IDENTIFICATION OF COMMUNICATION SKILLS BY PRESCHOOL TEACHERS USING A SCREENING QUESTIONNAIRE

A Thesis
by
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ABSTRACT

IDENTIFICATION OF COMMUNICATION SKILLS BY PRESCHOOL TEACHERS USING A SCREENING QUESTIONNAIRE (AUGUST 1986)

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This study compared the use of an indirect measure of preschool children's communication skills with a direct measure of the children's performance. More specifically, this study was designed to determine if preschool teachers were effective in identifying children with potential communication disorders.

The indirect measure, the Speech-Language-Hearing Questionnaire (SLHQ), was completed by 20 teachers on a total of 100 children; the direct measure, the Fluharty Preschool Speech and Language Screening Test (FPSLST), was administered individually to each child. The SLHQ evaluates language development and articulation development; the FPSLST evaluates vocabulary, articulation, and receptive and expressive syntax. The children were selected randomly from nine day care
facilities in Watauga, Avery, and Catawba counties and ranged in age from 3 years 2 months, to 5 years 5 months.

Data were subjected to a Chi Square test for analysis. Results revealed a significant difference between teachers' ratings of children's communication abilities on the SIHQ and the children's performance on the FPSLST. The teachers were in agreement with the FPSLST 75 percent of the time. Eighteen percent of the children were identified by the teachers as having a potential problem but were not identified as being at risk on the FPSLST; whereas 7 percent of the children identified as being at risk for communication disorders on the FPSLST were not identified by the teachers.

Results indicated that teachers identified more children as having potential communication disorders than the FPSLST, suggesting that teachers may be over-identifying children with potential communication disorders; however, because teachers spend approximately six hours a day with the children and have more opportunities to observe their behavior in real life communication situations, their observations may be more accurate than those obtained from brief standardized instruments.
ACKNOWLEDGEMENTS

I would like to express my sincere appreciation to those who assisted in this study. The advice and support of Dr. R. Jane Lieberman, Thesis Committee Chairperson, were instrumental in the completion of this study. Appreciation is extended also to members of the Committee, Dr. Murray Joselson and Dr. Leonard Bliss, and to Dr. Edward C. Hutchinson and Mrs. Mary Ruth Sizer for their assistance and encouragement.

Special recognition and thanks are extended also to the teachers of the Day Care Centers who participated in the study. Without their cooperation, the study would not have been possible.

Finally, I thank my parents, who have encouraged, sacrificed, and supported me throughout my educational career.
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Chapter 1
INTRODUCTION

Communication disorders, including disorders of speech, language, and hearing, are the most frequent handicapping problems found in the preschool-age and school-age population (Filter, 1977). According to Van Riper (1954), speech and language is considered to be disordered when it deviates so far from the speech of other people that it calls attention to itself, interferes with communication, or causes its possessor to be maladjusted.

The preschool years are considered to be the most crucial years in setting the direction and rate of many aspects of a child's speech and language development (Cazden, 1975; Higgenbothan, 1972). The importance of learning to express oneself clearly and accurately was emphasized by Gonzalez and Chadwick (1982) who stated that proper speech development has profound social, vocational, and psychological implications. According to Cole (1982), children with communication disorders may be affected adversely in cognitive development, in social and emotional adjustment, and in academic achievement. Moreover, children identified as speech
and language impaired at the preschool level may have reading and writing deficits as well as other learning problems during their school years (Aram & Nation, 1980; King, Jones, & Laskey, 1982; Wiig & Semel, 1976). Childs and Angst (1984) investigated the academic problems of 40 children identified as speech and language impaired during their enrollment in a special education preschool. Of the children originally identified as speech and language impaired, 32 (80%) continued to be identified as disabled during their elementary school years and required special education services either in self-contained or resource classrooms, consultative services, or speech/language therapy. In addition to academic problems, these children were subject, to some degree, to social attitudes of intolerance and rejection (Brissey & Trotter, 1955). Accurate assessment by preschool teachers of children's communicative skills can enhance considerably the chances of early identification of those children in need of a more comprehensive evaluation by a speech/language pathologist.

Statement of the Problem

Despite the fact that teachers are constantly observing and evaluating their students' behavior,
teachers' assessments of students have not been explored extensively as a means of studying children's skills (Stevenson, Parker, Wilkinson, Hegion, & Fish, 1976). Totta and Crase (1982) noted a lack of research that includes teachers and parents in studying perceptions of children's communication abilities. Further, Naas (1981) reported that there is little evidence to support the notion that teachers are able to identify accurately the communication skill levels of their students even though they may be the first professionals to recognize that a student is experiencing a communication problem (Meyen, 1979).

The value of a questionnaire to identify potential communication disorders in preschool children is based on the expectation that when appropriate target questions are asked, teachers will be capable of identifying children in need of further evaluation. A questionnaire is considered to be an indirect screening tool and may be used as a first step in screening or when it is impossible to elicit the best performance in a direct testing situation.

Purpose of the Study

The purpose of this study was to compare the use of an indirect measure of preschool children's
communication skills by teachers with a direct measure of their performance. More specifically, this study was designed to determine if preschool teachers were effective in identifying children with possible communication disorders through the use of a screening questionnaire. The indirect screening tool for measurement used in this study was the Speech-Language-Hearing Questionnaire (SLHQ) (Furman, 1984) developed at the Burke Rehabilitation Center, White Plains, New York; the direct screening tool was the Fluharty Preschool Speech and Language Screening Test (FPST) (Fluharty, 1978).

Hypothesis

The following hypothesis was developed in the null form and tested at the .05 level of significance:

No significant difference exists in the proportion of children identified by preschool teachers as having potential communication disorders through the use of the Speech-Language-Hearing Questionnaire (Furman, 1984) and the Fluharty Preschool Speech and Language Screening Test (Fluharty, 1978).
Limitation

Since the subjects may not be representative of all preschool teachers, then results may not be generalizable to the population at large.

Assumptions

For the purposes of this study, it was assumed that:

1. The teachers from each day care center were acquainted with each child in the study for a period of at least one month prior to the study.

