

TEFLA

TEST OF RECEPTIVE LANGUAGE ABILITY

GARY OWEN BUNCH

ADDENDA

The following data are presented to provide an additional criterion against which to judge performance. The percentages noted are those obtained by Grade One normally hearing, average children at the end of that grade.

CORRECT RESPONSES BY PERCENTAGE TO TERLA ITEMS BY GRADE ONE NORMALLY HEARING CHILDREN

<u>Singulars</u>		<u>Plural /s/</u>		<u>Plural /es/</u>		<u>Desc. Adjectives</u>	
1. dog	100.0	30. cars	92.5	38. boxes	96.3	2. big	100.0
3. girl	100.0	34. girls	96.3	45. brushes	100.0	4. old	100.0
6. dish	96.3	66. boys	100.0	70. glasses	100.0	23. two	96.3
9. box	92.5	74. dogs	100.0	76. churches	100.0	42. purple	85.1
11. glass	92.5	90. pencils	100.0	86. dishes	96.3	50. small	100.0
19. brush	96.3					53. sad	88.8
27. pencil	96.3					56. five	96.3
31. church	88.8					78. fat	92.5
37. boy	92.5					81. yellow	92.5
75. car	88.8					87. broken	100.0
<u>Comp. Adjectives</u>		<u>Sup. Adjectives</u>		<u>Pronouns</u>		<u>Prepositions</u>	
25. smaller	100.0	8. happiest	74.0	10. it	85.1	13. on	96.3
44. bigger	100.0	40. fattest	92.5	16. they	77.7	14. over	96.3
62. older	88.8	47. smallest	100.0	20. we	85.1	43. off	100.0
71. fatter	96.3	48. oldest	88.8	24. he	96.3	52. off	100.0
84. happier	88.8	61. biggest	100.0	26. them	85.1	55. in front of	59.2
				32. him	100.0	64. behind	62.4
				33. I	85.1	67. beside	81.4
				35. she	100.0	82. on	100.0
				51. her	100.0	85. in	100.0
				79. us	81.4	89. under	100.0
<u>Future</u>		<u>Past</u>		<u>Pres. Prog. Sing.</u>		<u>Pres. Prog. Plural.</u>	
5. will eat	18.5	15. ate	81.4	18. is writing	77.7	7. are eating	77.7
12. will fall	7.5	17. slept	22.2	39. is sitting	100.0	36. are jumping	100.0
22. will jump	66.6	21. jumped	66.6	59. is drawing	92.5	46. are sleeping	100.0
41. will throw	29.6	28. fell	40.7	60. is cutting	96.3	54. are drinking	96.3
57. will sleep	44.4	29. cut	37.0	80. is throwing	62.9	58. are falling	96.3
65. will write	66.6	49. wrote	92.5				
68. will cut	51.8	63. drew	81.4				
73. will sit	62.9	69. sat	25.9				
83. will draw	62.9	72. drank	74.0				
88. will drink	48.1	77. threw	92.5				

CORRECT RESPONSES BY PERCENTAGE TO TEXLA ITEMS BY GRADE ONE NORMALLY HEARING CHILDREN

<u>Plural /s/</u>		<u>Plural /es/</u>		<u>Comp. Adjectives</u>		<u>Sup. Adjectives</u>	
1. dogs	94.1	6. dishes	47.2	8. fatter	35.4	9. fattest	88.5
3. girls	100.0	10. boxes	41.3	26. bigger	53.1	27. biggest	82.4
29. pencils	88.5	12. glasses	59.0	42. happier	35.4	43. happiest	76.7
32. cars	94.1	20. brushes	59.0	47. smaller	59.0	48. smallest	82.4
39. boys	88.5	33. churches	41.3	51. older	59.0	52. oldest	82.4

