A DEVELOPMENTAL STUDY FOR

THE ASSESSMENT OF COMMUNICATION

IN EVERYDAY SITUATIONS

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A Thesis

Presented to

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In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

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by

Karen Leigh Wren

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A DEVELOPMENTAL STUDY FOR THE
ASSESSMENT OF COMMUNICATION IN EVERYDAY
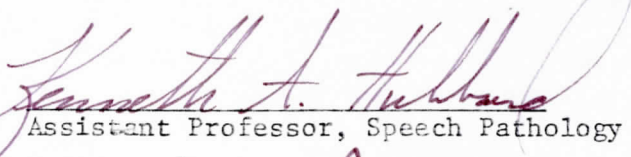SITUATIONS

BY

KAREN LEIGH WREN

Approved by

Chairman, Thesis Committee
Chairman, Department of Speech Pathology and Audiology

Assistant Professor, Speech Pathology and Audiology

Instructor, Speech Pathology and Audiology

Dean, Graduate School

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ABSTRACT

The purpose of the present study was to aid in standardization of
the Assessment of Communication in Everyday Situations, a functional
communication test designed to appraise children's communication
competence. This developmental study attempts to obtain information
on the communication competence of children based on their chronological
age.

The results of the study are that ACES appears to be a valid test
instrument, and that four, six and eight-year-old children do differ
significantly in performance on ACES (Form I - The Birthday Party).
There was a significant difference between four and eight-year-olds,
and four and six-year-olds, but there was not a significant difference
in the performance of six and eight-year-olds. The eight-year-old
group performed higher on the test scores with the six, and four-year-
olds following respectively.

## ACKNOWLEDGEMENTS

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Anthropologists, linguists, and sociologists are becoming increasingly interested in communication competence, and they are advancing the research in this area. Tests are being designed which will assess a child's communication competence (Lieberman, 1979). Educators and researchers are seeking these functional language tests for identification of the communicatively incompetent child, to better understand children's communication, and to aid in the planning of intervention for the communicatively incompetent child before it affects academic performance.

The child who is not communicatively competent is not able to use language to form, use, or understand messages effectively. This deficit could jeopardize a child's academic performance because in the school setting the child is expected to carry on conversations, ask and answer questions, give directions, and speak alone in the presence of a group.

The Assessment of Communication in Everyday Situations (Lieberman, 1979) is a functional language test developed to appraise a child's communication competence. It is based on Joan Tough's taxonomy of language uses and strategies (Tough, 1968) (see Appendix A for taxonomy). The test consists of three forms which depict common communication situations of interest to children. FORM I (The Birthday Party), FORM II (The First Day of School), and FORM III (The Picnic). Each test form consists of forty-five open-ended questions designed to elicit the target uses and strategies.

As a diagnostic instrument the Assessment of Communication in Everyday Situations has unique aspects. The test provides an interactional communication situation between the examiner, subject child, and a friend. It allows the subject child to bring a friend into the test situation, and this can provide a sense of security for the subject child during test administration.

The purpose of the Assessment of Communication in Everyday Situations is to provide the public school speech clinician with a system for identifying communicatively incompetent children. There are more communicatively incompetent children located in the classrooms than in any other situation (Tough, 1968: 22). The Assessment of Communication in Everyday Situations may be the instrument which can identify communicatively incompetent children before their academic performance is affected.

## STATEMENT OF THE PROBLEM

There is no information on the communication competence of children based on their chronological age. This developmental study of the Assessment of Communication in Everyday Situations attempts to obtain this needed information.

## DEFINITION OF TERMS

COMMUNICATION DEVELOPMENT – the state or condition in which a child expands his expression, communication of emotions, or ideas through the means of speech and hearing.

COMMUNICATION COMPETENCE – the state of being capable of transmitting messages between people in various situations.

COMMUNICATION STRATEGIES – the components of language use which allow the child to communicate in various situations.

PRAGMATICS - is the component of language that relates to social use.

PHONOLOGY - is the component of language that relates to the sound system.

SEMANTICS - is the component of language that relates to the meaning system.

SYNTAX - is the component of language that relates to the grammatical system.

## DELIMITATIONS AND ASSUMPTIONS

A limitation to this study is the small size of the population. The validity study for the Assessment of Communication in Everyday Situations (Peebles, 1980) is in progress, and validity is assumed. A reliability study (Hill, 1980) revealed the three forms of the Assessment of Communication in Everyday Situations to be a reliable test. The present study assumes that the examiners and scorers of the Assessment of Communication in Everyday Situations have had adequate training in test administration and scoring.

## HYPOTHESIS

Four, six, and eight-year-old children will not differ significantly in communication competence as measured by their performance on the Assessment of Communication in Everyday Situations FORM I (The Birthday Party). The .05 level of significance will be utilized.

## SUB-HYPOTHESES

Eight-year-old children will not differ significantly in communication competence from four-year-olds, as measured by their performance on the Assessment of Communication in Everyday Situations FORM I (The Birthday Party).

Six-year-old children will not differ in communication competence from four-year-old children, as measured by their performance on the Assessment of Communication in Everyday Situations FORM I (The Birthday Party).

Six-year-old children will not differ significantly from eight-year-old children in communication competence, as measured by their performance on the Assessment of Communication in Everyday Situations FORM I (The Birthday Party).

## IMPORTANCE OF THE STUDY

The developmental study is important because it contributes along with the reliability and validity studies to the standardization of the Assessment of Communication in Everyday Situations. The present study has viewed both the pre-academic and academic child in terms of their communication competence development. There has been little research and information until this time on the communication competence of a child based on his chronological age.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

The framework for communication development begins in infancy.
The infant is capable of perceiving  and producing sounds, knowing about
events in immediate environment, and also interacting with other persons
and objects (Brown, 1975: 29).  The cycle then continues when the child
begins to associate crying with attention  and the ending of discomfort
it brings.  At an early age the child seems to reduce crying as footsteps
or familiar voices are heard, and by the end of the second or third
month has learned to differentiate some experiences.

During the third and fourth month the baby has control of movement,
and this helps to differentiate the various qualities of the immediate
environment.  Meaning is then derived from repeated similar experiences
which build up expectations about what will follow (Brown, 1975: 46).
Sounds emerge as a result of the infant's exploratory activity, and the
way in which people respond as though the baby had spoken (Halliday,
1975: 22).  This basis for exchange which carries some of the qualities
of conversation is essential for the development of social meaning.

A major portion of the child's communication development takes
place between eighteen months and three years of age, the 'echolalic
stage'.  It is here the child attaches meaning to sound, and is offered
clues to what communication is all about (Halliday, 1975: 109).  The
child now has a few words which bring attention to wants and needs.
In this stage the child is often able to respond to words appropriately
before being able to produce them.

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After the age of two years the child's speech moves gradually closer to that of an adult.  The first two or three word utterances are made up of elements to extract meaning from the world (Tough, 1968:11).

During the period between the child's second and third birthdays, major developments begin to take place.  Most children begin to understand and say words in their second year, and they begin by saying only one word at a time.  Children by the age of two-and-a-half will be putting two and perhaps three words together.  During this 'holophrastic stage' of communication development, the child has a receptive language ability that far exceeds the expressive language ability.  Many of the child's attempts at communication are still made by gesture and are frequently misunderstood (Hopper & Naresmore, 1977: 114).  Gradually, the child is distinguishing more ambiguous components of speech, and is better capable of feeling out telegraphic speech and can convey meaning more clearly.  It is during this telegraphic period that the child adds some adjectives to the vocabulary, is able to distinguish different verb forms, and convey more information about viewpoints.  This period allows the child to take on adult characteristics of speech.

Some children by the age of three are beginning to use language to express complex meaning.  By the age of three-and-a-half most children have established speech which is very much like the adults, although they do have some lingering difficulties with articulation.  Major steps have been accomplished and the child's language now becomes an important means of extending his learning (Bloom, 1975: 53).  The alternative language forms are also developing at this time.  It is here the child makes use of language to satisfy needs, or requirements of the situation.  The child begins to infer what listeners already know and need to know, and take these needs into account in deciding on the forms of messages

(Bates, 1975: 67). The most important result of such learning is the ability to participate in conversation. This learning may take place in the later portion of the third year, but continues well into the child's school years (Hopper & Naresmore, 1977: 111).

The communicatively competent child must have knowledge of the integrated components of communication: (1) Syntax, (2) Semantics, (3) Phonology, (4) Pragmatics. These elements of communication development begin at approximately eighteen months of age as the child formulates the first utterances.

Syntax is one of the first components of communication to develop. This component of communication relates to the grammatical system the child uses. Children begin to acquire the syntax of their language at about eighteen months of age, but the acquisition process extends through-out the elementary school years. The child begins to speak in single word utterances, but it is from the start of multi-word utterances that syntax begins to unfold rapidly. The joining of these multi-word utterances to form sentences is based on knowledge of syntax (Wood, 1977: 212). A child learns the syntax of the language with the ability to (1) join words, and (2) understand multiple word sentences said by others. The child's language begins to blossom at around age four with the acquisition of syntactic rules that permit understanding and production of an infinite number of sentences (Dale, 1975: 121). Children at this time are utilizing sentences which are almost as complex as those used by adults. During the elementary school years they are learning more complex structures for communication, and the more complicated syntactic rules.

Semantics is the component of communication which relates to word and sentences meaning, and parallels with intellectual development (Ginsburg

& Opper, 1969: 59).  The acquisition of semantics is a slow process because to express and understand the meaning of complex relationships can happen only as quickly or slowly as the child's mind develops.