2. The student clinician responsible for screening the children using the Fluharty Preschool Speech and Language Screening Test (Fluharty, 1978) was under the supervision of a university faculty member and was competent in the administration of the screening instrument.
Chapter 2

REVIEW OF RELATED LITERATURE

Speech and Language Screening

Speech and language screening of preschool children is important in identifying, at an early age, those children who need a comprehensive evaluation and possible preventive intervention. According to Van Hattum (1982), screening should be thought of as a quick general testing procedure, the purpose being to eliminate children with normal speech and language from the general population, leaving only those children needing further diagnostic procedures. Following screening, diagnostic evaluation is used to determine whether a communication disorder exists, to document the nature and extent of the disorder, and to establish remedial training. Screening students for all types of communication disorders is an important task for the speech/language pathologist. In some settings, routine screening occurs at certain grade levels and standardized screening tests are used. In other settings, more reliance is placed on teacher and parent referrals.
The direct method of screening involves the use of individual standardized tests or test batteries for identifying children whose communication skills are in need of improvement. Most preschool language screening tests require individual administration by qualified speech/language pathologists or supportive personnel working under the supervision of the speech/language pathologist. Time required for administration typically ranges from 5 to 25 minutes. Advantages of formal direct tests include: a) increased objectivity by the examiner; b) replication opportunities with the same child or other children; and c) the elimination of unwanted and uncontrollable variation (Weiner & Hoock, 1973). According to Mecham (1971), there is no substitute for the precision of measurement obtained through direct testing methods. The speech/language pathologist, however, may be confronted with a child who cannot or will not respond to direct testing procedures. If this child is of preschool age, it may be impossible to elicit his or her best performance in a formal direct testing situation (Mecham, 1971).

The indirect method of screening including the questionnaire, rating scales and checklists, and parent and teacher referrals, has proven to be useful for
preschool-age and school-age children, particularly when it is impossible to elicit their best performance in a direct testing situation (Mecham, 1971). This method of screening is based on the assumption that the most relevant screening information will come from parents, teachers, and others who have frequent contact with the child (McCormick & Schiefelbusch, 1984). A variety of teacher rating scales has been developed in an attempt to assist teachers in early identification of preschool children who may be at risk for later developmental problems. These scales have evaluated various areas of behavior including speech and language. This procedure of identifying preschool children at risk has been viewed positively by many professionals as a first step in screening, because it requires less time and personnel and constitutes a significant financial savings to a school district (Illerbrun, Haines & Greenough, 1985). Although several teacher checklists have been developed, they have not been evaluated adequately with reference to their usefulness in identifying preschool children with communication and learning problems (Illerbrun, Haines & Greenough, 1985).
Teacher Perceptions

Student evaluation, in whatever form, is one of the most important of all teacher responsibilities (Thurman & Richardson, 1982). According to Knoff (1979), teacher assessments are particularly important to speech/language pathologists, because they rely heavily upon teacher referrals as an initial step in the identification of communication disorders. A variety of teacher rating scales has been developed to aid in the identification of children in need of further evaluation. These have included the areas of speech and language behavior, motor development, and learning. Results of studies that investigated teachers' effectiveness in identifying potential problems in these areas are contradictory. In a study to compare four language screening tests for kindergarten children, Illerbrun, Haines, and Greenough (1985) found that teachers were effective in identifying children with language problems through the use of a language checklist. The teacher language checklist used in this study was the Language Identification Screening Test for Kindergarten (Teacher Language Checklist) (Illerbrun, McLeod, Greenough & Haines, 1984), which was found to be efficient and
valid as a first level of screening. When results obtained from the language checklist were compared to a combined diagnostic criterion, the teachers were found to have correctly classified 92 percent of the children tested; they incorrectly classified 8 percent of the children.

In a pilot study to determine the validity of the Speech-Language-Hearing Questionnaire, Furman (1984) compared results obtained from the questionnaire with those of a direct evaluation of children's performance. The evaluation measures included the Arizona Articulation Proficiency Scale (Fudula, 1974), the Peabody Picture Vocabulary Test-Revised (Dunn & Dunn, 1981), the Preschool Language Scale (Zimmerman, Steiner, & Pond, 1979), and a language sample obtained during free play. A strong positive correlation was obtained between the results obtained from the questionnaire and those from the evaluation. Of 37 children tested, 100 percent of those who passed the SLHQ also passed the evaluation. Of the children at risk on the SLHQ, 84.5 percent also scored in the subaverage range on the evaluation while 15.5 percent passed the evaluation.
Wang (1973) found that teachers of nursery school children in a university setting were accurate in their predictions of children's learning progress, and that teachers' informal evaluations proved as efficient as some standardized assessment tools for measuring student progress. That teachers were accurate predictors of children's learning performance suggested that teacher observations may replace some formal testing. In a similar study, Bondy, Norcross, and Constantino (1982) reported that 18 preschool teachers provided accurate ratings of the ability of 58 children on verbal, perceptual, and quantitative tasks from the *McCarthy Scales of Children's Abilities* (McCarthy, 1972). Bondy, Norcross, and Constantino noted that some teachers were not only effective predictors of children's learning performance, but also could estimate adequately children's intellectual functioning. Totta and Crase (1982), in a study to determine accuracy of parents and day care teachers in perceiving fine motor, gross motor, and language skills, stated that teachers were accurate perceivers of current achievement as well as efficient predictors of near future achievement.
Additional positive findings were noted by Gillberg, Rasmussen, and Carlstrom (1982) who distributed to preschool teachers, a questionnaire that consisted of 34 questions about minimal brain dysfunction and related problems, including communication. Only three percent of 4797 preschool children who were diagnosed as having mild to moderate minimal brain dysfunction were not identified by the teachers as being at risk. Results of the study indicated that the teachers were effective in identifying children with severe minimal brain dysfunction. In a longitudinal study, Stevenson, Parker, Wilkinson, Hegion, and Fish (1976) showed that over a three-year period, 63 teachers provided accurate ratings of cognitive abilities, personal-social skills, and classroom skills in a school for children in kindergarten through third grade. Results indicated that the predictive validity of teachers' ratings was high for both concurrent and subsequent achievement by the children.

