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ABSTRACT

This report describes the midterm and final tests administered to pupils in the Quality Assurance classes using the Learning Mastery System (LMS). Results are reported separately for both the Bank Street and Harper & Row versions of LMS. Means, standard deviations, and frequency distributions are given for the subscores and total for each test and are included. The results of the final tests are also reported by number of units pupils completed. (Author/DEP)

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TITLE: LEARNING MASTERY SYSTEM MIDTERM AND FINAL TESTING

AUTHORS: Anthony La Bouff, Jerry Bailey, and Steven Kaplan

ABSTRACT

This report describes the midterm and final tests administered to pupils in the Quality Assurance classes using the Learning Mastery System. Results are reported separately for both the Bank Street and Harper & Row versions of LMS. Means, standard deviations, and frequency distributions are given for the subscores and total for each test. The results of the final tests are also reported by number of units pupils completed.

TM004 819



## LEARNING MASTERY SYSTEM MIDTERM AND FINAL TESTING

### Introduction

The SWRL Learning Mastery System (LMS) is a set of procedures and materials designed for use by teachers in assessing pupil learning and providing extra practice when needed. During the 1970-71 school year, LMS procedures and materials developed by the Laboratory to accompany both the Harper & Row and the MacMillan Bank Street first grade reading programs were made available to schools under a nonexclusive license agreement.

Some of the LMS program users were asked to provide enroute information to the Laboratory on several indicators of program performance as part of the Quality Assurance sample.<sup>1</sup> Of the 361 schools participating in the Harper & Row version of LMS in 1970-71, 17 schools (5%) were selected for the Quality Assurance sample. The LMS Bank Street Quality Assurance sample included six schools or 6 percent of the 94 schools using the program.

Included also as part of the Quality Assurance procedures were midterm and final tests. These tests were administered to pupils in the Quality Assurance classes and were designed to measure pupil performance midway and at the end of the school year. The results of the testing are presented and discussed in this paper.

Harper & Row Tests: The 62-item Harper & Row midterm covered program content through unit seven while the 69-item posttest included questions on all 15 program units. Twelve of the posttest items, however,

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<sup>1</sup>For complete information on Quality Assurance, see TN 5-71-54, "The Development of the 1970-71 Quality Assurance Procedures."

were given only to pupils who completed at least 12 units. These tests measured pupil achievement on each of the seven Harper & Row outcomes: Words, Word Elements, Word Attack, Comprehension, Study Skills, Linguistic Skills, and Structural Analysis.

Bank Street Tests: The 50-item Bank Street midterm test covered the first five units of the program while the 63-item posttest measured pupil performance on all 13 program units. These tests included questions on all seven outcomes of Bank Street: Words, Word Elements, Word Attack, Auditory Perception/Visual Discrimination, Structural Analysis, Comprehension and Interpretation, and Habits and Study Skills.

#### Sample

For the midterms tests, all pupils in the Quality Assurance classes were tested. However, it was subsequently determined that considerable teacher time was required to administer the individual tests. For the posttest, therefore, teachers were asked to test 10 randomly selected pupils and any others in the class as time permitted.

Harper & Row Sample: Of the 65 classes listed as participants in the Harper & Row Quality Assurance sample, seven classes did not forward any data to SWRL during the year and one class sent notice of its non-participation. Of the remaining 57 classes, 48 returned midterm test forms providing information on 1096 pupils. For the Harper & Row posttest, 37 classes forwarded test data to the Laboratory for 450 pupils.

Bank Street Sample: Thirty-eight classes were originally listed as participants in the Bank Street Quality Assurance sample. However, five

classes at one school were using the Harper & Row version of LMS and four more classes never forwarded any data to SWRL. Of the 26 remaining classes, eight sent test forms to the Laboratory for both the midterm and posttest. Midterm information was received for 133 pupils while posttest data for 78 pupils was received.

Since the principal purpose of the Quality Assurance tryout was to determine a base rate for Quality Assurance procedures rather than to evaluate LMS pupils, further efforts to follow up non-responding classes were not pursued. The non-responses render the data useful for intra-program comparisons but suspect for LMS summative evaluation purposes.

#### Procedures for Administration of Midterms

The testing procedures for both the Harper & Row and Bank Street versions of LMS were identical. In January 1971, a packet containing the appropriate midterm test booklets, pupil answer sheets, directions, a cover letter, and a postage-paid, pre-addressed envelope was mailed to the teachers. The cover letter directed the teachers to administer the midterm tests individually to pupils between February 8th and 19th. The instructions emphasized that the teacher should present all items on the test to each pupil in the program. The teacher had the option of testing all pupils on one day or to extend the testing over the time period. The directions explained the procedures for presenting each item and recording each pupil's scores. Test sheets were returned to SWRL via the pre-addressed, postage-paid envelope enclosed in the test packet. Copies of the midterm test materials are included in Appendix A.

### Procedures for Administration of Posttests

The posttest procedures were also identical for both the Harper & Row and Bank Street versions of LMS. In May 1971, a packet containing the appropriate posttest booklets, pupil answer sheets, a list of pupils to be tested, directions, a cover letter, and a postage paid, pre-addressed envelope was sent to the teachers. They were asked to individually administer the test anytime before June 4, 1971, to a sample of 10 or more pupils in their class. The lists of pupils to be tested were prepared by Laboratory personnel by randomly sampling 10 pupils from the most recent class rosters. Alternates were also included on the lists in case of pupil absences. Materials were provided, however, for testing the entire class if time permitted. Seven Harper & Row classes and one Bank Street class did test more than the required 10 students. Copies of the posttest materials are included in Appendix B.

### Results

Harper & Row Midterm: Table 1 presents the results of the Harper & Row midterm giving the means, standard deviations, and frequency distributions in numbers and percents for each outcome on the test. The frequency distributions are also illustrated in Figure 1.

Table 1

LMS HARPER ROW MIDTERM TEST RESULTS  
MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS

N = 1096

OUTCOMES	$\bar{X}$	S.D.	NUMBER					PERCENT				
			Score					Score				
			0-2	3-5	6-8	9-11	12-14	0-2	3-5	6-8	9-11	12-14
Words	8.46	4.09	95	201	223	244	333	8.7	18.3	20.3	22.3	30.4
Word Elements	9.18	3.67	70	109	242	327	348	6.4	9.9	22.1	29.8	31.8
Word Attack	5.82	4.37	342	230	183	186	155	31.2	21.0	16.7	17.0	14.1

OUTCOMES	$\bar{X}$	S.D.	NUMBER					PERCENT						
			Score					Score						
			0	1	2	3	4	5	0	1	2	3	4	5
Comprehension	3.06	1.55	72	136	190	211	229	258	6.6	12.4	17.3	19.3	20.9	23.5
Study Skills	3.66	1.64	75	97	93	110	211	510	6.8	8.9	8.5	10.0	19.3	46.5
Linguistics	2.86	1.68	119	157	187	184	194	255	10.9	14.3	17.1	16.8	17.7	23.3
Structure	3.41	1.37	30	84	172	231	282	297	2.7	7.7	15.7	21.1	25.7	27.1

Figure 1

FREQUENCY DISTRIBUTIONS OF THE  
LMS HARPER ROW MIDTERM OUTCOME SCORES

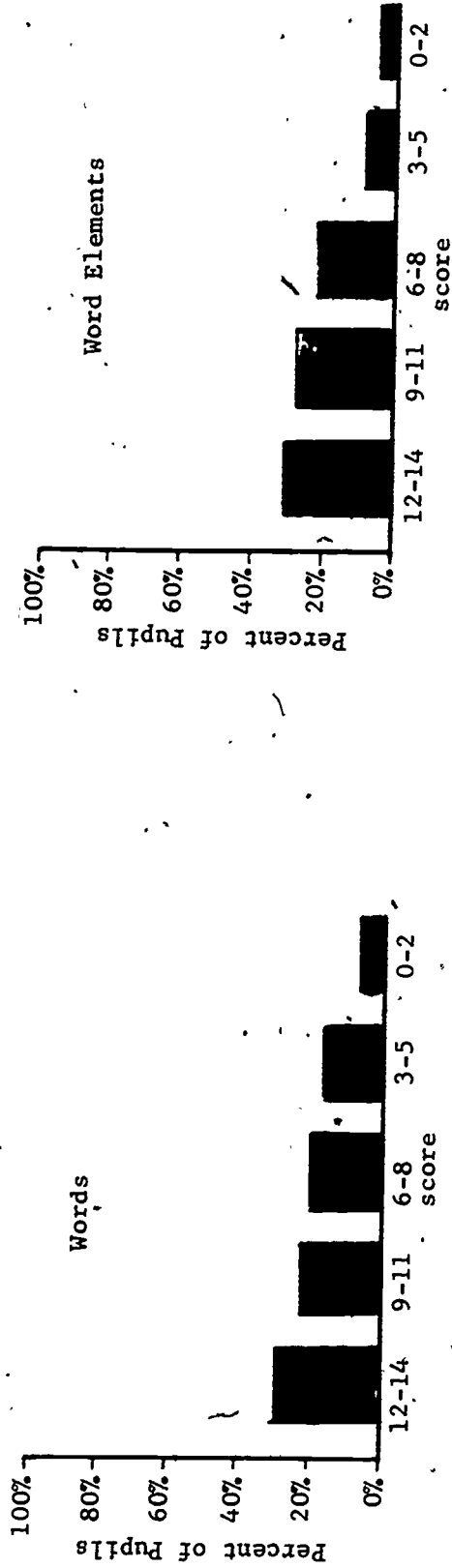
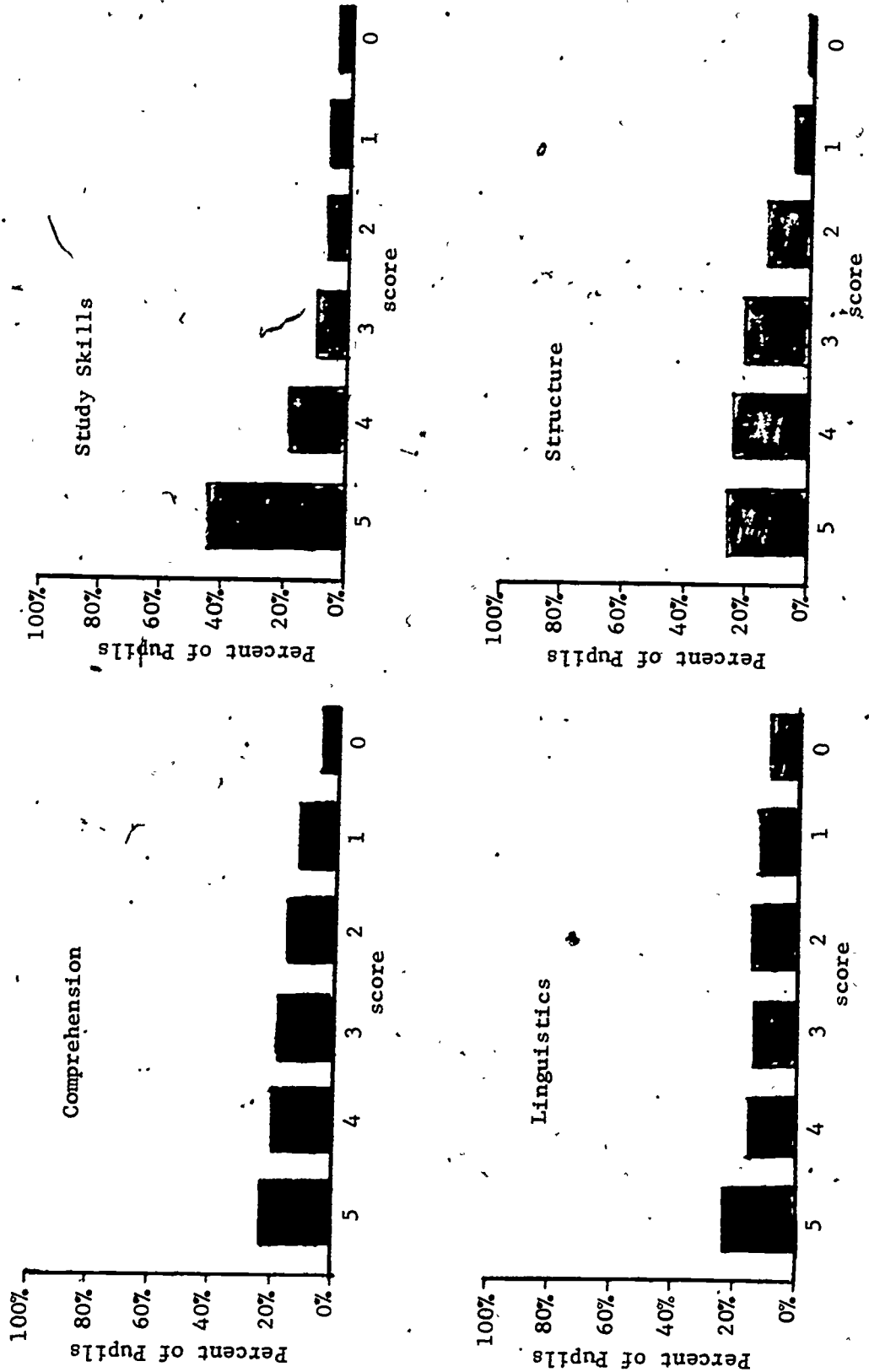




Figure 1 (continued)

FREQUENCY DISTRIBUTIONS OF THE

LMS HARPER ROW MIDTERM OUTCOME SCORES



Harper & Row Posttest: Table 2 and Figure 2 present the results of the Harper & Row posttest. The Words (Units 12-15) section was only to be administered to pupils who had completed 12 or more units; consequently, only 240 scores were received.

Figure 3 gives graphs by unit completed of the mean scores on each outcome of the Harper & Row posttest. Tables 3-10 in Appendix C present the means, standard deviations, and frequency distributions for each outcome by the number of units completed. The number of units completed was determined individually by looking up the last criterion exercise that was received for each pupil.