Children do not begin to compile meanings into a word until eighteen months to two years of age, but by their third birthday they have acquired nearly a thousand words.  The child's semantic development at this time is being heavily influenced by society.

The early word utterances of the child carries a wide range of meanings, and the development of a very complex word dictionary.  These dictionaries are finally complete by eleven years of age.  The children in this stage of semantic development are capable of propositional thinking and able to formulate statements of meanings (Tough, 1968: 108).  Older children can use their semantic knowledge to fill in gaps of sentences, can integrate the information in several sentences, and go beyond the information given.  The path of semantic development is varied, and it differs from individual words and for individual children (Brown, 1975: 156).  A full mastery of semantic competence requires many years, and continues throughout life.

Phonology is the component of communication which deals with the sound system, and it develops in a regular fashion which is highly systematic.  Human infants from the beginning of life show a special sensitivity and discrimination for speech sounds (Wolff, 1966: 184).

The first words are constructed from a very restricted set of sounds.  Common forms of these sounds are mama, papa, didi, and dada.  Children seem to acquire the sound system of language by learning a system of distinctive features with the major contrast between consonants and vowels.  This proceeds through finer and finer contrasts until

they have learned the important sound features of language (Dale, 1976: 45). Research has shown that adults provide feedback or reinforcement for most speech like sounds the child makes, and this reinforcement encourages the child toward the sounds of their language.

Children are communicating effectively with their incomplete set of sounds at three years of age, and the young preschooler is learning the phonemic system feature by feature. The child in the first grade, however, has a virtually complete phonemic system which permits communicating in any situation.

The pragmatic component of communication is concerned with how language is used functionally to communicate. In recent years, linguists, anthropologists, and sociologists have sought to understand the full range of functions communication serves in a social context. The term pragmatics is often used to refer to the study of the use of language in context by real speakers and hearers in real situations (Bates, 1975: 47). Language has many uses and varied purposes, most of which involve interactions with other persons. As people interact in different circumstances in the course of a day they need to use communication in order to maintain contact with others, gain information, give information, and accomplish goals (Bloom, 1968: 78).

Language consists of ways in which speakers vary what they say according to the needs of different listeners in different circumstances. Halliday has conceived of the functions of language in social terms involving interaction, regulation, and personal control. Language consists of a selection of behaviors based on the goals of the speaker and the context of the situation (Halliday, 1975: 96). This can be seen in children when the child speaks in different manners to the same people under different circumstances.

There are seven classifications for uses or functions of language which can be expressed in everyday communications: (1) Reporting, (2) Self-Maintaining, (3) Directing, (4) Towards Logical Reasoning, (5) Predicting, (6) Projecting, and (7) Imagining (Tough, 1975).

The reporting function places primary emphasis on the transfer of descriptive material from one person to the other. This function emerges late for the child. It may develop late because to give information to another person you must tell the person something you know that they do not know, or that at least is not apparent to them. This function may also appear late because the child must understand something about the difference between self and others, and something about how dialogue works.

The self-maintaining function emphasizes the use of language to create an awareness of the speaker's identity and to promote the speaker's position in relation to others. This is a very early function in child communication development because it is here the child refers to needs and protection.

The directing function serves to control or regulate the physical actions and operations performed by oneself and others. It is a function which develops early for the child but drops from communication at around three years of age. The speaker persuades or manipulates the listener in some direction. Arguing, nagging, or correcting behavior are all considered under this function.

The logical reasoning function emphasizes the use of language which employs rational thought and argument to interpret experiences. This function enables the child to explain a process or recognize problems and solutions. This is a higher level function in the child's communication development.

The predicting function allows the child to extend communication beyond the immediate present or past experiences to events that have not yet occurred, and which may never take place. This function includes utterances which offer several different interpretations or explanations of a situation, and utterances which suggest a possible outcome of some immediate or future action or event.

The projecting function is the use of language within an unfamiliar or external context. This function includes utterances that reflect what it feels like to be another individual. Emotions and attitudes which are representative of another's viewpoint are expressed in this function of language.

The imagining function carries a message, but it contains a message: This is not real; it is imaginary. All forms of pretending are included in this function. Storytelling, acting, make believe, and most other forms of play are included.

These seven functions represent important generalizations that every child must understand in order to become communicatively competent. These functions can also be employed by the listener. The listener seeks information through listening, asking questions, and allowing the other person freedom to talk.

The language choices children make are based on their awareness of the communication situation, and are influenced by their past experiences in similar communication situations. Experience with these pragmatic language functions in various communication situations enables the child to use adult patterns.

There are thirty-six strategies which comprise the framework of language functions (Tough, 1968) (see Appendix A for the communication strategies). These communication strategies may be defined as options

which allow the child to perform communication tasks in various situations. As the child grows in experience he acquires a number of these communication strategies which enables the accomplishment of communication acts. Children select the strategies which they perceive to be the most appropriate for the specific situation at a given moment in time. The child is considered communicatively competent when capable of performing a wide variety of communication acts required by the social environment (Allen & Brown, 1976: 219).

Communication competence is the final component of communication development. The child is striving to be an effective communicator while mastering the components of communication. Experience in communication is provided in the home, and in the activities toward which the child is drawn. There may be no formal teaching but the child does learn to communicate. Communication competence is achieved through the child's pre-academic experience, and is expanded by the academic experiences. The child will become more communicatively competent as a result of practicing language within these situations (Wood, 1977: 235).

The communicatively competent child has many advantages because of the power communication can afford. This child is capable of weighing the factors of the communication situation, and may bargain, manipulate, or comfort. The child who is a competent communicator also knows the rules of language structure, and is capable of using communication as a tool in everyday situations. Communication strategies can aid the child in performing communication tasks in various situations. The more communication strategies the child has for a particular situation, the more likely the right one will be employed (Allen & Brown, 1976: 122).

These factors contribute to the child's development of communication competence.

Research is currently continuing in the area of pragmatics and communication competence of children. It is felt that the child who is communicatively competent may not have to be frustrated or unhappy as a result of not being able to communicate with family, peers, and teachers (Wood, 1977: 32).

# CHAPTER III

## PROCEDURES AND METHODOLOGY

The subjects were children ages four years ($\pm$ 3 months), six
years ($\pm$ 3 months) & eight years ($\pm$ 3 months) who were selected randomly
from three preschool daycare facilities in Boone, North Carolina.
Twenty-one children were chosen for the present study because each of
these children were pretested on FORM I (The Birthday Party).  A
description of the subjects is contained in (Table 1).  Each of the
children selected for the study was not enrolled in speech and language
therapy programs because the test was essentially to be administered
to normal children with no known communication disorder.  The examiner
administered all forty-five items on FORM I (The Birthday Party) of
the Assessment of Communication in Everyday Situations to selected
children from each of the three groups to assess their communication
competence.

## ADMINISTRATION OF ACES

The subject child and the friend were brought into the test
situation simultaneously, and at this time they were made to feel at
ease with the examiner.  The children were seated, and given specific
test instructions before a brief orientation into the communication
situation.  The orientation before test administration included open-
ended questions much like the actual test, and the child became acquainted
with the puppets, toys, and games of the communication situation.  The
examiner was sure the children knew what was expected of them before
moving into the actual test situation.

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TABLE 1

DESCRIPTION OF SUBJECTS

| | SUBJECTS | SEX | DATE OF BIRTH | M age of groups |
|---|---|---|---|---|
| | A | M | 11-16-75 | 4.7 |
| | B | M | 12-9-75 | |
| | C | F | 4-10-76 | |
| 4 year olds | D | F | 1-24-76 | |
| | E | M | 1-20-75 | |
| | F | M | 2-6-75 | |
| | G | F | 2-15-76 | |
| | H | M | 12-16-73 | 6.6 |
| | I | F | 12-12-73 | |
| | J | F | 2-14-74 | |
| 6 year olds | K | M | 5-7-74 | |
| | L | M | 1-22-74 | |
| | M | F | 2-25-74 | |
| | N | F | 2-21-74 | |
| | O | F | 12-27-71 | 8.5 |
| | P | M | 1-22-72 | |
| | Q | F | 4-23-72 | |
| 8 year olds | R | M | 2-28-72 | |
| | S | M | 5-26-72 | |
| | T | F | 4-28-72 | |
| | U | M | 2-20-72 | |

Actual test administration consisted of the examiner carrying on a direct conversation and waiting for the subject child to formulate responses to the questions asked. In the following example from FORM I (The Birthday Party) questions centered around the subject child and the friend going to a party and participating in the activities which would take place in this communication situation. Puppets, games, and toys were provided for manipulation by the children to encourage them to communicate in the test situation. The friend was also called on intermittently throughout the test administration, but responses by the friend were not scored.

FORM I (The Birthday Party)   the mother puppet hands a small box to subject.

Examiner:       You pay for your presents and take them home to be wrapped. You are very happy about your purchases. Your mother gives you a box to wrap the ball in. What do you say to her?

Subject:        That box is too small. I need a bigger one.

Examiner:       Kelly, your mother gives you a box to wrap the ball in. What do you say to her?

Friend:         Mother, can I please have a bigger box to wrap the ball in because this one is too small for this big ball.

This example illustrates the logical reasoning use of language, and the strategy for recognizing problems and solutions.

A period of free play to enhance the imagination strategies of language was provided during test administration. Four minutes of the free play was allowed before the examiner returned to the test situation. Administration was concluded after all forty-five items had been given to the subject child.