Conversely, results of the other studies have suggested that communication screening which is heavily dependent upon teachers' judgments and referrals may be ineffective in identifying children with problems.
Diehl and Stinnett (1959), pointing out the lack of research in the area, investigated the efficiency of teacher referrals of children with communication disorders. The study was conducted in school systems which had never had speech and language therapy programs. Second grade teachers from 77 schools were asked to complete questionnaires for each student in their classrooms. The information requested consisted of the child's name, age, grades failed, and whether or not the child exhibited a speech or voice disorder. The researchers did not define or describe speech and voice disorders for the teachers, and the purpose of the study was not revealed until after the teachers had completed the questionnaire. Based upon a population of 3200 children, the teachers missed 40 percent of children who were later identified by two trained speech/language pathologists as having mild to moderate speech disorders. In addition, the teachers failed to identify 20 percent of children later determined by the speech/language pathologists to have severe speech disorders.

In a similar study, James and Cooper (1966) investigated the ability of classroom teachers to identify speech disordered children through the aid of
a written statement defining and describing speech
disorders. Thirty third grade teachers in schools that
had never had speech therapy programs were asked to
read a one page statement describing various speech and
voice disorders and to list the names of children in
their classrooms suspected of having speech disorders.
All children in the classrooms were then given a speech
screening test by an experienced speech/language
pathologist. Those children who were diagnosed as
having a speech disorder were seen later for a detailed
speech examination and were rated on a seven point
scale of severity. A total of 718 children was
screened. Results of the study indicated that the
classroom teachers identified approximately 40 percent
of children with speech disorders and 80 percent of
children whose speech disorders were severe enough to
warrant therapy. The percentage of accurate referrals
tended to rise as the severity of the disorder
increased.

Summary

Results of studies have revealed conflicting
evidence as to whether teachers are effective in
identifying or referring children with communication
disorders. Some studies suggested that teachers are
effective in rating accurately children's speech and language behavior, motor development, and learning skills, and that teacher's informal ratings proved as efficient as some standardized assessment tools. Other studies have suggested that speech and language screening that is heavily dependent upon teachers' judgments may be ineffective in identifying children with communication disorders. Speculations can be made as to why results of studies are discrepant. Pertinent characteristics of teachers such as age, gender, education, experience in teaching young children, and knowledge of speech and language disorders may influence teachers' ability to identify children with potential communication disorders. For example, many teachers do not understand the range of communication disorders and make judgments based on a limited amount of information, leading to under-identification of children who may be at risk for communication disorders. Conversely, because teachers spend approximately six hours a day with children and have many more opportunities to observe their behavior in real life communication situations, their observations may be more accurate than those obtained from brief standardized instruments.
Chapter 3

METHODS

Participants

The participants in this study were 100 preschool children ranging in age from 3 years 2 months to 5 years 5 months and their day-care teachers (n=20). For a distribution of children according to teacher and preschool facility, see Table 1. The sample of children included 52 males and 48 females. All of the teachers were females. The children were selected randomly from nine day care facilities in Watauga, Avery, and Catawba counties. These facilities were selected from those served by Appalachian State University Speech and Hearing Center.

Materials

The screening tools used in this study were the Speech-Language-Hearing Questionnaire (SLHQ) (Furman, 1984) (Appendix A) developed at the Burke Rehabilitation Center, White Plains, New York, and the Fluharty Preschool Speech and Language Screening Test (FPSLST) (Fluharty, 1978) (Appendix B). The SLHQ was completed by the teachers as an indirect method of assessing children's speech and language skills;
Table 1

Distribution of Children According to Teacher and Preschool Facility

<table>
<thead>
<tr>
<th>Preschool</th>
<th>Teachers</th>
<th>Children</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>8</td>
<td>8%</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>9</td>
<td>9%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>10</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>15</td>
<td>15%</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>8</td>
<td>8%</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>10</td>
<td>10%</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>15</td>
<td>15%</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>19</td>
<td>19%</td>
</tr>
<tr>
<td><strong>9</strong></td>
<td><strong>1</strong></td>
<td><strong>6</strong></td>
<td><strong>6%</strong></td>
</tr>
<tr>
<td>N=9</td>
<td>N=20</td>
<td>N=100</td>
<td>100%</td>
</tr>
</tbody>
</table>
whereas, the FPSLST was administered by student clinicians.

The SLHQ is an indirect screening tool developed to assist preschool personnel and physicians in identifying potential speech and language disorders. There are three versions of the SLHQ, each designed for use with a different age group (e.g., Form C: 3 to 3.6 years; Form D: 3.6 to 4 years; Form E: 4 to 5 years). Table 2 illustrates the number and percentage of children receiving each form of the SLHQ in this study. Questions on each of the forms probe skills, which according to developmental scales, should already be in the child's speech and language profile. A Yes/No answer format is used to insure that a decision is made about a particular behavior and that the form is scored accurately and objectively. The SLHQ contains two sections: language development and articulation development. Examples of questions from the SLHQ include: "Does he/she now speak with more adult-like phrases using word endings as -ing and -ed?" (language development section); and "Is this child's pronunciation of words equal to that of most other children his/her age?" (articulation development section). Both sections are scored as "Pass/Fail."
## Table 2

**Number and Percentage of Children Receiving Each Form of the SLHQ.**

<table>
<thead>
<tr>
<th>Preschool</th>
<th>Tested</th>
<th>Form C</th>
<th>Form D</th>
<th>Form E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
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<td>6</td>
<td>10</td>
<td></td>
<td></td>
<td>10</td>
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<tr>
<td>7</td>
<td>15</td>
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<td>5</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>19</td>
<td>1</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

4(4%)  25(25%)  71(71%)

**Key**

SLHQ - Speech-Language-Hearing Questionnaire
Two "no" responses in either section constitute a "failure" on the screening tool and indicate the need for a comprehensive speech and language evaluation. Two "no" answers were chosen as the criteria for "failure" because each question was developed according to normative data to be a critical, age-expected articulation or language skill (Furman, 1984).

The FPSLST (Fluharty, 1978) is a standardized screening test which measures vocabulary, articulation, and receptive and expressive syntax. The test is administered individually and is a direct screening tool. The purpose of the test is to elicit responses from preschool children that indicate performance in these areas. The FPSLST is not a tool for diagnosing communication disorders, rather it is merely a screening device. The FPSLST Manual recommends that children identified as having a possible speech or language disorder be given a comprehensive speech and language evaluation.

The FPSLST evaluates four speech and language skills including Identification, Articulation, Comprehension, and Repetition. Identification and Articulation measure the child's expressive vocabulary and articulation. These sections require the
identification of 15 common objects whose names contain 23 consonant phonemes in one or more positions (e.g., initial or final). Responses are used to measure vocabulary level and proficiency of articulation.

Comprehension measures the child's understanding of age-appropriate vocabulary in 10 sentence patterns. Five are basic kernel sentence patterns including: NP + V + ing + (NP); NP + to be + NP; NP + to be + Adj; and NP + to be + Adv. The remaining five include common transformations such as yes/no questions, imperatives, negation, and wh - questions. In this part of the test, the child is required to make a nonverbal response to each of the sentences (e.g., "Show me the pencil is yellow").

Repetition samples the child's reproduction of 10 sentence patterns including 5 simple sentences and 5 containing basic transformations. During this subtest, the child must repeat aloud 10 short sentences modeled by the examiner in response to picture cards.

To score the FPSLST, correct responses are totaled for each of the subtest areas and compared to cut-off scores for children of corresponding chronological ages. A child passes the test if all four subtest scores fall at or above the cut-off scores for the
child's age group. A child fails the test if one or more subtest scores fall below the cut-off scores for the child's age group (Fluharty, 1978).

An ideal test will duplicate results when administered by the same examiner (intratester reliability) and by other examiners (intertester reliability). Intratester and intertester reliability coefficients for each subtest of the FPSLST and for the test as a whole were calculated by means of Pearson product-moment correlations. On the test as a whole, the mean correlation was 0.97 for intratester reliability and 0.96 for intertester reliability. On the basis of these data, this instrument appears to have a high level of reliability (Fluharty, 1974).

Concurrent validity refers to the degree to which a test fulfills its stated purpose. A Pearson product-moment correlation was computed to determine the relationship between the results of the FPSLST and the results of a complete diagnostic evaluation including the Peabody Picture Vocabulary (Dunn, 1965), the Goldman-Fristoe Test of Articulation (Goldman & Fristoe, 1972), and the Northwestern Syntax Screening Test (Lee, 1969). The correlation coefficient between
evaluations was 0.897 which is within the limits of acceptability (Fluharty, 1974).

Procedures

Nine day-care facilities agreed to participate in this study. These facilities were located in Watauga, Avery, and Catawba counties and were selected from the speech and language screening schedule of the Appalachian State University Speech and Hearing Center. From these centers, 100 children were selected randomly for inclusion in the study. Notification letters regarding the study (Appendix C) were sent to teachers of these children and 20 teachers agreed to participate in the study.

Each teacher who agreed to participate in the study was mailed a sufficient number of Speech-Language-Hearing Questionnaires (Furman, 1984) to be completed for children selected from their classrooms. In addition, written instructions directing each teacher to rate the children's communication skills by placing a mark under the appropriate "yes"-"no" column on the questionnaire (Appendix D) were mailed.

One hundred questionnaires were returned within a three week period and were scored by the investigator. The total number of "yes/no" ratings assigned by the
teacher on each child were tallied individually and each child received a designation of "Pass" or "Fail" based on criteria from the SLHQ.

In addition, these children were screened individually by a student clinician from Appalachian State University using the *Fluharty Preschool Speech and Language Screening Test* (Fluharty, 1978). All student clinicians were under the supervision of a university faculty member who was certified by the American Speech-Language-Hearing Association. The clinicians followed the standard protocol for administration, scoring, and interpretation of the FPSLST.

Analysis of the Data

Comparisons were made to determine if the same number of children and the same individual children were identified as having communication disorders on the *Speech-Language-Hearing Questionnaire* (Furman, 1984) and the *Fluharty Preschool Speech and Language Screening Test* (Fluharty, 1978). A Chi Square Test was used to test the association between the teachers' ratings of children's communication skills on the SLHQ and the children's actual performance on the SPSLST. The Chi Square Test is used to estimate the likelihood
that some factor other than sampling error accounts for the apparent relationship (Best, 1981).
Chapter 4  
RESULTS AND ANALYSIS  

Results  

Data were obtained through the use of the Speech-Language-Hearing Questionnaire (SLHQ) and the Fluharty Preschool Speech and Language Screening Test (FPSLST).  

Following administration of the SLHQ, the total number of "yes/no" ratings assigned by the teacher on each child were tallied individually and each child received a designation of "pass" or "fail" based on criteria from the SLHQ. Of the 100 subjects, 60 were judged to have passed and 40 to have failed the screening test. From the FPSLST, a "pass" or "fail" was determined also for each subject. Of the 100 subjects, 71 passed and 29 failed the screening test. Table 3 shows the frequency and proportion of passing and failing scores for each screening test.  

Analysis  

When data were submitted to a Chi Square analysis, results revealed a significant difference between teachers' ratings of communication skills on the SLHQ and children's actual performance on the
Table 3

Frequency and Proportion of Passing and Failing Scores on the SLHQ and the FPSLST.

<table>
<thead>
<tr>
<th></th>
<th>Passing</th>
<th></th>
<th>Failing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SLHQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preschool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>87.5%</td>
<td>1</td>
<td>12.5%</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>77.0%</td>
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<td>Total</td>
<td>9</td>
<td>71</td>
<td>21</td>
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**Key**

SLHQ - Speech-Language-Hearing Questionnaire

FPSLST - Fluharty Preschool Speech and Language Screening Test
FPSLST ($X^2 = 21.89, \text{df} = 1, p < .05$) (See Table 4). As is shown, of all the children who passed the SLHQ, 53 percent also received a passing score on the FPSLST while 7 percent failed the FPSLST. Of the 40 children who failed the SLHQ, 22 percent also failed the FPSLST while 18 percent passed the FPSLST.

Based on analysis of the data, the following null hypothesis was rejected at the .05 level of significance: No significant difference exists in the proportion of children identified by preschool teachers as having potential communication disorders through the use of the SLHQ and the FPSLST.

Summary

The Speech-Language-Hearing Questionnaire (Furman, 1984) served as the indirect measure of communication skills in this study and was completed by 20 teachers on a total of 100 children. The direct measure of communication skills, the Fluharty Preschool Speech and Language Screening Test (Fluharty, 1978), was also administered individually to each child. Data were subjected to a Chi Square test of analysis and results revealed a significant difference between teachers' ratings of children's communication abilities on the
Chi Square Analysis of SLHQ and FPSLST

<table>
<thead>
<tr>
<th></th>
<th>FPSLST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td>Fail</td>
</tr>
<tr>
<td>SLHQ</td>
<td></td>
</tr>
<tr>
<td>Pass</td>
<td>53</td>
</tr>
<tr>
<td>Fail</td>
<td>18</td>
</tr>
</tbody>
</table>

\[ x^2 = 21.89, \text{ df } = 1, \text{ } p < .05 \]

Key

SLHQ - Speech-Language-Hearing Questionnaire
FPSLST - Fluharty Preschool Speech and Language Screening Test
SLHQ and the children's performance on the FPSLST. In general, the teachers were found to identify more children believed to have potential communication disorders when compared to the FPSLST.
Chapter 5

SUMMARY, DISCUSSION, AND RECOMMENDATIONS FOR FURTHER RESEARCH

Summary

The purpose of this study was to compare the use of an indirect measure of preschool children's communication skills by teachers with a direct measure of their performance. More specifically, this study was designed to determine if preschool teachers were effective in identifying children with potential communication disorders. The indirect measure used in this study was the Speech-Language-Hearing Questionnaire (Furman, 1984) and the direct measure was the Fluharty Preschool Speech and Language Screening Test (Fluharty, 1978).

The participants were 100 preschool children, ranging in age from 3 years 2 months to 5 years 5 months, and their day care center teachers (n=20). The children were selected randomly from nine day care facilities in Watauga, Avery, and Catawba counties.

The SLHQ was completed on each child by his or her day care teacher. Also, the FPSLST was administered to each child by a student clinician under the supervision
of a university faculty member who is certified by the American Speech-Language-Hearing Association.

Results were subjected to a Chi Square Test of analysis and revealed a significant difference between teachers' ratings of children's communication abilities on the SLHQ and children's actual performance on the FPSLST. The teachers were in agreement with the FPSLST 75 percent of the time. Eighteen percent of the children were identified by the teachers as having a potential disorder but were not identified as being at risk on the FPSLST; whereas 7 percent of the children identified as being at risk on the FPSLST were not identified by the teachers as having a possible communication disorder.

Discussion

Results of this study indicated that most teachers were in agreement with the results of the FPSLST (75%) or identified children as having a potential communication disorder who were not identified as being at risk by the FPSLST (18%). This over-sensitivity in labelling children as potentially impaired is not viewed as a negative factor. Because teachers spend approximately six hours a day with children and have many more opportunities to observe their behavior in
real life communication situations, their observations may be more accurate that those obtained from the FPSLST. Only diagnostic measures can confirm which of the two measures, the SLHQ or the FPSLST, is most accurate. Because the goal of any speech and language predictor is to minimize the total number of children missed who actually have problems, it is necessary to maximize the number of individuals categorized correctly and to minimize the "misses" that represent errors of prediction. "False positives" refer to children identified at risk on the screening test but who perform adequately on a criterion measure; whereas, "false negatives" involve children who appear not to be at risk on the screening test but who would score in the subaverage range when tested on a criterion measure (Illerbrun, Hianes, & Greenough, 1985). Although the teachers appeared to commit more "false positives," it is necessary to determine if these children are actually impaired through further evaluation.

Conversely, the teachers did not identify 7 percent of children later identified by the FPSLST as having a potential communication disorder. Because the FPSLST is not a diagnostic measure, it is not known if these children actually have a disorder. Moreover, the
FPSSLST tends to identify more "false positives," or children who appear to be at risk but who perform adequately on diagnostic measures (Fluharty, 1974).

Data from previous research revealed conflicting evidence about the effectiveness of teachers in identifying and referring children with communication disorders. Some studies suggested that teachers were effective in rating children's speech and language behavior. Furman (1984) compared results obtained from the SLHQ with those of an evaluation by a speech/language pathologist and found a strong positive correlation between the two measures. Other studies reported in the literature suggested that teachers may under-identify children with potential communication disorders.

Data from this study revealed that teachers identified significantly more children as having potential problems than the FPSSLST. Teachers described children who they identified as having potential communication disorders, but who passed the FPSSLST as "withdrawn, very shy, very quiet, immature, not attentive, in his/her own world, or very silly." In addition, several teachers commented that they were unable to judge various communication skills because
children were absent frequently or were not very verbal. Three teachers made comments regarding the communication of the 7 percent of children who passed the SLHQ but were identified as being at risk on the FPSLT. These included:

1. "This child talks baby talk at times,"
2. "Some speech sounds are still difficult for him," and
3. "This child was particularly shy for the strangers from ASU. This may have affected their results."

Results of this study indicated that teachers identified more children as having potential communication disorders than were identified by the FPSLST. Because teachers spend approximately six hours a day with children and have many opportunities to observe their behavior in real life communication situations, their estimates may be accurate. The FPSLST presents a limited sample of isolated skills. For example, the expressive language section of the test, sentence repetition, does not evaluate a child's spontaneous speech, the best source for a language evaluation.
Additionally, results of formal tests are not a direct measure of children's speech and language. They do not reveal what the child knows or does not know about communication, but only how the child responded to certain tasks in relationship to how other children their age have responded. A child's everyday use of spontaneous speech and language may not be the same as his/her use during formal direct testing. According to Newhoff and Leonard (1983), even a partial impression of a child's communicative competence cannot be obtained by means of norm-referenced tests. Further, Newhoff and Leonard reported that the structure imposed by a formal direct test limits the opportunity to observe how a child puts his or her language to use in everyday communicative situations.

Recommendations for Further Research

The following suggestions for further research are made as a result of the present study:

1. This study should be replicated on a larger sample of subjects; in particular a larger sample of teacher respondents.

2. Pertinent teacher characteristics including age, gender, education, experience in teaching young children, and knowledge of
speech and language disorders should be investigated relative to the accuracy of teacher judgments.

3. Further research should be conducted using a battery of diagnostic instruments in conjunction with the instruments used in the present study to determine if children identified as being at risk on the screening instruments actually exhibited a communication disorder.

4. Further research should be conducted to investigate the effect of a teacher inservice on judgments about communication skills. The workshop would include information on normal speech and language development in preschool children as well as information about speech, language, and hearing disorders.
Bibliography
BIBLIOGRAPHY


Appendix A
Speech-Language-Hearing Questionnaire
CHILD'S NAME: ________________________________

BIRTHDATE: ___________________________ AGE: _________

DATE: ________________________________

DEAR TEACHER:

YOUR COOPERATION IN COMPLETING THIS QUESTIONNAIRE WILL ASSIST IN DETERMINING IF THIS CHILD'S SPEECH-LANGUAGE-HEARING SKILLS ARE DEVELOPING ADEQUATELY FOR HIS/HER AGE.

PLEASE COMPLETE THE QUESTIONNAIRE BY PLACING A CHECK MARK UNDER THE APPROPRIATE "YES" - "NO" COLUMN. KEEP IN MIND THAT THIS CHILD IS NOT NECESSARILY EXPECTED TO BE ABLE TO DO EVERYTHING THE QUESTIONS ASK. SOME OF THE SKILLS QUESTIONED ON THIS FORM ARE NOT NECESSARILY EXPECTED OF A CHILD THIS AGE.

1. CAN THIS CHILD CARRY OUT AT LEAST TWO OR THREE SIMPLE DIRECTIONS GIVEN IN ONE LONG UTTERANCE? FOR EXAMPLE, "AFTER YOU PUT YOUR BLOCKS AWAY, GET YOUR COAT AND WE'LL GO OUT")?
   YES__ NO__

2. DOES HE/SHE ENGAGE IN PRETEND PLAY TO KEEP HIMSELF/HERSELF OCCUPIED FOR AT LEAST 20 MINUTES?
   YES__ NO__

3. DOES HE/SHE PARTICIPATE IN "MINI" CONVERSATIONS WITH YOU OR OTHERS?
   YES__ NO__

4. DOES HE/SHE USE AT LEAST THREE-WORD PHRASES SUCH AS "ME GO OUTSIDE," "PUSH TRUCK DOWN," "GO OUTSIDE NOW"?
   YES__ NO__

5. DOES HE/SHE PUT SIMPLE SENTENCES TOGETHER TO TELL OTHERS WHAT TO DO, TO ASK QUESTIONS, OR TO SHARE IDEAS?
   YES__ NO__
6. DOES HE/SHE RESPOND APPROPRIATELY TO QUESTIONS ABOUT A PICTURE STORY YOU HAVE READ? __ __

7. CAN HE/SHE TELL HOW COMMON EVERYDAY OBJECTS ARE USED AND WHO USES THEM? __ __

8. ARE HIS/HER SENTENCES ALMOST ADULT-LIKE? __ __

9. DO OTHERS UNDERSTAND MOST OF WHAT THIS CHILD SAYS? __ __

10. IS HIS/HER PRONUNCIATION OF WORDS EQUAL TO THAT OF MOST CHILDREN HIS/HER AGE? __ __

11. CAN THIS CHILD IMITATE CORRECTLY SOUNDS THAT HE/SHE HAS MISPRONOUNCED IN A WORD? __ __

12. DOES HE/SHE PRONOUNCE THE BEGINNING AND FINAL CONSONANTS IN MOST WORDS? __ __

13. ARE YOU SATISFIED WITH HIS/HER PRONUNCIATION? __ __

PERSON COMPLETING THIS FORM: ____________________________

AMOUNT OF TIME YOU HAVE KNOW THIS CHILD: ______________

DATE COMPLETED: ______________

ADDITIONAL COMMENTS: _______________________________
SPEECH-LANGUAGE-HEARING QUESTIONNAIRE

CHILD'S NAME: ____________________________________________________________

BIRTHDATE: _________________________ AGE: ________________

DATE: ______________________________

DEAR TEACHER:

YOUR COOPERATION IN COMPLETING THIS QUESTIONNAIRE WILL ASSIST IN DETERMINING IF THIS CHILD'S SPEECH-LANGUAGE-HEARING SKILLS ARE DEVELOPING ADEQUATELY FOR HIS/HER AGE.

PLEASE COMPLETE THE QUESTIONNAIRE BY PLACING A CHECK MARK UNDER THE APPROPRIATE "YES" - "NO" COLUMN. KEEP IN MIND THAT THIS CHILD IS NOT NECESSARILY EXPECTED TO BE ABLE TO DO EVERYTHING THE QUESTIONS ASK. SOME OF THE SKILLS QUESTIONED ON THIS FORM ARE NOT NECESSARILY EXPECTED OF A CHILD THIS AGE.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CAN THIS CHILD CARRY OUT AT LEAST TWO OR THREE SIMPLE DIRECTIONS GIVEN IN ONE LONG UTTERANCE? (FOR EXAMPLE, &quot;AFTER YOU PUT YOUR BLOCKS AWAY, GET YOUR COAT AND WE'LL GO OUT&quot;)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. DOES HE/SHE RESPOND APPROPRIATELY TO SIMPLE QUESTIONS ABOUT A PICTURE STORY YOU HAVE READ?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. DOES HE/SHE PUT SOME SIMPLE SENTENCES TOGETHER TO TELL OTHERS WHAT TO DO, TO ASK QUESTIONS OR TO SHARE IDEAS?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. CAN HE/SHE TELL HOW COMMON EVERY-DAY OBJECTS ARE USED AND WHO USES THEM?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. DOES HE/SHE NOW SPEAK WITH MORE ADULT-LIKE PHRASES USING WORD ENDINGS AS __ING (SHE IS WASHING THE DISHES) AND __ED (I BROKE THE TOY)?

6. DOES HE/SHE GIVE SIMPLE ACCOUNTS OF AN EXPERIENCE OR TELL STORIES WITH ENOUGH DETAIL TO MAKE SENSE?

7. IS HE/SHE BEGINNING TO UNDERSTAND CAUSE AND EFFECT AND SHOW INTEREST IN EXPLANATION OF "WHY" THINGS WORK AND HOW THEY FUNCTION?

