Expressive One-Word Picture Vocabulary Test (EOWPVT) is designed to assess hearing children's verbal intelligence by means of their acquired one-word expressive picture vocabulary, i.e., the quality and quantity of a child's vocabulary based on what she or he has acquired from home and from formal education.

## Instructions/Test Administration

The EOWPVT requires approximately 10-15 minutes to administer and is not a timed test. The child looks at a series of pictures, one per plate, and is asked to tell the examiner the "names of the things" in the pictures. As is the case with the PPVT (see below), a basal of eight consecutive successes is obtained, and the test ends when the child makes six consecutive incorrect responses.

## Norms

The EOWPVT was standardized on 1,607 hearing children living in the San Francisco Bay area; ages ranged from 2 years through 11 years 11 months. An attempt was made to include appropriate proportions of minority groups and both sexes. Either the PPVT or the Columbia Mental Maturity Scale (CMMS) was administered concurrently.

## Reliability

Split-half (odd-even) reliability was good, ranging from .87 to .96 for the different age groups.

## Validity

Content validity - Items were selected to represent a common core of English words which could be illustrated without ambiguity. These words were selected to represent language typically learned and used by children in home and at school.

Criterion-related validity - Correlations of .29 and .59 were obtained between the EOWPVT and the PPVT and CMMS, respectively. The results were as expected because the PPVT taps receptive vocabulary and the CMMS taps general reasoning ability.

## Advantages

1) Because the test plates present only one object per page, the child is not bombarded by stimuli or con- fused by several pictures on a page.
2) The EOWPVT is one of the few existing expressive tests of vocabulary.
3) No specific qualifications are required of the tester, other than familiarity with the test.
4) A mental age, IQ, and percentile score may be derived from a child's raw score.
5) The pictures are good with the exception of Plate #20, a picture of a train.

## Disadvantages

1) Reliability and validity data are incomplete; for example, correlations with the PPVT are given for the younger age groups only.
2) Standard signs are not available for all pictures at upper age limits.

Note: It is unwise to use a test of vocabulary to determine an I.Q. The authors of this book recommend using the EOWPT only to review expressive vocabulary qualitatively and quantitatively.

EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST-
UPPER EXTENSION (EOWPVT-UE)

Hearing Norms
Ages 12-0 to 15-11 years
Expressive

Gardner, M.F. (1983). Expressive One-Word Picture Vocabulary
Test-Upper Extension. Academic Therapy Publications, 20
Commercial Boulevard, Novato, CA 94947. Approximate
Cost: $46.00.

## General Description

The Upper Extension of the Expressive One-Word Picture
Vocabulary Test (EOWPVT) is a test which assesses the expres-
sive vocabulary of hearing children ages 12-0 years to 15-11
years, yielding a basal estimate of a child's verbal intelli-
gence. This basal estimate is based on the quality and quan-
tity of a child's vocabulary derived from his or her home and
formal education environment.

## Instructions/Test Administration

The EOWPVT-UE is not a timed test; it takes approximately
10-15 minutes to administer and less than 5 minutes to score.
It can be administered individually, requiring the child to
give a verbal response, or in a group, where each child writes
down his or her response. The child is required to look at a
picture and tell or write down the name of the item(s) in the
picture. There is one picture per plate with 70 plates total.
A basal of eight consecutive correct responses is obtained,
and the test is over when the child makes six consecutive
errors.

## Norms

The EOWPVT-UE was standardized on 465 children enrolled in
public, private, and parochial schools in the San Francisco
Bay area. Their ages ranged from 12 years to 15 years, 11
months. Analysis of data for sex and race showed that these
dimensions did not contribute significantly to EOWPVT-UE
scores.

Reliability

Split-half reliability was good, with reliability coef-
ficients ranging from .89 to .94 with a median reliability of
.92.

Validity

Content validity - The items in the final form were se-
lected as representations of commonly known symbols, objects,
and concepts that children ages 12 years and older are typi-
cally exposed to at home, school, and neighborhood environ-
ments.

Item validity - The items were selected on the basis of
freedom from sexual bias, internal consistency, and as a re-
presentation of difficulty levels which assess a wide range of
behaviors across the specified age range. The author also de-
termined the relationship of item order to item difficulty.
A correlation of -.99 was obtained, which indicated that the
items are arranged in order of increasing difficulty.

Criterion-related validity - The raw scores from the
PPVT-R and the WISC-R Vocabulary subtest were compared with
the final form of the EOWPVT-UE. The correlations between the
EOWPVT-UE and the PPVT-R were .69 to .80, and with the WISC-R
vocabulary subtest were .74 to .84, both correlations con-
sidered to be good.

Validity of group administration - The performance of the
standardization sample and a similar sample of students given
the test as a group was compared and the performances indica-
ted no significant difference between the two groups.

Advantages
1) Because the test plates present only one object per
   page, the child is not bombarded by stimuli or con-
   fused by several pictures on a page.
2) The EOWPVT-UE is one of the few existing tests of ex-
   pressive vocabulary for older children.
3) No specific qualifications are required of the tester,
   other than familiarity with the test.
4) A mental age, IQ, and percentile score may be derived
   from a child's raw score.

Test Descriptions

## Disadvantage
    1)   Standard signs are not available for all pictures.

See **Note** above for **EOWPVT**.

*GRAMMATICAL ANALYSIS OF ELICITED LANGUAGE (GAEL)

Norms for oral hearing-impaired children
Ages 5-0 to 9-0 years
Expressive

Moog, J.S., & Geers, A.E. (1979). Grammatical Analysis of
Elicited Language. Central Institute for the Deaf, 818
So. Euclid, St. Louis, MO 63110. Approximate Cost:
$300.00.

## General Description

The Grammatical Analysis of Elicited Language (GAEL) test
(Simple Sentence Level and Complex Sentence Level) is designed
to elicit and evaluate "important elements" of spoken language
in young hearing-impaired children. It includes a set of toys
and activities designed to elicit specific target sentences
which constitute a sampling of sentence structures. The Sim-
ple Sentence Level samples structures which develop relatively
early in the normal child, while the Complex Level samples
more complex structures. Sixteen grammatical categories are
assessed in both levels: articles, adjectives, quantifiers,
possessives, demonstratives, conjunctions, pronouns, subject
nouns, object nouns, Wh-questions, verbs, verb inflections,
copula, the copula inflections, prepositions, and negation.

## Instructions/Test Administration

The target sentences are constructed in the context of an
activity. For example, the examiner will place the boy doll
in the chair and state: "The boy is sitting in the chair."
The examiner models specified sentence structures and the
child is prompted to produce the same structured utterances.
After the child has attempted the target sentence on his or
her own, the examiner provides a spoken model to test the
child's performance in imitation.

The number of correct responses in each of the 16 cat-
egories and for all categories combined is determined se-
parately for prompted and imitated productions. One converts
these correct scores into percentile ranks and standard scores
by referring to normative tables for normal hearing 2-1/2- to
5-year-olds and hearing-impaired 5- to 9- year-olds.

## Norms

Simple Sentence Level - The GAEL-S was standardized on 200
hearing-impaired children aged 5 years to 9 years (25 in each
6-month age category) and 200 normally hearing children aged
2-1/2 years to 5 years. The hearing-impaired children were
enrolled in 13 oral programs across the country. Hearing le-
vels (average speech frequency) were greater than 70 dB in the
better ear. The children's hearing losses were acquired be-
fore age 2 years, and the children had no additional educa-
tionally significant handicaps.

Complex Level - The GAEL-C was standardized on 240 nor-
mally hearing children aged 3 years to 5-11 years, and 120
severely hearing-impaired children and 150 profoundly deaf
children aged 8 years to 11-11 years. The hearing-impaired
chidren were educated orally, were hearing-impaired before
age 2 years, and had no additional educationally significant
handicaps.

## Reliability

Test-retest reliability was high: .96 for both the
prompted and elicited portions of the test.

## Validity

Mean language scores for most of the 16 grammatical cat-
egories increase with age; these results indicate that, for
the most part, scores on the GAEL do reflect a developmental
change in the child's abil゛ y to produce the structures sam-
pled. Also, 15 normally hearing children diagnosed as being
language-delayed scored at or below the 15th percentile for
their age in both prompted and imitated productions.

## Advantages

1) The GAEL is designed to avoid some of the problems
   encountered with spontaneous language samples and
   sentence imitation tasks, particularly with regard to
   hearing-impaired children. The test is composed of
   structured stimuli and an anticipated response. The
   child's response reflects what is considered to be his
   or her "best effort" at each particular structure of
   interest, rather than a collection of structures ob-
   tained by a more natural language sampling.

2) The <u>GAEL's</u> activities are designed to be appealing to children.

3) The manual is easy to read and complete, and includes helpful "Tips for Testers."

4) Norms are grouped in 6-month intervals.

5) Although it is a long test, it does provide an in-depth analysis of a child's expressive language for those items tested.

6) You can compare a child's scores with norms for either hearing or oral hearing-impaired children.

7) The test can be administered in simultaneous communication, but the examiner must be aware that it was normed on oral hearing-impaired children who were administered the test in oral communication only.

8) Emerging language can be identified.

<u>Disadvantages</u>

1) Transcribing and scoring procedures are complicated.

2) The test takes a long time to administer and score (approximately 2-1/2 hours).

3) The entire test must be tape-recorded (or videotaped if signed responses are obtained).

4) Only 25 children in each 6-month category were included in the norm group.

5) The <u>GAEL</u> was normed on hearing-impaired children in oral programs.

6) This is essentially an imitation test; see cautions listed in <u>Section V</u> of this book.

7) The test may actually be testing a child's auditory memory skills.

8) The test is very expensive.

9) As designed, this test does not evaluate a hearing-impaired child's <u>use</u> of daily language.

10) The activities and verbal precursors may become somewhat repetitious.

THE REVISED TILINOIS TEST OF PSYCHOLINGUISTIC ABILITIES (ITPA)

Hearing Norms
Ages 2-7 to 10-1 years
Expressive/Receptive

Kirk, S.A., McCarthy, J.J., & Kirk, W.D. (1961, 1969).
  Illinois Test of Psycholinguistic Abilities. University
  of Illinois Press, Urbana, IL 61801. Approximate Cost:
  $58.00.

General Description
    The revised edition of the Illinois Test of Psycholin-
guistic Abilities (ITPA) is a revision of the Experimental
Edition published in 1961 and includes 10 basic subtests plus
two supplementary tests for children ages 2-7 years to 10-1
years. Based upon Osgood's (1959) model of the Communication
Process, the test was designed to provide diagnostic infor-
mation about "various facets of cognitive ability" which will
assist in planning intervention for those students who have
learning problems. Terminology has been changed to make it
more easily understood and some new items have been added.

Instructions/Test Administration
    The ITPA consists of 10 discrete subtests and two supple-
mentary tests considered "educationally relevant." The sub-
tests evaluate receptive, expressive, and mediating processes
of language at both the automatic and representational levels.
Performance on specific subtests should help to pinpoint spe-
cific psycholinguistic abilities and disabilities. The entire
battery may be administered in about 1 hour by an experienced
examiner. Subtests may be administered according to need; the
whole battery does not need to be given. Below is an outline
of the 12 ITPA subtests.

Functions at the Representational Level
A.  The Receptive Process (Decoding)
    Test 1: Auditory Reception - deriving meaning from ver-
    bally presented material. A nod or shake of the head is a
    sufficient response.

Test 2: Visual Reception - measures a child's ability to gain meaning from visual symbols. There are 40 picture items. The child needs only to point to the correct picture.

B. The Organizing Process (Association)
Test 3: Auditory-Vocal Association - The child must relate concepts presented orally. These concepts are presented as analogies such as: "I cut with a saw," "I pound with a _____."
Test 4: Visual-Motor Association - The child must relate concepts presented visually. The child must point to one of four pictures that "goes with" the target picture.

C. The Expressive Process (Encoding)
Test 5: Verbal Expression - expressing concepts vocally. The child must talk about or describe objects he is shown.
Test 6: Manual Expression - expressing ideas manually. The child pantomimes the use of various articles such as a telephone or guitar.