The child's responses were recorded on a Wollensak 3M Model 2520AV tape-recorder, and Ampex high fidelity low noise tapes. The Assessment of Communication in Everyday Situations FORM I (The Birthday Party)

was timed after each administration. The record of administration times is located in (Table 2). Administration time ranged from 26 minutes to 45 minutes with a mean length for administration time of 37 minutes.

## SCORING OF ACES

Scoring values are assigned for the child's responses to the open-ended questions on the Assessment of Communication in Everyday Situations (see Appendix C for example of the scoring form). The scores range from 2 to 0. A score of 2 is given for spontaneous and appropriate responses in terms of use and strategy. The score of 1 is given for an appropriate response after a prompt is given to the child. The prompt is simply a repeating of the open-ended question which the child did not respond to after a period of about 10 seconds. A score of 0 is given to an inappropriate response in terms of use and strategy. The test is not to be scored manually during test administration. It is completed at the end of test administration, so the examiner can play back the child's responses and analyze them according to the framework of uses and strategies designed by Joan Tough.

An illustration of the scoring procedure is:

Example of a score of 2 on FORM I (The Birthday Party)

Examiner:        Your friend Gene is going to have a birthday party.
                 He wants you to come to the party and you really
                 want to go. But you need to ask your mom first if
                 it will be alright. What will you say to your mother?

Subject:         May I go to Gene's party Mom?

The subject scored a 2 for this response because the question elicited the correct communication strategy for the situation. The communication strategy which was appropriate was the self-maintaining referring to needs and wants.

TABLE 2

TEST ADMINISTRATION TIME

| SUBJECTS | | ADMINISTRATION TIME ACES FORM I (MINUTES) | GROUP M |
|---|---|---|---|
| | A | 37 | 40 min. |
| | B | 45 | |
| | C | 40 | |
| 4 year olds | D | 42 | |
| | E | 43 | |
| | F | 42 | |
| | G | 34 | |
| | H | 26 | 38 min. |
| | I | 40 | |
| | J | 41 | |
| 6 year olds | K | 27 | |
| | L | unknown | |
| | M | 29 | |
| | N | 38 | |
| | O | 34 | 35 min. |
| | P | 35 | |
| | Q | 28 | |
| 8 year olds | R | 43 | |
| | S | 39 | |
| | T | 40 | |
| | U | 30 | |
| | | Overall Mean | 37 min. |

M = statistical mean

Example of a score of 1 on FORM I (The Birthday Party)

Examiner:    Your mother is not sure if she should let you go to the party. She says, "Yesterday, you forgot to clean up your room and today you left your toys all over the house." What would you say to her to change her mind?

Subject:    No response for about 10 seconds.

Examiner:    Annie, tell your mother why you should go to the party.

Subject:    Uhm! Please let me go to the party. I promise to clean up my room, and pick up my toys.

The subject scored a 1 for this response because the examiner received no response after an alloted period of time, but upon repeating the question the subject child gave the appropriate answer which corresponded to the correct communication strategy. The strategy elicited was the self-maintaining use justifying behavior and claims.

Example of a score of 0 on a FORM I (The Birthday Party)

Examiner:    Finally, Mom decides to let you go to the party. You are very happy. You race to the phone to call your friend Rob. You want to know if he is going to the party also. What would you say to Rob?

Subject:    I don't know. Uhm! Uhm! I don't know.

Examiner:    Ask Rob if he is going to the party.

Subject:    Uhm! I don't know now.

The subject scored a 0 because he did not respond to the first question, and he again failed to respond after given the appropriate prompt.

CHAPTER IV

RESULTS AND ANALYSIS OF DATA

Results of the present study indicate the performance of eight-year-old children to be higher than that of the six and four-year-old groups on the Assessment of Communication in Everyday Situations FORM I (The Birthday Party). The six and four-year-old groups followed respectively with the four-year-old group achieving the lowest scores in utilizing the language uses represented on the test (Table 3).

Performance on each of the language uses represented on the Assessment of Communication in Everyday Situations FORM I (The Birthday Party) is displayed in Table 3 and Figures 1-3. The eight-year-old group excelled in performance above the other groups for both the Social and Representational Uses of language. The six-year-old group performed higher than the four-year-old group on the language uses, with the four-year-olds being least competent of all groups on the language uses. Examination of the results suggests no difference in performance between the groups for the directing function but the six and eight-year-old groups did apparently perform above the four-year-old group on the self-maintaining function of language. There was no difference in the performance between the six and eight-year-olds for the self-maintaining function (Figure 1).

There appears to be a steady growth pattern on the Representational Use functions of reporting, reasoning, predicting, and imagining. The eight-year-old group appears to be the most competent in each area with the six and four-year-olds following respectively.

## TABLE 3

### PERFORMANCE BY AGE ON THE COMMUNICATION USES

|  | 4 year olds Mean | S.D. | 6 year olds Mean | S.D. | 8 year olds Mean | S.D. |
|---|---|---|---|---|---|---|
| **SOCIAL USES** | | | | | | |
| Directing | 5 | 5.5 | 5.1 | 5 | 5.6 | 5.2 |
| Self-maintaining | 4 | 5.1 | 5 | 5.9 | 5 | 5.5 |
| **REPRESENTATIONAL USES** | | | | | | |
| Reporting | 6 | 6.8 | 9 | 9.3 | 16 | 15 |
| Reasoning | 4 | 5.6 | 7 | 9 | 9 | 9.2 |
| Predicting | 7 | 7.6 | 9 | 9.9 | 12 | 12 |
| Projecting | 4 | 5.4 | 6 | 6.5 | 7 | 7.3 |
| Imagining | 3 | 3.5 | 4 | 4 | 4 | 4 |
| **OVERALL SOCIAL USE** | 9 | 3 | 10 | 3.3 | 10.7 | 3 |
| **OVERALL REPRESENTATIONAL USE** | 22 | 4.2 | 36.5 | 3.5 | 49 | 4.3 |
| TOTAL | 33 | 6.2 | 47 | 6 | 60.5 | 6.5 |