8. IS THE GRAMMAR OF HIS/HER SENTENCES ALMOST ADULT-LIKE?

9. DO OTHERS UNDERSTAND MOST OF WHAT HE/SHE SAYS?

10. IS THIS CHILD'S PRONUNCIATION OF WORDS EQUAL TO THAT OF MOST OTHER CHILDREN HIS/HER AGE?

11. CAN THIS CHILD IMITATE CORRECTLY A SOUND WITHIN A WORD THAT HE/SHE HAS MISPRONOUNCED?

12. DOES HE/SHE PRONOUNCE THE BEGINNING AND FINAL CONSONANTS IN MOST WORDS?

13. ARE YOU SATISFIED WITH HIS/HER PRONUNCIATION?

PERSON COMPLETING THIS FORM: ________________________________

AMOUNT OF TIME YOU HAVE KNOWN THIS CHILD: ________________

DATE COMPLETED: ________________

ADDITIONAL COMMENTS:
CHILD'S NAME: 

BIRTHDATE: ____________  AGE: ____________

DATE: ______________________

DEAR TEACHER:

YOUR COOPERATION IN COMPETING THIS QUESTIONNAIRE WILL
ASSIST IN DETERMINING IF THIS CHILD'S SPEECH-LANGUAGE-
HEARING SKILLS ARE DEVELOPING ADEQUATELY FOR HIS/HER
AGE.

PLEASE COMPLETE THE QUESTIONNAIRE BY PLACING A CHECK
MARK UNDER THE APPROPRIATE "YES" - "NO" COLUMN. KEEP
IN MIND THAT THIS CHILD IS NOT NECESSARILY EXPECTED TO
BE ABLE TO DO EVERYTHING THE QUESTIONS ASK. SOME OF
THE SKILLS QUESTIONED ON THIS FORM ARE NOT NECESSARILY
EXPECTED OF A CHILD THIS AGE.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. DOES THIS CHILD UNDERSTAND CAUSE AND EFFECT AND SHOW INTEREST IN EXPLANATIONS OF &quot;WHY&quot; THINGS WORK AND HOW THEY FUNCTION?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. CAN HE/SHE CARRY OUT AT LEAST TWO OR THREE SIMPLE DIRECTIONS GIVEN IN ONE LONG UTTERANCE? (FOR EXAMPLE, &quot;AFTER YOU PUT YOUR BLOCKS AWAY, GET YOUR COAT AND WE'LL GO OUT.&quot;)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. DOES HE/SHE NOW SPEAK WITH MORE ADULT-LIKE PHRASES USING WORD ENDINGS AS ___ING (SHE IS WASHING THE DISHES) AND ___ED (I BREAKED THE TOY)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. DOES HE/SHE TELL ABOUT AN EXPERIENCE OR TELL STORIES WITH ENOUGH DETAIL TO MAKE SENSE?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. CAN HE/SHE CARRY OUT A DIRECTION CONTAINING THREE PARTS SUCH AS "PICK UP THE BALL, PUT IT ON THE TABLE, AND BRING ME THE BOOK"?

6. IS HE/SHE BEGINNING TO OR DOES HE/SHE ALREADY REASON OUT SIMPLE PROBLEMS SUCH AS "WHAT DO YOU DO BEFORE YOU CROSS THE STREET" OR "WHAT SHOULD YOU DO IF YOU HURT YOURSELF"?

7. IS THE GRAMMAR OF HIS/HER SENTENCES ALMOST ADULT-LIKE?

8. CAN HE/SHE TALK ABOUT PEOPLE, OBJECTS AND EVENTS THAT HAVE HAPPENED IN THE PAST OR THAT WILL HAPPEN IN THE FUTURE WITH ENOUGH DETAIL TO MAKE SENSE?

9. DO OTHERS UNDERSTAND MOST OF WHAT HE/SHE SAYS?

10. IS THIS CHILD'S PRONUNCIATION OF WORDS EQUAL TO THAT OF MOST OTHER CHILDREN HIS/HER AGE?

11. CAN THIS CHILD IMITATE CORRECTLY A WORD THAT HE/SHE MISPRONOUNCES?

12. DOES HE/SHE PRONOUNCE THE BEGINNING AND FINAL CONSONANTS IN MOST WORDS?

13. ARE YOU SATISFIED WITH HIS/HER PRONUNCIATION?

PERSON COMPLETING THIS FORM: ________________________

AMOUNT OF TIME YOU HAVE KNOWN THIS CHILD: ____________

DATE COMPLETED: ____________

ADDITIONAL COMMENTS:
Appendix B

Fluharty Preschool Speech and Language Screening Test
# FLUHARTY

## PRESCHOOL SPEECH AND LANGUAGE SCREENING TEST

### Individual Form

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<th>Sex</th>
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</table>

<table>
<thead>
<tr>
<th>Examiner</th>
<th>Date</th>
</tr>
</thead>
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</tbody>
</table>

### Total Scores

Indicate the number of correct responses for each area in the boxes provided.

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<tr>
<th>Age</th>
<th>Identification Total</th>
<th>Articulation Total</th>
<th>Comprehension Total</th>
<th>Repetition Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>cut-off score</td>
<td>child's score</td>
<td>cut-off score</td>
<td>child's score</td>
</tr>
<tr>
<td>2 yrs</td>
<td>9</td>
<td>18</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>3 yrs</td>
<td>11</td>
<td>19</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>4 yrs</td>
<td>12</td>
<td>21</td>
<td>7</td>
<td>6</td>
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<td>5 yrs</td>
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<td>7</td>
</tr>
<tr>
<td>6 yrs</td>
<td>14</td>
<td>26</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

### Section A: Identification and Articulation

Place a (✓) for each correct response in the boxes provided.