Table 2  
LMS HARPER ROW POSTTEST RESULTS  
MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS

OUTCOMES	N	$\bar{X}$	S.D.	NUMBER											PERCENT										
				0-1	2-3	4-5	6-7	8-9	10-11	0-1	2-3	4-5	6-7	8-9	10-11	0-1	2-3	4-5	6-7	8-9	10-11				
Words	450	8.56	2.86	11	27	36	57	86	233	2.4	6.0	8.0	12.7	19.1	51.8	2.4	6.0	8.0	12.7	19.1	51.8				
Word Elements	450	7.78	3.03	21	32	52	68	103	174	4.7	7.1	11.6	15.1	22.9	38.7	4.7	7.1	11.6	15.1	22.9	38.7				
Word Attack	450	6.49	3.56	62	43	65	75	84	121	13.8	9.6	14.4	16.7	18.7	26.9	13.8	9.6	14.4	16.7	18.7	26.9				

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OUTCOMES	N	$\bar{X}$	S.D.	NUMBER											PERCENT										
				0-2	3-4	5-6	7-8	9-10	11-12	0-2	3-4	5-6	7-8	9-10	11-12	0-2	3-4	5-6	7-8	9-10	11-12				
Words (Units 12-15)	240	7.60	3.78	32	29	25	30	51	73	13.3	12.1	10.4	12.5	21.3	30.4	13.3	12.1	10.4	12.5	21.3	30.4				

OUTCOMES	N	$\bar{X}$	S.D.	NUMBER											PERCENT										
				0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6	
Comprehension	433	4.12	1.78	19	26	38	65	73	76	136	4.4	6.0	8.8	15.0	16.9	17.6	31.4	4.4	6.0	8.8	15.0	16.9	17.6	31.4	
Study Skills	432	3.37	1.41	20	18	42	175	96	40	41	4.6	4.2	9.7	40.5	22.2	9.3	9.5	4.6	4.2	9.7	40.5	22.2	9.3	9.5	
Linguistics	433	3.67	1.59	18	24	57	90	98	88	58	4.2	5.5	13.2	20.8	22.6	20.3	13.4	4.2	5.5	13.2	20.8	22.6	20.3	13.4	
Structure	433	3.82	1.59	14	23	50	90	96	85	75	3.2	5.3	11.5	20.8	22.2	19.6	17.3	3.2	5.3	11.5	20.8	22.2	19.6	17.3	

Figure 2

FREQUENCY DISTRIBUTIONS OF THE  
LMS HARPER ROW POSTTEST OUTCOME SCORES

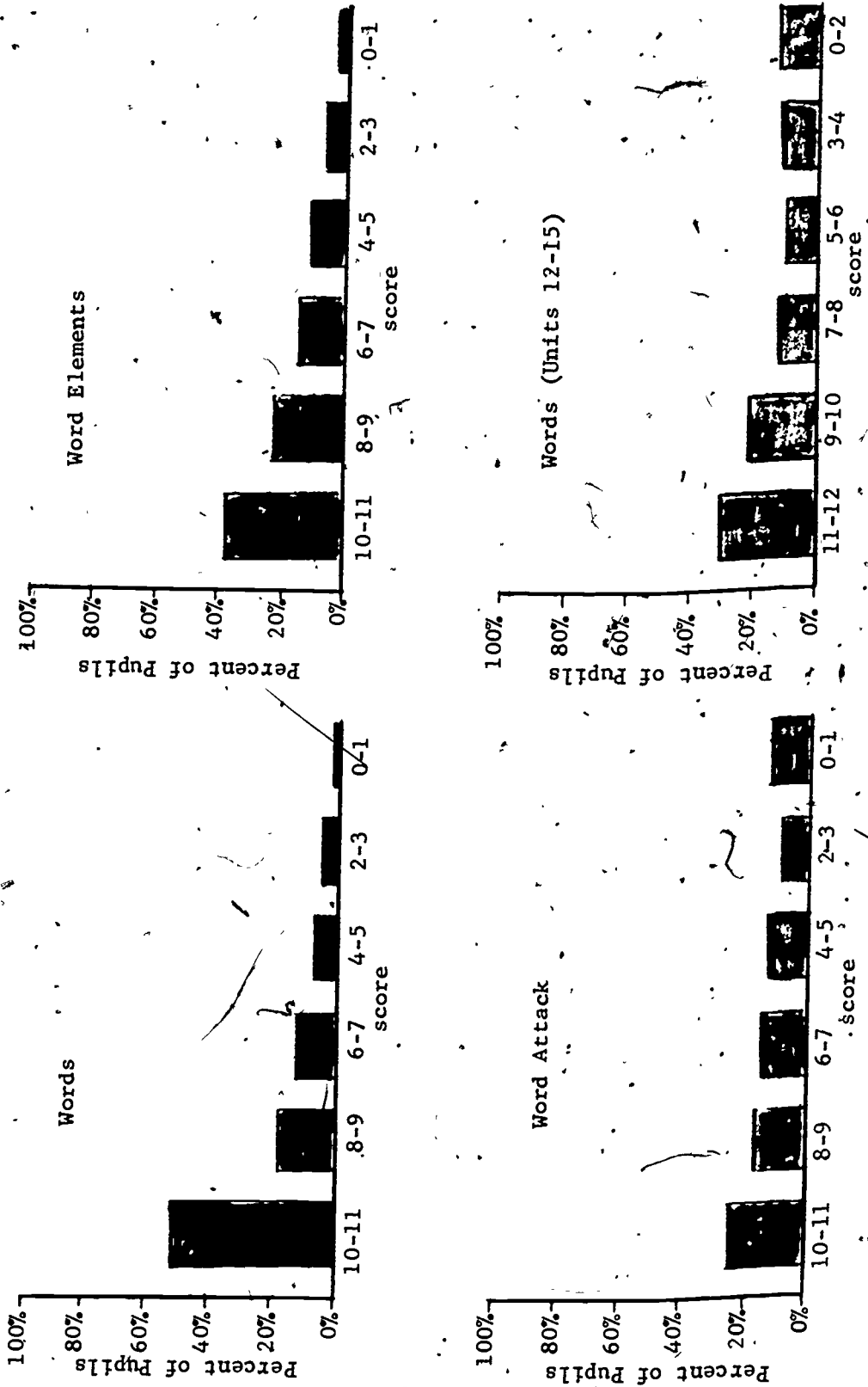
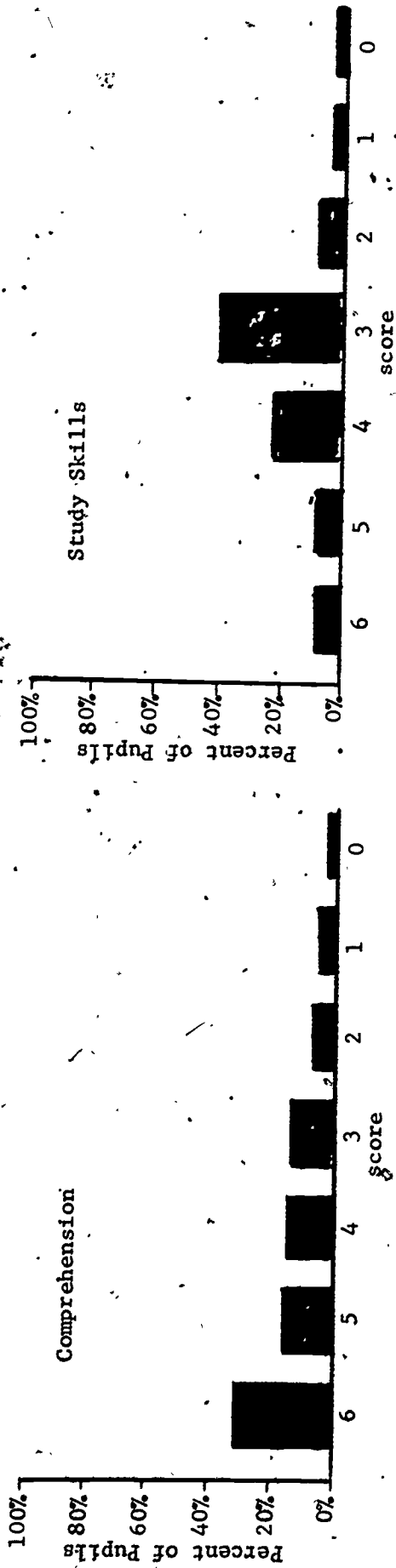
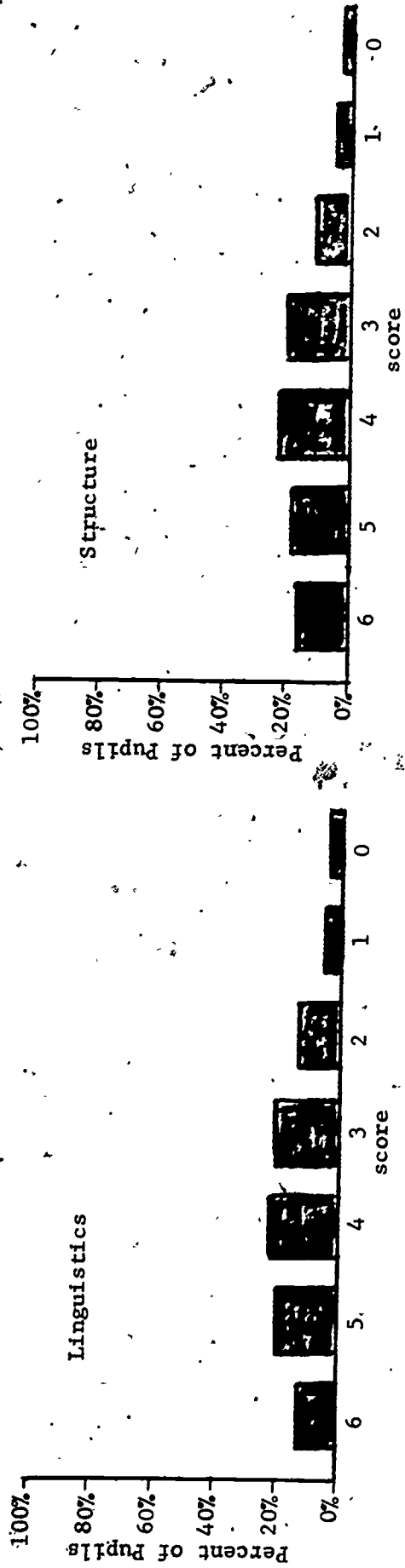


Figure 2 (continued)

FREQUENCY DISTRIBUTIONS OF THE  
LMS HARPER ROW POSTTEST OUTCOME SCORES



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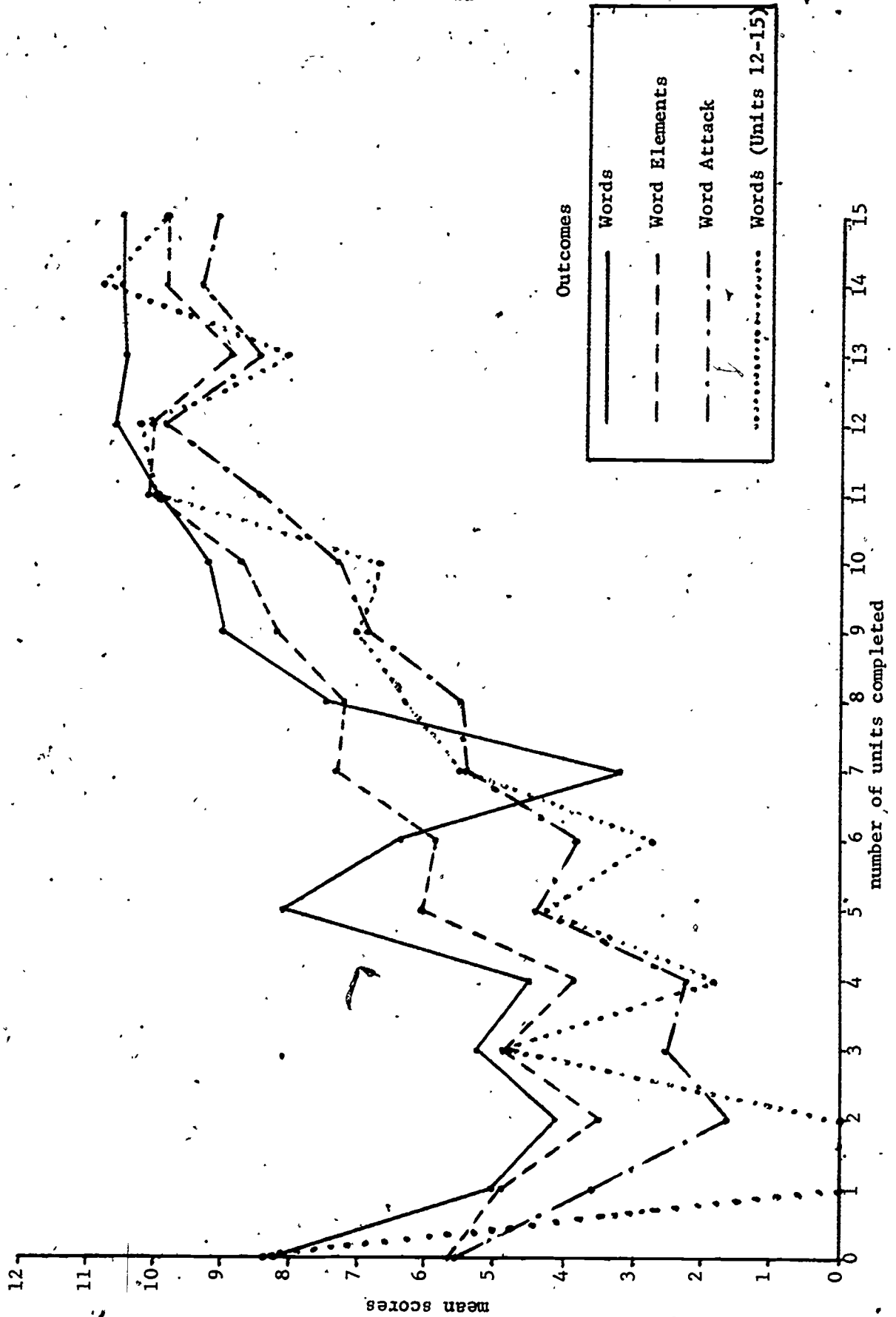