FIGURE 1

COMPARSION OF MEAN SCORES
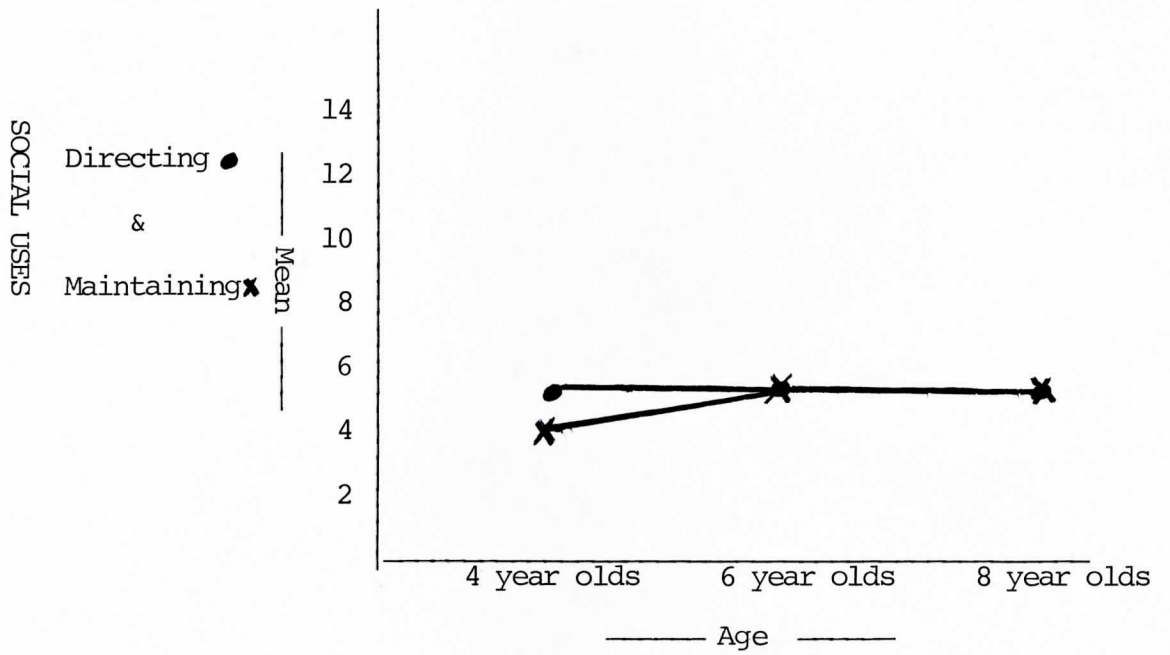
FIGURE 2

COMPARISON OF MEAN SCORES
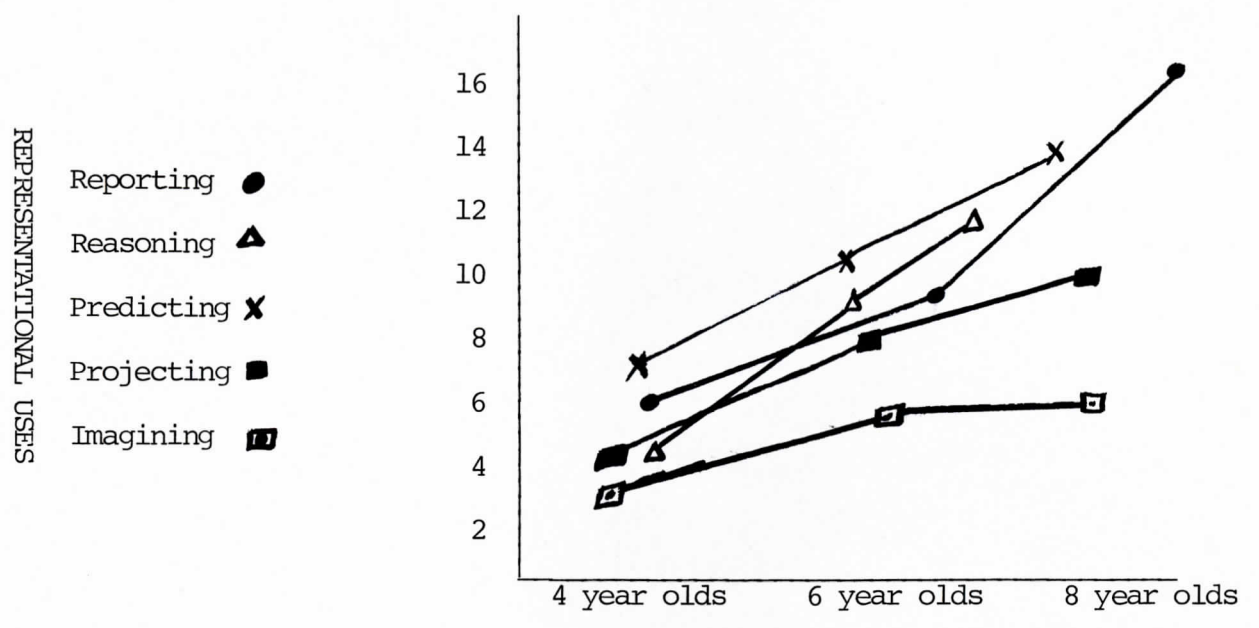
FIGURE 3

COMPARISON OF MEANS
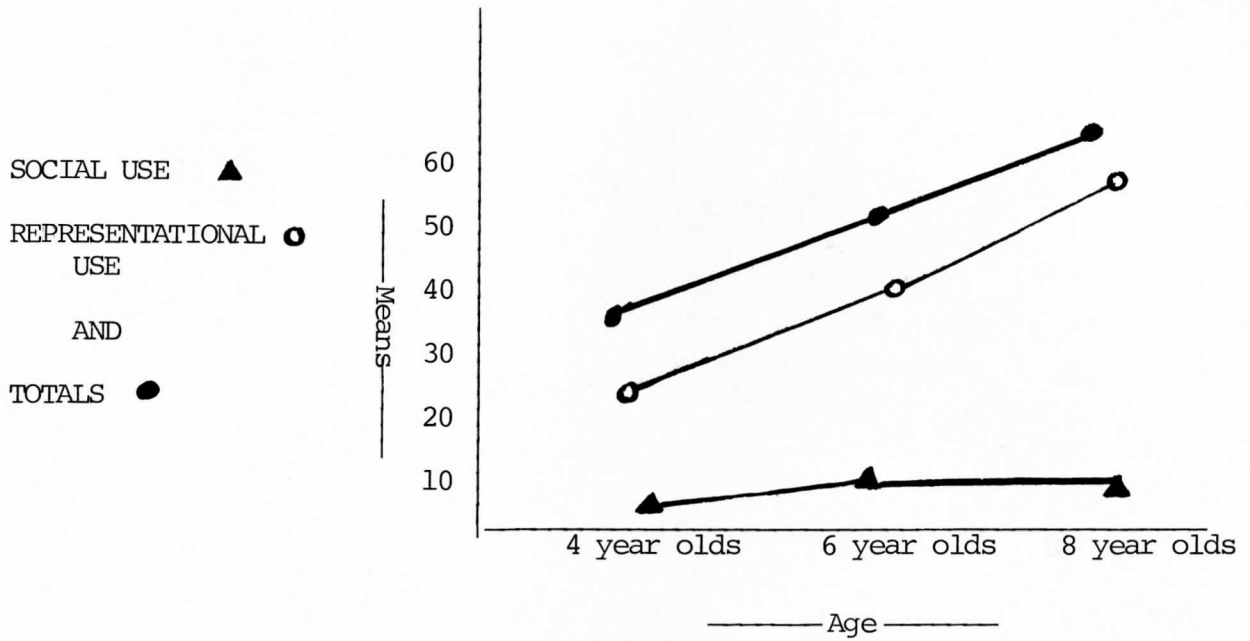
The age groups were then analyzed according to performance in the areas of Social use, Representational use, and Overall use (Figure 3). Steady growth was noted between each age group for the Representational and Overall uses of language but there was no conclusive evidence to support a growth pattern for the Social Use of language.

### RESULTS OF THE KRUSKAL-WALLIS ONE WAY ANALYSIS OF VARIANCE

The Kruskal-Wallis One Way Analysis of Variance was utilized for statistical treatment of the data because it is effective in dealing with small populations and identifies group performance by mean ranks (Smith, 1977: 185).

The formula for the Kruskal-Wallis One Way Analysis of Variance is:

$$H = \frac{12}{N(N+1)} \quad \sum_{J=1}^{K} \quad (\frac{Rj^2}{nj}) - 3(n+1)$$

The correction for ties formula is:

$$H = \frac{[\frac{12}{N(N+1)}] \ [\Sigma(\frac{Rj^2}{nj})] \quad -3 \ (N+1)}{1 - [\frac{\Sigma T}{N^3 - N}]}$$

The results of the computed one way analysis of variance are shown in Table 4. A significant level of difference was revealed for the overall total and Representational uses, but no difference in performance was revealed for the Social uses of language.

### t-TEST RESULTS

t-Tests were computed to compare performances between the four and six-year-old groups, six and eight-year-old groups and four and eight-year-old groups (Table 5).

TABLE 4

RESULTS OF THE KRUSKAL-WALLIS ONE WAY ANALYSIS OF VARIANCE

|                      | $\underline{H}$ | LEVEL OF SIGNIFICANCE |
|----------------------|--------|-----------------------|
| Social Use           | 3.010  | N.S.                  |
| Representational Use | 14.683 | .001                  |
| TOTAL                | 13.885 | .001                  |

The results of the t-tests for overall performance are presented under each subhypothesis.

NULL SUB-HYPOTHESIS 1

Eight-year-old children will not differ significantly in communication competence from four-year-olds.

This was rejected at the .05 level of significance. There was a significant level of difference between overall performance of eight and four-year-olds.

NULL SUB-HYPOTHESIS 2

Six-year-old children will not differ significantly in communication competence from four year olds.

This was rejected at the .05 level of significance. There was a significant level of difference between overall performance of six and four-year-olds.

NULL SUB-HYPOTHESIS 3

Six-year-old children will not differ significantly in communication competence from eight-year-olds.

This hypothesis was not rejected. There was not a significant level of difference between six and eight-year-olds.

t-tests were also computed to identify differences in performance between groups according to the different Representational language functions (Table 5). Results show the most significant level of differences to be between the four and eight-year-old groups with the eight-year-old groups performing at a higher level for the reporting, reasoning, and predicting functions. No significant difference was noted for the projecting and imagining functions for these two groups.

Levels of signficance were also noted between the four and six-year-old groups for the reporting and reasoning functions. The six

## TABLE 5

### t-TEST RESULTS

### TOTAL

| AGE GROUPS | t SCORE | LEVEL OF SIGNIFICANCE |
|---|---|---|
| 4-6 | 5.30 | .05 |
| 6-8 | 1.86 | N.S. |
| 4-8 | 7.6 | .05 |

### REPRESENTATIONAL USE

| AGE GROUPS | USE | t SCORES | LEVEL OF SIGNIFICANCE |
|---|---|---|---|
| 4-6 | Reporting | 2.8 | .05 |
| 6-8 | | 5.3 | .05 |
| 4-8 | | 8.3 | .05 |
| 4-6 | Reasoning | 3 | .05 |
| 6-8 | | 1.5 | N.S. |
| 4-8 | | 3.5 | .05 |
| 4-6 | Predicting | 1.76 | N.S. |
| 6-8 | | 2.5 | .05 |
| 4-8 | | 4.3 | .05 |
| 4-6 | Projecting | 1.67 | N.S. |
| 6-8 | | .97 | N.S. |
| 4-8 | | 1.76 | N.S. |
| 4-6 | Imagining | 1.31 | N.S. |
| 6-8 | | .25 | N.S. |
| 4-8 | | 1.35 | N.S. |

year-olds group was more competent with these functions than the four-year-old group. No significant difference was noted for the <u>predicting</u>, <u>projecting</u>, and <u>imagining</u> functions for these two groups.

Levels of significance were found between the six and eight-year-olds on the <u>reporting</u> and <u>predicting</u> functions, but no significant difference was noted on the <u>projecting</u>, <u>imagining</u> and <u>reasoning</u> functions for these two groups.

## SUMMARY

Chronological age appears to be a factor in a child's performance on the <u>Assessment of Communication in Everyday Situations</u> FORM I (The Birthday Party). A growth pattern was noted for each age group based on their performance on the test. The eight-year-old group performed more competently on each of the language uses with the six and four-year-old groups following respectively.

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS
FOR FURTHER RESEARCH

SUMMARY

The purpose of this study was to aid in the validation of the Assessment of Communication in Everyday Situations, a functional language test developed to appraise children's communication competence, and to compare four, six, and eight-year-old children's performance on FORM I (The Birthday Party) of the test. Performance on the Assessment of Communication in Everyday Situations FORM I (The Birthday Party) was determined by the children's overall scores compared with that of other children in different age groups who were administered the Assessment of Communication in Everyday Situations FORM I (The Birthday Party).