<u>Desc. Adjectives</u> ^a		<u>Pronouns</u>		<u>Prepositions</u>		<u>Future</u>	
2. _____	94.1	11. This	94.1	14. on	88.5	7. will eat	35.4
4. _____	100.0	17. They	29.5	15. over	88.8	13. will fall	23.6
24. _____	76.7	21. We	41.3	46. off	94.1	23. will jump	35.4
45. _____	100.0	25. He	41.3	56. off	70.8	61. will sleep	23.6
54. _____	100.0	28. them	88.5	59. in front of	64.9	67. will write	35.4
57. _____	100.0	34. him	59.0	66. behind	100.0	70. will cut	64.9
60. _____	94.1	35. I	94.1	69. beside	82.4	74. will sit	47.2
79. _____	100.0	37. She	35.4	83. on	82.4	81. will throw	53.1
82. _____	100.0	55. her	88.5	85. on	88.5	84. will draw	41.3
87. _____	100.0	80. us	82.4	89. under	100.0	88. will drink	53.1

<u>Past</u>		<u>Pres. Prog. Sing.</u>		<u>Pres. Prog. Pl.</u>	
16. ate	41.3	19. is writing	59.0	5. are eating	82.4
18. slept	17.7	41. is sitting	59.0	38. are jumping	23.6
22. jumped	59.0	44. is throwing	35.4	50. are sleeping	100.0
30. fell	64.9	63. is drawing	47.2	58. are drinking	94.1
31. cut	70.8	64. is cutting	59.0	62. are falling	76.7
53. wrote	29.5				
65. drew	53.1	<u>To Be</u>	<u>To Have</u>		
71. sat	53.1	36. is	100.0	68. has	64.9
73. drank	59.0	40. am	100.0	72. have	47.2
78. threw	41.3	49. are	64.9	86. has	100.0
		75. is	100.0	90. have	76.7
		76. am	100.0		
		77. are	94.1		

^aWhile particular adjectives may be suggested by the illustrations, any adjective is acceptable.

Test of Receptive Language Ability

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Appreciation for assistance in preparing the Test of Receptive Language Ability is extended to the staff and students of the Saskatchewan School for the Deaf, Saskatoon, Saskatchewan, of the E. C. Drury Regional Centre for the Hearing Handicapped, Milton, Ontario, of the Halton Board of Education (Ontario) and of the Metropolitan Toronto Separate School Board. Of special note was the assistance of Perry Leslie, Terry Lynn Melnyk, Jim Forde, Norm Stutt, Grace Wesenger, Eileen McCutcheon, Rhonda Vandal, Diana Massey and Betty Smith.

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Second Printing 1984

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PURPOSE

The Test of Receptive Language Ability (TERLA) is designed to assess the child's receptive control of selected basic grammatical principles. It is structured on a simple format which presents a single word or verb phrase simultaneously with a number of illustrations. The child selects that illustration which best represents the printed word or verb phrase. The following grammatical principles are assessed (see Table 1).

Table 1
Grammatical Principles Assessed by TERLA
by Type and Number of Exemplars

Principle	Number	
	Long Form	Short Form
Singular nouns	10	6
Plural nouns in /s/	5	4
Plural nouns in /es/	5	4
Pronouns	10	6
Descriptive adjectives	10	6
Comparative adjectives	5	4
Superlative adjectives	5	4
Prepositions	10	6
Past tense	10	6
Future tense	10	6
Present progressive singular	5	3
Present progressive plural	5	3

The TERLA assesses the child's receptive control of these principles in four ways. It is a norm-referenced test and provides a means of comparing an individual's total score with the total scores of hearing-impaired children of the same age. Secondly it provides a principle-by-principle comparison with hearing-impaired children of the same age. Thirdly and fourthly, it is a criterion-

referenced test and provides a total score and principle-by-principle score of number of items correct, against number of exemplars presented. The test administrator is able to investigate individual patterns of mastery of the principles investigated. A fifth comparison is available. A small sample of grade one normally hearing children was tested to obtain data regarding whether or not non-hearing impaired children could respond to the items. The scores of hearing impaired youngsters of various ages may be compared to the scores of normally hearing children who have been exposed to reading to the end of grade one. All children in the grade one sample had attended kindergarten. None had attended educational preschool programmes.

The most important information available from the TERLA is the pattern of responses made by individual children to items falling under one principle or related principles. Basic to the test design is the concept that if the teacher or other test administrator detects a pattern of response, one of three important diagnostic assumptions can be made.

1. the child has receptive control of the principle and appears to understand the grammatical concept in question
or
2. the child does not have receptive control of the principle and responds in a random fashion indicating lack of understanding of the grammatical concept in question
or
3. the child does not have receptive control of the principle but responds in a fashion which suggests the presence of a deviant rule for situations involving that principle

It is important that the person employing the TERLA clearly understands how the term "grammatical concept" is used here. On one level the test indicates the child's ability to respond to individual items. Can the child recognize certain plural forms or recognize the use of an appropriate preposition? On another and deeper level the test probes the child's basic ability to recognize when a certain grammatical principle should be used. Does a particular word or phrase call for a past tense response as against a future or present progressive response? Does another word or phrase call for use of a plural as against a singular response? It is the attempt to probe the child's understanding of when to use certain principles that is paramount. In this way the test may be considered to delve beneath

surface ability in an attempt to tap the general rules the child is following.

If situation one above holds, the teacher has definite positive information regarding one principle and does not need to teach or re-teach that principle. Teaching becomes more efficient in that time is not wasted teaching that already known.

If situation two holds, the teacher knows that the child does not realize that the occurrence of a particular situation calls for the application of a particular rule. The child does not have receptive control. More exposure to the principle on a receptive level is required. It is axiomatic that one does not expect expressive use of a principle prior to some receptive mastery of that principle.

If situation three holds, the teacher knows that the child has formed a rule for use when a particular grammatical situation occurs and that that rule is deviant. Knowing this, the teacher is better equipped to battle against the incorrect usage and teach the correct.

TEST DESIGN

The TERLA includes 90 items. Each item consists of three illustrations accompanied by a single printed word or verb phrase. The only exceptions are for items testing the comparative where two illustrations are presented.

The words used in the test were selected from first grade vocabulary lists of a number of schools for the hearing impaired. Once a master list of words was chosen, it was presented to a panel of experienced teachers of primary-age, hearing impaired children. The 60 words finally selected were nominated by all judges as being among the earliest exposed in print to hearing impaired children. The vocabulary includes the following words:

Nouns: dog, girl, dish, box, glass, brush, pencil, car, church,
children, boy

Pronouns: it, he, she, I, they, we, him, her, them, us

Adjectives: big, small, old, young, happy, sad, fat, thin, surprised,
broken, blue, green, purple, orange, yellow, one, two,
three, four, five

Prepositions: behind, beside, on, in, over, under, in front of, off

Verbs: eat, fall, sleep, write, jump, cut, sit, throw, drink,
draw

Negative: not

Test administrators may wish to ascertain that all words in the test are known by the testee. If specific words are not known, those items may be deleted and the TERLA employed as a criterion-referenced, diagnostic test only. Conversely the unknown words may be taught in advance of the test. Care must be taken not to teach the words in the same format as the test.

In the same way test administrators may wish to delete certain grammatical principles for younger children. However, the majority of words and principles are among those to which hearing impaired children are exposed at an early stage of their school life.

Short Test Version

A short version of the TERLA has been designed. It includes a total of fifty-eight items. All statistical data available for TERLA is available for the TERLA SHORT as well. TERLA SHORT items are noted by an asterisk on the record form (see Appendix A). A minor time saving is available if the TERLA SHORT is used.

Communication Method

All communication philosophies allow for the use of reading, speech, speech-reading and natural gestures. The TERLA relies on no other receptive or expressive communication skills. It may be employed with children taught under any communication philosophy. Test administrators need have no familiarity with manual systems used with the hearing-impaired.

The essential receptive skills for the child are those of reading and understanding simple pointing instructions. The test administrator provides minimal accompanying oral instructions. The only expressive skill required of the child is the ability to point to one of the illustrations. No subject in the standardization sample failed to understand the test instructions.

ADMINISTRATION

Qualifications of the Administrator

The TERLA was developed for use by classroom teachers who wish specific information regarding the receptive language abilities of their children. It is not necessary that the teacher be a trained teacher of hearing impaired children. It may be used also by a wide range of personnel seeking norm-referenced and/or criterion-referenced diagnostic information. The administrator must be familiar with the material of the TERLA but extensive training in test administration is not necessary. Interpreting test results for individual children does require knowledge of language development in young children and children with deviant language development. Professionals with a solid background in language development and language instruction will be best able to utilize the information gained from this test.

New administrators should practice with the test on children not exhibiting language problems. Extensive practice is not necessary. There is a need, however, to familiarize oneself with the methods for item presentation and scoring.

Administration Procedures

The TERLA is designed for individual administration. A quiet area with no visual distraction should be chosen. It is necessary that the test administrator ensure that the child is in a mood to begin the test. Obviously upset, tired, excited or otherwise inattentive children should not be tested.

Children should be seated directly across a table from the administrator. The stimuli should be presented directly in front of the child. The record form should be directly in front of the test administrator and not in a position where it will distract the child. The test administrator should turn the pages.

The following standardized procedure is to be used.

- a. Present item one.
- b. Point to the word "dog" and then to the first illustration on the examiner's right.
- c. Point to "dog" again and then to the next illustration.
- d. Point to "dog" again and then to the final illustration.
- e. After the final illustration, have the child look at you and say "Which picture is dog?"

- f. Record the subject's response by circling the appropriate item on the record form. The form is designed so that items are directly opposite the corresponding stimulus items. The correct item is underlined.
- g. If subject does not respond or responds incorrectly, point to the word "dog" and then to the correct illustration.
- h. Repeat steps a. through f.
- i. Present item two and repeat steps a. through f.
- j. Present item three and repeat steps a. through f.
- k. If subject is not responding voluntarily by item three, discontinue.
Note that any voluntary response, not necessarily a correct one, is required to continue.
- l. Continue for items four through ninety.

Administration of all ninety items takes ten to fifteen minutes.

TERLA Short Administration

Items included in the short form of the TERLA are indicated by an asterisk beside the item number on the record form and on the stimulus items. General administration procedures remain the same as for the TERLA. The test administrator should turn the pages to present only TERLA SHORT items.

Scoring

All items correct receive a score of one. Incorrect items are scored zero. The maximum total score for the TERLA is ninety and for the TERLA SHORT is fifty-eight.

Sub-scores may be obtained for individual principles.

A check-mark (✓) for correct items or a cross (X) for incorrect items should be made in the appropriate column opposite the three printed illustration descriptions. Each item is identified by the principle being tested to facilitate diagnosis. To the right of each item is a space for diagnostic comments. Observations should be recorded immediately.

STANDARDIZATION

Early Pilot Test

A pilot version of the Test of Receptive Language Ability (TERLA) was developed in 1975. It was administered to thirty-five hearing impaired children, aged 6-11 to 11-8. The subjects were drawn from a residential school for the deaf. All had better ear losses of at least eighty-two decibels.

Encouraging diagnostic findings were noted. Patterns of receptive functioning were apparent as was a general improvement from age to age. Problems with various items were noted and revisions made.

Present Test

The TERLA has been normed on a total of ninety-two hearing impaired children aged six to twelve. Subjects were drawn from two major Canadian residential schools for the hearing impaired. No children with additional handicaps were included in the sample. All subjects were prelingually hearing impaired (See table 2 for losses). As residential schools accept all hearing impaired children within their areas and as these areas contained no other major educational programmes for the hearing impaired the sample may be considered randomly representative of socio-economic classes and urban and rural areas.

Table 2
TERLA Subjects Classified¹ by Degree
of Hearing Loss

Number of Subjects	Moderate 36-55 dB	Moderately Severe 36-70 dB	Severe 71-90 dB	Profound 91 plus
92	3	2	24	63

¹ Jaffe, B.F., 1977

The TERLA was also administered to twenty-seven normally hearing grade one children. The purposes of this testing were:

1. to determine how well normally hearing children with minimal reading ability score. The scores of hearing impaired children take on additional meaning when compared to those of normally hearing children.
2. to pinpoint more difficult items for diagnostic comparison
3. to obtain reliability data

The normally hearing children attended an elementary school in a middle class district of a major Canadian centre. All children in the class were tested. Curricula as laid down by the Ontario Ministry of Education were followed in the class. Teaching of reading was based on a combination of language experience and basal readers. The class was considered one of average ability as indicated through achievement testing.

Principle by principle performance of hearing impaired and normally hearing subjects is provided in Appendix B, tables 7, 8 and 9. Means and standard deviations for the TERLA and the TERLA SHORT are provided in tables 3 and 4.

Table 3
Means and Standard Deviations for Normally Hearing
and Hearing Impaired Subjects on the TERLA

Subjects	n	mean score	Standard Deviation
Hearing Grade One	27	75.52	6.38
H.I. 7 years	14	50.43	9.24
H.I. 8 years	16	69.81	9.49
H.I. 9 years	20	72.55	10.93
H.I. 10 years	16	77.81	8.19
H.I. 11 years	14	78.00	8.01
H.I. 12 years	11	80.55	6.49

Table 4
Means and Standard Deviations for Normally Hearing
and Hearing Impaired Subjects on the TERLA SHORT

Subjects	n	mean score	Standard Deviation
Hearing Grade One	27	50.59	4.34
H.I. 7 years	14	33.57	7.19
H.I. 8 years	16	47.31	5.90
H.I. 9 years	20	47.50	6.77
H.I. 10 years	16	51.31	5.03
H.I. 11 years	14	50.79	4.66
H.I. 12 years	11	52.09	3.78

Reliability

Internal consistency reliability data are available for all ninety-one hearing impaired subjects tested on the TERLA and TERLA SHORT. The reliability coefficients of .96 and .92 respectively indicate adequate levels of internal consistency. Reliability coefficients for each principle assessed are provided in table 5.

Internal consistency reliability coefficients of .84 and .85 were found for the TERLA and TERLA SHORT for the Grade One normally hearing group. These coefficients are based on sixty-three and thirty-four items respectively due to zero variance in other items.

Table 5
Internal Consistency Reliability Coefficients¹ for
TERLA and TERLA SHORT Sub-tests

Principle	TERLA	TERLA SHORT
Singular nouns	.83	.65
Plural nouns in /s/	.88	.66
Plural nouns in /es/	.92	.86
Pronouns	.74	.53
Descriptive adjectives	.77	.73
Comparative adjectives	.54	.62
Superlative adjectives	.56	.46
Prepositions	.80	.74
Past tense	.77	.69
Future tense	.86	.86
Present progressive singular	.66	.61
Present progressive plural	.54	.16

¹Spearman-Brown Equal Length Correlation Coefficient

Validity

Validity is a statement of whether a test assesses that which it was designed to assess, if it accomplishes the purpose for which it was intended.

Content Validity

The TERLA is designed to assess the individual's ability to interpret accurately the meaning of words or phrases related to certain basic grammatical principles and, thereby, indicate understanding of the concepts involved. The principles surveyed in this test were drawn from those taught to severely and profoundly hearing impaired children in the early grades. These principles are considered fundamental to the ability to begin to understand language through reading.

A panel of experienced teachers of the hearing impaired examined the principles employed here. There was unanimous agreement that all principles were used with hearing impaired children on a receptive basis within the first two years of