Functions at the Automatic Level

These subtests measure the child's ability to perform automatic, nonsymbolic tasks. They are neither receptive nor expressive.

A. Closure (filling in missing parts; integrating discrete units into a whole)
Test 7: Grammatic Closure - making use of what is known in our grammatical system in order to "fill in" when certain elements are missing. The ability to "fill in" or close assists in handling syntax and grammatic inflections (e.g., one dog, two dogs).
Test 8: Supp. Test 1: Auditory Closure - test of the organizing process at the automatic level. The child must fill in missing parts of words, such as "airp____."
Test 9: Supp. Test 2: Sound Blending - another means of assessing the organizing process at the auditory-vocal channel. Sounds of a word are spoken singly at half-second intervals. The child must be able to put the sounds together mentally, in order to form the correct word.
Test 10: Visual Closure - identifying a common object from an incomplete visual presentation. A specified object is hidden in various places within the picture and the child must find the object.

B.  Sequential Memory (reproducing a sequence of auditory or
    visual stimuli)
    Test 11:  Auditory Sequential Memory – reproducing from
    memory sequences of digits increasing in length from two
    to eight digits.
    Test 12:  Visual Sequential Memory – reproducing sequences
    of non-meaningful figures from memory.

## Norms

The norm sample comprised 962 normally hearing children in
Illinois and Wisconsin, half of whom were male and half fe-
male.  They were 2 years to 10 years old and were from five
communities of middle socioeconomic level.  The normative data
are presented in 6-month intervals.

One may obtain several scores in analyzing ITPA test per-
formance: 1) a raw score on each subtest (including a com-
posite raw score on all 10 main sub-tests); 2) psycholinguis-
tic age (PLA) (an age equivalent of a particular raw score);
3) psycholinguistic quotient (PLQ) (a global score indicating
the child's rate of psycholinguistic development); and 4) sca-
led scores (linear transformations of raw scores).

A lengthy section in the test manual describes the use of
ITPA scores in evaluating inter- and intra-individual dif-
ferences.

## Reliability

Extensive data are presented on internal consistency, sta-
bility, reliability of difference scores, and standard errors
of measurement, as well as on interscorer reliability for the
Verbal Expression Subtest.

Data are also given on the relationship of ITPA perfor-
mance and various cognitive and demographic characteristics:
chronological age, sex, social class, position among siblings,
number of siblings, and intelligence.

## Validity

The content validity of each subtest is discussed in the
test manual (Ch. 3:  "Construction of the ITPA Subtests").
Correlations of various subtests with external measures are
not provided.

## Advantages

1) The <u>ITPA</u> taps a variety of psycholinguistic skills not usually tested, e.g., manual expression, auditory association, and visual association, and can therefore provide a more complete picture of a child's strengths and weaknesses. For those familiar enough with various subtests, combinations of results may yield useful information relevant to educational planning.

2) The <u>ITPA</u> has two tests that tap expressive skills.

3) Normative data are presented for 6-month age intervals.

4) Although the <u>ITPA</u> is not normed on hearing-impaired children, some subtests may provide relevant information regarding mainstreaming of particular hearing-impaired children. If a child is to be mainstreamed into an oral program, this information might contribute to predicting how successful the child's performance might be in the oral program.

## Disadvantages

1) Precisely because of the <u>ITPA</u>'s complexity, the examiner must make a considerable effort to become thoroughly familiar with and skilled in administration and interpretation of all the subtests.

2) Some subtests (e.g., Auditory Reception) may not be useful for many hearing-impaired children.

3) Some subtests (e.g., Verbal Expression) have complicated scoring procedures.

4) Data on the validity of the <u>ITPA</u> subtests are incomplete.

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## INTERPERSONAL LANGUAGE SKILLS ASSESSMENT (ILSA)

Hearing norms
Ages 8–0 to 14–0 years
Expressive

Blagden, C.M., & McConnell, N.L. (1985). Interpersonal
Language Skills Assessment (ILSA). LinguiSystems, Inc.
716 17th Street, Moline, IL 61265. Approximate Cost:
$42.00.

### General Description

The Interpersonal Language Skills Assessment (ILSA) pro-
vides a system for the structured observation and analysis of
social language behaviors for hearing children ages 8 to 14
years.

### Instructions/Test Administration

The ILSA consists of a Transcript Form and a test manual.
The examiner obtains an expressive language sample while ob-
serving 3–4 students playing a table game for approximately
15–30 minutes and codes the child's language according to the
type of utterance such as command, question, etc. The sample
is recorded on audio tape; notes regarding non-verbal behavior
should be taken during the test session. The student's com-
ments are transcribed onto the ILSA Transcript Form. There
are 16 pragmatic categories which are used to classify the
student's comments. They are as follows:

| | |
|---|---|
| Accusing | Informing |
| Advising–Future | Justifying |
| Advising–Past | Off–Task |
| Anticipating | Prompting |
| Commanding | Requesting Information |
| Commenting | Requesting Repetition |
| Depreciating–Other | Supporting Other |
| Depreciating–Self | Supporting Self |

In addition to being classified by category, each comment is
coded for Subject (the player who makes the comment), Negation
(use of), an Inadequate comment, and a Circle Check (indi-
cating that a more complex comment was made). Definitions and
examples of each of the 16 categories as well as all codes are
provided in the test manual.

## Norms

Normative data were collected on 528 normal hearing stu-
dents aged 8 to 13 years and 64 learning disabled children.
Norm tables are arranged in three age categories: 8-0 to
9-11, 10-0 to 11-11, and 12-0 to 13-11 years. Mean scores and
percents are presented for all categories tested by the ILSA,
as well as a rank order of categories by frequency of occur-
rence. Data include standardized scores, percentile ranks,
and standard deviations.

## Reliability

No reliability information is provided.

## Validity

No validity information is provided.

## Advantages:

1) Few other assessments attempt to measure social lan-
   guage in an organized fashion.
2) The table game format is appealing to most students in
   the target population.
3) The social skills of language within the test are
   those often not identified but are ones that should be
   in hearing-impaired students.
4) Teachers could select one or two social/language be-
   haviors from the test to measure and teach to hear-
   ing-impaired students.

## Disadvantages

1) If the entire test is used, transcription and analysis
   are time-consuming.
2) A videotape of the game would very likely be required
   to use this tool with hearing-impaired students in a
   total communication environment.

## *MARYLAND SYNTAX EVALUATION INSTRUMENT (MSEI)

Normed on hearing-impaired
students
attending residential schools
Ages 6-0 to 11-11 years
Expressive

White, A.H. (1981). Maryland Syntax Evaluation Instrument.
Support Systems for the Deaf, Box 428, Sanger, TX 76266.
Approximate Cost: $65.00.

### General Description

The Maryland Syntax Evaluation Instrument (MSEI) is an ex-
pressive (written) test designed to provide educators of the
deaf with a "meaningful way o evaluate and diagnose the lan-
guage of their hearing-impa.red students."

### Instructions/Test Administration

The MSEI consists of a color filmstrip with 10 pretest and
10 posttest pictures ured to elicit a written language sample
of 10 sentences (one sentence per picture). The pictures are
designed to elicit a variety of sentence types. Children too
young to write may respond using speech or signs.

The child's language sample is recorded and scored on an
evaluation form. Scoring consists of a complicated analysis
of each word-string. (The scoring section of the manual is 14
pages long and instruction in scoring procedures requires sev-
eral hours.) Instead of scoring errors, the examiner gives
credit for what the child knows about English syntax.

### Norms

The MSEI was standardized on 220 hearing-impaired children
at three different residential schools for the deaf, each with
a different methodological philosophy: total communication,
oral, and the Rochester Method. Of these subjects, 84% had
hearing losses of 90 dB HL or greater in the better ear.

### Reliability

Reliability between Form A and Form B was .88. Inter-
scorer reliability was high; a Pearson Product-Momen. cor-
relation coefficient was .74 for 25 language samples.

Predictive Validity

Teachers' rankings of 30 subjects' language samples cor-
related highly (r = .94) with MSEI computed syntax scores for
those samples.

Advantages

1) The MSEI was designed for use with hearing-impaired
   children who attend residential schools.
2) It may be administered individually or in groups.
3) The MSEI may yield information relevant to diagnosis
   and evaluation.
4) The pictures are good and most students tend to like
   them.

Disadvantages

1) The MSEI takes a long time to administer and score.
2) The complicated scoring system requires several hours
   of training. The author's definitions of terms used
   in scoring and sentence types differ from currently
   accepted linguistic use.
3) The MSEI tests only written expressive language.
4) Appropriate equipment is needed, e.g., tape recorder
   and/or videotape equipment, for recording responses
   when MSEI is administered in simultaneous communi-
   cation.
5) Norms are based on written responses only.
6) Within the norm group, numbers in age categories vary
   greatly (e.g., 15 in the 6-0 to 6-11 age category, 85
   in the 9-0 to 9-11 group).
7) It would be useful to have norms for a hearing sample
   as well (i.e., how does a hearing child with syntactic
   competence perform?), which MSEI lacks.
8) As the author points out, norm subjects may not be
   representative of hearing-impaired children in all
   programs (subjects were from residential schools only).

### MILLER-YODER LANGUAGE COMPREHENSION TEST (M-Y)
#### (Clinical Edition)

Hearing Norms
Ages 4-0 to 8-0 years
Receptive

Miller, J.F., & Yoder, D.E. (1984). The Miller-Yoder Test of
Grammatical Comprehension: Clinical Edition. Pro Ed,
5341 Industrial Oaks Boulevard, Austin, TX 78735.
Approximate Cost: $49.95.

General Description
The Miller-Yoder Test is a picture selection test for
measuring hearing children's grammatical comprehension. The
Clinical Edition replaces an earlier Experimental Edition
published in 1975.

Instructions/Test Administration
The M-Y consists of 84 sentences forming 42 sentence pairs
with 10 basic grammatical forms tested (e.g., preposition,
possessive, verb inflections, passive reversible, reflex-
ivization). The sentence pairs differ only in the particular
grammatical feature being tested (e.g., "Spot is barking at
her," vs. "Spot is barking at him."). Each sentence is repre-
sented by a drawing. There are 42 plates with four pictures
appearing on each plate (two are tested, two are distractors).
The test administrator reads the test sentence out loud, and
the child selects the corresponding picture. The Miller-Yoder
takes about 20 minutes to administer. Two practice plates are
provided. The new format of the M-Y allows the examiner to
administer the entire test or portions of the test, which are
arranged according to developmental age level. Analysis of
the data provides 1) a total score (TS) whereby the examiner
can compare the test child's score with those of others his
age or find out which age level he is closest to, 2) a de-
velopmental age level which provides the examiner with age
levels at which 60% or 90% of the population passed, and 3) an
error analysis which permits the examiner to compare the test
child's incorrect sentences with what would be expected accor-
ding to the difficulty of the sentence.

## Norms

Owings (1972)* and Carlson (1977)* both developed nor-
mative data for the M-Y. A total of 172 subjects from the
Madison, Wisconsin area participated in the studies. All
subjects were from middle socioeconomic groups and had no
handicapping conditions. All were fi   monolingual homes.
Age norms and the developmental sequence of the test were
developed from the combined studies.

## Reliability

Owings' (1972) study demonstrated that the M-Y was re-
liable (.93 Hoyt Reliability Index). During the development
of the Clinical Edition the original data from the Owings
study were re-examined for internal consistency. An internal
consistency reliability coefficient of .92733 was obtained.

## Validity

Content validity is based on data obtained in Owings'
(1972) work. This study was limited to 3- to 6-year-old chil-
dren only. Concurrent validity is reported in the manual as
demonstrated through 10 years' use of the earlier edition of
the M-Y as a routine clinical procedure at the University of
Wisconsin Speech and Language Center in combination with for-
mal and informal assessment procedures.