All twenty-one children from the three age groups were pretested on FORM I (The Birthday Party) of the Assessment of Communication in Everyday Situations.

The results of the present study were:

1. The Assessment of Communication in Everyday Situations is a valid test which measures functional language abilities.

2. There is a significant difference in the performance of six year old children and four year old children.

3. There is a significant difference in the performance of eight year old children and four year old children.

4. There is not a significant difference in the performance of six year old children and eight year old children.

Analysis of the Representational language use reveal the eight year old age group to be competent with each of the language uses.

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The six-year-old group followed the eight year old group in performance with the four-year-olds being least competent with the language uses. Based on the statistical treatment of data the greatest interval in performance was between the four and eight-year-old groups.

## DISCUSSION

Results of the present study on the Assessment of Communication in Everyday Situations FORM I (The Birthday Party) provides evidence to support validation of the test, and evidence to support chronological age as being a factor in the communication competence of a child.

The higher level functions such as reasoning, reporting, predicting, and projecting each reveal the older children utilizing these more competently than the younger children. These are cognitive skills which will develop later for the younger children, and will expand for the older children.

The six-year-old age group appears to be in a transition phase for utilizing the language functions competently. The present study provides evidence to support that six-year-olds and eight-year-olds do not differ significantly when using the reasoning, directing, self maintaining, imagining, and projecting functions. These communication functions will have a chance to develop to their fullest in the academic setting for this age group (see Appendix A).

The four-year-old age group was the least communicatively competent. It appears communication functions are not fully developed by this age. These children have greatest command of the Social Use functions such as directing, and self-maintaining, and the Representational function of imagining. Communication competence for these children will be acquired and expanded for the representational uses as multiple communication situations are encountered.

## RECOMMENDATIONS FOR FURTHER RESEARCH

The following suggestions are made as the result of the present study:

1. The alternate forms - FORM II (The First Day of School) and FORM III (The Picnic) of the <u>Assessment of Communication in Everyday Situations</u> should be analyzed to see if there is a comparable apparent developmental sequence of four, six, and eight-year-old children's performance on these forms.

2. Difference in performances on the <u>Assessment of Communication in Everyday Situations</u> among children of high, middle, and low socio-economic status should be studied.

3. Larger, more representational samples should be studied for FORM II (The First Day of School) and FORM III (The Picnic).

4. Different age ranges should be administered the <u>Assessment of Communication in Everyday Situations</u> FORM I (The Birthday Party) to assess their communication competence.

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APPENDICES

APPENDIX A

<u>JOAN TOUGH'S TAXONOMY OF</u>
<u>LANGUAGE USES AND STRATEGIES</u>

# A FRAMEWORK FOR THE CLASSIFICATION OF THE USES OF LANGUAGE

1. SELF-MAINTAINING

   Strategies

   a. Referring to needs
   b. Protesting the self and self-interests
   c. Justifying behavior and claims
   d. Criticizing others
   e. Threatening others

2. DIRECTING

   Strategies

   a. Monitoring own actions
   b. Directing the actions of the self
   c. Directing actions of others
   d. Collaborating in action with others

3. REPORTING

   Strategies

   a. Labelling
   b. Referring to detail
   c. Referring to incidents
   d. Referring to the sequence of events
   e. Making comparisons
   f. Recognizing related aspects
   g. Extracting or recognizing the central meaning
   h. Reflecting on the meaning of experiences

4. TOWARDS LOGICAL REASONING

   Strategies

   a. Explaining a process
   b. Recognizing causal and dependent relationships
   c. Recognizing problems and solutions
   d. Justifying judgments and actions

   e. Reflecting on events and drawing conclusions
   f. Recognizing principles

5. PREDICTING

   Strategies

   a. Anticipating/forecasting
   b. Anticipating the detail of events
   c. Anticipating a sequence of event
   d. Anticipating problems and possible solutions
   e. Anticipating and recognizing alternative courses of action
   f. Predicting the consequences of actions or events

6. PROJECTING

   Strategies

   a. Projecting into the experiences of others
   b. Projecting into the feelings of others
   c. Projecting into the reactions of others
   d. Projecting into situations never experiences

7. IMAGINING

   Strategies

   a. Developing an imaginary situation based on real life
   b. Developing an imaginary situation based on fantasy
   c. Developing an original story

A FRAMEWORK FOR THE CLASSIFICATION OF THE USES OF LANGUAGE

OPERATIONAL DEFINITIONS

1. <u>Self-maintaining</u> - the use of language to create an awareness of the speaker's identity and to promote his position in relation to others.

   a. <u>Referring to physical and psychological needs</u> - includes utterances which seek to satisfy desires.

   b. <u>Protecting the self and self interests</u> - includes utterances spoken in defense of oneself and one's rights and property.

   c. <u>Justifying behavior or claims</u> - includes utterances which give a psychological (appealing to internal states or motivation) or social (appealing to rules, convention, what is expected, or simply fact) reason for actions or demands.

   d. <u>Criticizing others</u> - includes utterances which find fault with the listener often by belittling his status or abusing him by name-calling.

   e. <u>Threatening others</u> - includes utterances which promise to bring about a state considered to be unpleasant to the listener. A threat is usually accompanied by a statement of the external conditions under which the event will take place.

2. <u>Directing</u> - the use of language to control or regulate the physical actions and operations performed by oneself and others.

   a. <u>Monitoring own actions</u> - includes the running commentary or monologue which accompanies and reflects upon the speaker's own ongoing activity.

   b. <u>Directing the actions of the self</u> - includes the running commentary or monologue which guides and controls the speaker's own ongoing activity. It implies a measure of high concentration on precise, sustained or intricate activity which commonly occurs in the face of some difficulty or obstacle.

   c. <u>Directing the actions of others</u> - includes utterances which are designed to guide a listener through an immediate action or series of actions.

   d. <u>Collaborating in action with others</u> - includes utterances made in a context of cooperation which propose or plan a course of action for the speaker and one or more listeners.

3. <u>Reporting</u> - the use of language to provide information about past and present experiences.

   a. <u>Labelling</u> - includes utterances which serve the simple purpose of identifying observed phenomena.

   b. <u>Referring to detail</u> - includes utterances which serve to describe the criterial attributes of objects, actions and/or events.

c. <u>Referring to incidents</u> - includes utterances which describe the occurrence of an action or event.

d. <u>Referring to the sequence of events</u> - includes utterances which accurately reflect the serial nature of several, related actions or incidents.

e. <u>Making comparisons</u> - includes utterances which link objects, actions or experiences through examination of similarities and differences.

f. <u>Recognizing related aspects</u> - includes utterances which posit a conditional association between two or more actions or events.

g. <u>Extracting or recognizing central meaning</u> - includes utterances which impose a primary structure or coherence upon a situation or event and serve to unify the contributing parts into a composite whole.

h. <u>Reflecting on the meaning of experiences</u> - includes utterances which express the speaker's attitudes or feelings about a situation.

4. <u>Towards Logical Reasoning</u> - the use of language which employs rational thought and argument to interpret experiences.

a. <u>Explaining a process</u> - includes utterances which describe a particular method of doing something, generally involving several steps or operations.

b. <u>Recognizing causal and dependent relationships</u> - includes utterances which acknowledge a logical and relevant connection between two situations and which express this most commonly in terms of "how" and "why".

c. <u>Recognizing problems and their solutions</u> - includes utterances which acknowledge obstacles to a course of action and suggest ways to surmount them.

d. <u>Justifying judgements and actions</u> - includes utterances which offer a reason or explanation for decisions and behavior which apply only to a particular situation.

e. <u>Reflecting on events and drawing conclusions</u> - includes utterances which evaluate the implications of an action or event and result in judgements.

f. <u>Recognizing principles</u> - includes utterances which provide an elemental rule or rules to explain observed phenomena.

5. <u>Predicting</u> - the use of language to extend communication beyond immediate present or past experiences to events that have not yet occurred and which may never take place.

a. <u>Anticipating/forecasting</u> - includes utterances which contemplate future happenings or remote concerns.

b. <u>Anticipating the detail of actions and events</u> - include utterances which delineate or describe future happenings or remote concerns.

c. <u>Anticipating a sequence of events</u> - includes utterances which propose an ordered series of related actions or events.

d. <u>Anticipating problems and possible solutions</u> - includes utterances which acknowledge possible obstacles to a planned course of action and suggest ways to surmount them.

e. <u>Anticipating and recognizing alternative courses of action</u> - includes utterances which offer several different interpretations or explanations of a situation.

f. <u>Predicting consequences of actions or events</u> - includes utterances which suggest a possible outcome of some immediate or future action or event.

6. <u>Projecting</u> - the use of language within an unfamiliar or external context.

a. <u>Projecting into the experiences of others</u> - includes utterances which contemplate everyday occurrences from another's perspective.

b. <u>Projecting into feelings of others</u> - includes utterances which reflect what it feels like to be another individual. Emotions and attitudes which are representatives of another's point of view are expressed.

c. <u>Projecting into reactions of others</u> - includes utterances which consider how another individual would respond to a particular situation or experience.

d. <u>Projecting into situation never experienced</u> - includes utterances in which the speaker conjectures about his own feelings and reactions to unfamiliar activities or events.

APPENDIX B

THE ASSESSMENT OF COMMUNICATION
IN EVERYDAY SITUATIONS FORM I
(THE BIRTHDAY PARTY)

# INSTRUCTIONS

We're going to talk to some puppets and play with some

toys today. While we're playing, I'll be asking both of you

many questions. Some of the questions will be hard to answer

and some of them will be easy, but I want you to answer all of

them as completely and as well as you can.

