

A COMPARISON OF GROUP AND INDIVIDUAL ADMINISTRATION
OF THE ASSESSMENT OF CHILDREN'S
LANGUAGE COMPREHENSION

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CHAPTER I

INTRODUCTION

Language is a complex human behavior. The language processes of comprehension, formulation, and expression which may seem simple, automatic, and obvious at first soon impresses the language clinician as being intricate, obscure, and unstable (Johnson, Darley, & Spriestersbach, 1963). "An appreciation of the enormous complexity of the language learning process is especially important" (Foster, Giddan, & Stark, 1972, p. 5).

"The complexity of language diagnosis is a direct reflection of the myriad of variables that impinge on language acquisition" (Emerick & Hatten, 1974, p. 87). The first purpose of language diagnosis is to aid in improving decisions concerning placement in therapeutic or training programs (Spradlin, 1967). Regarding the evaluation process, the language clinician may find that the assessment of language behavior would be more convenient and useful when organized in a systematic fashion (McConnell, Love, & Clark, 1974). One organization system of evaluation would be the division of language into the areas of semantic,

syntactic, and phonological aspects both receptively and expressively (McConnell et al., 1974; Berry, 1969).

The receptive semantic aspect of language is the recognition of words and their association to objects and actions. The expressive semantic aspect is the ability to name objects and actions. The receptive syntactic aspect is the comprehension of certain grammatical rules used to generate language. The expressive syntactic aspect is the performance and use of the grammatical rules. The receptive phonological aspect is the ability to recognize and interpret phonemes. The expressive phonological aspect is the proficiency in the use of the phonemes (McConnell et al., 1974).

Numerous commercial and non-commercial tests and instruments are available which can assess one or several of the aforementioned aspects of language. Also, several of these language tests can be administered individually or to a group. Some of the tests are concerned primarily with the expressive aspects while others are concerned primarily with the receptive aspects. One example of a receptive semantic test is the Peabody Picture Vocabulary Test. However, the semantic aspect or "the comprehension of word meaning and the ability to name an isolated object or action is not an adequate index to the child's ability

to use words in contextual speech" (Berry, 1969, p. 265). It is the syntactic aspect that is ". . . necessary for comprehending and generating language" (McConnell et al., 1974, p. 75).

The Assessment of Children's Language Comprehension (ACLC) attempts to ". . . answer some of the shortcomings of the pure vocabulary tests by adding increasing amounts of contextual elements to the task" (Emerick & Hatten, 1974, p. 91). Foster, Giddan, and Stark, authors of the ACLC, state that:

The ACLC was designed to enable a clinician to determine how many word classes in different combinations of length and complexity a child would be able to understand. It is not a measure of the child's expressive performance and is limited to an assessment of his comprehension in the presence of pictures. . . . However, while we are acutely aware of the limitations of the ACLC or any other test, we believe it represents a uniquely different approach to assessment and may be useful to language clinicians. (Foster et al., 1972, p. 5)

The ACLC measures a child's ability to comprehend without having to produce language; therefore, it can be used with children who have severe articulation problems or limited speech (Foster et al., 1972).

A Group Form was developed as a screening instrument for rapid group assessment. The authors state that:

The Group Form allows the screening of small groups of children such as those in a pre-school or kindergarten program. The Group

Form can be administered to any group of children --providing the environment is quiet--by teachers, teacher aides, speech therapists, etc., with only minimal preparation. . . . If children fail the Group Form . . . , they should be more thoroughly evaluated . . . with the long form of the ACLC and with other diagnostic instruments. (Foster et al., 1972, p. 31)

The objective of a screening instrument is the detection, not description, of persons with significant communication problems. It must be a swift and discriminating testing procedure (Emerick & Hatten, 1974). Normative and comparative data concerning the ACLC Group Form are currently unavailable. The ACLC Manual Supplement states: "It is anticipated that data will soon be available comparing performance on the Group Form with performance on the complete individual administered scale" (Foster et al., 1972). Personal communication with Foster indicated that no normative data are presently available regarding the group administration of the ACLC nor comparability to normative scores obtained by individual administration (Foster, 1977).

The primary purpose of the present study was to test the hypothesis that the ACLC scores obtained under individual and group administrations to children would not differ significantly. If this hypothesis were upheld, the group administration being economical in time and expense

could be used to screen children and identify those who need further individual study.

CHAPTER II

REVIEW OF THE LITERATURE

Studies concerning the reliability of language tests administered through group techniques represent a largely unexplored area of research. Only a few studies of this kind were found which seem pertinent to this investigation. This review of related literature focused on (1) studies investigating language tests administered through both group and individual techniques and (2) studies using the ACLC.