<table>
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<tr>
<th>Stimulus Item</th>
<th>Identification</th>
<th>First Phoneme</th>
<th>Second Phoneme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. hat</td>
<td>/h/</td>
<td>/t/</td>
<td></td>
</tr>
<tr>
<td>2. bag</td>
<td>/b/</td>
<td>/g/</td>
<td></td>
</tr>
<tr>
<td>3. sock</td>
<td>/s/</td>
<td>/k/</td>
<td></td>
</tr>
<tr>
<td>4. knife</td>
<td>/n/</td>
<td>/l/</td>
<td></td>
</tr>
<tr>
<td>5. teeth</td>
<td>/t/</td>
<td>/b/ (Black dialect)</td>
<td></td>
</tr>
<tr>
<td>6. pencil</td>
<td>/p/</td>
<td>/n/</td>
<td></td>
</tr>
<tr>
<td>7. window</td>
<td>/w/</td>
<td>/d/</td>
<td></td>
</tr>
<tr>
<td>8. comb</td>
<td>/k/</td>
<td>/m/</td>
<td></td>
</tr>
<tr>
<td>9. ring</td>
<td>/r/</td>
<td>/ŋ/</td>
<td></td>
</tr>
<tr>
<td>10. shoes</td>
<td>/ʃ/</td>
<td>/z/</td>
<td></td>
</tr>
<tr>
<td>11. leaves</td>
<td>/l/</td>
<td>/v/</td>
<td></td>
</tr>
<tr>
<td>12. chair</td>
<td>/ʃ/</td>
<td>/r/</td>
<td></td>
</tr>
<tr>
<td>13. feather</td>
<td>/f/</td>
<td>/b/ (Black dialect)</td>
<td></td>
</tr>
<tr>
<td>14. jelly</td>
<td>/dʒ/</td>
<td>/l/</td>
<td></td>
</tr>
<tr>
<td>15. yes</td>
<td>/j/</td>
<td>/s/</td>
<td></td>
</tr>
</tbody>
</table>

Total score _____ Total score _____ Total score _____

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Section B: Comprehension

Place a (✓) for each correct response in the blanks to the left of the numerals.

(Display on the table: one leaf; two pencils — one yellow, one red; two bags — one paper, one plastic. Precede those sentences marked with an asterisk by saying, “Show me.”)

<table>
<thead>
<tr>
<th>Stimulus Item</th>
<th>Acceptable Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>_ 1. Is the leaf on the table?</td>
<td>(Positive nod of head; “Yes,” “Here it is,” and nods.)</td>
</tr>
<tr>
<td>(Remove leaf.)</td>
<td></td>
</tr>
<tr>
<td>_ *2. You are opening your mouth.</td>
<td>(Opens mouth; “See,” and opens mouth.)</td>
</tr>
<tr>
<td>_ *3. The pencil is yellow.</td>
<td>(Points; “This one,” and points.)</td>
</tr>
<tr>
<td>(Remove both pencils. Display two rings.)</td>
<td></td>
</tr>
<tr>
<td>_ *4. The bag is paper.</td>
<td>(Points; “This one,” and points.)</td>
</tr>
<tr>
<td>(Put one ring on paper bag, other ring in plastic bag.)</td>
<td></td>
</tr>
<tr>
<td>_ *5. The ring is on the bag.</td>
<td>(Points; “This one,” and points.)</td>
</tr>
<tr>
<td>(Remove both rings and both bags. Display two combs.)</td>
<td></td>
</tr>
<tr>
<td>_ 6. Show me your sock.</td>
<td>(Points; “Here it is,” and points.)</td>
</tr>
<tr>
<td>_ *7. (Child’s name) is coughing.</td>
<td>(Must cough.)</td>
</tr>
<tr>
<td>(Display on the table: feather, shoe, and hat. Put one comb on the floor. Other comb remains on the table.)</td>
<td></td>
</tr>
<tr>
<td>_ *8. The comb isn’t on the table.</td>
<td>(Points; “It’s on the floor,” and points.)</td>
</tr>
<tr>
<td>_ 9. Where is the feather?</td>
<td>(Points; “On the table,” and points.)</td>
</tr>
<tr>
<td>_ 10. Take the shoe and hat.</td>
<td>(Must take.)</td>
</tr>
</tbody>
</table>

Total score

Section C: Repetition

Place a (✓) for each sentence repeated correctly in the blanks to the left of the numerals. Check missing words or record substituted responses in the blanks below each sentence.

| 1. The girls have the presents. | 6. That is her cat. |
| 2. The man is a football player. | 7. The man can’t reach. |
| 3. The baby is little. | 8. The girl said, “Who is it?” |
| 4. They are walking. | 9. The boy said, “Blow hard!” |
| 5. The bus is here. | 10. The ice cream fell. |

Total score
Appendix C
Notification Letter to Teachers
Dear Teacher:

The Day Care center in which you are employed is participating in a study conducted through the Speech Pathology and Audiology Department at Appalachian State University. The study seeks to investigate the effectiveness of preschool teachers in identifying children with communication disorders.

With your permission, the researcher would like for you to participate in this study. Your participation would involve completing a checklist questionnaire on several children in your classroom. A sample questionnaire has been included for your review and consideration. The data from this study will be used as research material in a Master's of Arts Thesis. However, your right to privacy will be respected and no names will be released or published in any type of research material.

I will be contacting you next week to determine your willingness to participate in this project and to answer any questions regarding the study.

Thank you for your cooperation.

Sincerely,

Cathy Bivens
Speech Pathology Graduate Student
Appalachian State University
Appendix D

Instructional Letter to Teachers
Dear Teacher:

Thank you for participating in this study entitled, "Identification of Communication Skills by Preschool Teachers Using a Screening Questionnaire." Included in this packet are the questionnaires to be completed by placing a check mark under the appropriate "yes" - "no" column.

Once you have completed the questionnaires, place them in the enclosed self-addressed envelope and mail by February 28, 1986. If you have any questions concerning this project, feel free to contact me at the telephone number provided below.

Cathy Bivens: Telephone Number [704] 864-5922.

Please call collect any time after 1:00 p.m., any day of the week.

Sincerely,

Cathy Bivens
VITA

Cathy Bivens was born in Gastonia, North Carolina on December 5, 1960. She graduated from North Gaston Senior High School in 1979, and received a Bachelor of Science degree in Speech and Language Pathology from Appalachian State University in 1983. In January, 1985 she began work on a Master's degree in Speech and Language Pathology at Appalachian State University and completed requirements for a Master of Arts degree in August of 1986.

Her parents are Mr. and Mrs. Robert Bivens of Gastonia, North Carolina.