Sometimes, I'll be talking to _____ a little
                                  subject's name

bit more than _____ but I want _____
                friend's name              friend's name

to listen very carefully so he/she can be the helper. Are you

ready? Let's meet my puppet friends, now.

## INTRODUCTION - THE BIRTHDAY PARTY

| ITEM | ACTION | INSTRUCTION |
|---|---|---|
| 1. | Hold up Gene/Jean Puppet | _____ and ____ subject's name ____ I have some ____ friend's name ____ friends I'd like you to meet. This is Gene/Jean. Hi ____ and ____ subject name ____ friend's name ____ *subject's name*, *say hello to* *Gene/Jean.* ____ *friend's name* *say hello to* *Gene/Jean.* |
| 2. | Hold up Mom Puppet | This is Gene's/Jean's Mom, Mrs. Winkler. Hi ____ subject's name ____. Hi ____ friend's name ____. *subject's name*, *say hello to* *Mrs. Winkler.* ____ *friend's name*, *say hello to* *Mrs. Winkler.* |
| 3. | | Mrs. Winkler and Gene/Jean would like to get to know you better. They want to talk with you for a few minutes. Will you talk to Mrs. Winkler and Gene/Jean ____ ? Will you ____ subject's name ____ ? ____ friend's name ____ |

| ITEM | ACTION | INSTRUCTION |
|------|--------|-------------|
| | | *Will you talk to Mrs. Winkler and Gene/Jean* ___?___ *subject's name* <br> *How about you* ___?___ *friend's name* |
| 4. | Hold up Gene/Jean Puppet | *Today's my birthday. I'm going to have a party. Do you like parties* ___?___ *subject's name* <br> *How about you,* ___?___ *friend's name* <br><br> *I want you to come to my party. Will you come* ___?___ *subject's name* *will you* ___?___ *friend's name* |
| 5. | Hold up Gene/Jean Puppet | *I'm having ice cream at my party.* ___,___ *do* *subject's name* *you like strawberry or vanilla ice cream?* ___?___ *friend's name* <br><br> *I like strawberry ice cream. I'm having some cake, too. Do you like chocolate or yellow cake* ___?___ *subject's name* <br> *friend's name* |