Language Tests Administered Through Group and Individual Techniques

Several investigators have conducted studies pertaining to group administration of individual language tests (Norris, Hottel, & Brooks, 1960; Simkins & Burgin, 1963; Fargo, Crowell, Noyes, Fuchigami, Gordon, & Dunn-Rankin, 1967; Becker, 1969). Three studies utilizing the Peabody Picture Vocabulary Test (PPVT) compared group and individual administration (Norris et al., 1960; Fargo et al., 1967; Becker, 1969), and one study utilizing the Full-Range Picture Vocabulary Test (FRPV) compared group and individual administration (Simkins & Burgin, 1963).

Norris et al. (1960) explored the possibility of administering the PPVT by a group technique. They stated:

The primary purpose of the . . . study was to test the hypothesis that PPVT scores obtained under individual and group administration would not differ significantly or appreciably. If this hypothesis were upheld, it was believed that the norm sample could be increased greatly while effecting considerable savings in time and expense. (p. 88)

Four groups of subjects were selected from the fifth grade of one of the Nashville City Schools in Tennessee. The number of subjects per class was 15. Norris et al. tested not only for group and individual administration, but also for Forms A and B of the PPVT and order of presentation. On the first day of testing, Class 1 and Class 2 were administered the PPVT individually, Form A and B, respectively; while Class 3 and Class 4 were administered the PPVT in groups, Form A and B, respectively. After a one day interval, the four classes were reversed in administration techniques and forms tested. Individual administration was done according to the manual. The groups were administered the PPVT by photographic slides of test items projected onto a screen. The subjects marked their responses on individual answer sheets. A ceiling and basal were established in both the individual and group administrations. Approximately 10 minutes were required for individual

testing and 30 minutes for group testing. The authors concluded that:

When both forms of the PPVT were administered in counterbalanced order to fifty-grade children . . . in the proper school grade for their age, their average scores were not a function of the form administered nor of having the test administered individually or in a group. (Norris et al., 1960, p. 91)

Fargo et al. (1967) in a similar study tested the hypothesis that scores obtained in a group television administration of the PPVT would not differ significantly from those obtained in individual administration. Fargo et al. used educational television to test 126 third- to fifth-grade children at the University of Hawaii Elementary School. The subjects' IQ range was 91 to 152 with a mean of 123. Every subject was English speaking. All subjects were administered the PPVT individually and in a television group session with one-half of the subjects having the individual test first. Forms A and B were, also, alternated for order and type of administration. The time interval between testing was not given. Three t-tests were applied to the scores: one compared performance on individual and group administration, the second compared scores on Forms A and B, and the third compared scores of first and second administration. In all three comparisons, the difference in means did not reach significance.

However, when individual and group administration scores were compared with another statistical analysis, differences slightly exceeded significance. The authors suggested that the greater variability observed in the television group administration may be minimized by more careful monitoring of the testing situation and improving the viewing conditions with spaced desk placement and optimal lighting for the television screen. The authors stated:

The apparent comparability in scores obtained under the two types of test administration points to the feasibility of the use of the TV administration of the PPVT for group testing. (Fargo et al., 1967, pp. 139-140)

Contrary to Norris et al. and Fargo et al., Becker (1969) investigated the reliability with which individual tests of language, visual perception, auditory perception, and perceptual integration can be administered through group techniques. The language test, PPVT, along with the other tests were administered to 169 children enrolled in kindergarten, first-, second-, and third-grade classes of a suburban elementary school in Montgomery County, Maryland. The children were predominately white, ranging in age from five years, one month to nine years, eleven months. The school was located in an area where low to middle socioeconomic families lived. Individual testing of all tests

was completed in three days, and 15 days later the group testing began and was completed in three days. Individual administration was done according to the manual. Presentation of the group PPVT was through a closed circuit video presentation of plates. Groups of 12 to 14 children were shown each plate for about 10 seconds. Pearson product-moment correlation coefficients were computed between all variables and for all age groups except the nine-year-old subjects for which a Spearman rank-difference correlation coefficient was computed due to the small sample. Also, t-tests were applied to analyze the significance of difference between the means of individual and group test scores. A correlation coefficient of .44 was obtained between the individual and group administration of the PPVT. For the total sample, this was the lowest reliability coefficient among the five tests. The lowest reliability coefficient of .25 found in this study was between the individual and group administrations of the PPVT for the five-year-old subjects. "Only the eight- and nine-year-old subjects obtained high correlation coefficients for the PPVT; .76 and .89 respectively" (Becker, 1969, p. 59). The t-test values between the individual and group administrations of the five tests for all subjects revealed only one test which was significantly

different. That test was the PPVT for the five-, six-, and seven-year-old subjects. Becker stated that:

. . . none of the correlations between the individual and group administrations of the PPVT reached the strength of relationship desired in a reliability coefficient. On the basis of these findings, it seems inadvisable to administer the PPVT through the group techniques employed in this study to five-, six-, and seven-year-old children. (Becker, 1969, p. 62)

Simpkins and Burgin (1963) proposed that the primary purpose of their study was ". . . to compare the individual and group administration of the FRPV on a group of elementary students who had remedial reading problems" (p.189). If found comparable it would be desirable to use as a rapid screening device. As the FRPV had proven to be a valuable tool in assessing the intelligence of children with reading problems, the authors used subjects in their study requiring remedial reading instruction. One half of the subjects of each of the third- and sixth-grades were individually administered Form A of the FRPV and group tested on Form B. The other half was administered Form B individually and group tested on Form A. The two test administrations were given one week apart. The individual administration of the FRPV was according to the instructions. For the group administration, children were tested in groups of 10 to 15 and presented test items approximately

in their age range. A ceiling and baseline level could not be determined in the group testing, so that it was arbitrarily decided to present words up to and beyond the ages for both the third- and sixth-grades. Simkins and Burgin found that the results indicated that there was a high degree of reliability between individual and group administrations of the FRPV. The correlation for the third-grade was significantly lower than that of the sixth-grade. The authors discussed the possible reasons for the discrepancy between the two correlations, one of which was the third-grade's increased restlessness and irritability as more difficult words were presented. Simkins and Burgin concluded that, due to the lower correlations for the younger students, the administration of the group test should be restricted to older students.

In summary, four studies of group versus individual administration of language tests were reviewed: three with the PPVT and one with the FRPV. Norris et al. and Fargo et al. concluded that the scores obtained in group administration of the PPVT were comparable to the scores of the individual administration and would be of value as a screening instrument. Becker concluded that between the individual and group administrations of the PPVT, none of the correlations reached the strength of relationships

desired in a reliability coefficient. Thus, Becker did not advise that the PPVT be administered through video presentation to five-, six-, and seven-year-old children. Simkins and Burgin concluded that the group administration of the FRPV should be restricted to older students due to the low correlations for the younger students.

Studies with the ACLC

Two studies were found which used the ACLC (Delps & Smeets, 1973; Semel & Wiig, 1975). Delp and Smeets (1973) examined some implications of the use of the ACLC on mental retardates. A random sample of 58 institutionalized subjects, 43 males and 17 females, was selected. The IQ's based on the PPVT ranged from below 10 to 87 and chronological ages ranged from 4-5 to 56-7 years. It was concluded that the cut-off point stated by the authors of the ACLC is rather high. If the test had been administered according to the instructions, 36 subjects would have been eliminated after part A and would have resulted in the programming for those 36 subjects who would not have had a need for it. Delp and Smeets suggest a lower and more practical cut-off point between 41 to 45 for mental retardates. (The present investigator found it curious that in the ACLC Manual nowhere is a specific cut-off score given; in fact, the authors of the ACLC do not recommend using a

specific cut-off score.) Also, Delp and Smeets found that the results seemed to indicate that the correct or incorrect answer to any individual noun, modifier, verb, or preposition in isolation, part A, was of low predictive value for its understanding in the multi-element presentation, parts B, C, and D. The authors found that modifiers and nouns were better understood in isolation than in multi-element presentations, while verbs and prepositions were better understood in the multi-element presentations. Thus, the authors concluded that when using the ACLC with mental retardates (1) the cut-off point should be lowered and (2) that the response of an individual noun, modifier, verb, or preposition in isolation was low predictive value for its understanding in the multi-element presentations.

Semel and Wiig (1975) examined (1) the comprehension of critical verbal elements using the ACLC and (2) the comprehension and expression of syntactic structures using the Northwestern Syntax Screening Test (NSST) by learning disabled and academically achieving children. The 34 subjects with learning disabilities, 7 females and 27 males, were diagnosed by a psycho-educational team. All were in regular classes in grades two through seven. Ages ranged from 7-0 to 11-6 years and Full Scale WISC IQ's ranged from 88 to 133. "All showed academic retardation ranging

from 2 to 4 grades in two or more subjects" (p. 54). The public schools attended were located in middle and upper middle income suburban areas. None of the subjects had received speech or language therapy. A control group of 17 academically achieving subjects was randomly selected from a middle income suburban public school and matched for age range, WISC IQ, and proportion of males to females. None of the control group had received speech or language therapy. Semel and Wiig stated that norms for the ACLC and NSST were not available for all of the ranges represented by the learning disabled children, and that these two tests do not have established test ceilings. Thus, the authors suggest that comparison of results with the normative data is tentative. "Both tests are . . . sensitive to small error variations so that a difference of one or two errors may result in significant differences in percentile age equivalent scores" (p. 56). Performances by the learning disabled children on the ACLC did not result in a ceiling effect observed for their academically achieving controls. The learning disabled children tended to exhibit quantitative reductions in the ability to process and synthesize the critical elements of parts B, C, and D. Performances on part D, the four critical element subtest, by the experimental group suggested that the

errors showed reductions in the comprehension of specific prepositions, simultaneous analysis and synthesis, and memory. Memory reduction was suggested by the observation that errors occurred less frequently on the first and last elements than on the intermediate elements. The authors suggest that the findings concerning the NSST and the ACLC may be useful in the initial screening and identifying of language deficits in learning disabled children. Both tests appear to identify subtle problems in linguistic ability, simultaneous analysis and synthesis of auditory language, and memory for grammatical structures and critical elements. While both tests have the aforementioned limitations, Semel and Wiig consider that these tests provide information not readily obtained from conventional assessment instruments for learning disabled children.

In summary, two studies used the ACLC: one concerning mental retardates and one concerning learning disabled children. Delp and Smeets examined the use of the ACLC on mental retardates and concluded that a lower cut-off point was needed for mental retardates. Also, they found that modifiers and nouns were better understood in isolation than in multi-element presentations, while verbs and prepositions were better understood in the multi-element presentations. Thus, the response of an individual noun,

modifier, verb, or preposition in isolation was of low predictive value for its understanding in the multi-element presentations. Semel and Wiig examined the comprehension of critical verbal elements using the ACLC with learning disabled children and concluded that the ACLC may be useful as one tool in the initial screening and identifying of language deficits in learning disabled children.

CHAPTER III

RESEARCH DESIGN

The purpose of this study was to test the hypothesis that there is no significant difference between the information obtained from the ACLC group or individual administration. Twenty subjects were given the ACLC both individually and in groups. Details of the plan of investigation are presented in this chapter.

Research Questions

The following research questions were formulated:

1. Will the ACLC scores obtained under group and individual administration differ significantly?
2. What relationships can be demonstrated between scores obtained under group and individual administration of the ACLC?

Subjects

Twenty subjects were utilized in this study consisting of 13 males and 7 females attending a day care center in Carrollton, Texas. These subjects ranged in age from three years, zero months to five years, eleven months. In each of six age groups, six children were made available

to this investigator. The subjects chosen were the first four children in each age group with signed permission slips available on the days of testing. The subjects presented in this study were those children who were present for both the group and individual administration of the ACLC and are described in Table 1 (Chapter IV). Thus, the following is the number of subjects per age group tested: three from three years, zero months to three years, five months; four from three years, six months to three years, eleven months; three from four years, zero months to four years, five months; three from four years, six months to four years, eleven months, four from five years, zero months to five years, five months; three from five years, six months to five years, eleven months. Each subject had functional hearing and the ability to use a writing instrument (crayon) as determined by informal observation on the day of testing.

Test Instruments

The test instruments utilized in this investigation included: (a) the ACLC individual form and (b) the ACLC Group Form.

Description

ACLIC Individual Form. The individual version includes a recording sheet and a bound series of plates including four levels of difficulty beginning with part A --a 50-item vocabulary test requiring the child to identify common words (Emerick & Hatten, 1974). The remaining three levels, part B, C, and D, include the vocabulary items from part A and involve ". . . the child's ability to process an increasing number of syntactic units" (Foster et al., 1972, p. 13) referred to as "critical elements." Part B, the second level of difficulty, requires the child to identify the picture from among four pictures when the examiner verbally presents stimuli consisting of two elements, i.e., noun-verb, noun-noun, and modifier-noun. At the third level, part C, the child must identify one picture from among four when the examiner verbally presents stimuli consisting of three critical elements, i.e., noun-preposition-noun, noun-verb-noun, noun-noun-verb, modifier-noun-verb. At the fourth level, part D, the child must identify one picture from among five when the examiner verbally presents stimuli consisting of four critical elements, i.e., noun-verb-noun-noun, modifier-modifier-noun-verb, noun-verb-noun-verb, noun-noun-preposition-noun noun-verb-preposition-noun, modifier-noun-preposition-noun, noun-verb-modifier-noun (Emerick & Hatten, 1974).

ACLC Group Form. The Group Form is composed of 15 plates from the individual ACLC form rearranged to fit in a 30-page booklet. The Group Form is made up of one example item, two training items, and 12 test items. The training items are taken from the individual form, part A, and the 12 test items are taken from the individual form, parts B, C, and D, respectively. Four items from each of the latter three parts are screened.

Normative Data

ACLC Individual Form. Concerning the statistical properties of the ACLC, the authors point out that this test is not an attempt to rank children in a class but to aid clinicians in ". . . assessing any particular limitations in language development of an individual child" (Foster et al., 1972, p. 17). For this reason, the ACLC is an achievement test measuring comprehension skills at a basic level; thus, the authors do not recommend the use of percentile ranks or standard scores. "Ideally, the average first or second grader should attain a virtually perfect score" (Foster et al., 1972, p. 17).

The normative data collected involved a group of 311 nursery and elementary school children:

. . . 85 per cent of them from Tallahassee, Florida or nearby, and the remainder from rural

Vermont Headstart programs. The parents' socioeconomic and educational backgrounds are mixed; about 35 per cent were low level and the rest low-middle to high-middle levels. Thirty-eight per cent of the children were black and the testing was done in the spring and autumn of 1974. (Foster et al., 1972, p. 18)

Three sets of mean scores for age, sex, and neurologically or educationally handicapped children of the normative data collected are presented in the ACLC manual. Mean scores for each of the four subtests indicated an increasing progression of correct responses from the age range three years, zero months to six years, five months. Thus, the children in the standardization sample had acquired the skills tested by the time they reached kindergarten. The second set of mean scores referring to the sex of the children suggest that on the basic language skills tested, neither sex is superior over the other at the nursery school or kindergarten ages. The third set of mean scores referring to those children who were clinically diagnosed as neurologically or educationally handicapped suggest that performance level for these children, also, improves with age (Foster et al., 1972).

ACLC Group Form. As stated in Chapter I of this study, no data at this time are readily available. The ACLC Manual Supplement states: "It is anticipated that data will soon be available comparing performance on the

Group Form with performance on the complete individual administered scale" (Foster et al., 1972, p. 32). Personal communication with Foster indicated that no normative data are presently available regarding the group administration of the ACLC nor comparability to normative scores obtained by individual administration (Foster, 1977).

Procedures

Administration

ACLC Individual Form. Individual administration was given according to instructions provided in the ACLC Manual. These instructions are provided in Appendix A. The vocabulary section, part A, consists of 10 plates each of which contains five stimuli for presentation. For the critical elements section, parts B, C, and D, only one response for each plate is required. The individual ACLC can be administered in about 10 minutes when optimal conditions are provided (Foster et al., 1972). The room made available to this investigator for individual administration of the ACLC had proper ventilation and adequate lighting. Distractions were kept to a minimum. All subjects were tested in the morning except for two who were tested in the late afternoon.

ACLC Group Form. The Group Form was administered according to the instructions given in the ACLC Manual Supplement. These instructions are presented in Appendix B. The stimulus items to be read in the group administration are provided in the Manual Supplement (Foster et al., 1972). Large classrooms were made available to this investigator for the group administration of the ACLC. The subjects were spaced so that they could work independently. Only this investigator and the subjects tested were in the room at the time of the group testing. All groups were tested in the morning.

Design. On the first day of the experiment, 10 subjects from the six age groups were first tested individually. One week later, four subjects from the three years, zero months to four years, five months age range were tested in one group session and six subjects from the four years, six months to five years, eleven months age range were tested in a separate group session. Two weeks later, a group of 10 different subjects were first tested in two small groups. Six subjects from the three years, zero months to four years, five months age range were tested in one group session and four subjects from the four years, six months to five years, eleven months age range were tested in a separate group session. Two weeks

later, these 10 subjects were tested individually. Time intervals between testing were based on availability of the subjects. The alternate administration of the group and individual forms was done to minimize possible effects due to the order of group or individual testing.

Scoring

ACLC Individual Form. Parts A, B, C, and D were scored by adding the number of correct responses marked on the individual recording sheet. The total of possible correct scores is 80.

ACLC Group Form. The Group Form was scored by comparing the subjects' answers with the key given on the front of the group booklet. The correct responses were totaled. The total of possible correct answers is 12.

Summary

Twenty subjects ranging in age from three years, zero months to five years, eleven months were given the ACLC. Ten subjects were first tested individually and one week later, they were tested in two small groups. Two weeks from this testing time, the other 10 subjects were tested first in two small groups and two weeks later, they were tested individually. Both forms of the ACLC were administered according to the instructions in the ACLC Manual

and Manual Supplement and were scored by totaling the correct responses for each subject.

CHAPTER IV

RESULTS AND DISCUSSION

Results

For this investigation, 20 subjects ranging in age from three years, zero months to five years, eleven months were tested individually and in groups with the ACLC. Ten subjects were first tested individually with the ACLC; one week later, they were tested with the ACLC Group Form in two small groups. Two weeks later, 10 different subjects were first tested with the ACLC Group Form in two small groups; two weeks later, they were tested individually. The alternate administration of the group and individual forms was done to minimize possible effects due to the order of group or individual testing.

The aim of this chapter is to present and examine the collected data with regard to the following research questions:

1. Will the ACLC scores obtained under group and individual administration differ significantly?
2. What relationships can be demonstrated between scores obtained under group and individual administration of the ACLC?

One aim of the present investigation was to test the hypothesis that there would be no significant difference between the scores obtained by individual and group administration of the ACLC. Because the individual administration of the ACLC contained 80 test items whereas the group administration of the ACLC contained 12 test items, it was of interest to compare the 12 group items with the same 12 test items contained in the individual administration for each subject. Table 1 presents these data. Table 1 shows that the individual scores ranged from 4 to 12, while the group scores ranged from 1 to 12. Table 1 also shows that the differences obtained between individual and group scores were generally small when scores on equivalent test items were compared. The largest differences between the two types of administration were observed for the younger subjects, i.e., three years, zero months to three years, eleven months. To test the significance of the difference obtained for the two mean scores, a one-tailed dependent t-test was employed. The t-value obtained was .951 which was not of sufficient magnitude to reject the null hypothesis at the .05 level of significance. Thus, from these data, it may be suggested that there is no significant difference between ACLC individual and group scores on equivalent test items.

Table 1

Raw Scores on Equivalent Test Items Separately Obtained
from Individual and Group Administration
of the ACLC for Each Subject

Subject	Age	Sex	Individual Form Scores	Group Form Scores	Differences
1	3-0	M	11	5	6
2	3-0	F	4	1	3
3	3-3	M	7	5	2
4	3-8	F	8	12	-4
5	3-8	M	9	6	3
6	3-9	M	8	10	-2
7	3-11	M	10	6	4
8	4-2	F	11	11	0
9	4-3	M	11	12	-1
10	4-3	F	11	9	2
11	4-7	M	12	12	0
12	4-8	M	10	12	-2
13	4-8	M	12	11	1
14	5-0	F	10	12	-2
15	5-1	M	12	11	1
16	5-3	F	12	12	0
17	5-4	F	10	11	-1
18	5-6	M	12	12	0
19	5-7	M	12	12	0
20	5-9	M	12	12	0
Mean	4-5		10.2	9.7	

Another aim of the present investigation was to determine the relationship between scores obtained from group administration of the ACLC and scores obtained from individual administration of the ACLC. Table 2 presents these data. Table 2 shows that the individual scores ranged from 52 to 78, while the group scores ranged from 1 to 12. The relationship between these variables was determined by first examining scatterplots and then by computing a Spearman rank correlation coefficient (r_s). As Table 2 reveals, the magnitude of the relationship between the individual scores and the group scores was found to be moderate and positive ($r_s = .69$).

Discussion

The findings from the present investigation suggest that there is no significant difference between ACLC individual and group raw scores on equivalent test items. Additionally, the relationship between total raw scores of the ACLC obtained individually and in groups was found to be positive and moderate ($r_s = .69$). Clinically, these findings tend to support the assumption that performance on the ACLC Group Form may be a fairly reliable indicator of performance on the individual form. Thus, a clinician

Table 2

Total Raw Scores for Each Subject and the Correlation
Coefficient Obtained for Individual and Group
Administration of the ACLC

Subject	Age	Sex	Individual Form Scores	Group Form Scores	Spearman r_s
1	3-0	M	55	5	.69
2	3-0	F	52	1	
3	3-3	M	63	5	
4	3-8	F	62	12	
5	3-8	M	69	6	
6	3-9	M	56	10	
7	3-11	M	64	6	
8	4-2	F	70	11	
9	4-3	M	63	12	
10	4-3	F	64	9	
11	4-7	M	75	12	
12	4-8	M	66	12	
13	4-8	M	72	11	
14	5-0	F	66	12	
15	5-1	M	77	11	
16	5-3	F	77	12	
17	5-4	F	65	11	
18	5-6	M	75	12	
19	5-7	M	78	12	
20	5-9	M	74	12	

might administer only the ACLC Group Form, effecting a savings in time and expense.

It is germane that regarding the individual administration of the ACLC, Foster et al. (1972) state:

The ACLC is essentially an achievement test measuring receptive language skills at a basic level. Ideally, the average first or second grader should attain a virtually perfect score. The test is not intended to rank pupils in a class but rather to aid clinicians in assessing any particular limitations in language development of an individual child. For this reason, the use of percentile ranks of standard scores is not recommended. . . . (p. 17)

From this statement, it would appear that the ACLC administered individually is no more than a screening device regarding certain receptive language capabilities, i.e., aural vocabulary comprehension and aural comprehension of increasing numbers of "critical (syntactic) elements."

The clinician, however, must decide when an obtained score for any given child is low enough to be significant without the aid of percentile ranks, standard scores, or stated cut-off points. At best, a "low" score on the individual ACLC would indicate the need for further evaluation regarding auditory acuity, memory, discrimination, and association as well as aural receptive vocabulary, morphology, and syntax.

It does appear clinically useful to know that a given child has difficulty processing increasing numbers

of critical syntactical elements, but it does not seem necessary to administer the long individual form of the ACLC to identify that difficulty. It seems especially unnecessary if subsequent evaluative strategies would be the same regardless of the ACLC form employed. The findings from this study would tend to support the use of the Group Form of the ACLC as a reasonable alternative to the more lengthy individual form, in view of the fact that both administrations are essentially screening in nature.

Regarding limitations associated with the administration of the ACLC Group Form, the instructions were found to be less than desirable compared to the instructions for individual administration. While the individual instructions are presented in numerical order for easy reference and comprehension, the presentation of the group instructions are in paragraph form. Additionally, the instructions of group administration are lacking in detail. For example, no mention is made of: (1) group size per testing session, (2) spacing the children so they would work independently, and (3) the use of reinforcement during test administration.

Generalizations from this study are limited due to the small number of subjects employed. Mean scores of group performance by age were gathered in this investigation; however, due to the small sample sizes, they were not

reported. Thus, additional studies should be undertaken utilizing a larger number of subjects to gather such data. Also, Emerick and Hatten (1974) state that the ACLC ". . . lacks substantial normative data at this time" (p. 91). Consequently, there is a need for further research regarding both group and individual performance on the ACLC.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study was designed to test the hypothesis that ACLC scores obtained under individual and group administration would not differ significantly. If this hypothesis were upheld, the group administration being economical in time and expense could be used to screen children and identify those who need further individual study. Also, this study examined the relationship that could be demonstrated between scores obtained under group and individual administration of the ACLC. While a group form booklet and instruction for administration are available, no normative data were available regarding the group administration of the ACLC nor comparability to normative scores obtained by individual administration. Thus, it was of interest to gather such comparative data.

To provide data for this investigation, 20 subjects--13 males and 7 females--ranging in age from three years, zero months to five years, eleven months were given the ACLC. Ten subjects were first tested individually and one week later, they were tested in two small groups. Two weeks from this testing time, the other 10 subjects were tested

first in two small groups, and two weeks later they were tested individually. Alternate administration of the group and individual forms was done to minimize possible effects due to the order of group or individual testing. Both forms of the ACLC were administered according to the instructions in the ACLC Manual and Manual Supplement and were scored by totaling the correct responses for each subject.

The findings from the present investigation suggested that there is no significant difference between the ACLC individual and group raw scores on equivalent test items. Additionally, the relationship between total raw scores of the ACLC obtained individually and in groups was found to be positive and moderate ($r_s = .69$). Clinically, these findings tend to support the assumption that performance on the ACLC Group Form may be a fairly reliable indicator of performance on the individual form. Thus, a clinician might administer only the ACLC Group Form, effecting a savings in time and expense.

The authors of the ACLC do not recommend the use of percentile ranks or standard scores, thus it would appear that the ACLC administered individually is no more than a screening device regarding aural vocabulary comprehension and aural comprehension of increasing numbers of critical syntactic elements. It does appear clinically useful to

know that a given child has difficulty processing increasing numbers of critical syntactic elements, but it does not seem necessary to administer the long individual form of the ACLC to identify that difficulty. It seems especially unnecessary if subsequent evaluative strategies (i.e., further evaluation of auditory acuity, memory, discrimination, association, aural receptive vocabulary, morphology, and syntax) would be the same regardless of the ACLC form employed. Thus, the findings from this study would tend to support the use of the Group Form of the ACLC as a reasonable alternative to the more lengthy individual form, in view of the fact that both administrations are essentially screening in nature.

Regarding limitations associated with the administration of the ACLC Group Form, the instructions are found to be less than desirable compared to the instructions for individual administrations. For example, the individual instructions are presented in numerical order while the group instructions are presented in paragraph form. Also, no mention is made of group size per testing sessions, spacing children for independent work, and the use of reinforcement during testing.

Generalizations from this study are limited due to the small number of subjects employed. Mean scores of

group performance by age were gathered in this investigation; however, due to the small sample sizes, they were not reported. Thus, additional studies should be undertaken utilizing a larger number of subjects to gather such data. Consequently, there is a need for further research regarding both group and individual performance on the ACLC.

SELECTED BIBLIOGRAPHY

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- Becker, J. T. The effect of group administration of selected individual tests of language, visual perception, and auditory perception to kindergarten, first-, second- and third-grade children (Doctoral dissertation, The Catholic University of America, 1969). Dissertation Abstracts International, 1969. (University Microfilms No. 69-19,718)
- Berry, M. F. Language disorders of children. New York: Appleton-Century-Crofts, 1969.
- Delp, H. A., & Smeets, P. M. Language assessment of mental retardates. Training School Bulletin, 1973, 70(1), 30-32.
- Emerick, L. L., & Hatten, J. T. Diagnosis and evaluation in speech pathology. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1974.
- Fargo, G. A., Crowell, D. C., Noyes, M. H., Fuckigama, R. Y., Gordon, J. M., & Dunn-Rankin, P. Comparability of group television and individual administration of the PPVT: implications for screening. Journal of Educational Psychology, 1967, 58(3), 137-140.
- Foster, R. Personal communication, March 28, 1977.
- Foster, R., Giddan, J. J., & Stark, J. Manual for the assessment of children's language comprehension (1973 revision). Palo Alto: Consulting Psychologists Press, Inc., 1972.
- Johnson, W., Darley, F., & Spriestersbach, D. Diagnostic methods in speech pathology. New York: Harper & Row, 1963.
- McConnell, F., Love, R. J., and Clark, B. S. Language remediation in children. In S. Dickson (Ed.), Communication disorders. Glenview: Scott, Foresman & Company, 1974.

- Norris, R. C., Hottel, J. V., & Brooks, S. Comparability of Peabody picture vocabulary test scores under group and individual administration. Journal of Educational Psychology, 1960, 51(2), 87-91.
- Semel, E. M., & Wiig, E. Comprehension of syntactic structures and critical verbal elements by children with learning disabilities. Journal of Learning Disabilities, 1975, 8(1), 46-51.
- Simkins, L., & Burgin, J. A comparison of individual and group administrations of the full-range picture vocabulary test. Journal of Educational Research, 1963, 57(4), 189-192.
- Spradlin, J. Procedures for evaluating processes associated with receptive and expressive language. In R. Schiefelbusch, R. Copeland, & J. Smith (Eds.), Language and mental retardation. New York: Holt, Rinehart, & Winston, 1967.

APPENDIX A

INSTRUCTIONS OF INDIVIDUAL ADMINISTRATION

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1. Seat the child at a low table where he can be comfortable and can see the test plates.
2. Tell the child you have a game to play with him and that he will need to use his finger to point to pictures. If the child does not understand, demonstrate.
3. To administer the training items, present the first plate, gently restrain the child's hands on his lap or on the table and read the first training item. We have found it most effective to use a carrier phrase such as "show me," "point to," etc. Make sure the child looks at the plate as you say the item. Have him place his finger on the appropriate picture.
4. Repeat this procedure for each of the training items. If the responses are correct, praise the child enthusiastically and go on to the test plates. (The stimulus items are those printed on the recording sheet.)
5. Read the stimulus items in a loud clear voice.
6. Do not indicate whether the response was correct or incorrect. Simply reinforce the child for responding (e.g., "O. K.," "Good boy," "That's it.").
7. Be sure the child is attending: the items in parts B, C, and D are not to be repeated. (Foster et al., 1972, p. 15)

APPENDIX B

INSTRUCTIONS OF GROUP ADMINISTRATION

INSTRUCTIONS OF GROUP ADMINISTRATION

Hand each child a crayon and a booklet with his name written on it. Ask the children to listen carefully and mark the pictures they hear named. Show the children the first page of items with the picture of "fish" already marked. Say "Mark fish," and indicate how the fish has been marked. Now say, "Turn one page. Look carefully at the five pictures on these pages. Mark jumping," Proceed to the second item. Try to look at each child's booklet after the two trial items to insure the instructions are being followed. Then proceed with the rest of the items by saying, "Turn the page. Look at these five (or four) pictures and mark ____." Move slowly and try to maintain a relaxed, easy atmosphere. (Foster et al., 1972, pp. 31-32)