Figure 3  
 LMS HARPER ROW POSTTEST MEAN SCORES  
 BY NUMBER OF UNITS COMPLETED

Outcomes

- Comprehension
- - - Study Skills
- · - · - Linguistics
- · · · · Structure

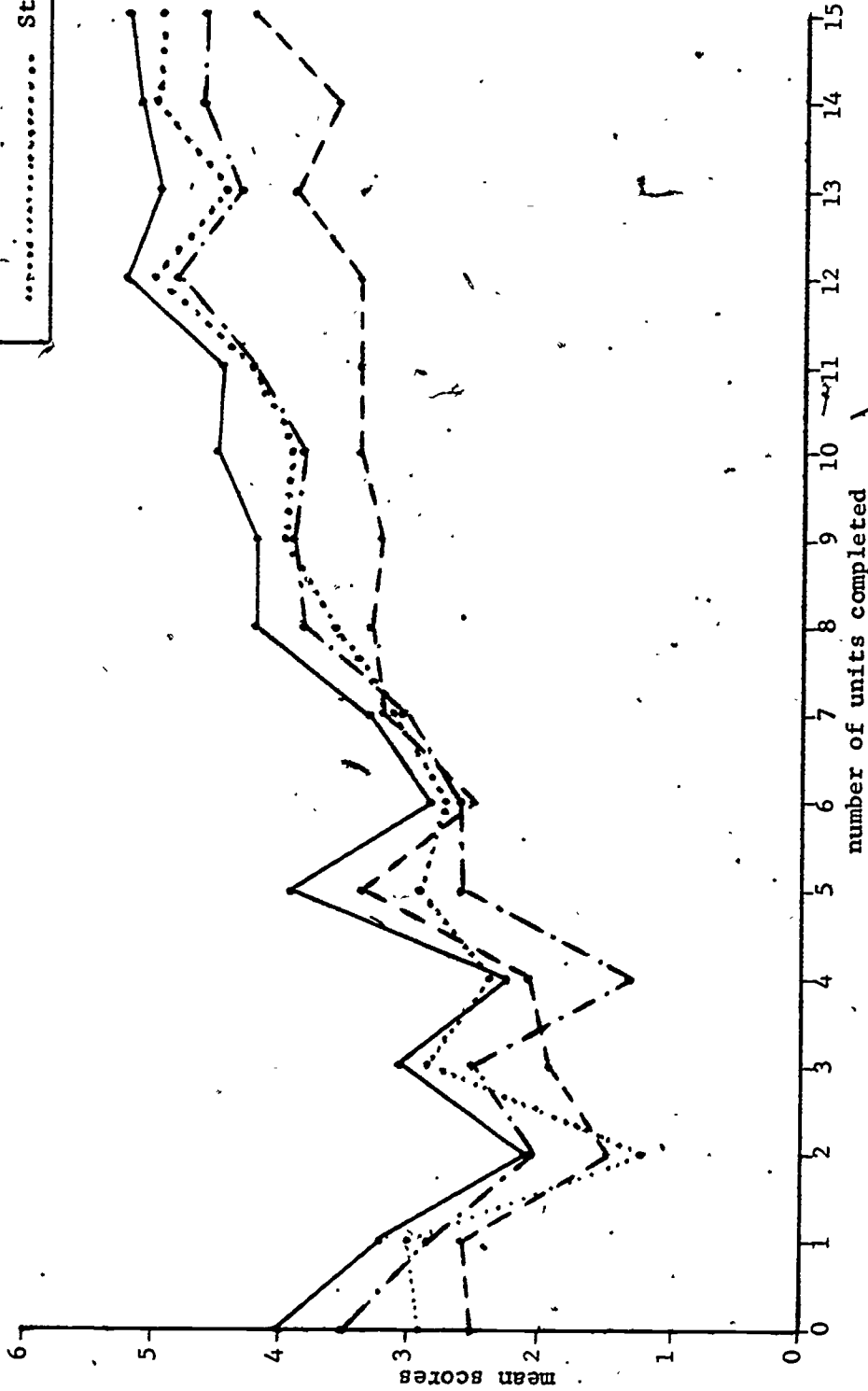


Figure 3 (continued)  
 LMS HARPER ROW POSTTEST MEAN SCORES  
 BY NUMBER OF UNITS COMPLETED

Bank Street Midterm: Table 11 and Figure 4 present the results of the Bank Street midterm.



Table 11

LMS BANK STREET MIDTERM TEST RESULTS  
 MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS

N = 133

OUTCOMES	$\bar{X}$	S.D.	NUMBER										PERCENT									
			0-2	3-4	5-6	7-8	9-10	0-2	3-4	5-6	7-8	9-10	0-2	3-4	5-6	7-8	9-10					
Words	7.25	2.49	9	12	27	32	53	6.8	9.0	20.3	24.0	39.8	6.8	9.0	20.3	24.0	39.8					
Word Elements	7.66	2.04	4	7	18	52	52	3.0	5.3	13.5	39.1	39.1	3.0	5.3	13.5	39.1	39.1					
Word Attack	4.91	2.88	31	34	21	31	16	23.3	25.6	15.8	23.3	12.0	23.3	25.6	15.8	23.3	12.0					

OUTCOMES	$\bar{X}$	S.D.	NUMBER										PERCENT									
			0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5		
Audio/Visual	4.07	.95	0	2	7	23	49	52	0.0	1.5	5.3	17.3	36.8	39.1	0.0	1.5	5.3	17.3	36.8	39.1		
Structure	3.89	1.26	0	7	16	24	23	63	0.0	5.3	12.0	18.0	17.3	47.4	0.0	5.3	12.0	18.0	17.3	47.4		
Comprehension	3.23	1.31	3	9	29	34	28	28	2.3	6.8	21.8	25.6	21.1	21.1	2.3	6.8	21.8	25.6	22.6	21.1		
Study Skills	3.60	1.26	2	7	19	23	45	37	1.5	5.3	14.3	17.3	33.8	27.8	1.5	5.3	14.3	17.3	33.8	27.8		

Figure 4

FREQUENCY DISTRIBUTIONS OF THE  
LMS BANK STREET MIDTERM OUTCOME SCORES

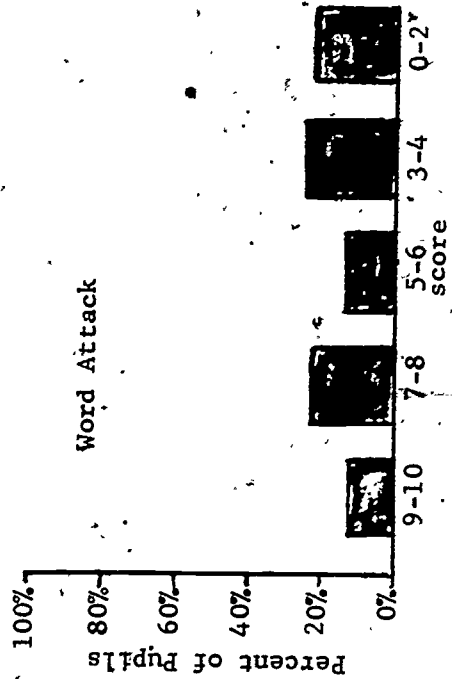
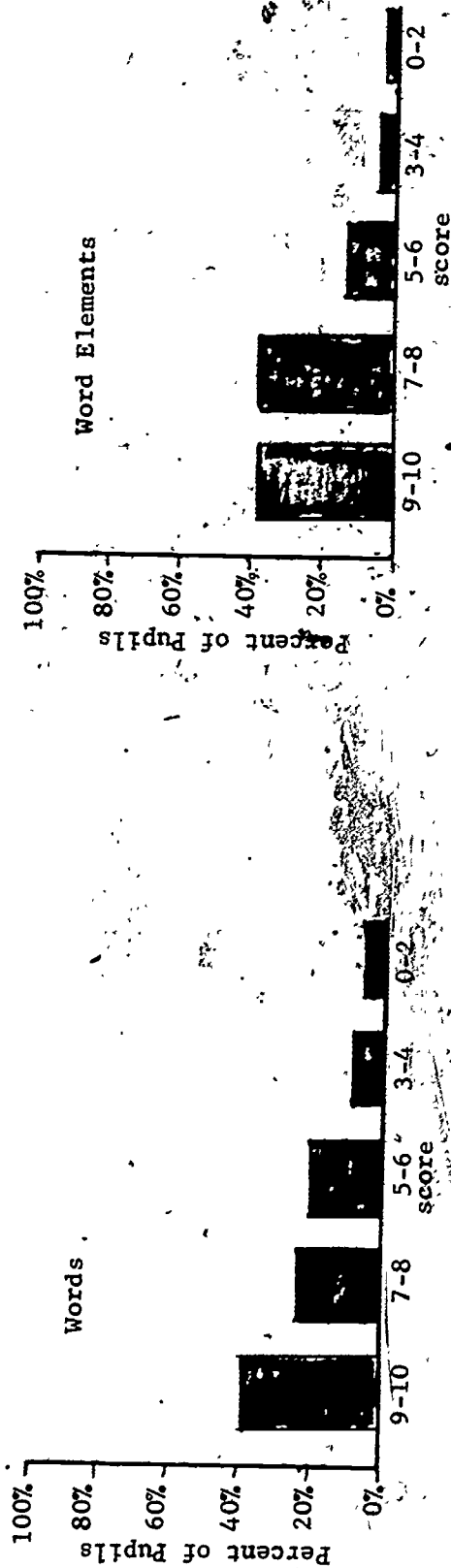
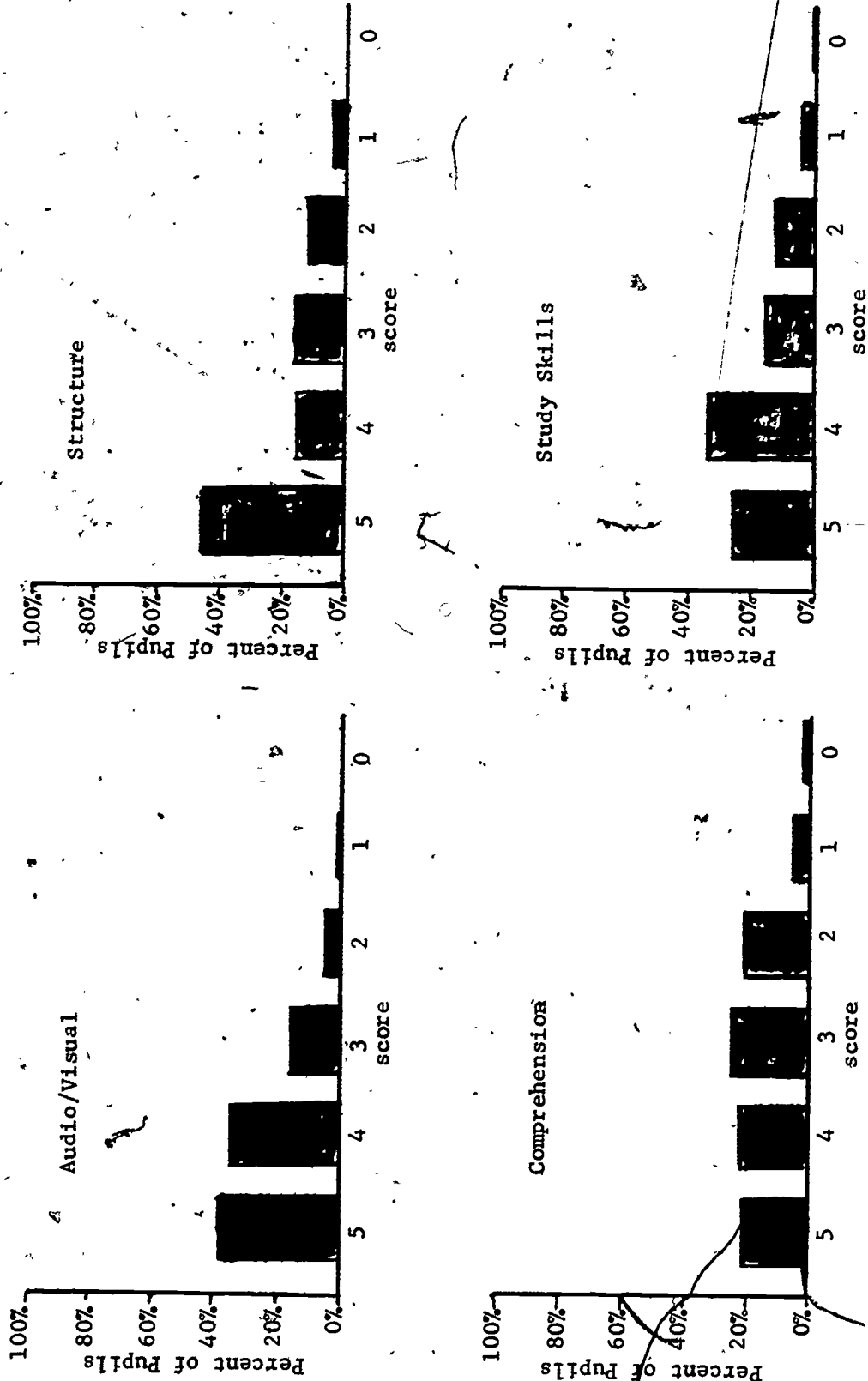


Figure 4 (continued)

FREQUENCY DISTRIBUTIONS OF THE  
LMS BANK STREET MIDTERM OUTCOME SCORES



Bank Street Posttest: Table 12 and Figure 5 present the results of the Bank Street posttest. With the exception of the Word Attack and Structure outcomes, more than 50 percent of the pupils received scores in the highest two score brackets.

Figure 6 gives graphs by unit completed of mean scores on each outcome of the posttest. Tables 13-19 in Appendix D present the means, standard deviations, and frequency distributions for each outcome by the number of units completed.

Table 12

LMS BANK STREET POSTTEST RESULTS  
MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS

OUTCOMES	N	$\bar{X}$	S.D.	NUMBER												PERCENT											
				0-2	3-5	6-7	8-9	10-11	12-13	0-2	3-5	6-7	8-9	10-11	12-13												
Words	78	9.91	3.51	5	7	5	7	20	34	6.4	9.0	6.4	9.0	25.6	43.6												
Word Elements	78	9.87	2.52	0	5	8	18	23	24	0.0	6.4	10.3	23.0	29.5	30.8												
Word Attack	78	7.46	3.80	10	15	7	18	14	14	12.8	19.2	9.0	23.1	17.9	17.9												

OUTCOMES	N	$\bar{X}$	S.D.	NUMBER												PERCENT											
				0	1	2	3	4	5	6	0	1	2	3	4	5	6										
Audio/Visual	77	5.51	0.64	0	0	0	0	6	26	45	0.0	0.0	0.0	7.8	33.8	58.4											
Structure	77	4.39	1.12	0	1	3	11	25	24	13	0.0	1.3	3.9	14.3	31.2	16.9											
Comprehension	77	4.64	1.17	0	2	2	8	16	31	18	0.0	2.6	2.6	10.4	40.3	23.4											
Study Skills	77	4.51	1.32	1	1	4	10	16	26	19	1.3	1.3	5.2	13.0	20.8	24.7											



Figure 5

FREQUENCY DISTRIBUTIONS OF THE  
LMS BANK STREET POSTTEST OUTCOME SCORES

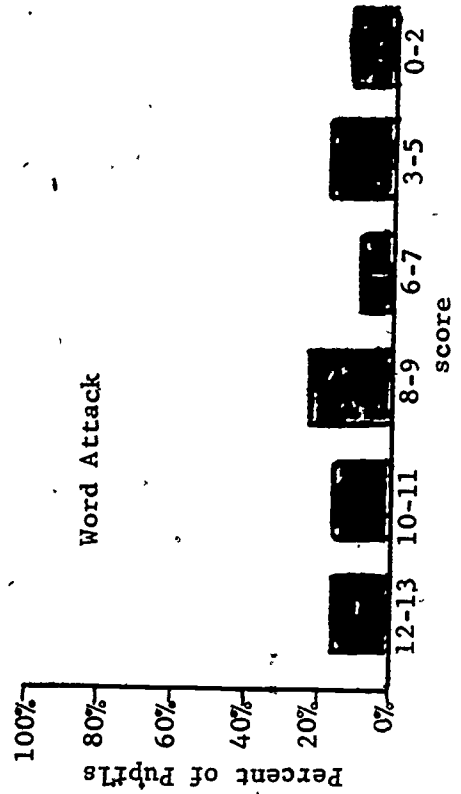
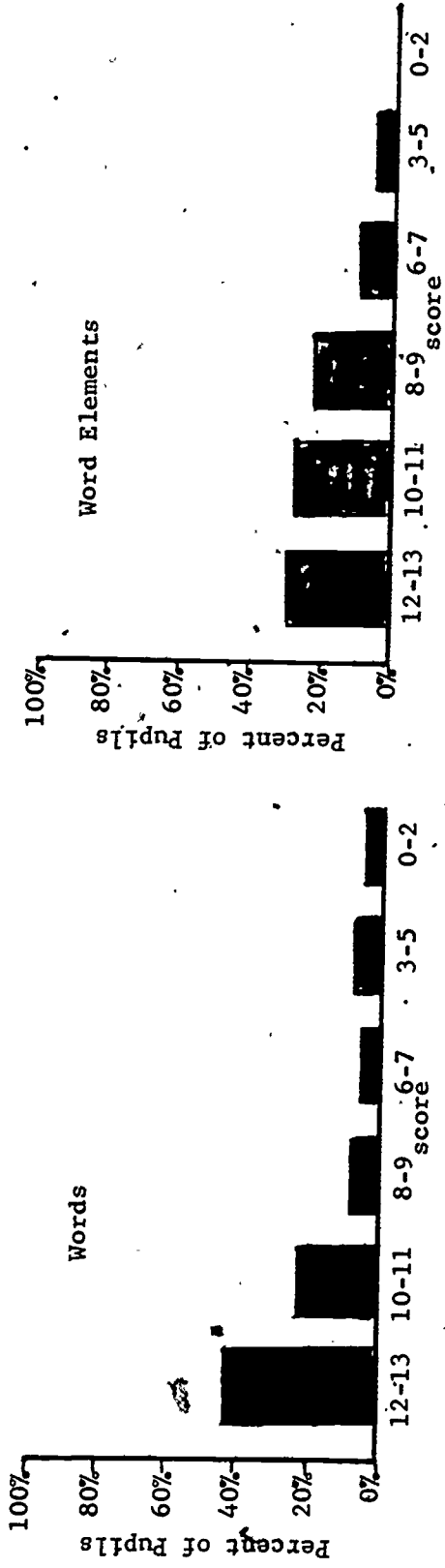
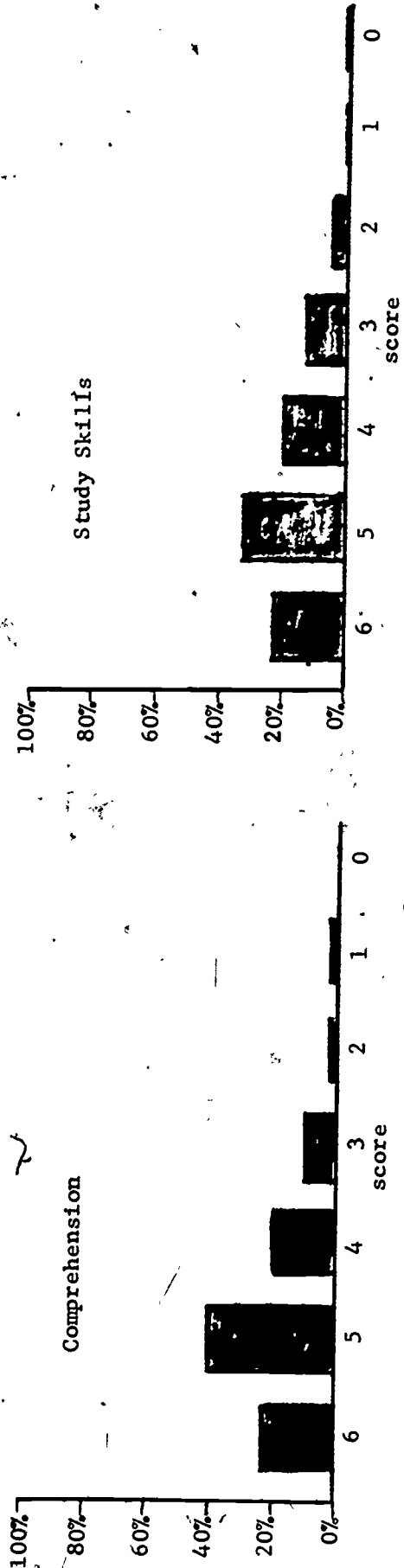
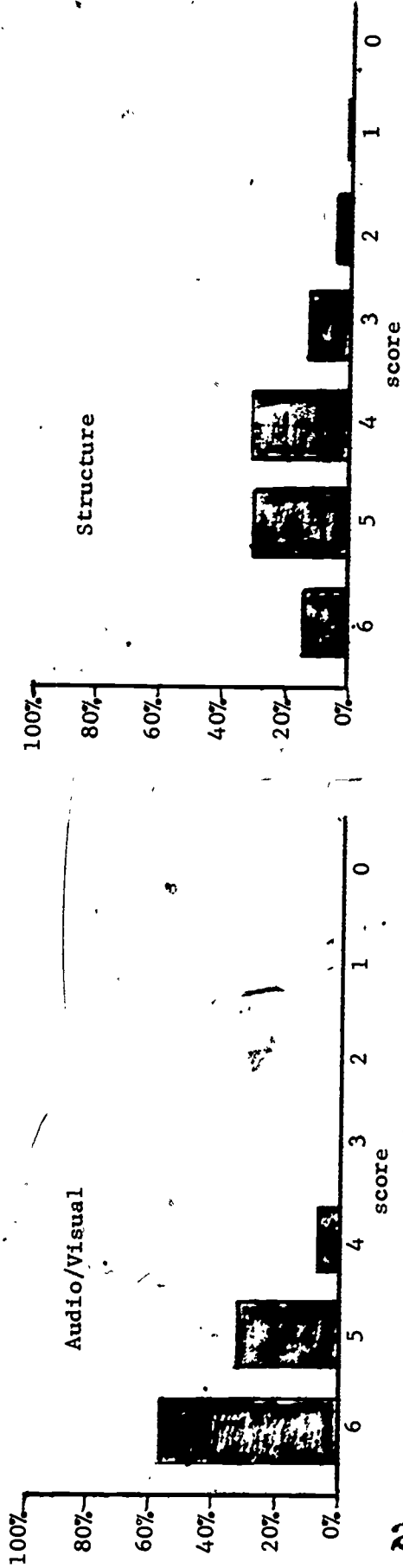
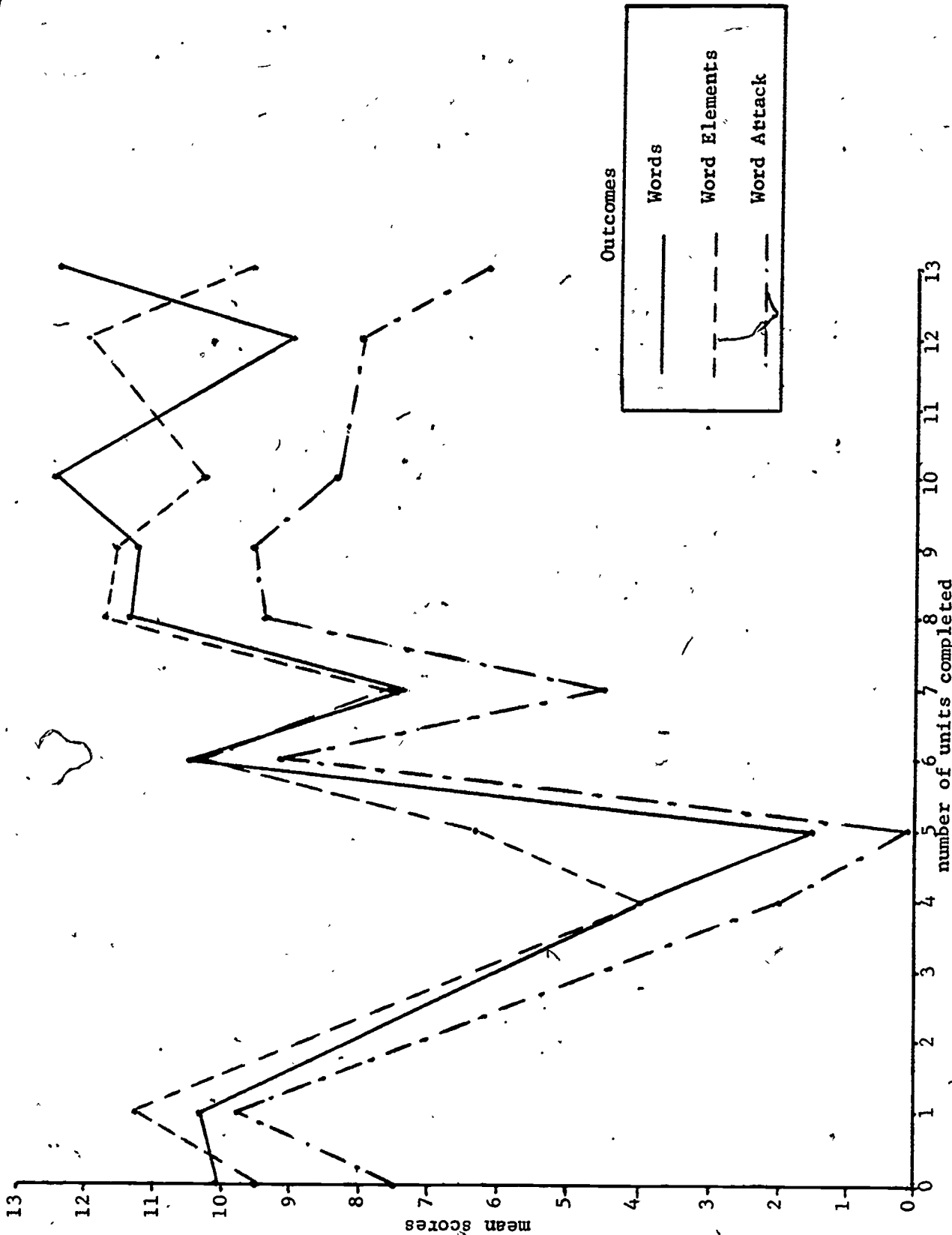


Figure 5 (continued)  
FREQUENCY DISTRIBUTIONS OF THE  
LMS BANK STREET POSTTEST OUTCOME SCORES





Outcomes

- Words
- Word Elements
- Word Attack

Figure 6  
 LMS BANK STREET POSTTEST MEAN SCORES  
 BY NUMBER OF UNITS COMPLETED



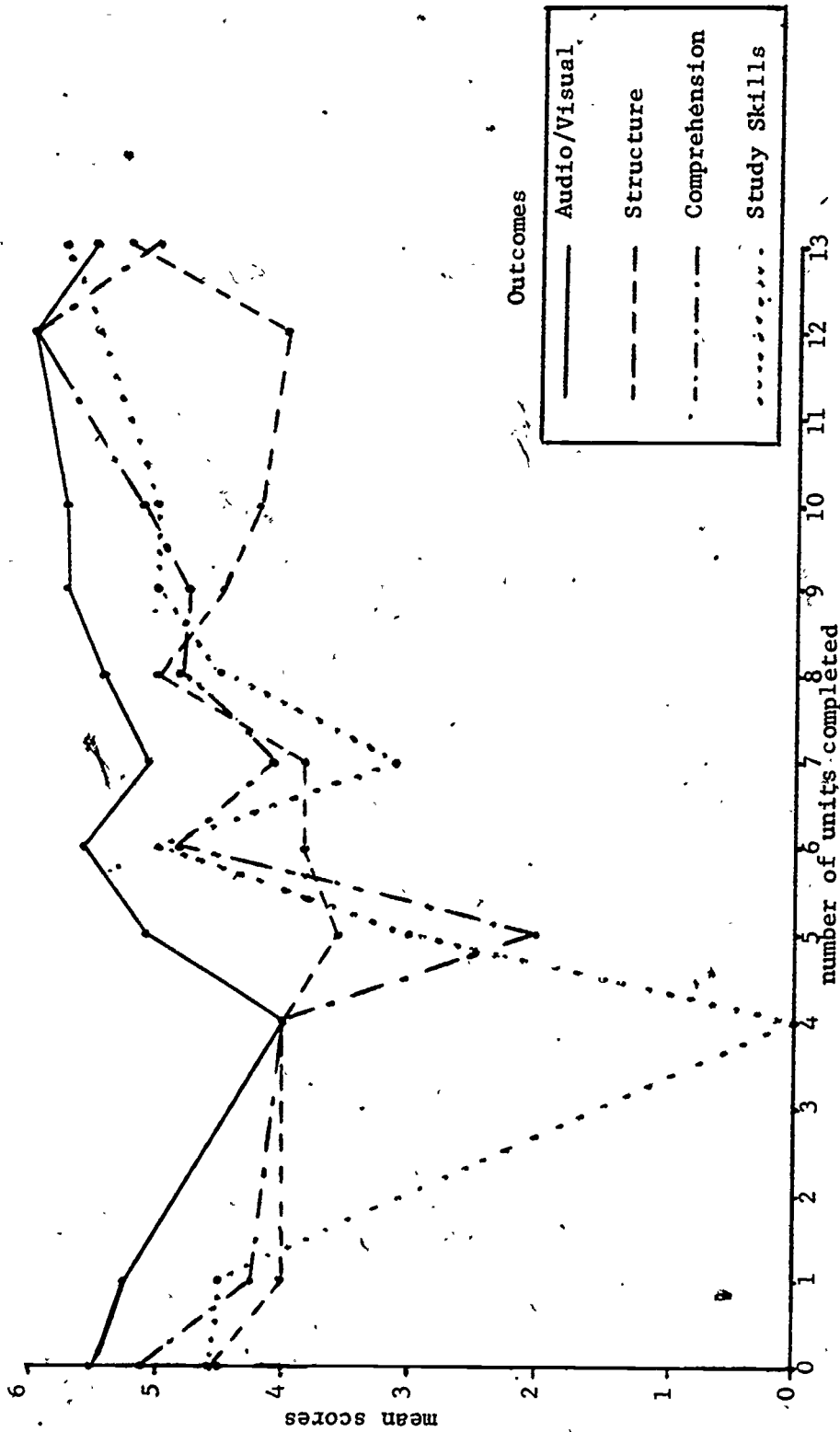


Figure 6 (continued)  
 LMS BANK STREET POSTTEST MEAN SCORES  
 BY NUMBER OF UNITS COMPLETED

APPENDIX A  
MIDTERM TEST MATERIALS

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HARPER & ROW COVER LETTER

Each member of the Quality Assurance sample was asked to send Criterion Exercises to the Laboratory, and to administer and submit mid-program and end-of-program performance tests. The procedures for handling these data were explained during a visit to your school last Fall. It is now time to administer the mid-program performance test. Enclosed are the materials you will need to administer this test.

The test contains 62 items and is designed to be individually administered. Also enclosed is an instruction sheet which gives the procedures you should follow in administering the test, one test booklet, which is used to present the test items to each pupil, and an answer sheet for each pupil on which to record the pupil's responses.

The test includes questions on seven separate outcomes of the Harper-Row program. The content covers the first seven units of the program. You should present all items in the test to each pupil even though they may not have received instructions on all seven units at this time.

We ask that you administer the test between February 8th and 19th. You may test a part of your class on each day or all students on one day. After you have completed the testing you may wish to record the scores for your records. Then forward all completed answer sheets to SWRL in the enclosed pre-addressed envelope.

Your cooperation in providing this information as well as the Criterion Exercises, is greatly appreciated.

Sincerely,

Ralph A. Hanson  
Quality Assurance Department

RAH:om  
Enclosures



SWRL

SOUTHWEST REGIONAL LABORATORY FOR EDUCATIONAL RESEARCH & DEVELOPMENT  
11300 LA CIENEGA BOULEVARD · INGLEWOOD, CALIFORNIA 90304 · TELEPHONE 776-3800 AREA CODE 213

BANK STREET COVER LETTER

Each member of the Quality Assurance sample was asked to send Criterion Exercises to the Laboratory, and to administer and submit mid-program and end-of-program performance tests. The procedures for handling these data were explained during a visit to your school last Fall. It is now time to administer the mid-program performance test. Enclosed are the materials you will need to administer this test.

The test contains 50 items and is designed to be individually administered. Also enclosed is an instruction sheet which gives the procedures you should follow in administering the test, one test booklet, which is used to present the test items to each pupil, and an answer sheet for each pupil on which to record the pupil's responses.

The test includes questions on seven separate outcomes of the Bank Street program. The content covers the first five units of the program. You should present all items in the test to each pupil even though they may not have received instructions on all five units at this time.

We ask that you administer the test between February 8th and 19th. You may test a part of your class on each day or all students on one day. After you have completed the testing you may wish to record the scores for your records. Then forward all completed answer sheets to SWRL in the enclosed pre-addressed envelope.

Your cooperation in providing this information as well as the Criterion Exercises, is greatly appreciated.

Sincerely,

Ralph A. Hanson  
Quality Assurance Department

RAH:om  
Enclosures

## DIRECTIONS FOR ADMINISTERING THE LEARNING MASTERY SYSTEM

### Grade 1 Midterm Test

1. Select a testing area which is relatively quiet.
2. Record the student's name (first and last), teacher's name, school, district, and the date at the top of the answer sheet.
3. Seat the child at a table which is low enough for him to see the items in the test booklet.
4. The test is divided into 7 outcomes - 3 on the front and 4 on the back of the answer sheet. Begin the test with outcome 1.
5. For outcomes 1 through 3, read the instructions at the top of each outcome for each item. For outcome 1 for example, you would read the instruction "Read this word." for each item in outcome 1. The same procedure is to be used for outcomes 2 and 3.
6. For outcomes 4 through 7, read the instructions as printed on the answer sheet for each item. Each item has its own separate instruction and should be read exactly as printed.
7. Record the first answer made by the child by circling the "+" for a correct answer and the "-" for an incorrect answer. If the child does not answer within 10 seconds, record it as an incorrect answer by circling the "-" and then go to the next item.
8. Whether or not a student gives a correct answer, say "OK" and then go to the next item.
9. Be sure to avoid giving hints either verbally or by gesture.
10. The score for each outcome is the total number of correct answers.

LMS-HR GRADE 1-MIDTERM TEST: 1970-71  
LMS Units, 1-7

HARPER & ROW MIDTERM ANSWER SHEET

Name \_\_\_\_\_ Date \_\_\_\_\_ School \_\_\_\_\_ District \_\_\_\_\_  
Teacher \_\_\_\_\_

Outcome 1: Words (Page 2) Outcome 2: Word Elements (Page 3) Outcome 3: Word Attack (Page 4)

"Read this word."		"Say the sound of this(these) letter(s)."		"Read this word."	
1. down	+ -	1. m	+ -	1. jumps	+ -
2. one	+ -	2. d	+ -	2. mat	+ -
3. something	+ -	3. h	+ -	3. looked	+ -
4. may	+ -	4. n	+ -	4. seeing	+ -
5. home	+ -	5. r	+ -	5. hill	+ -
6. red	+ -	6. ill	+ -	6. net	+ -
7. her	+ -	7. ack	+ -	7. well	+ -
8. town	+ -	8. sh	+ -	8. bold	+ -
9. shadow	+ -	9. p	+ -	9. say	+ -
10. best	+ -	10. it	+ -	10. lit	+ -
11. ran	+ -	11. en	+ -	11. pan	+ -
12. catch	+ -	12. v	+ -	12. then	+ -
13. long	+ -	13. st	+ -	13. stake	+ -
14. sat	+ -	14. est	+ -	14. far	+ -
TOTAL CORRECT		TOTAL CORRECT		TOTAL CORRECT	

Outcome 4: Comprehension (Page 5)

1. Read the sentence in the box to yourself. If the pictures could talk, point to the one that would say the sentence in the box. (girl) + -
2. Look at the word in the box. Point to the word below that is opposite in meaning from the one in the box. (good) + -
3. Read these sentences to yourself. Who's going to have a birthday? (Janet) + -
4. Read this story to yourself. Who sat by the pond? (a frog) + -
5. Look at this picture. Point to the sentence that goes with it. (I can fly to the moon.) + -

TOTAL CORRECT

Outcome 5: Study Skills (Page 6)

1. Here is a table of contents. Tell me what story begins on page three? ("Little Duck") + -
2. What page does the story "Up to the Moon" begin on? (27) + -
3. How many stories are in the table of contents? (6) + -
4. Tell me what story begins on page 55? ("At the Window") + -
5. What page does the story "The Jeep Ride" begin on? (15) + -

TOTAL CORRECT

Outcome 6: Linguistic Skills (Page 7)

1. Read this sentence in the box to yourself. Point to the word that should go in the blank. (like) + -
2. Point to the word that should go in the blank. (walking) + -
3. Point to the word that should go in the blank. (saw) + -
4. Point to the word that should go in the blank. (run) + -
5. Point to the word that should go in the blank. (swim) + -

TOTAL CORRECT

Outcome 7: Structural Analysis (Page 8)

1. Look at the letter in the box. Point to the picture that begins with the sound of this letter. (duck) + -
2. Point to the pair of words that rhyme. (cake--make) + -
3. Point to the pair of words that will go together to form a compound word. (some day) + -
4. Point to the word that has the sound "old" underlined. (told) + -
5. Point to the word that begins with the same sound as the name of the picture. (mother) + -

TOTAL CORRECT

LMS-MBS GRADE 1 MIDTERM TEST: 1970-71  
LMS Units 1-5

BANK STREET MIDTERM ANSWER SHEET

Name \_\_\_\_\_ Date \_\_\_\_\_  
 School \_\_\_\_\_ District \_\_\_\_\_  
 Teacher \_\_\_\_\_

Outcome 1: Words (Page 2)  
 Outcome 2: Word Elements (Page 3)  
 Outcome 3: Word Attack (Page 4)

"Read this word."		"Say the sound of this(these) letter(s)."		"Read this word."	
1. house	+ -	1. s	+ -	1. ball	+ -
2. light	+ -	2. all	+ -	2. bat	+ -
3. workman	+ -	3. m	+ -	3. fit	+ -
4. sun	+ -	4. at	+ -	4. sight	+ -
5. room	+ -	5. h	+ -	5. got	+ -
6. sky	+ -	6. it	+ -	6. lump	+ -
7. fast	+ -	7. d	+ -	7. telling	+ -
8. but	+ -	8. ight	+ -	8. cut	+ -
9. drill	+ -	9. c (as in car)*	+ -	9. mill	+ -
10. can	+ -	10. ut	+ -	10. worked	+ -
TOTAL CORRECT		TOTAL CORRECT		TOTAL CORRECT	

\*If child says "sss" (as in city), ask, "What other sound does this letter make?"



Outcome IV: Auditory Perception/Visual Discrimination (Page 5)

1. Look at these letters. Point to the big w. + -
2. Point to the two words that rhyme. (play day) + -
3. Look at these three sentences. Point to the one with the signs that tell us someone is talking. ("Fire!" called a little boy.) + -
4. Point to the little c. + -
5. Look at these three sentences. Point to the one with the sign at the end that says, "Here is a question." (Do you like to jump?) + -

TOTAL CORRECT

Outcomes V: Structural Analysis (Page 6)

1. Point to the word that means more than one friend. (friends) + -
2. Point to the two little words that will come together to make a big word. (lunch room) + -
3. Point to the two little words that will come together to make a big word. (milk man) + -
4. Point to the two little words that will come together to make a big word. (fire man) + -
5. Point to the word that means more than one cat. (cats) + -

TOTAL CORRECT

Outcome VI: Comprehension and Interpretation (Page 7)

1. Point to the two words that are opposite. (come go) + -
2. Point to the two words that are opposite. (little big) + -
3. Read the sentence in the box to yourself. Point to the word below that should go in the blank in the sentence. (I) + -
4. Point to what we say when we go to bed. (Good night) + -
5. Read the sentence in the box. Point to the word below that should go in the blank. (high) + -

TOTAL CORRECT

Outcome VII: Habits and Study Skills (Page 8)

1. At the top of this page is a table of contents. Tell me what story begins on page 18? ("Who Are They?") + -
2. What page does the story "Ann's Mother" begin on? (28) + -
3. Look at these three letters. Point to the one that comes just before m in the alphabet. (L) + -
4. Point to the letter that comes just after t in the alphabet. (u) + -
5. Point to the letter that comes just after f in the alphabet. (g) + -

TOTAL CORRECT

APPENDIX B  
POSTTEST MATERIALS



SWRL

SOUTHWEST REGIONAL LABORATORY FOR EDUCATIONAL RESEARCH & DEVELOPMENT  
11300 LA CIENEGA BOULEVARD · INGLEWOOD, CALIFORNIA 90304 · TELEPHONE 776-3800 AREA CODE 213

HARPER & ROW COVER LETTER

The information provided throughout the school year by the teachers and pupils participating in the Learning Mastery System Quality Assurance Program has been extremely useful in improving the program. There is one final item of information we ask that you provide and this is the end of program test.

The test contains 69 items and is designed to be individually administered. Enclosed with this letter is; 1) an instruction sheet which gives the procedures you should follow in administering the test; 2) one test booklet which is used to present the test items to each pupil; 3) an answer sheet for each pupil on which to record the pupil's responses; and 4) a list of the pupils to be tested.

The test includes questions on each of the seven separate outcomes of the Harper-Row Program and content from all 15 units of the program.

We ask that you administer the test anytime before June 4, 1971 to a sample of at least 10 students. To select the students to be tested, start at the top of the enclosed list, skipping those pupils who are no longer in your class or who are unavailable for testing. You should test at least the first 10 pupils available on the list. Notice however, that enough answer sheets have been provided for all the pupils in your class. This allows you to test all pupils in your class, not only the ten requested, if time permits.

After you have completed the testing, you may wish to record the scores for your records. Then forward all the completed answer sheets to SWRL in the enclosed pre-addressed envelope.

Your cooperation in providing this information as well as the other Quality Assurance information throughout the school year is greatly appreciated.

Sincerely,

Ralph A. Hanson  
Quality Assurance Program

on  
Enclosures



## BANK STREET COVER LETTER

The information provided throughout the school year by the teachers and pupils participating in the Learning Mastery System Quality Assurance Program has been extremely useful in improving the program. There is one final item of information we ask that you provide and this is the end of program test.

The test contains 63 items and is designed to be individually administered. Enclosed with this letter is; 1) an instruction sheet which gives the procedures you should follow in administering the test; 2) one test booklet which is used to present the test items to each pupil; 3) an answer sheet for each pupil on which to record the pupil's responses; and 4) a list of the pupils to be tested.

The test includes questions on each of the seven separate outcomes of the Bank Street Program and content from all 13 units of the program. You should present all items in the test to each pupil even though they may not have received instruction on all units.

We ask that you administer the test anytime before June 4, 1971 to a sample of at least 10 students. To select the students to be tested, start at the top of the enclosed list, skipping those pupils who are no longer in your class or who are unavailable for testing. You should test at least the first 10 pupils available on the list. Notice however, that enough answer sheets have been provided for all the pupils in your class. This allows you to test all pupils in your class, not only the ten requested, if time permits.

After you have completed the testing, you may wish to record the scores for your records. Then forward all the completed answer sheets to SWRL in the enclosed pre-addressed envelope.

Your cooperation in providing this information as well as the other Quality Assurance information throughout the school year is greatly appreciated.

Sincerely,

Ralph A. Hanson  
Quality Assurance Program

om  
Enclosures

DIRECTIONS FOR ADMINISTERING THE LEARNING MASTERY SYSTEM

Grade 1 Posttest

1. Select a testing area which is relatively quiet.
2. Record the student's name (first and last), teacher's name, school, district, and the date at the top of the answer sheet.
3. Seat the child at a table which is low enough for him to see the items in the test booklet.
4. The test is divided into 7 outcomes - 3 on the front and 4 on the back of the answer sheet. Begin the test with outcome 1.
5. For outcomes 1 through 3, read the instructions at the top of each outcome for each item. For outcome 1 for example, you would read the instruction "Read this word." for each item in outcome 1. The same procedure is to be used for outcomes 2 and 3.
6. For outcomes 4 through 7, read the instructions as printed on the answer sheet for each item. Each item has its own separate instruction and should be read exactly as printed.
7. Record the first answer made by the child by circling the "+" for a correct answer and the "-" for an incorrect answer. If the child does not answer within 10 seconds, record it as an incorrect answer by circling the "-" and then go to the next item.
8. Whether or not a student gives a correct answer, say "OK" and then go to the next item.
9. Be sure to avoid giving hints either verbally or by gesture.
10. The score for each outcome is the total number of correct answers. Count the number of plus signs circled and record that number in the box in the lower right-hand corner for each outcome.

Name \_\_\_\_\_ Date \_\_\_\_\_ School \_\_\_\_\_ District \_\_\_\_\_  
Teacher \_\_\_\_\_

Section 1  
(Outcomes 1-3 for LMS Units 1-11)

Outcome 1: Words (Page 1)  
Outcome 2: Word Elements (Page 2)  
Outcome 3: Word Attack (Page 3)

"Read this word."		"Say the sound of this(these) letter(s)."		"Read this word."	
1. jump	+ -	1. s	+ -	1. wanting	+ -
2. little	+ -	2. w	+ -	2. makes	+ -
3. said	+ -	3. b	+ -	3. cat	+ -
4. someone	+ -	4. ot	+ -	4. fell	+ -
5. game	+ -	5. ame	+ -	5. came	+ -
6. that	+ -	6. ake	+ -	6. bake	+ -
7. run	+ -	7. gr	+ -	7. nest	+ -
8. man	+ -	8. sp	+ -	8. grace	+ -
9. animals	+ -	9. ike	+ -	9. date	+ -
10. who	+ -	10. ch	+ -	10. spoke	+ -
11. people	+ -	11. ed	+ -	11. led	+ -
TOTAL CORRECT		TOTAL CORRECT		TOTAL CORRECT	

Section 2\*  
(Outcome 1 for LMS Units 12-15)  
(Page 4)

"Read this word."		"Read this word."	
1. say	+ -	5. baby	+ -
2. piece	+ -	6. arithmetic	+ -
3. reading	+ -	7. top	+ -
4. might	+ -	8. sliding	+ -
		9. snowflakes	+ -
		10. map	+ -
		11. world	+ -
		12. clothing	+ -
		TOTAL CORRECT	

\*Administer only if child has completed or nearly completed the 12 reader, From Elephants to Eskimos, LMS Units 12-15.

## Outcome 4: Comprehension (Page 5)

1. Look at the word in the box. Point to the word below that is opposite in meaning from the word in the box. (happy) + -
2. Read this story to yourself. What does the elephant use to get water? (his nose) + -
3. Read this sentence to yourself. What color are the dandelions? (yellow) + -
4. Read the sentences in the box to yourself. Point to the word below that should go in the blank. (ball) + -
5. Read the sentence in the box to yourself. Point to the word below that should go in the blank. (sea) + -
6. Read the sentence in the box to yourself. Point to the word below that should go in the blank. (four) + -

TOTAL CORRECT

## Outcome 6: Linguistic Skills (Page 7)

1. Read the sentence in the box to yourself and point to the word below that should go in the blank. (come) + -
2. Read the sentence in the box to yourself and point to the word below that should go in the blank. (was) + -
3. There is an underlined word in the sentence in the box. Point to the word below that we could put in place of the underlined word. (She) + -
4. Look at the two sentences in the box. The second sentence has a word missing. Point to the word below that should go in the blank. (were) + -
5. Point to the word that should go in the blank. (David's) + -
6. Point to the word that should go in the blank. (Her) + -

TOTAL CORRECT

## Outcome 5: Study Skills (Page 6)

1. At the top of this page is a table of contents. Look at it and tell me what page number the story "Mr. Mud Turtle" begins on? (49) + -
2. What story begins on page 50? ("Happy Days") + -
3. What page number does the story "Football" begin on? (45) + -
4. At the bottom of this page is a story. You don't have to read it. Just look at it and tell me how many paragraphs there are. (two) + -
5. How many lines are there in the first paragraph? (five) + -
6. How many lines are there in the second paragraph? (six) + -

TOTAL CORRECT

## Outcome 7: Structural Analysis (Page 8)

1. Point to the pair of words that will go together to make a new compound word. (out side) + -
2. Point to the one that has the sound "ike" underlined. (like) + -
3. Point to the word that has the same "oo" sound as in the word igloo. (tools) + -
4. Look at the word in the box. The word is boat. Point to what we should add to the word to make it mean more than one boat. (s) + -
5. What would I add to the word in the box to make it say reading. (ing) + -
6. Look at this word. How many syllables does it have? (3) + -

TOTAL CORRECT

Name \_\_\_\_\_ Date \_\_\_\_\_  
 School \_\_\_\_\_ District \_\_\_\_\_  
 Teacher \_\_\_\_\_

Outcome 1: Words (Page 2)  
 Outcome 2: Word Elements (Page 3)  
 Outcome 3: Word Attack (Page 4)

"Read this word."		"Say the sound of this (these) letter(s)."		"Read this word."	
1. people	+ -	1. f	+ -	1. mit	+ -
2. mailman	+ -	2. g (g as in good)	+ -	2. gall	+ -
3. her	+ -	3. b	+ -	3. hat	+ -
4. from	+ -	4. ot	+ -	4. bop	+ -
5. rained	+ -	5. ill	+ -	5. fill	+ -
6. sister	+ -	6. t	+ -	6. tame	+ -
7. himself	+ -	7. p	+ -	7. bed	+ -
8. home	+ -	8. ate	+ -	8. lake	+ -
9. window	+ -	9. ent	+ -	9. tent	+ -
10. wait	+ -	10. op	+ -	10. rate	+ -
11. hiding	+ -	11. v	+ -	11. must	+ -
12. than	+ -	12. st	+ -	12. stake	+ -
13. trip	+ -	13. br	+ -	13. case	+ -
TOTAL CORRECT		TOTAL CORRECT		TOTAL CORRECT	





Outcome 4: Auditory Perception/Visual Discrimination (Page 5)

1. Look at these letters. Point to the big f. (F) + -
2. Look at these three letters. Two of them are the same. Point to the one that is different. (m) + -
3. Point to the two words that rhyme. (some come) + -
4. Look at these three sentences. Point to the one that has the sign that says "Here is something exciting." (Help! Help! A store is on fire!) + -
5. Point to the two words that rhyme. (look took) + -
6. Look at these letters. Point to the little v. (v) + -

TOTAL CORRECT

Outcome 6: Comprehension and Interpretation (Page 7)

1. Read the sentence in the box to yourself. Now point to the word below that we should use in place of the underlined word in the sentence. (him) + -
2. Point to the two words that are opposite in meaning. (here there) + -
3. Point to the word that tells how many. (one) + -
4. Read this sentence to yourself. Tell me where Ben and his sister went. (zoo) + -
5. Read the sentence in the box. Point to the word below that should go in the blank. (asked) + -
6. Read this sentence. Where did the tugboat go? (out to sea) + -

TOTAL CORRECT

Outcome 5: Structural Analysis (Page 6)

1. Point to the word that means more than one potato. (potatoes) + -
2. Point to the two little words that will come together to make a big word. (tug boat) + -
3. Point to the word that has rain underlined. + -
4. Look at the word in the box. Point to the two words that come together to make the word in the box. (let us) + -
5. Look at the word in the box. Point to the two words that come together to make the word in the box. (we will) + -
6. Read the sentence in the box. Point to the word that goes in the blank in the sentence. (Henry's) + -

TOTAL CORRECT

Outcome 7: Habits and Study Skills (Page 8)

1. At the top of the page is a table of contents. On what page does the story "Tugboat Race" begin? (23) + -
2. What story begins on page 25? ("The Lost Pony") + -
3. What page does the story "Out at Sea" begin on? (27) + -
4. Look at these three words. Point to the one that should always be capitalized. (Rosa) + -
5. Look at these letters. Point to the one that comes just after w in the alphabet. (x) + -
6. Point to the letter that comes just before o in the alphabet. (n) + -

TOTAL CORRECT

APPENDIX C

Tables 3-10

LMS HARPER & ROW POSTTEST MEANS, STANDARD DEVIATIONS,  
AND FREQUENCY DISTRIBUTIONS BY UNIT COMPLETED FOR EACH OUTCOME

Table 3

LMS HARPER ROW POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE WORDS OUTCOME.

Unit Completed

N	$\bar{X}$	S.D.	NUMBER										PERCENT										
			Score										Score										
			0-1	2-3	4-5	6-7	8-9	10-11	0-1	2-3	4-5	6-7	8-9	10-11									
9	0	8.22	3.33	0	2	0	2	0	5	0	0	0.0	22.2	0.0	22.2	0.0	22.2	0.0	22.2	0.0	22.2	0.0	55.6
6	1	5.00	3.37	0	3	1	0	1	1	1	1	0.0	50.0	16.7	16.7	0.0	16.7	0.0	16.7	0.0	16.7	0.0	16.7
14	2	4.14	1.96	0	7	3	3	1	0	0	0	0.0	50.0	21.4	21.4	0.0	21.4	0.0	21.4	0.0	21.4	0.0	0.0
12	3	5.25	3.17	1	3	5	0	0	3	3	3	8.3	25.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
29	4	4.48	2.39	5	4	9	7	4	0	0	0	17.2	13.8	31.0	24.1	13.8	24.1	13.8	24.1	13.8	24.1	13.8	0.0
19	5	8.16	2.16	0	1	1	5	7	5	5	5	0.0	5.3	5.3	26.3	36.9	26.3	36.9	26.3	36.9	26.3	36.9	26.3
28	6	6.32	2.56	2	1	8	4	11	2	2	2	7.1	3.6	28.6	14.3	39.3	14.3	39.3	14.3	39.3	14.3	39.3	7.1
72	7	3.24	2.09	1	0	4	21	23	23	23	23	1.4	0.0	5.6	29.2	31.9	29.2	31.9	29.2	31.9	29.2	31.9	31.9
22	8	7.50	3.13	1	3	2	1	9	6	6	6	4.5	13.6	9.1	4.5	40.9	4.5	40.9	4.5	40.9	4.5	40.9	27.3
27	9	9.04	1.91	0	1	0	5	7	14	14	14	0.0	3.7	0.0	18.5	25.9	18.5	25.9	18.5	25.9	18.5	25.9	51.9
46	10	9.24	2.65	1	2	3	4	5	31	31	31	2.2	4.3	6.5	8.7	10.9	6.5	8.7	10.9	6.5	8.7	10.9	67.4
22	11	10.00	1.31	0	0	0	2	3	17	17	17	0.0	0.0	0.0	9.1	13.6	0.0	9.1	13.6	0.0	9.1	13.6	77.3
12	12	10.67	0.85	0	0	0	0	1	11	11	11	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	8.3	0.0	8.3	91.7
25	13	10.44	1.02	0	0	0	1	2	22	22	22	0.0	0.0	0.0	4.0	8.0	0.0	4.0	8.0	0.0	4.0	8.0	88.0
9	14	10.56	0.96	0	0	0	0	1	8	8	8	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0	11.1	0.0	11.1	88.9
98	15	10.52	0.99	0	0	0	3	10	85	85	85	0.0	0.0	0.0	3.1	10.2	0.0	3.1	10.2	0.0	3.1	10.2	86.7

Table 4  
LMS HARPER ROW POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE WORD ELEMENT OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER										PERCENT									
				Score										Score									
				0-1	2-3	4-5	6-7	8-9	10-11	0-1	2-3	4-5	6-7	8-9	10-11								
9	0	5.67	3.68	1	3	0	1	2	2	2	11.1	33.3	0.0	11.1	22.2	22.2							
6	1	4.83	3.02	1	1	2	0	2	0	0	16.7	16.7	33.3	0.0	33.3	0.0							
14	2	3.57	2.92	3	5	2	3	1	0	0	21.4	35.7	14.3	21.4	7.1	0.0							
12	3	4.83	2.60	4	4	1	2	1	0	0	33.3	33.3	8.3	16.7	8.3	0.0							
29	4	3.93	2.12	5	6	11	6	1	0	0	17.2	20.7	37.9	20.7	3.4	0.0							
19	5	6.05	2.23	1	2	4	6	5	1	1	5.3	10.5	21.1	31.6	26.3	5.3							
28	6	5.86	2.55	1	6	4	10	4	3	3	3.6	21.4	14.3	35.7	14.3	10.7							
72	7	7.37	2.26	0	2	17	19	20	14	14	0.0	2.8	23.6	26.4	27.8	19.4							
22	8	7.23	3.12	2	1	4	2	8	5	5	9.1	4.5	18.2	9.1	36.4	22.7							
27	9	8.44	1.85	0	0	2	6	10	9	9	0.0	0.0	7.4	22.2	37.0	33.3							
46	10	8.74	2.91	2	2	3	3	8	28	28	4.3	4.3	6.5	6.5	17.4	60.9							
22	11	10.14	1.10	0	0	0	1	4	17	17	0.0	0.0	0.0	4.5	18.2	77.3							
12	12	10.08	1.89	0	0	1	0	0	11	11	0.0	0.0	8.3	0.0	0.0	91.7							
25	13	8.96	1.31	0	0	0	3	12	10	10	0.0	0.0	0.0	12.0	48.0	40.0							
9	14	9.89	0.99	0	0	0	0	3	6	6	0.0	0.0	0.0	0.0	33.3	66.7							
98	15	9.83	1.68	1	0	1	5	23	68	68	1.0	0.0	1.0	5.1	23.5	69.4							

Table 5

LMS HARPER ROW POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE WORD ATTACK OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER											PERCENT				
				Score											Score				
				0-1	2-3	4-5	6-7	8-9	10-11	0-1	2-3	4-5	6-7	8-9	10-11				
9	0	5.56	4.43	4	0	0	0	3	2	44.4	0.0	0.0	0.0	0.0	33.9	22.2			
6	1	3.67	3.68	3	0	1	0	2	0	50.0	0.0	16.7	0.0	0.0	33.3	0.0			
14	2	1.64	1.76	8	4	1	1	0	0	57.1	28.6	7.1	7.1	0.0	0.0	0.0			
12	3	2.58	2.60	5	4	0	3	0	0	41.7	33.3	0.0	25.0	0.0	0.0	0.0			
29	4	2.28	2.42	15	5	7	1	0	1	51.7	17.2	24.1	3.4	0.0	0.0	3.4			
19	5	4.42	2.11	2	5	4	7	1	0	10.5	26.3	21.1	36.9	5.3	0.0	0.0			
28	6	3.89	2.23	6	4	13	3	2	0	21.4	14.3	46.4	10.7	7.1	0.0	0.0			
72	7	5.44	2.73	7	9	20	20	11	5	9.7	12.5	27.8	27.8	15.3	6.9	6.9			
22	8	5.50	3.60	4	3	5	2	4	4	18.2	13.6	22.7	9.1	18.2	18.2	18.2			
27	9	6.81	2.75	1	3	4	8	7	4	3.7	11.1	14.8	29.6	25.9	14.8	14.8			
46	10	7.33	3.55	7	1	3	5	14	16	15.2	2.2	6.5	10.9	30.4	34.9	34.9			
22	11	8.55	1.70	0	0	0	7	9	6	0.0	0.0	0.0	31.8	40.9	27.3	27.3			
12	12	9.83	2.15	0	1	0	0	1	10	0.0	8.3	0.0	0.0	8.3	83.3	83.3			
25	13	8.52	1.94	0	0	1	7	8	9	0.0	0.0	4.0	28.0	32.0	36.0	36.0			
9	14	9.33	1.49	0	0	0	1	3	5	0.0	0.0	0.0	11.1	33.3	55.6	55.6			
98	15	9.15	2.27	0	4	6	10	19	59	0.0	4.1	6.1	10.2	19.4	60.2	60.2			

Table 6

LMS HARPER ROW POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE WORDS OUTCOME (UNITS 12-15)

N	$\bar{X}$	S.D.	NUMBER										PERCENT									
			Score										Score									
			0-2	3-4	5-6	7-8	9-10	11-12	0-2	3-4	5-6	7-8	9-10	11-12								
6	0	8.33	4.03	1	0	0	2	0	3	16.7	0.0	0.0	33.3	0.0	50.0							
1	1	0.00	0.00	1	0	0	0	0	0	100.0	0.0	0.0	0.0	0.0	0.0							
7	2	0.00	0.00	7	0	0	0	0	0	100.0	0.0	0.0	0.0	0.0	0.0							
4	3	4.75	2.95	1	0	2	1	0	0	25.0	0.0	50.0	25.0	0.0	0.0							
5	4	1.80	0.98	4	1	0	0	0	0	80.0	20.0	0.0	0.0	0.0	0.0							
8	5	4.25	2.82	2	2	3	0	1	0	25.0	25.0	37.5	0.0	12.5	0.0							
15	6	2.73	2.23	8	5	1	0	1	0	53.3	33.3	6.7	0.0	6.7	0.0							
16	7	5.50	2.23	3	3	5	2	3	0	18.8	18.8	31.3	12.5	18.8	0.0							
3	8	6.33	3.30	0	2	0	0	0	1	0.0	66.7	0.0	0.0	0.0	33.3							
9	9	7.11	2.60	0	2	1	4	1	1	0.0	22.2	11.1	44.4	11.1	11.1							
31	10	6.71	3.36	4	6	2	7	8	4	12.9	19.4	6.5	22.3	25.8	12.9							
3	11	10.00	2.34	0	0	0	0	2	1	0.0	0.0	0.0	0.0	66.7	33.3							
12	12	10.25	2.34	0	1	0	1	2	8	0.0	8.9	0.0	8.3	16.7	66.7							
24	13	8.13	2.60	0	3	4	5	7	5	0.0	12.5	16.7	20.8	29.2	20.8							
5	14	10.80	1.17	0	0	0	0	2	3	0.0	0.0	0.0	0.0	40.0	60.0							
91	15	9.79	2.47	1	4	7	8	24	47	1.1	4.4	7.7	8.8	26.4	51.6							

Table 7.

LMS HARPER ROW POSTTEST MEANS, STANDARD DEVIATIONS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE COMPREHENSION OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER							PERCENT								
				Score							Score								
				0	1	2	3	4	5	6	0	1	2	3	4	5	6		
8	0	4.00	2.00	1	0	1	1	0	0	0	3	2	12.5	0.0	12.5	0.0	0.0	37.5	25.0
5	1	3.20	1.94	0	1	2	0	0	0	1	1	1	0.0	20.0	40.0	0.0	0.0	20.0	20.0
12	2	2.08	1.85	3	3	2	0	2	2	0	0	0	25.0	25.0	16.7	0.0	16.7	16.7	0.0
10	3	3.10	2.07	1	1	3	2	0	0	0	3	3	10.0	10.0	30.0	20.0	0.0	0.0	30.0
23	4	2.26	1.62	3	6	3	8	1	0	0	2	2	13.0	26.1	13.0	34.8	4.3	0.0	8.7
19	5	3.90	1.33	1	0	1	3	9	3	3	2	2	5.3	0.0	5.3	15.8	47.4	15.8	10.5
27	6	2.85	1.65	4	2	3	8	6	3	3	1	1	14.8	7.4	11.1	29.6	22.2	11.1	3.7
72	7	3.31	1.63	3	8	12	18	9	16	6	6	6	4.2	11.1	16.7	25.0	12.5	22.2	8.3
20	8	4.20	1.86	1	1	2	3	3	2	8	8	8	5.0	5.0	10.0	15.0	15.0	10.0	40.0
27	9	4.18	1.56	0	2	2	4	9	1	9	9	9	0.0	7.4	7.4	14.8	33.3	3.7	33.3
45	10	4.56	1.56	1	2	3	3	7	14	15	15	15	2.2	4.4	6.7	6.7	15.6	31.1	33.3
21	11	4.48	1.22	0	0	1	4	6	4	6	6	6	0.0	0.0	4.8	19.0	28.6	19.0	28.6
12	12	5.25	1.36	0	0	1	1	1	0	9	9	9	0.0	0.0	8.3	8.3	8.3	0.0	75.0
25	13	4.96	1.04	0	0	0	3	5	7	10	10	10	0.0	0.0	0.0	12.0	20.0	28.0	40.0
9	14	5.11	1.10	0	0	0	1	2	1	5	5	5	0.0	0.0	0.0	11.1	22.2	11.1	55.6
98	15	5.21	1.16	1	0	2	6	13	19	57	57	57	1.0	0.0	2.0	6.1	13.3	19.4	58.2

Table 8

LMS HARPER ROW POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE STUDY SKILLS OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER													PERCENT							
				Score													Score							
				0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6
8	0	2.50	1.94	2	1	0	3	1	0	1	0	1	1	0	1	25.0	12.5	0.0	37.5	12.5	0.0	12.5	0.0	12.5
5	1	2.60	1.63	1	0	1	2	0	1	0	1	0	0	1	0	20.0	0.0	20.0	40.0	0.0	20.0	0.0	20.0	0.0
12	2	1.50	1.26	4	2	2	4	0	0	0	0	0	0	0	0	33.3	16.7	16.7	33.3	0.0	0.0	0.0	0.0	0.0
10	3	1.90	2.12	4	2	0	2	0	1	1	1	1	1	1	1	40.0	20.0	0.0	20.0	0.0	10.0	10.0	10.0	10.0
23	4	2.17	1.34	4	2	7	7	2	1	0	0	0	0	0	0	17.4	8.7	30.4	30.4	8.7	4.3	4.3	0.0	0.0
19	5	3.37	1.31	1	0	3	6	6	2	1	1	1	1	1	1	5.3	0.0	15.8	31.6	31.6	10.5	10.5	5.3	5.3
27	6	2.59	1.39	2	4	6	9	4	1	1	1	1	1	1	1	7.4	14.8	22.2	33.3	14.8	3.7	3.7	3.7	3.7
71	7	3.24	1.12	1	3	10	33	13	10	10	10	10	10	10	10	1.4	4.2	14.1	46.5	18.3	14.1	14.1	1.4	1.4
20	8	3.35	1.15	0	2	1	8	7	1	1	1	1	1	1	1	0.0	10.0	5.0	40.0	35.0	5.0	5.0	5.0	5.0
27	9	3.22	0.87	0	0	4	16	5	1	1	1	1	1	1	1	0.0	0.0	14.8	59.3	18.5	3.7	3.7	3.7	3.7
45	10	3.42	1.24	1	2	3	20	13	2	2	2	2	2	2	2	2.2	4.4	6.7	44.4	28.9	4.4	4.4	8.9	8.9
21	11	3.48	0.73	0	0	1	11	7	2	2	0	0	0	0	0	0.0	0.0	4.8	52.4	33.3	9.5	9.5	0.0	0.0
12	12	3.42	0.95	0	0	3	2	6	1	1	0	0	0	0	0	0.0	0.0	25.0	16.7	50.0	8.3	8.3	0.0	0.0
25	13	3.92	1.09	0	0	1	9	10	1	1	4	4	4	4	4	0.0	0.0	4.0	36.0	40.0	4.0	4.0	16.0	16.0
9	14	3.67	0.94	0	-0	0	5	3	0	0	1	1	1	1	1	0.0	0.0	0.0	55.6	33.3	0.0	0.0	11.1	11.1
98	15	4.29	1.22	0	0	0	38	19	16	16	25	25	25	25	25	0.0	0.0	0.0	38.8	19.4	16.3	16.3	25.5	25.5





Table 9

LMS HARPER ROW POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE LINGUISTICS OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER						PERCENT							
				Score						Score							
				0	1	2	3	4	5	6	0	1	2	3	4	5	6
9	0	3.56	1.83	1	0	1	3	1	1	2	11.1	0.0	11.1	33.3	11.1	11.1	22.2
5	1	2.80	2.31	1	1	1	0	0	1	1	20.0	20.0	0.0	0.0	20.0	20.0	20.0
12	2	2.17	1.21	1	3	3	3	2	0	0	8.3	25.0	25.0	25.0	16.7	0.0	0.0
10	3	2.50	1.69	2	1	2	1	3	1	0	20.0	10.0	20.0	10.0	30.0	10.0	0.0
23	4	1.83	1.27	6	2	6	8	1	0	0	26.1	8.7	26.1	34.8	4.3	0.0	0.0
19	5	2.68	1.49	2	3	3	3	7	1	0	10.5	15.8	15.8	15.8	36.8	5.3	0.0
27	6	2.67	1.39	2	3	7	9	2	4	0	7.4	11.1	25.9	33.3	7.4	14.8	0.0
71	7	3.11	1.35	1	8	14	21	16	8	3	1.4	11.3	19.7	29.6	22.5	11.3	4.2
20	8	3.55	1.47	1	1	3	3	5	7	0	5.0	5.0	15.0	15.0	25.0	35.0	0.0
27	9	3.93	1.30	0	1	4	3	10	6	3	0.0	3.7	14.8	11.1	37.0	22.2	11.1
45	10	3.87	1.42	1	1	6	9	12	10	6	2.2	2.2	13.3	20.0	26.7	22.2	13.3
21	11	4.24	1.15	0	0	1	6	4	7	3	0.0	0.0	4.8	28.6	19.0	33.3	14.3
12	12	4.83	0.90	0	0	0	1	3	5	3	0.0	0.0	0.0	8.3	25.0	41.7	25.0
25	13	4.36	1.05	0	0	1	5	6	10	3	0.0	0.0	4.0	20.0	24.0	40.0	12.0
9	14	4.67	0.82	0	0	0	1	2	5	1	0.0	0.0	0.0	11.1	22.2	55.6	11.1
98	15	4.65	1.22	0	0	5	14	24	22	33	0.0	0.0	5.1	14.3	24.5	22.4	33.7

Table 10

LMS HARPER ROW POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE STRUCTURE OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER						PERCENT									
				Score						Score									
				0	1	2	3	4	5	6	0	1	2	3	4	5	6		
9	0	2.89	1.79	1	1	2	2	1	1	1	1	1	11.1	22.2	22.2	11.1	11.1	11.1	
5	1	3.00	1.27	0	1	1	0	3	0	0	0	0	20.0	20.0	0.0	60.0	0.0	0.0	
12	2	1.75	1.30	3	2	3	3	1	0	0	0	0	25.0	16.7	25.0	8.3	0.0	0.0	
10	3	2.80	2.09	2	2	0	2	1	2	1	1	1	20.0	20.0	0.0	10.0	20.0	10.0	
23	4	2.35	1.24	3	2	6	8	4	0	0	0	0	13.0	8.7	26.1	17.4	0.0	0.0	
19	5	2.95	1.43	1	2	4	6	2	4	0	0	0	5.3	10.5	21.1	10.5	31.6	21.1	0.0
27	6	2.70	1.46	3	2	6	9	3	4	4	0	0	11.1	7.4	22.2	11.1	33.3	11.1	0.0
71	7	3.18	1.23	0	7	14	21	18	10	1	1	1	0.0	9.9	19.7	25.3	29.6	14.1	1.4
20	8	3.60	1.63	1	1	3	4	5	3	3	3	3	5.0	5.0	15.0	25.0	20.0	15.0	15.0
27	9	3.93	1.25	0	0	3	9	6	5	4	4	4	0.0	0.0	11.1	22.2	33.3	18.5	14.8
45	10	3.91	1.33	0	2	5	9	14	9	6	6	6	0.0	4.4	11.1	31.1	20.0	20.0	13.3
21	11	4.24	1.15	0	0	2	0	7	6	6	6	6	0.0	0.0	9.5	33.3	0.0	28.6	28.6
12	12	5.00	0.82	0	0	0	1	1	7	3	3	3	0.0	0.0	0.0	8.3	8.3	58.3	25.0
25	13	4.48	0.94	0	0	0	4	9	8	4	4	4	0.0	0.0	0.0	36.0	16.0	32.0	16.0
9	14	5.00	1.05	0	0	0	1	2	2	4	4	4	0.0	0.0	0.0	22.2	11.1	22.2	44.4
98	15	4.94	1.15	0	1	1	11	19	24	42	42	42	0.0	1.0	1.0	19.4	11.2	24.5	42.9



APPENDIX D

Tables 13-19

LMS BANK STREET POSTTEST MEANS, STANDARD DEVIATIONS,  
AND FREQUENCY DISTRIBUTIONS BY UNIT COMPLETED FOR EACH OUTCOME

Table 13

LMS. BANK STREET POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE WORDS OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER										PERCENT									
				Score										Score									
				0-1	2-3	4-5	6-7	8-9	10-11	12-13	0-1	2-3	4-5	6-7	8-9	10-11	12-13						
18	0	10.17	2.57	0	0	1	3	2	5	7	0.0	0.0	5.6	16.7	11.1	27.8	38.9						
4	1	10.30	1.92	0	0	0	1	0	2	1	0.0	0.0	0.0	25.0	0.0	50.0	25.0						
	2																						
	3																						
1	4	4.00	0.00	0	0	1	0	0	0	0	0.0	0.0	100.0	0.0	0.0	0.0	0.0						
6	5	1.50	1.71	4	1	1	0	0	0	0	66.7	16.7	16.7	0.0	0.0	0.0	0.0						
6	6	10.50	1.50	0	0	0	0	1	4	1	0.0	0.0	0.0	0.0	16.7	66.7	16.7						
7	7	7.43	2.32	0	0	3	0	2	1	1	0.0	0.0	42.9	0.0	28.6	14.3	14.3						
7	8	11.43	3.06	0	0	1	0	0	0	6	0.0	0.0	14.3	0.0	0.0	0.0	85.7						
14	9	11.20	1.70	0	0	0	1	1	5	7	0.0	0.0	0.0	7.1	7.1	35.7	50.0						
9	10	12.56	0.96	0	0	0	0	0	1	8	0.0	0.0	0.0	0.0	0.0	11.1	88.9						
	11																						
1	12	9.00	0.00	0	0	0	0	1	0	0	0.0	0.0	0.0	0.0	100.0	0.0	0.0						
5	13	12.40	0.80	0	0	0	0	0	1	4	0.0	0.0	0.0	0.0	0.0	20.0	80.0						

Table 14

LMS BANK STREET POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE WORD ELEMENT OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER												PERCENT															
				0-1				2-3				4-5				6-7				8-9				10-11				12-13			
				Score												Score															
18	0	9.50	2.69	0	0	1	3	5	3	6	0.0	0.0	5.6	16.7	27.8	16.7	33.3														
4	1	11.25	1.30	0	0	0	0	0	2	2	0.0	0.0	0.0	0.0	0.0	50.0	50.0														
	2																														
	3																														
1	4	4.00	0.00	0	0	1	0	0	0	0	0.0	0.0	100.0	0.0	0.0	0.0	0.0														
6	5	6.33	1.49	0	0	2	2	2	0	0	0.0	0.0	33.3	33.3	33.3	0.0	0.0														
6	6	10.30	0.94	0	0	0	0	1	4	1	0.0	0.0	0.0	0.0	16.7	66.7	16.7														
7	7	7.51	1.99	0	1	0	1	5	0	0	0.0	14.3	0.0	14.3	71.4	0.0	0.0														
7	8	11.71	1.58	0	0	0	0	1	2	4	0.0	0.0	0.0	14.3	28.6	57.1															
14	9	11.64	1.39	0	0	0	0	2	3	9	0.0	0.0	0.0	14.3	21.4	64.3															
9	10	10.20	1.69	0	0	0	1	1	6	1	0.0	0.0	0.0	11.1	66.7	11.1															
	11																														
1	12	12.00	0.00	0	0	0	0	0	0	1	0.0	0.0	0.0	0.0	0.0	100.0															
5	13	9.60	1.50	0	0	0	1	1	3	0	0.0	0.0	0.0	20.0	60.0	0.0															

Table 15

LMS BANK STREET POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE WORD ATTACK OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER										PERCENT				
				Score										Score				
				0-1	2-3	4-5	6-7	8-9	10-11	12-13	0-1	2-3	4-5	6-7	8-9	10-11	12-13	
18	0	7.50	4.14	1	4	3	0	2	3	5	5.6	22.2	16.7	0.0	11.1	16.7	27.8	
4	1	9.75	3.96	0	1	0	0	0	1	2	0.0	25.0	0.0	0.0	0.0	25.0	50.0	
	2																	
	3																	
1	4	2.00	0.00	0	1	0	0	0	0	0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
6	5	0.67	1.11	5	1	0	0	0	0	0	83.3	16.7	0.0	0.0	0.0	0.0	0.0	
5	6	9.17	0.90	0	0	0	0	3	3	0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	
7	7	4.71	2.49	1	1	2	2	1	0	0	14.3	14.3	28.6	28.6	14.3	0.0	0.0	
7	8	9.43	2.06	0	0	1	0	2	3	1	0.0	0.0	14.3	0.0	28.6	42.9	14.3	
14	9	9.57	2.69	0	0	1	4	1	3	5	0.0	0.0	7.7	28.6	7.7	21.4	35.7	
9	10	8.33	1.83	0	0	1	1	5	1	1	0.0	0.0	11.1	11.1	55.5	11.1	11.1	
	11																	
1	12	8.00	0.00	0	0	0	0	1	0	0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	
5	13	6.20	2.71	0	1	1	0	3	0	0	0.0	20.0	20.0	0.0	60.0	0.0	0.0	

Table 16

LMS BANK STREET POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
 BY UNIT COMPLETED FOR THE AUDIO VISUAL OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER							PERCENT								
				Score							Score								
				0	1	2	3	4	5	6	0	1	2	3	4	5	6		
18	0	5.56	0.60	0	0	0	0	1	6	11	0.0	0.0	0.0	0.0	0.0	0.0	5.6	33.3	61.1
4	1	5.25	0.83	0	0	0	0	1	1	2	0.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	50.0
	2																		
	3																		
1	4	4.00	0.00	0	0	0	0	1	0	0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
6	5	5.17	0.69	0	0	0	0	1	3	2	0.0	0.0	0.0	0.0	0.0	0.0	16.7	50.0	33.3
6	6	5.67	0.47	0	0	0	0	0	2	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	66.7
7	7	5.14	0.64	0	0	0	0	1	4	2	0.0	0.0	0.0	0.0	0.0	0.0	14.3	57.1	28.6
7	8	5.43	0.73	0	0	0	0	1	2	4	0.0	0.0	0.0	0.0	0.0	0.0	14.3	28.6	57.1
14	9	5.71	0.45	0	0	0	0	0	4	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.6	71.4
9	10	5.79	0.42	0	0	0	0	0	2	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	77.8
	11																		
1	12	6.00	0.00	0	0	0	0	0	0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
4	13	5.50	0.50	0	0	0	0	0	2	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0

Table 17

LMS BANK STREET POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE STRUCTURE OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER													PERCENT					
				Score													Score					
				0	1	2	3	4	5	6	0	1	2	3	4	5	6					
18	0	4.61	1.06	0	0	0	4	3	7	4	0.0	0.0	0.0	22.2	16.7	38.9	22.2	16.7	38.9	22.2		
4	1	4.00	1.41	0	0	1	0	2	0	1	0.0	0.0	25.0	0.0	50.0	0.0	0.0	50.0	0.0	25.0		
	2																					
	3																					
1	4	4.00	0.00	0	0	0	0	1	0	0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0		
6	5	3.67	1.70	0	1	1	0	2	1	1	0.0	16.7	16.7	0.0	33.3	16.7	0.0	33.3	16.7	16.7		
6	6	3.83	0.90	0	0	0	3	1	2	0	0.0	0.0	0.0	50.0	16.7	33.3	50.0	16.7	33.3	0.0		
7	7	3.86	0.99	0	0	1	1	3	2	0	0.0	0.0	14.3	14.3	42.9	28.6	14.3	42.9	28.6	0.0		
7	8	5.00	0.76	0	0	0	0	2	3	2	0.0	0.0	0.0	0.0	28.6	42.9	0.0	28.6	42.9	28.6		
14	9	4.57	0.90	0	0	0	1	7	3	3	0.0	0.0	0.0	7.1	50.0	21.4	7.1	50.0	21.4	21.4		
9	10	4.22	0.92	0	0	0	2	4	2	1	0.0	0.0	0.0	22.2	44.4	22.2	22.2	44.4	22.2	11.1		
	11																					
1	12	4.00	0.00	0	0	0	0	0	1	0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0		
4	13	5.25	0.43	0	0	0	0	0	3	1	0.0	0.0	0.0	0.0	0.0	75.0	0.0	0.0	75.0	25.0		



Table 18

LMS BANK STREET POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE COMPREHENSION OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER													PERCENT								
				Score													Score								
				0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6	
18	0	5.17	0.83	0	0	0	0	5	5	8	0.0	0.0	0.0	0.0	27.8	27.8	44.4	0.0	0.0	0.0	0.0	25.0	25.0	50.0	0.0
4	1	4.25	0.83	0	0	0	1	2	0	0.0	0.0	0.0	25.0	25.0	50.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	50.0	0.0	
	2																								
	3																								
1	4	4.00	0.00	0	0	0	0	1	0	0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	5	2.00	0.82	0	2	2	2	0	0	0	0.0	33.3	33.3	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	6	4.83	1.34	0	0	0	2	0	1	3	0.0	0.0	0.0	33.3	33.3	50.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	50.0	
7	7	4.14	0.83	0	0	0	2	2	3	0	0.0	0.0	0.0	28.6	28.6	42.9	0.0	0.0	0.0	0.0	0.0	0.0	42.9	0.0	
7	8	4.86	0.64	0	0	0	0	2	4	1	0.0	0.0	0.0	28.6	28.6	57.1	0.0	0.0	0.0	0.0	0.0	0.0	57.1	14.3	
14	9	4.79	0.77	0	0	0	1	3	8	2	0.0	0.0	0.0	7.1	21.4	57.1	0.0	0.0	0.0	0.0	0.0	0.0	57.1	14.3	
9	10	5.11	0.57	0	0	0	0	1	6	2	0.0	0.0	0.0	11.1	66.7	22.7	0.0	0.0	0.0	0.0	0.0	0.0	66.7	22.7	
	11																								
1	12	6.00	0.00	0	0	0	0	0	0	1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	
4	13	5.00	0.71	0	0	0	0	1	2	1	0.0	0.0	0.0	25.0	25.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	25.0	

Table 19

LMS BANK STREET POSTTEST MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS  
BY UNIT COMPLETED FOR THE STUDY SKILLS OUTCOME

N	Unit Completed	$\bar{X}$	S.D.	NUMBER						PERCENT											
				Score						Score											
				0	1	2	3	4	5	6	0	1	2	3	4	5	6				
18	0	4.56	0.90	0	0	0	3	4	9	2			0.0	0.0	0.0	16.7	22.2	50.0	11.1		
4	1	4.50	1.19	0	0	0	1	1	1	1			0.0	0.0	0.0	25.0	25.0	25.0	25.0		
	2																				
	3																				
1	4	0.00	0.00	1	0	0	0	0	0	0			100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	5	3.00	1.00	0	0	2	3	0	1	0			0.0	0.0	33.3	50.0	0.0	16.7	0.0	0.0	
6	6	5.00	0.82	0	0	0	0	2	2	2			0.0	0.0	0.0	0.0	33.3	33.3	33.3	0.0	
7	7	3.14	1.64	0	1	2	2	0	1	1			0.0	14.3	28.6	28.6	0.0	14.3	14.3	14.3	
7	8	4.57	1.05	0	0	0	1	3	1	2			0.0	0.0	0.0	14.3	42.9	14.3	28.6	0.0	
14	9	5.07	0.70	0	0	0	0	3	7	4			0.0	0.0	0.0	0.0	21.4	50.0	28.6	0.0	
9	10	5.00	0.82	0	0	0	0	3	3	3			0.0	0.0	0.0	0.0	33.3	33.3	33.3	0.0	
	11																				
1	12	6.00	0.00	0	0	0	0	0	0	1			0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
4	13	5.75	0.43	0	0	0	0	0	1	3			0.0	0.0	0.0	0.0	0.0	25.0	25.0	75.0	0.0