| ITEM | ACTION | INSTRUCTION |
|---|---|---|
| 6. | Hold up Bobby Puppet | We're going to play games at the picnic, too. What kind of games do you like to play _____? subject's name How about you, _____ ? friend's _____ name *I like to play hide 'n' go seek. What other games do you like to play* _____ ? *subject's* _____ ? *name* _____ *Friend's name* |
| 7. | Hold up Bobby Puppet | Tell me how you play _____ use game child mentioned . _____ , how do subject's name you play _____ use game child Friend's name _____ mentioned . *When we play hide 'n' go seek one person closes his eyes and counts to ten while everybody else finds a place to hide. Tell* _____ *how to play Friend's name* _____ *use game child mentioned* . |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | RESPONSE | SCORE |
|------|--------|-------------|-------------------|--------|----------|-------|
| 1. | Hold up Mother Puppet | Your friend Gene/Jean is going to have a birthday party. He/she wants you to come to the party and you really want to go. But you need to ask your mother first if it will be alright. What will you say to your mother?  *Ask your mother to let you go to the party.* | May I go to Gene/Jean's birthday party, mom? | SM-f  1.6 | | |
| 2. | Hold up Mother Puppet | Your mother is not sure if she should let you go to the party. She says, "Yesterday, you forgot to clean up your room and today, you left your toys all over the house." What would you say to your mother to get her to change her mind.  *Tell your mother why you should go to the party.* | Please let me go to the party. I promise to clean up my room and·pick up my toys. | SM-c  1.3 | | |
| 3. | Give Phone to subject | Finally, she decides to let you go to the party. You are very happy. You race to the phone to call your friend _____. You friend's name want to know if he's/she's going to the party also. What would you say to friend's name ?  *Ask friend's name if he/she is going to the party.* | Are you going to Gene/Jean's party? | Pd-g  5.7 | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | RESPONSE | SCORE |
|---|---|---|---|---|---|---|
| 4. | Point to friend | _____ says he/she / friend's name / hasn't been invited. Find out how he/she feels about not being invited. <br><br> *Ask _____ how he/she / friend's name / feels about not being invited to the party.* | Are you sad cause you weren't invited to the party? | PJ-a  6.5 | | |
| *5. | Give play money to subject and friend <br><br> Hold up Toy Store window | As you are about to hang up the phone, _____ Mom / friend's name / tells him/her that his/her invitation just arrived in the mail. You are both very happy. Your Mom gives you a dollar to buy Gene/Jean a present and takes you to the toy store to pick something out. In the window, you see many nice toys. Tell _____ which toys you / friend's name / like best. <br><br> *Name the toys you like the best.* | I like the ball and the drum. | Rp-a  3.1 | | |
| *6-7 | | As you are looking at the toys in the window, you see an older boy leaving the store very quickly. What do you think might be happening? Anything else? Anything else? <br><br> *Tell me what the older boy might be doing? Anything else? Anything else?* | He might be running to catch the bus. Or he might have stolen a toy. | Pd-a  5.1 <br> Pd-a  5.5 | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | | RESPONSE | SCORE |
|---|---|---|---|---|---|---|---|
| 8. | | Suppose the boy stole a toy from the store and that's why he's leaving in such a hurry. What do you think might happen to him? <br><br> *Repeat* | The police might catch him and put him in jail. | Pd-f | 5.7 | | |
| 9. | | Suppose they send the boy to jail. What do you think might happen to the boy while he's in jail? <br><br> *Suppose they send the boy to jail. What might the boy do while he's in jail?* | He'll have to sleep on a hard bed. | Pj-a | 6.1 | | |
| *10. | | Pretend you had to go to jail for stealing a toy. Tell me about it. <br><br> *What might happen to you in jail?* | I'd be locked up in a cell and I wouldn't get much to eat. | Pj-d | 6.4 | | |
| 11. | Show strange toy <br><br> Hold up Saleslady Puppet | You decide to go in the store to look at the toys more closely. On the shelf, you see a strange-looking toy. You don't know what it is. What do you say to the saleslady? <br><br> *You see a strange-looking toy on the shelf. Find out what it is.* | What's that? | Rp-1 | 3.6 | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | RESPONSE | SCORE |
|---|---|---|---|---|---|---|
| 12. | Show three balls | You decide to buy Gene/Jean a ball, but there are many to choose from. Describe to the saleslady which ball you want. *Describe to the saleslady the ball you want to buy.* | I want the orange one with the stars. | Rp-b 3.2 | | |
| *13. | Saleslady Puppet | Make up your own story about the ball. *Tell me a story about the ball.* | One day Joey found an old dirty ball in the street. He took it home and washed it off and it was as good as new. | Im-c 7.3 | | |
| 14. | Three balls Saleslady Puppet | The saleslady seems pleased that you want the ball. She asks if you have a ball at home. Tell her about your ball. How is your ball different from these balls? *How are these balls different from one another?* | My ball is bigger than this one. | Rp-e 3.5 | | |
| 15. | Saleslady Puppet | While you are picking out your ball, your friend ___ friend's name is running around the store. The saleslady says, "Please don't run! Find out why she said that. *Ask the saleslady why running is not allowed in the store.* | Why can't ___ friend's name run in the store? | LR-g 4.7 | | |
| *16. | Place assorted toys in front of children | ___ friend's name wants to buy a ___ friend's name present, too. Talk it over. Help him/her decide what to buy. *REPEAT* | I'll look at the cards and you look at the jumprope. | Dr-d 2.4 | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | RESPONSE | SCORE |
|---|---|---|---|---|---|---|
| 17. | Saleslady Puppet shows stuffed dog to friend | The saleslady thinks that you are having a hard time deciding what to buy. She suggests, "Why don't you buy a stuffed dog." What do you say to her? *Do you want to buy the stuffed dog? Why do/don't you want to buy it?* | I don't want to buy the dog. The eye is missing. | LR-d 4.4 | | |
| *18. | Mom puppet hands small box to subject | You pay for your presents and take them home to be wrapped. You are very happy about your purchases. Your mother gives you a box to wrap the ball in. What do you say to her? *REPEAT* | That box is too small. I need a bigger one. | LR-c 4.3 | | |
| 19. | Place other box and wrapping materials on table | Now _____ subject's name, it's time to wrap your present. Tell us how you will do it? What will you do next? *How will you wrap your present? What will you do next?* | First, I'll put the paper on and then I'll put a bow on top. | Pd-c 5.3 | | |
| 20. | Mom puppet hands empty tape dispenser to subject | Mom says, "Here's some tape to hold the wrapping paper together." | This tape is allgone. I need another roll. | LR-c 4.3 | | |
| | Full tape dispenser, glue & paste are on table | *"Here's some tape." (IF SUBJECT DOESN'T NOTICE THAT THE ROLL OF TAPE IS EMPTY .....SAY....."I'm sorry, we're out of tape. What could you use instead?"* | | | - | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | | RESPONSE | | SCORE |
|---|---|---|---|---|---|---|---|---|
| 21. | | Oh, I'm sorry. I didn't notice that we were out of tape. Now go ahead and wrap it. | I'll put some tape on here and here. | Dr-a | 2.1 | | | |
| | | *Wrap your present.* | | | | | | |
| 22. | Mom puppet hands red bow to friend | As you continue to wrap your present, Mom gives the red bow to ___ . You friend's name don't want him/her to have it; you want to use it yourself. What would you say to him/her? | That's my bow. | SM-b | 1.2 | | | |
| | | *Mom gives the red bow to ___ as you continue friend's name to wrap your present. You don't want him/her to have it. You want to use it yourself. What would you say to him/her?* | | | | | | |
| 23. | Wrapping materials | Now, it's ___ turn friend's name to wrap his/her present. Tell him/her how he/she should do it so that it looks just like yours. And then, what should he/she do? | Put the paper on. Now tape it shut and put a bow on top. | Dr-c | 2.3 | | | |
| | | *How should ___ wrap friend's name his/her present to make it look just like yours? And then, what should he/she do?* | | | | | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | RESPONSE | SCORE |
|---|---|---|---|---|---|---|
| 24. | Hang up Pin-the-Tail on the Don-key | You've wrapped your presents and now you are off to the party. When you arrive, you see that the other children are playing Pin-the-Tail on the Donkey. You don't remember how to play the game. What would you say to Gene's/Jean's mother? *You don't remember how to play Pin-the-Tail on the Donkey. Ask Gene's/Jean's mother how to play.* | How do you play Pin-the-Tail on the Donkey? | Dr-e 2.5 | | |
| 25. | Gene's/Jean's Mom Puppet | Gene's/Jean's mother tells you how to play. ___friend's name___ wasn't listening. Tell ___friend's name___ how to play the game. ___REPEAT___ | You put on a blind fold and get turned around. Then you pin-the-tail on the donkey. | LR-a 4.1 | | |
| *26.-27. | Paddle ball | After you finish playing Pin-the-Tail on the Donkey, you decide to play with the paddle ball. ___friend's name___ wants to play with it, too, so he/she grabs it away from you. You don't like what he/she has done. You are not finished playing with the paddle ball. Pretend you are arguing with ___friend's name___. What do you say to each other? *Now, you decide to play with the paddle ball.* ___friend's name___ *wants to play with it, too.* | Give it back, you dummy or I'll tell Gene/Jean's Mom. | SM-d 1.4 SM-e 1.5 | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | | RESPONSE | SCORE |
|------|--------|-------------|-------------------|--------|---|----------|-------|
| *26.–27. (cont.) | | He grabs it away from you. You get into an argument with about the *friend's name* paddle ball. Pretend you are arguing with *friend's name*. What would you say to each other? | | | | | |
| *28.–29. | Wild West Model<br><br>Gene/Jean Puppet | Now it's time to open the presents. Everyone gathers round to see what Gene/Jean got. He/she opens the first present. It's a wonderful Wild West Model. Gene/Jean passes it around for everyone to look at. Take a look and make up a story about what is happening.<br><br>*Make up a story about what is happening in the Wild West Model.* | The cowboy is driving the stagecoach and it's going very fast. All of a sudden, a robber jumps out and steals all the money. | Rp–f<br>Rp–g | 3.6<br>3.7 | | |
| 30. | Wild West Model | What are each of the people in the model doing?<br>------------<br>*What is the cowboy/bandit/ horse in the model doing?* | The cowboy is driving the stagecoach. | Rp–c | 3.3 | | |
| 31. | | How do you think Gene/Jean feels about getting the model for a present?<br>------------<br>*REPEAT* | Happy | PJ–b | 6.2 | | |
| 32 | Gene's/Jean's Mom Puppet | It's been a wonderful party, but you are getting hungry. What could you ask Gene's/ Jean's mother?<br><br>*You are getting hungry. You would like to eat. Ask Gene's/ Jean's mother when you're gonna eat?* | When are we gonna eat? | SM–f | 1.6 | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | RESPONSE | SCORE |
|---|---|---|---|---|---|---|
| *33. | Shopping Center<br><br>(Examiner assumes role of shopper to encourage initiation of play. Then examiner allows children to play, unassisted, for two minutes)<br>(move shopper toward bank)<br>(move shopper toward restaurant)<br>(move waiter toward table) | Gene's/Jean's mother says, "I'm going to get the refreshments now. While I'm gone, you may play with Gene's/Jean's new toys. And here are some others you may play with, too." You and _____ decide to play<br>friend's name<br>with the shopping center first.<br>I'll be Mrs. Cox and you be the banker and you be the waiter/waitress.<br>I need to get some money at the bank.<br><br>I think I'll have a cup of coffee before I do my shopping.<br>_____<br>*May I take your order please.*<br><br>*I'll have a cup of coffee.* | Good morning Mrs. Cox. Do you need some money today?<br><br>Good morning, may I take your order. | Im-a 7.1 | | |
| *34. | Spiderman-Incredible Hulk Colorforms<br>(Examiner assumes role of Dr. Octopus to encourage initiation of play. Then examiner allows children to | Next you and _____<br>friend's name<br>decide to play with the Spiderman and Incredible Hulk Colorforms.<br><br>I'll be Dr. Octopus and you be Spiderman and you be the Incredible Hulk. | It looks like Dr. Octopus is robbing the bank. We better stop him. | | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | RESPONSE | SCORE |
|---|---|---|---|---|---|---|
| 34. (cont.) | play un- assisted, for two minutes. (move Dr. Octopus toward bank) | Spiderman won't catch me this time. | | | | |
| | (move Dr. Octopus in- side bank) | I'm gonna rob the bank. | | Im-b  7.2 | | |
| | (move Dr. Octopus toward tellers' windows) | *Alright everybody, put your hands up, this is a stick up.* | | | | |
| | (move Kraven toward Dr. Octopus) | *Kraven, give me a hand with this money.* | | | | |
| *35. | Cake Gene's/ Jean's Mom Puppet | Now, it's finally time to eat. Gene's/Jean's mother brings out the cake and places it on the table so that Gene/ Jean can blow out the candles. | I want a new bicycle. | SM-a  1.1 | | |
| | Gene/Jean Puppet | He/she makes a wish and blows them all out on the first try. What would you wish for if it were your birthday? | | | | |
| | | *Pretend it's your birthday. Blow out the candles. Make a wish.* | | | | |
| 36. | Cake Gene's/ Jean's Mom Puppet | Gene's/Jean's mother cuts the cake into three pieces. There are five children at the party. What is wrong? What should Gene's/Jean's mother do? | There won't be enough cake. She'll have to cut more pieces. | Pd-d  5.4 | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | | RESPONSE | SCORE |
|---|---|---|---|---|---|---|---|
| 36. (cont.) | | *REPEAT* | | | | | |
| *37. | Pretend to spill juice | While you are eating, you spill your juice on Gene's/Jean's mother's brand new carpet. What do you think his/her mother will say? *REPEAT* | That's allright ___subject's name___ I'll clean it up. | PJ-c | 6.3 | | |
| 38. | | Gene/Jean is eating very quickly. He/She has already eaten two pieces of cake. He/She wants another. What might happen if Gene/Jean eats three pieces of cake? Why? *What might happen if Gene/Jean eats three pieces of cake? Why?* | He/She gets a tummyache cause he/she eats too much cake. | LR-b | 4.2 | | |
| 39. | Give candy in child-proof container to subject | Gene's/Jene's mother has placed some candy on the table for each guest. Open up your candy and have some. *Open up your candy and have some.* | This is hard to open. I'm twisting it and twisting it. | Dr-b | 2.2 | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | RESPONSE | SCORE |
|---|---|---|---|---|---|---|
| 40.-41. | Candy<br><br>Gene/Jean Puppet | As you are opening your candy, Gene/Jean grabs it away from you. What do you think about that? Suppose Gene's/Jean's baby brother grabbed your candy away from you. Would it be worse for a baby to take your candy than it is for a big boy/girl? Why is/isn't it worse?<br><br>REPEAT | It's not nice to take someone else's candy.<br><br>It's worse for a big boy/girl cause they should know better. | LR-e 4.5<br>LR-f 4.6 | | |
| *42. | Hold up Mom Puppet | Now it's time to go home. You say good-bye to all and walk down the street to your house. Mother greets you at the door. She says, "I want to hear all about the party." Tell her all about the party from the time you got there till the time you left. Anything else?<br><br>*Tell mother all about the party from the time you got there till the time you left. Anything else?* | First we played pin-the-tail on the donkey and then Gene/Jean opened his/her presents. | Rp-d 3.4 | | |
| 43. | Mom Puppet | Tell mother what you thought of the party.<br><br>*Did you like the party? Why/Why not?* | I liked the party. It was fun. | Rp-h 3.8 | | |

| ITEM | ACTION | INSTRUCTION | COMMUNICATION ACT | TARGET | | RESPONSE | SCORE |
|---|---|---|---|---|---|---|---|
| 44. | | When is your birthday?<br><br>*REPEAT* | My birthday is in the summer. | Pd-a | 5.1 | | |
| 45. | | What kind of pary would you like to have on your birthday?<br><br>*REPEAT* | | Pd-b | 5.2 | | |