## Advantages

1) The test is quick and rasy to administer.
2) It can be adapted for use with hearing-impaired chil-
   dren.
3) A variety of grammatical constructions, ranging from
   simple to more complex, is tested.
4) The score sheet shows at a glance areas of strengths
   and weaknesses. Individual error analysis is possible.
5) It is possible to give the entire test, or any portion
   the examiner wishes.
6) Norms are now available for ages 4 to 8 years.

## Disadvantages

1) Test validity information is based on 3-   t ⌐. ,-old
   children only, from the 1972 study by Owings.
2) Considerable practice is necessary before one can per-
   form the new scoring technique quickly and accurately.

Test Descriptions

* Carlson, K. (1977). Miller-Yoder Test of Grammatical
      Comprehension: Norms for three through eight year olds.
      Unpublished paper. Madison: University of Wisconsin-
      Madison.
   Owings, N.O. (1972). Internal reliability and item analysis
      of the Miller-Yoder Test of Grammatical Comprehension.
      Unpublished Master's thesis. Madison: University of
      Wisconsin-Madison.

NORTHWESTERN SYNTAX SCREENING TEST (NSST)

Hearing Norms
Ages 3-0 to 7-11 years
Receptive/Expressive

Lee, L.L. (1971). Northwestern Syntax Screening Test.
Northwestern University Press. 1831 Hinman Ave.,
Evanston, IL 60201. Approximate Cost: $10.00.

## General Description

The NSST is intended to screen receptive and expressive
use of syntactic forms by children aged 3 to 8 years.

## Instructions/Test Administration

The NSST consists of 40 sentence pairs (20 receptive
pairs, 20 expressive pairs) with accompanying pictures. Each
sentence pair tests a specific syntactic form. Sentences are
arranged in approximate order of increasing difficulty.

For the receptive items, the examiner reads a sentence and
the child points to the appropriate picture, given a choice of
two or four pictures. For the expressive items, the child
produces a sentence for two pictures after the examiner first
produces the sentence (delayed imitation). The picture to be
referred to first has an asterisk beside it. For example: The
boy is sitting.* The boy is not sitting. The examiner says:
"Show me 'The boy is sitting.'" The examiner scores the ex-
pressive portion of the test by determining whether a response
is correct. If a child changes the response but uses the same
test item and maintains correct grammar and meaning, the sen-
tence is still considered correct. For instance, this would
occur if the examiner says: "The baby is not sleeping," and
the child states: "He is not sleeping," where the pronoun
does not affect the test item "not" nor the correctness of the
sentence. A score of 1 is given for each correct response. A
perfect score would be 40 on each of the two parts of the test,
receptive and expressive. Either the receptive or expressive
portion may be administered and scored separately.

Time required for testing is approximately 15 minutes. A
shorter version of the NSST may be administered if large num-
bers of children must be screened.

Test Descriptions

## Norms

As of 1971, data were collected on 344 public school chil-
dren between the ages of 3-0 and 7-11 with no known language
disorders.  More recent data were collected on 242 children
from middle- and upper-income homes where Standard American
dialect was spoken.  Percentile rankings and standard devia-
tions are provided for each 1-year age interval for the re-
ceptive and expressive subtests.  Children scoring lower than
2 standard deviations below the mean on either portion of the
test require further testing.  Guidelines for interpretation
of test scores are provided.

## Reliability

No reliability data are provided.

## Validity

No validity data are provided.

## Advantages

1)  The NSST is a short and easy screening test to ad-
    minister (although scoring the expressive items is
    somewhat complicated).  It is convenient for screen-
    ing large numbers of children.
2)  The examiner can give the test using total communi-
    cation.
3)  The NSST would be appropriate for older hearing-
    impaired students, especially those with low En-
    glish skills.
4)  Pictures are clear and simple.
5)  Items are arranged in approximate order of increasing
    difficulty.

## Disadvantages

1)  No information is provided regarding reliability and
    validity of the NSST.
2)  The expressive portion of the test is essentially an
    imitation task.
3)  Some grammatically correct sentences may be scored as
    incorrect.
4)  Memory span is not considered in the test design, but
    may affect student responses.

PEABODY PICTURE VOCABULARY TEST - REVISED (PPVT)

Hearing Norms
Ages 2-6 to 40-0 years
Receptive

Dunn, L.M., & Dunn, L.M. (1981).  Peabody Picture Vocabulary
Test - Revised.  American Guidance Service, Publisher's
Building, Circle Pines, MN 55014.  Approximate Cost:
$49.00 (regular edition), $65.00 (special edition).

General Description
    Th? Peabody Picture Vocabulary Test - Revised (PPVT) is an
individually administered, norm-referenced test of receptive
vocabulary designed for people aged 2-6 to 40 years of age.

Instructions/Test Administration
    Two parallel forms, L and M, are provided.  Each form con-
tains five training items followed by 175 test items arranged
in order of increasing difficulty.  Each item has four simple
black and white illustrations arranged on one page in a mul-
tiple-choice format.  The subject's task is to select the
picture which best illustrates the meaning of the stimulus
word presented by the examiner.  The test requires 10 to 20
minutes to administer.

Norms
    The PPVT was standardized on 5,028 hearing subjects (4,200
children and adolescents, and 828 adults).  Norm subjects rep-
resent 6-month age intervals from ages 2-5 to 6-5, and 1-year
intervals beyond.  Males and females are represented equally
(100 of each sex at each age level); also represented are a
range of geographic locations, occupations, ethnic groups, and
community size.  Raw scores convert to age-referenced norms.
(Grade-referenced derived scores are available from the pub-
lisher on request.)  Three types of norms are reported:  stan-
dard score equivalent, percentile ranks, and stanines.  Also
reported are developmental-type age norms:  age-equivalent
scores.
    Exhaustive data are presented in the revised version of
the PPVT regarding test construction, standardization, and
norms development.

Test Descriptions

## Reliability

Exhaustive data are provided regarding standard error of measurement, alternate forms, and internal consistency.

## Validity

Exhaustive data are provided regarding content validity, construct validity, and criterion-related validity.

## Advantages

1) The test is brief and easily administered (i.e., instructions are easy for children to understand).
2) The PPVT has been shown to be adaptable for use with hearing-impaired children as a test of either signed or written vocabulary reception (see Notes below).
3) Test administration can be learned in a short time.
4) Pictures are clear and easy to understand.

## Disadvantages

1) It is often difficult to reach a ceiling with hearing-impaired children. Therefore, test administration may be prolonged.
2) Test items may be represented by more than one sign, or may not be easily represented by a sign at all. Therefore, the tester may want to fingerspell test items to older students. In this case, results may be affected by the student's ability to understand fingerspelling.

## Notes:

1) Force (1977)* presented the PPVT stimuli in printed form to 196 deaf and hard-of-hearing children in year 7 of their educational program. PPVT scores correlated with SAT scores for word meaning, paragraph meaning, and language (ranging from .61 to .67). These correlations may be spuriously inflated, however, because reading is involved in both tests. These data are based on the old version of the PPVT.
2) The Total Communication Receptive Vocabulary Test, which was normed on hearing-impaired students, may be a preferable test at least for younger hearing-impaired students.

* Forde, J. (1977).  Data on the Peabody Picture Vocabulary
    Test.  American Annals of the Deaf, 122, 38-43.

PRESCHOOL LANGUAGE ASSESSMENT INSTRUMENT (PLAI)

Hearing norms
ges 3-0 to 6-0 years
Receptive/Expressive

Blank, M., Rose, S.A., & Berlin, L.J. (1978). Preschool
Language Assessment Instrument. Grune and Stratton, Inc.,
6277 Sea Harbor Drive, Orlando, FL 32831. Approximate
Cost: $74.00.

## General Description

The PLAI is an experimental test designed to assess the 3-
to 6-year-old hearing child's ability to meet the language de-
mands of a verbally based instructional situation.  In other
words, the PLAI assesses the preschool child's discourse
skills; the examiner places demands on the child which require
comprehension and use of language at various levels of ab-
straction.  The 60 test items are divided into four main
groupings:

    I.   Matching Perception - e.g., "What things do you see
        on the table?"

    II.  Selective Analysis of Perception - e.g., "What shape
        is the bowl?"

    III. Reordering Perception - e.g., "Show me the part of
        the egg we don't eat."

    IV.  Reasoning about Perception - e.g., "What will happen
        to the cookies when we put them in the oven?"

## Instructions/Test Administration

The test contains a manual, a related textbook, The Lan-
guage of Learning:  The Preschool Years, by the test authors,
and picture plates for the 60 test items.  The test requires
approximately 20 minutes to administer.  The examiner shows
the child one test plate at a time and asks questions related
to the picture stimulus.  The majority of the test items re-
quire a verbal response from the child; however, for 10 test
items the child is required to point to one picture from a
selection of several on a page.  The answers are recorded com-
pletely on the score form.

Analysis of each answer is possible both quantitatively and qualitatively. A numerical score of 0-3, with 3 being "Fully Adequate" and 0 being "Inadequate," is given for each test item. A mean score is obtained for a child's performance in each of the four groupings. These scores reflect the child's ability to comprehend complex language, as well as his or her cognitive skills. For example, pointing to a stack of four spools, the examiner asks "What would happen to the pile if I took this one [point to the bottom one] away?" The examiner derives a percentile ranking from the numerical scores in order to compare a child's performance to that of others of similar age and socioeconomic background.

A second, qualitative, analysis yields information regarding the quality of a child's expressive language. This form of scoring is optional. The child's response is coded in one of seven categories: Fully Adequate, Acceptable, Ambiguous, Inadequate-Invalid, Inadequate-Irrelevant, Inadequate-Don't Know, or Inadequate-No Response. The test booklet defines the code to be assigned to the child's response. The scores for each category are then summed and a percentage of the child's responses in each category is calculated. The information provided assists a teacher in knowing whether a child processes and understands complex information and, separately, how well he is able to respond—in a single word or complete sentence.

## Norms
One hundred and twenty children aged 3-0 to 5-11 years were matched for age, sex, and socioeconomic background. Normative data are reported at half-year intervals by skill group and socioeconomic level.

## Reliability
Inter-rater reliability was judged to be from 92-94 percent among four raters evaluated.

Split-half reliability was assessed for the total sample. Skill group scores are I=.64, II=.80; III=.83; and IV=.86. The scores reflect a high degree of internal consistency.

The developers assessed test-retest reliability using 34 subjects. Scores for each skill group were I=.73; II=.83; III=.86; and IV=.88.

## Validity

Content validity – The developers demonstrated content validity by having five psychologists and special education teachers categorize the 60 test items after reading selected chapters in the textbook. Agreement between the five raters was reached on 75% of the items; 95% agreement on the items was reached by at least four of the five raters.

Discriminative validity – The PLAI was administered to a group of 14 preschool language–impaired children. They all scored below the 25th percentile. The authors concluded that the PLAI will discriminate among children according to their language ability.

Construct validity – Two measures of construct validity are reported by the authors. First, test performance increases with age; and second, the individual skill groups reflect increasing difficulty. (Group II is more difficult than Group I, etc.) The authors additionally report a difference in overall test scores between children from middle and lower socioeconomic groups.

## Advantages

1)  The test helps determine whether the child understands complex as well as simple language constructions.
2)  The student receives credit for comprehending the information which is reflected in a simple one–word answer, but may receive additonal credit for a complete, grammatically correct sentence.
3)  The test is brief, which is appropriate for preschool–aged children.
4)  It attempts to assess a child's language for instructional purposes, using discourse commonly used in teaching environments.
5)  The sentences used to elicit answers can easily be signed.
6)  It is one of the few tests designed to evaluate more than vocabulary, word endings, and syntax.

## Disadvantage

1)  Some pictures are small and contain too many objects on one page.

RECEPTIVE ONE-WORD PICTURE VOCABULARY TEST (ROWPVT)

Hearing Norms
Ages 2-0 to 11-11 years
Receptive

Gardner, M.F. (1985).  Receptive One-Word Picture Vocabulary
Test.  Academic Therapy Publications, 20 Commercial
Boulevard, Novato, CA 94947.  Approximate Cost:  $36.00.

## General Description

The Receptive One-Word Picture Vocabulary Test (ROWPVT) is
designed to assess hearing children's receptive single-word
vocabulary.  The ROWPVT evaluates only a child's receptive
vocabulary skills whereas its expressive counterpart, the Ex-
pressive One-Word Picture Vocabulary Test (EOWPVT), assesses a
child's expressive single-word vocabulary.  The author states
that, by using both the ROWPVT and the EOWPVT, one can compare
results to show differences in a child's receptive and expres-
sive language skills.

## Instructions/Test Administration

The ROWPVT requires approximately 10-15 minutes to admin-
ister and it is not a timed test.  The examiner provides a
stimulus word which depicts one of four pictures the child
sees on a page.  The child is required to identify the picture
which illustrates the stimulus word.  The items are adminis-
tered within a critical range.  One determines this range by
first establishing a basal of eight consecutive correct re-
sponses, and then ends it when a ceiling of six incorrect
responses out of eight consecutive items has been obtained.
The child's raw score, the number of correct responses, is
used to compute four types of derived scores:  (1) language
age, (2) language standard score, (3) stanine, and (4) per-
centile rank.

## Norms

The ROWPVT was standardized on 1,128 children ages 2-0
years through 11-11 years who resided in the San Francisco Bay
area.  The EOWPVT was administered concurrently and used for
correlations with the scores obtained from the ROWPVT.  The

vocabulary subtest of the Weschler Preschool and Primary Scale of Intelligence (WPPSI) or the Weschler Intelligence Scale for Children-Revised (WISC-R) was administered to 935 children in order to obtain validity information.

Correlation of the raw scores between the ROWPVT and the EOWPVT was high:   .89.

## Reliability

Cronbach's Alpha, an average of all possible split-half reliabilities, was employed to estimate reliability for the ROWPVT.  Reliability was high; coefficients ranged from .81 to .93 with a median value of .90.

The Standard Error of Measurement (SEM) was calculated to determine how much the obtained scores would vary if the ROWPVT were administered several times to the same individual. The median SEM was found for raw scores to be 3.33, and for language scores, 4.50.

The Standard Error of Difference, which compares the standard scores of one test to another, ranged from 5.61 to 8.08 with a median of 6.09.  Additionally, the 85 percent confidence limit ranged from 8.08 to 11.63 with a median of 8.77.

## Validity

Content validity was establisned during the ROWPVT's development.  Teachers from grades K-6 evaluated the pictures and verbal descriptions for their appropriateness.

Developers established item validity by retaining only those items which yielded a greater percent passing as chronological age increased.

They established criterion-related validity by comparing the raw scores from the ROWPVT with the raw scoies from the WPPSI and the WISC-R.  The median coefficient value was low: $r = .41$.  However, this may have been because of a lower raw score range for both the WPPSI and the WISC-R.  Therefore, because of the high correlation between the raw scores of the EOWPVT and ROWPVT ($r = .89$), additional criterion-relaced validity can be inferred from the EOWPVT.

## Advantages

1)  The pictures are good; they are simple line drawings presented across the page.

2) The ROWPVT requires little time to administer and score.

3) It provides a receptive counterpart to the EOWPVT.

## Disadvantage

1) Standard signs may not be available for all pictures.

*RHODE ISLAND TEST OF LANGUAGE STRUCTURE (RITLS)

Norms for hearing-impaired
children and youth
Ages 5-0 to 17+ years
Receptive

Engen, E., & Engen, T. (1983). Rhode Island Test of Language
Structure.Pro Ed, 5341 Industrial Oaks Boulevard, Austin,
TX 78735. Approximate Cost: $49.95.

General Description
The RITLS is designed to assess hearing-impaired child-
ren's level of language development and to provide sufficient
assessment data for planning intervention. The RITLS provides
information about the child's comprehension of language struc-
ture through presentation of simple to complex sentence struc-
tures of the language. In other words, it tests children's
syntactic and semantic processing of sentences. The test is
designed for use with hearing-impaired children ages 5-0 to
17+ years. Although the test is designed primarily for use
with the hearing impaired, normative data are given for hear-
ing children ages 3-6 to 6-0 years. The authors point out
that these are the years when a .earing child is developing
his or her comprehension of simple and complex sentence struc-
tures; however, hearing-impaired children may have delays in
these areas throughout their school-age years. The test man-
ual does provide suggestions for using the RITLS with langu-
age-delayed hearing children.

Instructions/Test Administration
The RITLS consists of a test manual, a test booklet with
100 picture test items, and a score sheet. There are 50 sim-
ple sentences and 50 complex sentences. The examiner reads a
sentence to the child while showing a page with three differ-
ent pictures on it, and the child selects the picture which
describes the sentence the examiner read. The manual includes
verbal instructions to give to the child as well as instruc-
tions about how to give the test. The child's responses are
recorded on a response sheet and then entered on the analysis
sheet, which classifies the correct and incorrect responses

for each sentence category. After obtaining a raw score, ex-
aminers can determine percentile and standard score according
to age.

## Norms

The RITLS was normed on 513 hearing-impaired children ages
5-0 to 17+ years and 304 hearing children ages 3-6 to 6-0
years. In addition, a pilot study included 69 hearing-im-
paired children ages 5 to 16 years and 91 5-year-old hearing
children. The hearing children were from the Rhode Island
area and the hearing-impaired children were from several east
coast states.

Because by age 7 the hearing children were able to com-
plete the test with few errors, normative data are presented
for hearing children only up to age 6.

## Reliability

The Kuder-Richardson formula 20 was used to evalute reli-
ability for the two groups of children in the pilot study.
The results showed good reliability: .72 for the 91 hearing
subjects and .88 for the 69 hearing-impaired subjects.

## Validity

The authors discuss content validi   and construct valid-
ity in the test manual, and present inform    , to support the
validity of the items used on the RITLS.

Rank order of difficulty of the sentence types was deter-
mined for the normative and pilot study groups. The Spearman
rank order correlation coefficient for the hearing-impaired
group was .94, and for the hearing group it was .85.

## Advantages

1)  The test was normed on hearing-impaired subjects and
    also provides normative information on hearing chil-
    dren.

2)  For the most part, the pictures are good; the actions
    in the pictures are easy to understand.

3)  The manual provides much information on the research
    which went into devising the test as well as language
    problems encountered by school-age hearing-impaired
    children.

   4) The test is easy to score.

Di:advantage

   1) The manual, although informative, is difficult to
      read, particularly when one is preparing to give the
      test. For example, information about test adminis-
      tration is at the end of the manual, whereas normative
      data are scattered throughout the beginning section.
      The examiner must read and prepare carefully.

ROCKFORD INFANT DEVELOPMENTAL EVALUATION SCALES (RIDES)

No Norms
Ages 0 to 4-0 years
Receptive/Expressive

Developed by staff from Project RHISE, Children's Development
Center, Rockford, IL (1979). Scholastic Testing Service,
Inc., 480 Meyer Road, Bensenville, IL 60106. Approximate
cost: $33.56.

General Description
The Rockford Infant Developmental Evaluation Scales
(RIDES) is designed to assess a young child's developmental
functioning level in five major skill areas: (1) Personal-
Social/Self-Help, (2) Fine Motor/Adaptive, (3) Receptive Lan-
guage, (4) Expressive Language; and, (5) Gross Motor. The
items in each skill area are developmentally sequenced and
arranged at 3- to 6-month intervals.

Instructions/Test Administration
The RIDES is a checklist consisting of 308 developmental
behaviors ranging from birth to 4-0 years. It is designed for
use as an informal assessment tool.
The RIDES is not a timed test, and may be administered in
several sessions in order to obtain the best results. The
RIDES can be administered in three ways:
   (1) by asking the parent(s) for information and scoring an
       item on the basis of their report,
   (2) by observing the child for spontaneous actions and
       behaviors; and
   (3) by presenting to the child a specific task in order to
       elicit the desired response.
The administration of the RIDES requires age-appropriate
materials for each child being evaluated. The RIDES manual
provides a complete description of all materials needed for
administration. The administration of the RIDES begins in the
age range immediately preceding the child's chronological age.
Each item is scored on a 0-1-2-3 scale. A score of 0 indi-
cates the child was unable to perform the appropriate re-
sponse; 1 indicates a particular behavior is emerging; 2 in-

dicates a particular behavior is performed on occasion; and 3
indicates the child can perform a particular behavior consis-
tently on several occasions.   The manual includes a complete
description of the scoring scale.

After scoring each skill area, the examiner records scores
on the Individual Child Progress Graph.  The graph provides a
visual display of the child's functional level in each skill
area.

## Norms
The RIDES is not a standardized test; therefore, no nor-
mative data are provided.

## Reliability
Not applicable.

## Validity
Not applicable.

## Field Evaluation
The RIDES was field-tested during its development.  In
all, 32 manuals, checklists, and evaluation forms were distri-
buted to 14 agencies in seven states that served young chil-
dren.  Thirty-two professionals reviewed the RIDES manual and
in some cases administered it.  The RIDES was administered to
children by the early intervention team developing the RIDES
as well as by the 32 professionals in other agencies.

## Advantages
1) The manual is well written with clear, concise direc-
   tions for administration and scoring.
2) The manual is well organized; it is divided into the
   five skill areas and includes descriptions of each
   test item.
3) The test items are arranged developmentally in 3-6
   month age intervals.
4) The RIDES assesses a wide range of developmental func-
   tions for 0-4 years.
5) The RIDES is easy to administer and score.
6) The RIDES can be administered at various age intervals
   to show the child's progress.

Disadvantages
1) Several items under Recepti e Language at 3-6 months and 9-12 months are not app opriate for hearing-impaired children; to pass, the child must have good auditory skills (e.g., stops activity when name is called; listens to and understands new words).
2) The RIDES does not include a cognitive skill area.

## SEQUENCED INVENTORY OF COMMUNICATION DEVELOPMENT(SICD-R)

Hearing Norms
Ages 4 months to 4-0 years
Receptive/Expressive

Hedrick, D., Prather, E., & Tobin, A. (1975; Revised edition, 1984).  Sequenced Inventory of Communication Development. University of Washington Press, 4045 Brooklyn Avenue, N.E., Seattle, WA 98105.  Approximate Cost:  $250.00.

### General Description

The SICD-R is designed to evaluate the receptive and expressive communication skills of normal and retarded children who are functioning between 4 months and 4 years of age.  According to the authors it has also been used successfully with visually impaired and hearing-impaired children.  Its primary usefulness is in screening the communicative behaviors of children and identifying areas that might require further, in-depth assessment. Although actual test items have not been revised, new data and a Spanish translation have been added. The Instruction Manual has been separated from the Test Manual and the Receptive and Expressive profiles have been updated to include cognitive and pragmatic aspects of communication.

### Instructions/Test Administration

The SICD-R has two major sections:  receptive and expressive.  The receptive section includes behavioral items (some parental response items) that test sound and speech awareness, discrimination, and understanding.  The expressive section includes three types of expressive behaviors which are elicited--imitating, initiating, and responding--as well as a sample of the child's spontaneous language.  This language sample is evaluated for length and grammatic and syntactic structures of verbal output.  A person experienced in using the SICD can complete the test in 30 to 60 minutes. The SICD-R includes a Spanish translation which has been used in the Miami, Florida area since 1978, with periodic revisions being made as necessary.

## Norms

The original SICD was standardized on 252 Caucasian chil-
dren, 21 at each of 12 age levels between 4 and 48 months.
Equal numbers of children were drawn from high, middle, and
low socioeconomic groups, based on parental education and
occupation. Language development was judged normal by the
child's parents, and hearing was normal. Age groups of sub-
jects passing receptive and expressive items at four percen-
tage levels are given in the manual. Also shown are means and
standard deviations for both the receptive and expressive
"communication age." In addition, the revised edition in-
cludes new field data on 333 normal Caucasian children and 276
normal Black children from Detroit. A discussion of these data
is included.

## Reliability

Interexaminer reliability, test-retest reliability, and
scoring reliability all exceeded .90.

## Validity

No validity data are provided.

## Advantages

1) The test may be administered in total communication.
2) The SICD-R assesses a range of communicative and lin-
   guistic behaviors for a young age group.
3) Parental responses are used; this can be an advantage
   because parents are often very familiar with their
   children's behavior.
4) The imitation and auditory discrimination items may be
   appropriate for some hearing-impaired children, es-
   pecially those who have mild to moderate hearing
   losses.
5) The SICD-R contains items testing understanding of
   functions, e.g., "What do you cook with?"

## Disadvantages

1) Items involving sound discrimination and auditory re-
   sponses are not appropriate for all hearing-impaired
   children and should not always be included in the
   total scores.

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2) Some expressive areas are assessed by only three or four items; therefore, results must be interpreted cautiously.

3) No validity data are provided.

4) Much practice is required to administer the <u>SICD</u> efficiently and effectively.

*SKI-HI RECEPTIVE LANGUAGE TEST (SKI-HI RLT)

No normative data but designed to be
used with hearing-impaired children
Ages 3-0 to 6-6 years
Receptive

Longhurst, T.M., Briery, D., & Emery, M. (1975). SKI-HI
Receptive Language Test. Project SKI-HI, Dept. of Com-
munication Disorders, Utah State University, Logan,
UT 84322. Approximate Cost: $56.00.

General Description
The SKI-HI Receptive Language Test (RLT) was developed to
be used with hearing-impaired children and is similar to the
Assessment of Children's Language Comprehension Test (ACLC),
which was developed to determine how many word classes in dif-
ferent combinations of length and complexity a child compre-
hends. It probes the hearing-impaired child's ability to
understand single-word utterances, as well as two-, three-,
and four-critical element utterances. These "critical ele-
ments" consist of agents, actions, attributes, relations, and
objects, such as dirty cup, big happy clown, etc.

Instructions/Test Administration
In the SKI-HI RLT, the child is required to point to the
picture corresponding to the word, phrase, or sentence read by
the examiner. The child must correctly identify 50 common
vocabulary items before continuing with the remainder of the
test. There are 20 plates with five test items per plate at
the single element level. In Parts B and C (two and three
critical elements), there are 10 plates with four pictures
per plate. In Part D (four critical elements), there are 10
plates with five pictures per plate.

Norms
The SKI-HI RLT is not a standardized test; therefore, no
normative data are provided.

Reliability
No reliability data are provided.

Test Descriptions

<u>Validity</u>

No validity data are provided.


<u>Advantages</u>

1) The pictures are colored and are much bigger and clearer than those in the <u>ACLC</u>, and are therefore more appropriate for use with young children.

2) Like the <u>ACLC</u>, the test a) is developmentally sequenced, b) is one of the few tests of semantic relationships, and c) requires a pointing response only.

3) It gives practical information about the length of utterance the child can comprehend.

4) It tests vocabulary items first, so the examiner knows that later errors are not made because the child is unfamiliar with words used in the phrases.


<u>Disadvantages</u>

1) Some of the pictures (e.g., for prepositions) are confusing, or are laid out in a confusing manner on the page.

2) No norms or reliability and validity data are provided.

3) There is only one training picture.

4) The large recording sheet is hard to manipulate (but can be re-typed on standard size paper).

\*THE SKI-HI LANGUAGE DEVELOPMENT SCALE (<u>SKI-HI LDS</u>)

No normative data
Ages 0 to 5-0 years
Receptive/Expressive

Tonelson, S., & Watkins, S. (1979). <u>The SKI-HI Language</u>
<u>Development Scale</u>. Project SKI-HI, Dept. of Communication
Disorders, Utah State University, Logan, UT 84322. Ap-
proximate Cost: $1.25 (manual); $.34 (each test form).

## General Description

The <u>SKI-HI Language Development Scale</u> (<u>LDS</u>) lists expres-
sive and receptive language skills that children from 0 to 5
years old would "normally demonstrate." It is designed to be
administered by parents of hearing-impaired children but is an
excellent tool for coordinated use by preschoc. teachers in
nursery programs and parents, as well as parents and home
visitors in early childhood programs.

## Instructions/Test Administration

The <u>LDS</u> is developmentally ordered and contains a list of
communication and language skills in varying intervals for
different ages (2-month intervals for infants 0 to 2 years
old; 6-month intervals for children 4 and 5 years old). Each
age interval is represented by enough observable receptive and
expressive language skills to obtain a good profile of a
child's language ability.

The scale may be explained to parents and left with them
for 1 week, during which time they observe and check (with
plus or minus marks) the child's receptive and expressive lan-
guage behaviors. It may also be used by the teacher in the
classroom in the same way. Parent and teacher can, if they
wish, compare results and together develop plans for language
goals. One determines a child's developmental language pro-
file by noting the highest unit in which 50% or more skills
are observed.

## Norms

The <u>SKI-HI LDS</u> is not a standardized test; therefore, no
normative data are provided.

Test Descriptions

## Reliability

Inter-rater reliability estimates were high for all units: mean percentage of agreement among raters for the expressive language scale was 68%. Test-retest rater reliability indicated good reliability for both receptive and expressive units. Internal consistency of both scales was high.

## Validity

Concurrent validity – Concurrent validity was good; LDS scores correlated highly with scores on the Bzoch-League Receptive-Expressive Emergent Language Scale (REEL).

Construct validity – "Coefficients of reproducibility" as determined by the Gut  an Scaling technique  ere uniformly high for both units and for items within units, indicating good construct validity.

## Advantages

1) The LDS was developed for use with hearing-impaired infants and children and includes few auditory skills (i.e., language skills are evaluated independently of hearing).

2) A wide range of skills are assessed from 0 to 5 years.

3) When the test is administered by parents, observations are more likely to be made over a wider time range and therefore may be more valid than those made during one session by an independent observer.

4) Units are not labeled by age intervals, which may enhance objectivity of parental reports, but age intervals are available and may be used if desired.

5) The form can be left with parents to complete at their leisure, used in the classroom, or used jointly.

6) The age level sheet is helpful for assigning a language age to a unit and discussing the child's delay(s) with the parents.

STRUCTURED PHOTOGRAPHIC EXPRESSIVE LANGUAGE TEST - II
(SPELT-II)

Hearing Norms
Ages 4-0 to 9-5 years
Expressive

Werner, E. O'H., & Kresheck, J. (1983). Structured
Photographic Expressive Language Test-II. Janelle Publi-
cations, Inc.; P.O. Box 12, Sandwich, IL 60548. Approx-
imate Cost: $50.00.

## General Description

The SPELT-II, a revision of the SPLT (1974), is a method
of assessing a child's production of expressive morphology and
syntax. Revisions were made to the SPLT, including the addi-
tion of the word "expressive" to the title, and thus the in-
strument became the SPELT-II in 1983.

The SPELT-II is designed to measure hearing children's
production of specific morphological and syntactical struc-
tures. Responses are elicited through structured visual and
auditory stimuli. The visual stimuli are colored photographs
of children, adults, and animals interacting in everyday sit-
uations and activities. The auditory stimuli are brief state-
ments or questions the examiner says while showing the pic-
ture. The visual and auditory stimuli provide a contextual
framework to which a child can relate and form meaningful
responses.

The SPELT-II analyzes a child's ability to use several
common grammatical forms, and to perform rule-governed changes
in sentence structures. The grammatical forms and types of
sentences generated are listed in the manual.

## Instructions/Test Administration

The materials needed to administer the SPELT-II are the
packet of photographs and a response form. It takes approx-
imately 25 minutes to administer the SPELT-II. The directions
for test administration and the verbal instructions for the
examiner to give to the child are simple; all that is re-
quired is that the examiner show one photograph at a time to
the child while saying the eliciting statement. Elicitation

statements (e.g., "Tell me about this picture," "What do you see?") are clearly written out on the response form. The examiner writes the child's responses on the response form.

After the test has been administered, the child's responses are scored. If a target structure or form is produced correctly, a check mark is placed in the blank space next to the item number. An X is used to indicate an incorrect response. NR is placed to mean the child did not respond. The manual explains how to determine whether a response is correct or not. Examples of scoring responses are provided in the manual. In addition, examples of scoring responses for Black English are also given.

## Norms

The SPELT-II was standardized on 1178 Caucasian monolingual children between the ages of 4-0 and 9-5. They were randomly selected from preschools and public schools from the North Central and Southern sections of the country. The children were from either urban or rural communities and primarily middle class socioeconomic status.

Raw scores and means were calculated at each 6-month interval for the normative sample. No significant difference in male versus female performance was found. In addition, no significant difference between scores of children from different geographic areas was noted.

## Reliability

Three types of reliability were calculated on the SPELT-II; test-retest, internal consistency, and interscorer reliability.

Test-retest – Test-retest reliability was high, resulting in a coefficient of .91. The test-retest method was tested a second time with a group of 23 language-delayed children between the ages of 4-0 and 8-0. A coefficient of .87 was indicated.

Internal consistency – A split-half reliability measure on the odd numbered items vs. the even numbered items was used to measure internal consistency; 500 tests were selected from the total number of 1178, 50 tests selected from each 6-month interval. The split-half reliability coefficient was a value of .70. On the whole, internal consistency was adequate for the age group studied.

Interscorer reliability – A correlation of .99 indicated that examiners using the scoring guide in the manual are consistent in scoring the SPELT-II.

## Validity

The SPELT-II developers measured validity in three ways: content validity, construct validity, and concurrent validity.

Content validity – Each morphological structure used in the SPELT-II was scored for its content validity. Content validity was good for the following items: regular noun plurals, singular noun possessives, verb forms (present, past, future, and copula), prepositions, pronouns, and for the various syntactic structures used.

Concurrent validity – The developers assessed concurrent validity by comparing SPELT-II with other standardized measures of syntactic development, namely the Test of Language Development (TOLD) and the Developmental Sentence Scoring (DSS) method.

SPELT-II/TOLD: The two tests were administered to 20 normal children between the ages of 4-7 and 5-11. All children scored within their age range on both tests. The results showed an 86% agreement between the two tests.

SPELT-II/DSS: The SPELT-II was administered to 20 language-delayed children between the ages of 4-3 and 9-0. Examiners obtained a spontaneous language sample for each child and analyzed these by the DSS method according to the directions provided by Lee (1974). The correlation between the scores on the SPELT-II and the DSS method was .82.

Construct validity – Because the SPELT-II is a developmental test, an increase in score should be observed with an increase in age. Indeed mean scores do increase with age; a correlation of .97 was found between age and score.

Validity of the SPELT-II is also demonstrated by the finding that the data obtained follow the patterns of normal language development.

## Advantages

    1) The content of the SPELT-II is geared to the developmental level of the child and is arranged in developmental sequence.

    2) The test is easy to give and requires little time to administer.

3) The elicitation statements could easily be signed.
4) The pictures are exceptionally good; they are actually color photographs.
5) The manual is clearly written and the directions are explicit.
6) The manual provides samples of scoring techniques and possible responses.
7) The test was normed on a large sample of children, 1178.
8) The reliability and validity of the test are good.
9) The norms are arranged at 6-month intervals.
10) The SPELT II addresses problems of language delayed children.

*TEACHER ASSESSMENT OF GRAMMATICAL STRUCTURES (TAGS)

> No normative data but
> designed to be used
> with hearing-impaired
> children
> Ages 0 to 9-0+ years
> Receptive/Expressive

Moog, J.S., & Kozak, V.J. (1983). Teacher Assessment of
Grammatical Structures. Central Institute for the Deaf,
818 So. Euclid, St. Louis, MO 63110. Approximate Cost:
$16.50.

## General Description

The Teacher Assessment of Grammatical Structures (TAGS) is
a series of checklists which have been developed to evaluate a
child's understanding and use of the grammatical structures
(especially syntax) of English and to suggest a sequence for
teaching these structures. The checklists were designed par-
ticularly for use with hearing-impaired children who use spo-
ken and/or signed English, and are meant to be used as an al-
ternative to language sampling.

## Instructions/Test Administration

The structures listed on the three TAGS checklists are or-
ganized into three levels, allowing the examiner to evaluate
a child's syntactic development from the use of single words,
phrases, and two- and three-word sentences (Pre-sentence
Level), through simple sentences of four or more words (Sim-
ple Sentence Level), to more complex sentences (Complex Sen-
tence Level). Although choice of checklist is based on a
child's level of syntactic development, the authors suggest
the following age ranges for each level· TAGS-P (Pre-Sentence
Level): 5 years old and under; TAGS-S (Simple Sentence Level):
5 to 9 years old; and TAGS-C (Complex Sentence Level): 9+
years old.

On each checklist the grammatical structures are listed in
expected order of development. A checklist is completed over
a period of days or weeks for each child by his or her tea-
cher. It serves as a tool for helping the teacher record

observations of each child in an organized manner, and moni-
tors a child's progress through four levels of competence:
comprehension, imitated production, prompted production, and
spontaneous production. Teachers may need to contrive situ-
ations where structures can be produced in order to evaluate
a child's level of competence for some structures.

Norms
    TAGS is a criterion-referenced measurement tool, not a
norm-referenced one; therefore, no norms are necessary.
    The order of development of grammatical structures is
based on 1) the authors' experience in teaching hearing-im-
paired children, 2) their experience with standardized lan-
guage tests, and 3) their knowledge about language development
of normally hearing children.

Reliability
    TAGS is not a standardized test; therefore, no reliability
data are given.

Validity
    The authors state that evaluation in which these check-
lists are used is valid because:  1) the teacher, through
firsthand experience, knows the child's skills well; and
2) the ratings are based on observations over a period of
time, in a variety of situations, including teaching situa-
tions.  No other data are provided.

Advantages
    1)  The TAGS was designed for use by teachers of the hear-
        ing impaired.
    2)  It is useful in planning language instruction, meas-
        uring and recording progress, and reporting to parents.
    3)  Grammatical structures are listed in expected order of
        development (but see caution listed below).
    4)  The manual is easy to read and use.
    5)  The checklists are color-coded and correspond to col-
        ored sections of the manual.
    6)  Criteria for accepting a spoken or signed word as
        "recognizable" are included.

Disadvantages
1) The checklists are complex. A teacher would need some time to become thoroughly familiar with and skilled in using these forms.
2) The authors do not provide the theoretical basis and language development research for the developmental order of grammatical structures they describe.

TEST FOR AUDITORY COMPREHENSION OF LANGUAGE-REVISED (TACL-R)

Hearing Norms
Ages 3-0 to 9-11 years
Receptive

Carrow-Woolfolk, E. (1985). Test for Auditory Comprehension
of Language-Revised. DLM Teaching Resources, P.O. Box
4000, 1 DLM Park, Allen, TX 75002. Approximate Cost:
$95.00

## General Description

The Test for Auditory Comprehension of Language-Revised
(TACL-R) is a revised version of the TACL (1973). The TACL-R,
as does the TACL, measures auditory comprehension of lexical,
morphological, and syntactic structures of language without
requiring language expression from the child. The TACL-R is
designed to be used with normal hearing children ages 3-0 to
9-11 years. It may be used as a diagnostic tool: performance
on specific items and groups of items allows the examiner to
determine a child's areas of linguistic difficulty.

## Instructions/Test Administration

The TACL-R items are organized into three sections: word
classes and relations, grammatical morphemes, and elaborated
sentences. The 120 test items are arranged according to level
of difficulty.

Each plate consists of line drawings, three per plate, one
representing the referent for the linguistic form being test-
ed, the others representing contrasting linguistic forms and/
or a decoy. (See sample response form for specific form
classes, function words, morphological constructions, gram-
matical ꞏtegories, and syntactic structures tested.)

The test is administered individually and requires about
10 minutes. The child points to the correct picture in the
test booklet in response to the examiner's verbal stimuli.
Basal and ceiling levels are obtained. The raw score may be
converted to an age equivalent score, percentile rank by age
group, and to standard scores. The child's performance on
specific classes of items may also be examined.

## Norms

The TACL-R was normed on 1003 hearing subjects ages 3-0
to 9-11 years in 20 states across the U.S. Within each age
level, the sample was distributed according to family occupa-
tion, ethnic origin, age, sex, community size, and geographi-
cal location.

## Reliability

Standard Error of Measurement - The Standard Error of
Measurement (SEM) was found to be small relative to the mean
scores, which suggests that the TACL-R is a reliable measure
of the child's ability.

Split-Half Reliability - The test developer assigned two
groups for calculating the split-half correlations for the
TACL-R: all odd-numbered and all even-numbered items. Cor-
relation coefficients were calculated for age and grade levels
for the total sample. A correlation coefficient of .96 was
found for all ages combined.

Test-Retest Reliability - 100 subjects in the norming sam-
ple and 29 subjects with speech and language disorders were
retested 3-4 weeks following the initial administration. The
test-retest reliabilities ranged from .89 to .95.

## Validity

Content Validity - The manual provides extensive infor-
mation regarding the analysis and research that went into the
development of the TACL-R, which the author believes estab-
lishes content validity.

Construct Validity - The TACL-R was found to show that
test performance does increase with age. For each TACL-R
score the correlation with age was found to be above .97.

A comparison was also made between the norming sample
performance and that of a group of subjects with speech and
language disorders. The results showed that the group of
subjects with speech and language disorders performed sig-
nificantly below their age level. Subjects with only arti-
culation disorders did not differ from the norming sample.

Criterion-Related Validity - The scores on the TACL-R were
compared to those of the original TACL. A correlation coef-
ficient of .71 was found.

Test Descriptions

## Advantages

1) The _TACL-R_ requires only a pointing response.
2) The _TACL-R_ provides information on specific language structures in the lexical, morphological, and syntactic areas; these resutls may be used in educational planning.
3) The examiner can administer the test using total communication.
4) The line drawings are clear.
5) The test items have been arranged according to developmental level; the lack of such an arrangement was a problem in the orignial _TACL_.

TEST FOR EXAMINING EXPRESSIVE MORPHOLOGY (TEEM)

Hearing Norms
Ages 3-0 to 8-0 years
Receptive

Shipley, K.G., Stone, T.A., & Sue, M.B. (1983). Test for Examining Expressive Morphology. Communication Skill Builders, 3130 N. Dodge Blvd., P.O. Box 42050, Tucson, AZ 85733. Approximate cost: $19.95.

## General Description

The Test for Examining Expressive Morphology (TEEM) is designed to assess the expressive morpheme development of hearing children ages 3 to 8 years.

## Instructions/Test Administration

The TEEM requires approximately 10 minutes to administer, and it is not a timed test. It consists of a test manual, score form, and a test book. The TEEM is designed as a sentence-completion test in which the examiner shows the child a picture(s) and provides partial information about it. The child is then required to complete a sentence about the picture(s). For example, "Here is a boat. Here are two _____." The child's responses are recorded and transferred to the "Analysis of Results" section of the score form. A raw score is obtained and used to derive an age level equivalent.

## Norms

The TEEM was standardized on 500 hearing children ages 3 to 8 years who live in Fresno, CA. Prestandardization testing was completed on 40 hearing children ages 3 to 7 years from Reno, Nevada. The purpose of the prestandardization was to establish test reliability and validity.

## Reliability

Using the prestandardization sample of 40 hearing children, developers administered the TEEM to 12 randomly selected subjects on two different occasions at 7- to 14-day intervals. Reliability was good; an r of .94 was found between the test scores from the two test administrations.

To evaluate inter-tester reliability, a speech-language pathologist administered the TEEM to 12 randomly selected sub-

jects. An r of .95 was found for the test scores obtained by different examiners.

Validity

Content validity was presumed within the test construction because, according to the authors, (1) it uses a sentence-completion model; (2) items were selected from six major morpheme types; and (3) the allomorphic and morphological structures chosen are developed between 2 years and 8 to 10 years of age.

Developers established construct validity by comparing the 40 TEEM scores with chronological age. A Pearson r of .87 between age and TEEM scores was obtained.

They evaluated concurrent validity by comparing the 40 subjects' TEEM scores wih the results of a language measure using the Peabody Picture Vocabulary Test (PPVT) (Dunn, 1965).*
A Pearson r of .84 was found between the two language measures.

Advantages

1) The test can be administered quickly and easily.
2) The line drawings are clear.
3) The TEEM is one of the few tests of expressive morphology.
4) There are approximately three to five items testing each allomorph within the six morpheme groups, 54 items in all.
5) The score form provides information regarding the age in which 75% and 90% of children responded correctly to each test item.
6) The examiner can administer the test in total communication.

Disadvantages

1) Test items are sequenced randomly and not by level of difficulty; therefore, the entire test must be administered in order to utilize normative data.
2) Test reliability and validity were evaluated fr  the prestandardization sample; there is not information provided about the standardization sample of 500 subjects.

* Dunn, L. (1965). Peabody Picture Vocabulary ,est. Circle Pines, MN: American Guidance Service, Inc.

*TEST OF EXPRESSIVE LANGUAGE ABILITY (TEXLA)

Norms are available
for hearing-impaired
students from residen-
tial settings in Canada
Ages 7-0 to 12-0 years
Exrressive

Bunch, G.O. (1981). Test of Expressive Language Ability.
    G.B. Services, 10 Pinehill Crescent, Toronto, Ontario
    M6M 2B6, Canada. Approximate Cost: $25.00.

## Gereral Description

The TEXLA assesses the hearing-impaired child's express-
ive (written) control of 13 basic grammatical principles
(e.g., plural nouns, prepositions, future tense, etc.). It
omits singular nouns from the TERLA (see below), and adds "to
be" and "to have."

## Instructions/Test Administration

An illustration is presented with one or two written sen-
tences describing it. One sentence is incomplete. The child
must read the printed sentences, examine the illustrations,
and then complete the sentence by writing an appropriate re-
sponse. There are 90 items (60 items for TEXLA SHORT). All
correct items receive a score of one; thus a perfect score is
90 (60 for TEXLA SHORT). Spelling errors do not normally make
an item incorrect. Subscores may be obtained for each of the
13 grammatical principles tested. The full test requires
about 30 minutes to administer.

Information on interpreting test results and planning edu-
cational intervention is provided.

## Norms

The TEXLA was normed on 65 prelingual hearing-impaired
children aged 7 to 12 years, drawn from two major Canadian
residential schools for the deaf. (Numbers of children ranged
from 7 in the 7-year-old age category to 14 in the 9-year-old
age category.) Vocabulary included in the test was considered
by a panel of teachers to be a part of the language used as

Test Descriptions

soon as the hearing-impaired child enters school. The major-
ity of the hearing-impaired subjects (62 of 65) had severe or
profound hearing losses. The TEXLA was also administered to
17 normally hearing first-graders at the end of the school
year. Mean scores and standard deviations are presented for
1-year age intervals. Raw scores may also be converted to
percentile ranks and standard scores.

## Reliability

Reliability coefficients of .99 and .98 for TEXLA and
TEXLA SHORT respectively indicate adequate levels of internal
consistency. Coefficients for the 13 basic grammatical prin-
ciples range from .96 (plural nouns) to .71 ("to have"). No
test - retest data are provided.

## Validity

Content validity - A panel of experienced teachers of the
deaf agreed unanimously that all principles tested were used
receptively within the first 2 to 3 years of primary school.
All words included in the test items were judged to be among
those which hearing-impaired children are exposed to soon af-
ter school entry, and therefore were appropriate for the older
children to use expressively.

Concurrent validity - Correlation coefficients between the
TEXLA and the PPVT were calculated for 31 hearing-impaired
students aged 11-5 to 13-11 years. Coefficients were .64
(Form A) and .74 (Form B); these are acceptable levels for
demonstrating concurrent validity. In addition, the TEXLA,
TEXLA SHORT, TERLA, and TERLA SHORT correlated highly with
each other, indicating that the tests assess closely associ-
ated abilities. (No information is provided, however, on the
number of subjects included in this study.) Finally, TEXLA
scores showed improvement of language skills with age, thus
reflecting a validly developed test.

## Advantages
1) Total scores and subscores may be compared to norms
   for either first-grade hearing children or hearing-
   impaired children aged 7 to 12.
2) The TEXLA SHORT form correlated at the .98 level with
   the TEXLA, indicating that it may be used effectively
   for screening purposes.

3) Diagnostic information may be obtained (e.g., on whe-
ther a child is using a deviant rule or is responding
randomly) for specific grammatical principles.

4) One can compare receptive and expressive abilities by
also administering the TERLA.

5) Diagnostic information from the TERLA and TEXLA leads
directly to teaching objectives (details in the Man-
ual).

6) Teachers of hearing-impaired students assisted in he
development of the TEXLA.

## Disadvantages

1) Scoring is somewhat subjective and time-consuming (no
data regarding inter-tester reliability are provided).
Judgments must be made as to whether each response is
acceptable (e.g., some misspellings are acceptable,
some not).

2) Norms involve small numbers of subjects (an average of
11 subjects per 1-year age interval). Not all norm
subjects who were administered the TERLA were also
given the TEXLA.

3) Authors developed norms by using hearing-impaired
children from residential schools located in Canada.
These groups may not be the same as public school
hearing-impaired students in the U.S.

4) Some hearing-impaired children have difficulty under-
standing what they are expected to say/sign in order
to respond correctly. They often have problems "cloz-
ing" on or filling in the missing item.

5) The test questions must be read and the answers writ-
ten in order to conform to norms.

## *TEST OF RECEPTIVE LANGUAGE ABILITY (TERLA)

> Norms are available
> for hearing-impai.ed
> students from resi-
> dential settings in
> Canada.
> Ages 7-0 to 12-0 years
> Receptive

Bunch, G.O. (1981). Test of Receptive Language Ability.
G.B. Services, 10 Pinehill Crescent, Toronto, Ontario
M6M 2B6, Canada. Approximate Cost: $25.00.

### General Description

The TERLA assesses the hearing-impaired child's receptive
control of 12 basic grammatical grinciples (e.g., singular
nouns, comparative adjectives, prepositions, verb tenses). It
may be used as both a norm-referenced and criterion-referenced
test.

### Instructions/Test Administration

The test administrator reads a single printed word or verb
phrase for each item (total = 90 items for the long version,
58 items for the short version). Each item is accompanied by
the written word or phrase and three illustrations (two for
"comparatives"). The child selects the illustration that best
represents the printed word or phrase. All correct items re-
ceive a score of one; thus, a perfect score is 90 (58 for
TERLA SHORT). Subscores may be obtained for each of the 12
grammatical principles tested. The TERLA requires approx-
imately 10 to 15 minutes to administer.

Information on interpreting test results and planning ed-
ucational intervention is provided.

### Norms

The TERLA was normed on 92 prelingual hearing-impaired
children aged 7 to 12 years, drawn from two major Canadian
residential schools for the deaf. (Numbers of children ranged
from 11 in the 12-year-old age category to 20 in the 9-year-
old age category.) The majority of these subjects (87 of 92)

had severe or profound hearing losses. The TERLA was also ad-
ministered to 27 normally hearing first-graders at the end of
the school year. Mean scores and standard deviations are pre-
sented for 1-year age intervals. Raw scores may also be con-
verted to percentile ranks and standard scores.

## Reliability

Reliability coefficients of .96 and .92 for TERLA and
TERLA SHORT respectively indicate adequate levels of internal
consistency. Reliability coefficients for each of the 12
grammatical principles ranged from .92 (plural nouns) to .54
(for both comparative adjectives and present progressive plu-
ral). Coefficients for the TERLA SHORT ranged from .86 to
.16. No test-retest data are provided.

## Validity

Content validity - A panel of experienced teachers of the
deaf agreed unanimously that all principles tested were used
receptively within the first 2 years of primary school. All
words included in the test items were judged to be among those
which hearing-impaired children are exposed to soon after
school entry.

Concurrent validity - The Peabody Picture Vocabulary Test
(PPVT), Forms A and B, was the criterion measure in a study
involving 31 hearing-impaired subjects 11-5 to 13-11 years
old. Correlation coefficients between TERLA and the PPVT were
fair: .71 (Form B) and .67 (Form A). Also, the TEXLA, TEXLA
SHORT, TERLA, and TERLA SHORT scores correlated highly with
each other, indicating that the tests assess closely associ-
ated abilities. No information, however, is provided regar-
ding the number of subjects involved in this study. Within
the norm group TERLA scores improved with age, reflecting
developmental differences.

## Advantages

1) Children's total scores and subscores may be compared
   to norms for either first-grade hearing children or
   hearing-impaired children aged 7 to 12.
2) The test can be administered quickly and easily. The
   only response required is pointing

3) Diagnostic information on a child's receptive grasp of specific grammatical principles may be obtained. For example, the tester can determine whether a child consistently uses a deviant rule for a certain principle, or whether the child responds in a random fashion, indicating total lack of competence.

4) Diagnostic information from the <u>TERLA</u> leads directly to teaching objectives.

5) It may be administered to children taught in either communication mode, i.e., oral or total communication.

6) Classroom teachers of hearing-impaired children assisted in developing the test. No special training is required to administer

## Disadvantages

1) Numbers of norm subjects for each age level are small, ranging from 11 children at age 12 to 20 children at age 9.

2) Some picture choices are confusing, especially for verb tenses, comparatives (o.der, happier), and some prepositions.

3) The norm group may be different from hearing-impaired students attending public schools in the U.S.

*TEST OF SYNTACTIC ABILITIES (TSA)

Normative data were collected
on hearing-impaired students
from 18 programs in the Uni-
ted States
Ages 10-0 to 18-11 years
Receptive

Quigley, S.P., Steinkamp, M.W., Power, D.J., & Jones, B.
(1978). Test of Syntactic Abilit'ss. Dormac, Inc., P.O.
Box 752, Beaverton, OR 97005. Approximate cost: $95.00.

General Description

The Test of Syntactic Abilities (TSA) provides diagnostic
information regarding deaf students' ability to comprehend and
use the syntactic structures of standard (written) English.
It consists of two parts: 1) TSA - Screening Test (120
items) provides a relatively quick (1 hour) assessment of
students' general knowledge of syntactic structures. 2) TSA -
Diagnostic Battery (20 individual test of 70 items each, 20 to
30 minutes per test) provides in-depth diagnostic information
on several syntactic structures. Nine basic syntactic struc-
tures are assessed: Negation, Verb Processes, Pronominali-
zation, Relativization, Complementation, Conjuncti , Deter-
miners, Question Formation, and Nominalization.

Instructions/Test Administration

The TSA test items are written in a multiple-choice for-
mat; the student marks his or her choice in a test booklet.
Test instructions may be communicated in any manner; however,
in giving instructions, the tester may not read or sign any
actual test items to students. The TSA may be administered to
groups or to individuals.

Two types of items are included: recognition items and
comprehension items. In the former, the student chooses the
correct (grammatical) sentence from a choice of four. In the
latter, the student must understand the meaning (syntactic
structure) of a stimulus sentence or sentences in order to
choose the correct alternative from among four response choi-
ces. For comprehension items, the student selects from four

alternatives the word or phrase that best fills the blank in a stimulus sentence.

The student receives nine scores on the screening test, one score for each of the nine structures listed above.

## Norms

The TSA is the result of 10 years' extensive research, pilot testing, and standardization. The revised TSA was standardized on about 450 students in 18 educational programs for the deaf in the U.S. (both residential and day programs represented). Students represented nine age levels from 10 to 19 years, had profound prelingual hearing losses, IQs of at least 80 on a performance test, and no other apparent disabilities. Test scores convert to percentile and age equivalency scores.

## Reliability

Reliability coefficients for internal consistency are exceptionally high for all tests (.93 or better). High test-retest reliability coefficients show stability over time for the sample retested (N=54). Also reported are data for Standard Error of Measurement and intercorrelations among test scores.

## Validity

Content validity – The authors established the content validity of the TSA "...by showing that the linguistic structures examined by the test were systematically chosen from the domain of English syntax as described by transformational generative grammar." Developers validated syntactic deviancies incorporated in the TSA battery through extensive study of deaf children's responses to the research version of the TSA and the written language samples obtained concurrently. The test items were designed to be neither too difficult nor too easy, and according to the authors the reading level of the test (elementary level) is within easy comprehension of the deaf children taking it.

Concurrent validity – Substantial correlations were found between relevant subtests of achievement test scores (e.g., the Standard Achievement Test) for the norm subjects and various subtests of the TSA, establishing concurrent validity of the TSA.

Advantages
1) Test administration and scoring are simple and require
   no special training. However, the examiner must be
   know.edgeable about linguistic terms.
2) Conversion tables are provided for interpretation of
   test scores.
3) Specific diagnostic tests are provided as follow-up to
   the screening test.
4) Detailed instructions and suggestions are given regar-
   ding classroom implementation of programs based on
   test results and designing of individualized language
   remediation programs.
5) Students may be tested in groups.
6) Information is provided on deviant response patterns
   commonly used by hearing-impaired children such as the
   tendency to impose a subject-verb-object pattern on a
   sentence whether appropriate or not.
7) TSA workbook~ are available to teach these syntactic
   structures.

Disadvantages
1) The ːA assesses reading of specific syntactic struc-
   tures, not conversational use of language.
2) The screening test takes a long time to administer (1
   hour). However, this disadvantage is balanced by the
   fact that students may be tested in groups. Each di-
   agnostic subtest requires approximately an hour to
   administer, as well.
3) Reading levels are reportedly too difficult for many
   10- and 11- year old hearing-impaired children.
4) Some students find it confusing to transfer their an-
   swers to the response sheet.
5) The test items are in small print, which is difficult
   for some students to read.

Note:
The TSA is also available on Apple II diskettes.

THE WORD TEST (TWT)

Hearing Norms
Ages 7-0 to 12-0 years
Expressive

Jorgensen, C., Barrett, M., Huisingh, R., & Zackman, L.
(1981). The Word Test. LinguiSystems, Inc., Suite, 806,
1630 Fifth Avenue, Moline, IL 61265. Approximate Cost:
$36.00.

## General Description

The Word Test (TWT) is a test of expressive vocabulary
and semantics. It assesses the hearing child's strengths and
weaknesses in categorizing, defining, verbal reasoning, and
choosing appropriate words.

## Instructions/Test Administration

TWT consists of an examiner's manual and score forms.
Each of the six subtests is administered orally. A sample
"script" is contained in the manual for each subtest section.
A raw score is obtained for each subtest, as well as a total
test score. A subtest is terminated after three consecutive
failures. The test requires approximately 20-30 minutes to
administer.

## Norms

Developers selected 476 subjects aged 7-0 to 11-11 years
for the standardization study. Students with learning disa-
bilities, mental disability, or hearing loss were excluded
from the sample. Developers attempted to represent minorities
in the sample. No other restrictions were applied. All stu-
dents were from the greater Milwaukee, WI area. Normative
data are reported at half-year age levels.

## Reliability

A split-half reliability coefficient for each subtest and
age level is provided as well as Kuder-Richardson (KR20) coef-
ficients for each subtest by age.

Validity

The authors demonstrated content validity by conducting an extensive review of tests in the areas of vocabulary and semantics combined with a review of the literature to aid item selection. The empirical validity of TWT was established by the method of internal consistency. All items on TWT were selected to show: 1) steady age progression in percent of subjects passing, and 2) significant discrimination as reflected in the Chi Squared Test. Extensive validity data by subtest and age level are reported in the manual.

Advantages

1) The test requires a minimum amount of time to administe·, score, and interpret.
2) The test content includes skills not found in other language tests.
3) Normative data and reliability and validity information are excellent.
4) Sample questions are provided for each subtest.

Disadvantage

1) Some examiner discretion is required in determining acceptable answers. This could lead to inter-examiner variation, resulting in different test scores.

## *TOTAL COMMUNICATION RECEPTIVE VOCABULARY TEST (TCRVT)

> Normative data are
> available for deaf and
> hard-of-hearing children
> Ages 3-0 to 12-0 years
> Receptive

Scherer, P. (1981). Total Communication Receptive Vocabulary Test. Mental Health & Deafness Resources, Inc., P.O. Box 1083, Northbrook, IL 60062. Approximate Cost: $25.00.

### General Description

The Total Communication Receptive Vocabulary Test (TCRVT) assesses the hearing-impaired child's skill in identifying individual words presented in simultaneously signed and spoken language.

### Instructions/Test Administration

This test consists of 75 test plates (four pictures per plate). The student indicates the correct picture after being given the directions, "Show me ___," and is given a score of 1 or 0 for each item. Test items are presented in order of difficulty. The test is terminated when the child has missed five words consecutively.

The test requires about 20 minutes to administer.

### Norms

This test was standardized on 423 children aged 3 to 12: 77 hearing (ages 3 to 5 years), 95 hard of hearing (ages 4 to 11 years), and 251 deaf (ages 3 to 12 years). The children had no additional handicaps, learning disabilities, behavior problems, or atypical (e.g., bilingual) language environments in the home. The hearing-impaired children were prelingually deaf and had been exposed to total communication for at least 2 years, except in the case of the youngest preschoolers. Subjects represented a cross-section of residential and day programs, and city and suburban areas.

Normative data are presented in 1-year age levels. Numbers of norm subjects within each hearing/age category range from eight children in the hard-of-hearing 7-year-old age le-

vel to 42 children in the deaf 7-year-old age level. One can
convert raw scores to an "age level" by consulting tables re-
presenting degree of hearing loss: hearing (no loss); hard of
hearing, 35-58 dB loss; or deaf, 85 dB and above loss. Also,
comparative age conversions may be made for deaf children with
one parent who has good to excellent signing skills, as com-
pared to those with one parent with poor to fair signing
skills.

## Reliability
No reliability data are presented.

## Validity
Test items represented words that most deaf children are
exposed to in their education during the preschool and primary
years. Also, all words were among the 500 most common words
in the English language and were words that could be signed
easily.

## Advantages
1) The test was normed on hearing-impaired children and
   was designed to be administered in simultaneous com-
   munication. Therefore all words have sign equivalents.
2) Age conversions are available for both deaf and hard-
   of-hearing children
3) Age conversions are available for children with hear-
   ing parents who use total communication and for those
   children whose parents do not.
4) Items are arranged in order of increasing difficulty,
   so the entire test does not have to be given.

## Disadvantages
1) As the author points out, this test appears to be more
   useful for children aged , to 10 years; scores tend to
   ceiling out beyond this age range.
2) Reliability data are not provided and validity data
   are inadequate.
3) Some normative age levels contain few subjects, e.g.,
   eight children in the hard-of-hearing 7-year-old cat-
   egory.

4) Pictures for some items are not clear and/or are con-
fusing (e.g., see the following items: #10 girl, #25
snow, #28 night, #49 smell, #59 bashful).

VANE EVALUATION OF LANGUAGE SCALE (VANE-L)

Hearing Norms
Ages 2-6 to 6-0 years
Receptive/Expressive

Vane, J.R.  (1975).  Vane Evaluation of Language Scale
(VANE-L).  Clinical Psychology Publishing Co., Inc.,
4 Conant Square, Brandon, VT  05733.  Approximate Cost:
$15.00.

## Generalization Description

The Vane-L is designed to measure language acquisition of
young children ages 2-6 to 6-0 years.  It assesses receptive
and expressive language skills, as well as handedness and at-
tention.  The section evaluating receptive language includes
body parts, simple directions, and basic concepts.  The ex-
pressive language section assesses the child's ability to
express himself or herself by answering questions, repeating
sentences, and defining words.  There is an item within the
expressive language section which assesses auditory motor
ability.
        The Vane-L Scale is primarily designed to be used as a
screening instrument rather than a diagnostic tool.

## Instructions/Test Administration

The Vane-L Scale is an individually administered test.
The directions are simple and administration time is appro-
ximately 10 minutes.  A test kit containing bottles, beans,
blocks, and toy cars is used for assessing the basic concepts.
The scoring is also simple; one point is given for each cor-
rect answer.  The scores are totaled and entered onto the
front page of the score form.  The scores are then converted
to percentile ranks.

## Norms

The Vane-L Scale was standardized  , 740 children from New
York, New Jersey, and Vermont.  The characteristics of the
standardization sample were drawn from the U.S. Census data
(1970) with respect to age, sex, race, occupation of parent,
and urban-rural residence.

Reliability

No data on reliability are provided.

Validity

No data on validity are provided.

Advantages

1) The Vane-L is a quick assessment of some basic langu-
age acquisition skills which can provide information
regarding the need for further diagnostic testing.

2) It tests a young population, 2-6 to 6-0 years old.

Disadvantages

1) The standardization sample was confined to the north-
eastern part of the U.S.

2) The auditory motor section requires the child to imi-
tate a series of tappings. This is not appropriate
for young hearing-impaired children because it actu-
ally tests their auditory motor/memory abilities and
may not be related to language development.

Note:

The manual provides data on the pattern of language scores
for each age group and sex.

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AMERICAN SIGN LANGUAGE (ASL) – is a gestural/visual language created and used by the deaf community in the United States. American Sign Language is also known as ASL, Sign, or Ameslan, and is now recognized as a separate, distinct language from English. It is a language in which arbitrary but rule-governed combinations of handshapes, positions, orientations, and movements are the meaningful units that are comparable to morphemes in spoken language. Use of space and movement, along with facial expression and body posturing, also serve roles in its syntax and semantics.

CORRELATION COEFFICIENT – is a descriptive statistic which summarizes the strength of the relationship between two variables. Most correlation coefficients are symbolized by r, R, or the Greek p. A high correlation indicates that the variables "go together," have common elements, etc., whereas a low correlation suggests that the variables are relatively independent of one another.

CRITERION-REFERENCED MEASUREMENT – is a type of measurement concerned with whether or not a particular performance measure stops at, falls below, or exceeds a predetermined point.

EXPRESSIVE LANGUAGE – is the process of forming ideas or thoughts, finding words or signs to express them, formulating sentences to provide structure to the words, and producing the combined product in a spoken or signed form.

FREQUENCY DISTRIBUTION – is a tabulation of the frequency of occurrence of each value or interval of values for a particular variable.

MEAN – is the sum of a set of observations divided by the number of observations. It is the "center of gravity" of the observations, for which the deviations from the mean on the "high side" are balanced by the deviations from the mean on the "low side." Mean = average.

**MEDIAN** - is a point on a scale from a set of observations which has as many observations above it as there are below it. It is a point which divides the frequency distribution in half, and corresponds therefore to the 50th percentile. It is the measure of "central tendency."

**MLU** - Mean length of utterance: A method of evaluating the expressive language of young children using a set of rules whereby the utterances or morphemes of the children are counted and averaged.

**MODE** - is that observation in a set of data which occurs more often than any other observation.

**M** - Modifier: A word that expands upon the meaning of other words such as an adjective or adverb, or, in some instances, another noun; e.g., doll, baby doll.

**MORPHEME** - is the smallest unit of meaning in a language. Morphemes can be classified as either free or bound morphemes, depending upon whether or not they can occur in isolation or as a word in a sentence.

**MORPHOLOGY** - is the set of rules for forming words out of morphemes, the smallest meaningful units in our language.

**N** - Noun: A word that identifies people, places, objects (sweater, mother, home). Can, by different use in sentences, change to another form; e.g., a run (noun) in a stocking changes to a verb in "Run to the store!"

**NORMS** - are devices for interpreting scores on standardized tests. An individual's raw score is compared with the distribution of raw scores obtained by some well defined group of individuals (the "norm" group).

**NP** - Noun phrase: A group of words formed by combining nouns and modifiers that can act as the subject, direct object, or indirect object in a sentence; e.g., the beautiful brown dog.

PRAGMATICS - is the use of language; the reasons people speak or use language and the influence of context on how people choose the form of language to use in order to reach their communicative goals.

RECEPTIVE LANGUAGE - refers to the ability of a person within a given community to understand the incoming language from those around him. The language input may be signed or spoken or both. The person receives and processes the spoken or signed messages composed of words, phrases, clauses, and sentences and is able to demonstrate an understanding of this information.

SEMANTICS - is the study of the relationships between words and grammatical forms in a language and their underlying meaning. The semantic component of language is concerned with the meanings of single words and word combinations, with multiple word meanings, with figurative language, and the effect of structure and context on the nature of meaning.

SIMULTANEOUS COMMUNICATION - involves the concurrent use of signs and fingerspelling with speech.

STANDARD DEVIATION - is one of the most precise measures of the degree of dispersion ("spread") of a frequency distribution. In a very rough sense it is a measure of how far the "typical" observation deviates from the mean of the observations. A distribution which has a large standard deviation has a big spread of scores around the mean; a distribution which has a small (near zero) standard deviation has very little spread.

SYNTAX - is a set of rules for stringing words, phrases, and clauses together in an acceptabale pattern which will be understood by people with whom you communicate. For example, in English, "The boy went home with his mother" is acceptable word order;* "The home boy with mother went" is not.

TOTAL COMMUNICATION - is a method of education which incorporates use of appropriate aural, oral, manual, tactile, and visual modes of communication to ensure effective communication with and among hearing-impaired persons.

TRANSFORMATION – is a process by which rules are used in order to add to, delete, or reorder basic sentences in order to produce variations in the surface structure; e.g., adding "do" and reordering as in "Do you want to go?" or deleting "that" as in "I want something (that) you have".

<u>V</u> – verb: A word that expresses existence, action, occurrence, or feelings.

$V_I$ – Intransitive verb: A verb that is used in such a way that it does <u>not</u> require a direct object; e.g., "The boy <u>ran</u>."

$V_T$ – Transitive verb: A verb used in such a way that it requires a direct object such as "The boy <u>hit</u> _____" (the ball, the other boy, etc.).

<u>VP</u> – Verb phrase: A group of words formed by using verbs in all their forms, auxiliary verbs, adverbs, and prepositional phrases; e.g., _____ jumped over the fence.

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# Language Assessment
# of Hearing-Impaired School Age Children

The most serious educational consequence of hearing impairment is language delay, and this affects all aspects of a child's progress in school. The first step in designing a developmentally appropriate language program for the hearing-impaired child is to carefully assess where and how the child is functioning in the many facets of language.

This book guides the reader through the necessary steps in planning and conducting an assessment, and in using assessment procedures to monitor students' progress. After a brief overview of language development in hearing and hearing-impaired children and a discussion of the goals of assessment, there are chapters on evaluating tests, selecting a test battery, administering the test battery, and obtaining and using language samples. The final chapter provides descriptions and critiques of thirty-six widely used texts.

The team approach emphasized throughout reflects the unique collaboration that produced the book. It is the product of a partnership of university educators, public school teachers, and speech-language pathologists, all of whom are responsible for educating hearing-impaired children and others with problems in learning language. The contributors have brought to this volume a strong sense of what is needed in the public school setting to help hearing-impaired children who are learning English to develop language as competently as possible. The book suggests realistic ways that teachers, speech-language pathologists, and others responsible for hearing-impaired and language-delayed children can work together to make language assessment and intervention productive.

The book is addressed to teachers, speech-language pathologists, and other school personnel who have some background in language development, and who, in the school setting, must make important decisions about their hearing-impaired and language-delayed students. It will also be of value to college-level students preparing to work with school-age children.

*Marie Thompson* is professor of special education (hearing impairment) and teacher education at the University of Washington where she is also an adjunct professor of speech and hearing sciences. For four years Dr. Thompson was the Washington State Coordinator of all programs for hearing-impaired and deaf-blind children, and continues to consult with public schools to improve services to these populations. Dr. Thompson's co-authors are specialists in speech and hearing sciences and in the education of hearing-impaired children.