APPENDIX C

<u>SCORING FORM FOR THE ASSESSMENT</u>
<u>OF COMMUNICATION IN EVERYDAY SITUATIONS</u>

AGE months | Race | Sex | Loc. | Stim. | Dis. | No. | | Name

Month | Day | Year

1. I.D.

2. Birthdate

3. Aces Form
4. Order
5. Date
6. Examiner
7. Time (Min.)
8. Scorer

| Scores | 1 | | | | | 2 | | | | | 3 | | | | | 2 | | | | | 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X |
| 9. Item 1 | SM f | | | | | SM f | | | | | PD f | | | | | SM f | | | | | PD g | | | | |
| 10. 2 | SM o | | | | | SM o | | | | | PD c | | | | | SM f | | | | | SM f | | | | |
| 11. 3 | PD g | | | | | PD g | | | | | DR e | | | | | PD o | | | | | PD c | | | | |
| 12. 4 | PJ e | | | | | PJ e | | | | | LR c | | | | | PD o | | | | | PD a | | | | |
| 13. 5 | Rp a | | | | | SM a | | | | | SM a | | | | | LR o | | | | | LR e | | | | |
| 14. 6 | PD a | | | | | PD a | | | | | RP a | | | | | PD a | | | | | PJ a | | | | |
| 15. 7 | PD e | | | | | PD e | | | | | LR b | | | | | PJ d | | | | | PJ d | | | | |
| 16. 8 | PD f | | | | | PD f | | | | | PD e | | | | | LR b | | | | | LR b | | | | |

| AGE months | Race | Sex | Loc. | Stim. | Dis. | No. | Month | Day | Year | Name |
|---|---|---|---|---|---|---|---|---|---|---|

| | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17. 9 | PJ a | | | | | PJ a | | | | | SM b | | | | | SM b | | | | | PD d | | | | | PD d | | | | |
| 18. 10 | PJ d | | | | | PJ d | | | | | DR b | | | | | DR b | | | | | PD e | | | | | PD e | | | | |
| 19. 11 | Rp l | | | | | Rp l | | | | | Rp e | | | | | Rp c | | | | | Rp a | | | | | Rp a | | | | |
| 20. 12 | Rp b | | | | | Rp b | | | | | LR b | | | | | LR b | | | | | LR a | | | | | LR a | | | | |
| 21. 13 | Im c | | | | | Im c | | | | | Rp h | | | | | Rp h | | | | | DR a | | | | | DR a | | | | |
| 22. 14 | Rp e | | | | | Rp e | | | | | PJ b | | | | | PJ b | | | | | DR b | | | | | DR b | | | | |
| 23. 15 | LR g | | | | | LR g | | | | | PJ a | | | | | PJ a | | | | | LR c | | | | | LR c | | | | |
| 24. 16 | DR d | | | | | DR d | | | | | RP l | | | | | RP l | | | | | RP g | | | | | RP g | | | | |
| 25. 17 | LR d | | | | | LR d | | | | | SM f | | | | | SM f | | | | | RP c | | | | | RP c | | | | |
| 26. 18 | LR c | | | | | LR c | | | | | RP b | | | | | RP b | | | | | PJ e | | | | | PJ c | | | | |
| 27. 19 | PD c | | | | | PD c | | | | | IM c | | | | | IM c | | | | | SM f | | | | | SM f | | | | |
| 28. 20 | LR c | | | | | LR c | | | | | DR a | | | | | DR e | | | | | SM c | | | | | SM c | | | | |
| 29. 21 | DR a | | | | | DR a | | | | | DR c | | | | | DR c | | | | | DR c | | | | | DR c | | | | |
| 30. 22 | SM b | | | | | SM b | | | | | SM c | | | | | SM c | | | | | LR g | | | | | LR g | | | | |

| AGE month | Race | Sex | Loc. | Stim. | Dis. | No. | Month | Day | Year | Name |
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**Aces Form**

| Scores | Stim | 1 — T | 0 | 1 | 2 | X | Stim | 1 — T | 0 | 1 | 2 | X | Stim | 2 — T | 0 | 1 | 2 | X | Stim | 2 — T | 0 | 1 | 2 | X | Stim | 3 — T | 0 | 1 | 2 | X | Stim | 3 — T | 0 | 1 | 2 | X |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31. Item 23 | DR c |  |  |  |  |  | DR c |  |  |  |  |  | SM d |  |  |  |  |  | SM d |  |  |  |  |  | SM b |  |  |  |  |  | SM b |  |  |  |  |  |
| 32. 24 | DR e |  |  |  |  |  | DR e |  |  |  |  |  | DR d |  |  |  |  |  | DR d |  |  |  |  |  | RP f |  |  |  |  |  | RP f |  |  |  |  |  |
| 33. 25 | LR a |  |  |  |  |  | LR a |  |  |  |  |  | PD a |  |  |  |  |  | PD a |  |  |  |  |  | RP h |  |  |  |  |  | RP h |  |  |  |  |  |
| 34. 26 | SM d |  |  |  |  |  | SM d |  |  |  |  |  | PD g |  |  |  |  |  | PD g |  |  |  |  |  | PJ c |  |  |  |  |  | PJ c |  |  |  |  |  |
| 35. 27 | SM e |  |  |  |  |  | SM e |  |  |  |  |  | PJ c |  |  |  |  |  | PJ c |  |  |  |  |  | LR d |  |  |  |  |  | LR d |  |  |  |  |  |
| 36. 28 | RP f |  |  |  |  |  | RP f |  |  |  |  |  | PJ e |  |  |  |  |  | PJ e |  |  |  |  |  | DR e |  |  |  |  |  | DR e |  |  |  |  |  |
| 37. 29 | RP g |  |  |  |  |  | RP g |  |  |  |  |  | LR d |  |  |  |  |  | LR d |  |  |  |  |  | PD b |  |  |  |  |  | PD b |  |  |  |  |  |
| 38. 30 | RP c |  |  |  |  |  | RP c |  |  |  |  |  | LR g |  |  |  |  |  | LR g |  |  |  |  |  | DR d |  |  |  |  |  | DR d |  |  |  |  |  |
| 39. 31 | PJ b |  |  |  |  |  | PJ b |  |  |  |  |  | LR a |  |  |  |  |  | LR a |  |  |  |  |  | RP b |  |  |  |  |  | RP b |  |  |  |  |  |
| 40. 32 | SM f |  |  |  |  |  | SM f |  |  |  |  |  | PD f |  |  |  |  |  | PD f |  |  |  |  |  | RP l |  |  |  |  |  | RP l |  |  |  |  |  |
| 41. 33 | IM a |  |  |  |  |  | IM a |  |  |  |  |  | RP f |  |  |  |  |  | RP f |  |  |  |  |  | IM c |  |  |  |  |  | IM c |  |  |  |  |  |
| 42. 34 | IM b |  |  |  |  |  | IM b |  |  |  |  |  | SM f |  |  |  |  |  | SM f |  |  |  |  |  | SM d |  |  |  |  |  | SM d |  |  |  |  |  |
| 43. 35 | SM a |  |  |  |  |  | SM a |  |  |  |  |  | SM e |  |  |  |  |  | SM e |  |  |  |  |  | SM e |  |  |  |  |  | SM e |  |  |  |  |  |
| 44. 36 | PD d |  |  |  |  |  | PD d |  |  |  |  |  | LR f |  |  |  |  |  | LR f |  |  |  |  |  | PJ b |  |  |  |  |  | PJ b |  |  |  |  |  |
| 45. 37 | PJ c |  |  |  |  |  | PJ c |  |  |  |  |  | RP d |  |  |  |  |  | RP d |  |  |  |  |  | PD f |  |  |  |  |  | PD f |  |  |  |  |  |

| AGE month | Race | Sex | Loc. | Stim. | Dis. | No. | Month | Day | Year | Name |
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**Aces Form**

| Scores | 1 — T | 0 | 1 | 2 | X | 1 — T | 0 | 1 | 2 | X | 2 — T | 0 | 1 | 2 | X | 2 — T | 0 | 1 | 2 | X | 3 — T | 0 | 1 | 2 | X | 3 — T | 0 | 1 | 2 | X |
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| 46. Item 38 | LR b |  |  |  |  | LR b |  |  |  |  | RP f |  |  |  |  | RP f |  |  |  |  | PD e |  |  |  |  | PD e |  |  |  |  |
| 47. 39 | DR b |  |  |  |  | DR b |  |  |  |  | LR e |  |  |  |  | LR e |  |  |  |  | SM a |  |  |  |  | SM a |  |  |  |  |
| 48. 40 | LR e |  |  |  |  | LR e |  |  |  |  | IM a |  |  |  |  | IM a |  |  |  |  | SM c |  |  |  |  | SM c |  |  |  |  |
| 49. 41 | LR f |  |  |  |  | LR f |  |  |  |  | IM b |  |  |  |  | IM b |  |  |  |  | IM a |  |  |  |  | IM a |  |  |  |  |
| 50. 42 | RP d |  |  |  |  | RP d |  |  |  |  | PD b |  |  |  |  | PD b |  |  |  |  | IM b |  |  |  |  | IM b |  |  |  |  |
| 51. 43 | RP h |  |  |  |  | RP h |  |  |  |  | PD d |  |  |  |  | PD d |  |  |  |  | LR f |  |  |  |  | LR f |  |  |  |  |
| 52. 44 | PD a |  |  |  |  | PD a |  |  |  |  | RP c |  |  |  |  | RP c |  |  |  |  | RP e |  |  |  |  | RP e |  |  |  |  |
| 53. 45 | PD b |  |  |  |  | PD b |  |  |  |  | PJ d |  |  |  |  | PJ d |  |  |  |  | RP d |  |  |  |  | RP d |  |  |  |  |
| 54. Maintaining |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55. Directing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 56. Social Use |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 57. Reporting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 58. Reasoning |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 59. Predicting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60. Projecting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

AGE
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| Race | Sex | Loc. | Stim. | Dib. | No. | Month | Day | Year | Name |
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| Scores | | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X | T | 0 | 1 | 2 | X |
| Item | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 61. Imagining | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 62. Representational | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63. TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |