

LEVEL	UNIT	PURPOSE	OUTCOMES	CONTENT	ACTIVITIES
3	4	Entertain	Plans and writes story ending which: 1) contains the resolution to the story conflict, i.e., presents a tenable and entertaining solution which is not inconsistent with given story facts to the story problem 2) includes both narration and dialogue Edits compositions for 1) quote related mechanics; i.e., quotation marks, commas, periods, capitals; paragraphing for change of speaker or introduction of narrative passage a. in single sentence b. in compositions	Stories of: <u>Adventure</u> , e.g., superhuman, "Plastic Man" stories <u>Mystery</u> , e.g., The Case of the Disappearing Keys <u>Western</u> , e.g., Cattle are being rustled but two boys string up a farist between the trees and trip up the rustlers. <u>Real-life Drama</u> , e.g., Two boys canoe down a river, the canoe upsets, and they must get to shore safely.	Given SWRL-written stories, edits in successive lessons for quotes, commas, periods, and capitals in dialogue; discusses paragraphing procedures in dialogue Given SWRL-written stories and standards (criteria) for a good story ending, discusses with the teacher and class how the story meets the standards Plans and writes story ending that meets standards (SWRL-cued solutions initially; child later writes own story solutions) Reads story to others and receives feedback from class on good points of story according to criteria

LEVEL	UNIT	PURPOSE	OUTCOMES	CONTENT	ACTIVITIES
		Entertainment	Plans and writes story which: 1) contains a conflict and resolution i.e., has a problem and presents a tenable solution 2) includes both narration and dialogue Edits compositions for 1) question marks and exclamation points within dialogue	Same as Unit 4	Given SWRI-written stories, edits for question marks and exclamation points in dialogue Writes stories which meet standards (child initially given 1-2 sen- tence story synopsis specifying story conflict and resolution; then only story conflict; child later given titles to choose from which specify setting and charac- ters, then setting or characters; child later generates own topics for stories) Reads story to others and receives feed- back from class on good points of story according to criteria.

Working Paper 5

1971-72 TRYOUTS OF THE SWRL DRAMA AND PUBLIC SPEAKING PROGRAM (TN 3-72-33)

Fred C. Niedermeyer, Dayna Kalins, and Linda Oliver

Levels 1 and 2 of the Drama and Public Speaking Program were initially tried out in several kindergarten and first-grade classes during the Spring of 1971. Results of this tryout indicated that certain revisions were needed in the procedures and materials. Based on the tryout, Level 1 was revised and expanded from 20 lessons to 30 lessons. Both the revised Level 1 and the original Level 2 were then tried out during the entire 1971-72 school year in several schools encompassing a wide range of school locations. In addition, prototype lessons for Level 3 were prepared and were tried out in two second-grade classrooms at a single school. This report (1) documents the procedures used to conduct the 1971-72 tryouts, (2) describes the results of the tryouts, and (3) discusses the results and describes program revisions formulated as a consequence of the tryouts.

METHOD

Materials

From the 20 Level 1 lessons developed for the Spring, 1971 tryout, certain lessons were discarded or revised and other lessons were added to produce 30 lessons. A description of these changes and additions may be found in Niedermeyer (1971). Sample lesson cards and other materials may be found in Oliver, Niedermeyer, and Sullivan (1971).

Thirty Level 3 lessons, similar in format to Levels 1 and 2, were also developed and tried out. The Level 3 lessons were designed to

extend the complexity of the children's performances in pantomime, improvisation, public speaking, and play production. Specific content or performance extensions were as follows:

Pantomime: The children progressed to pantomiming specified characters and character mannerisms in more complex story situations.

Improvisation: The children began to plan and perform their own stories with the aide of short "story ideas" (i.e., short story sketches which include the essential elements of a good story-- setting, characters, conflict, and resolution).

Public Speaking: The children began to plan and present persuasive talks and debates.

Play Production: The children were introduced to scripting their own plays, by completing unfinished play scripts.

Sample

The three levels of the Drama and Public Speaking Program were tried out in a total of 14 kindergarten, first-grade, and second-grade classes in four schools in two districts. Table 1 indicates the specific distribution of classes to levels. In order to determine how well the program would operate in a variety of school settings, tryout schools for Levels 1 and 2 were selected to represent a wide range of populations and locations.

The initial tryout of Level 3 was conducted in only two second-grade classes at a middle-income, suburban school. The tryout was intended to yield information which would produce a revised program suitable for a tryout of wider scope the following year. The particular school for the Level 3 tryout was selected because its children had participated in the Level 2 tryout the previous year.

TABLE 1

Distribution of Tryout Classes to Schools

District	School	Socio-Economic Level	Ethnic Composition	No. Level 1 Classes	No. Level 2 Classes	No. Level 3 Classes
I	A	Low-Income Inner-City	Brown	2	1	
	B	Low-Income Inner-City	Black	3		
	C	Low-Income Inner-City	Black		3	
II	D	Middle-Income Suburban	White	3	2	
	E	Middle-Income Suburban	White			2
Total Classes at Each Level:				8	6	2

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Procedures

One-hour teacher training sessions were conducted at each school by the Product Development staff. Teachers were given materials and Teacher's Guides at this time. The outcomes and activities comprising the program were described, materials were examined, and teaching procedures were presented and discussed.

Teacher training sessions for Levels 1 and 2 took place during late October and early November of 1971. Teachers were to begin the lessons the following week. Schedules were provided which indicated at what dates various lessons should be completed so as to allow for completion of each level by the end of the school year.

A teacher training session for the two Level 3 teachers took place during late January. The teachers agreed to occasionally teach two lessons a week in order to complete the 30 lessons by the end of the school year.

Data Sources

Lesson Observations. During the tryout, classroom lessons were observed by staff members on a regular basis. Procedures for systematically documenting these observations were operationalized (Niedermeyer, 1972). Essentially, these procedures required the observer to write a summary of all that was seen and heard during the lesson, following each observation. Inferences about pupil attitudes and teacher performance, and implications for program materials and procedures were then recorded on the report form. In all, ten Level 1 lessons, seven Level 2 lessons, and eight Level 3 lessons were observed and recorded.

Teacher Questionnaires. Meetings were held with all Level 1 and Level 3 teachers near the end of the school year (late May). At this time, the teachers completed questionnaires designed to elicit revision suggestions and teacher attitudes toward the program. In addition, the teachers were given Lesson Rating Sheets. These asked the teachers to rate each of the 30 lessons for a particular level on overall quality, and to indicate how many sessions per week had been spent on each lesson. Comments, criticisms, and suggestions concerning each lesson were recorded by SWRL staff members. Level 2 teachers were mailed questionnaires. Four of the seven teachers completed and returned their questionnaire.

Pupil Performance Test. A posttest was developed for Level 1 which was a revised version of one used during the Spring, 1971 tryout (Oliver et al., 1971). Whereas the original test was designed to be administered by SWRL staff, the revised test was written to be administered by the classroom teacher. (Posttests for Levels 2 and 3 were not developed and administered, since the Level 2 materials had not been revised and the Level 3 tryout was not intended to obtain pupil performance data.) The test involved having the teacher rate the children's performances on specified outcomes, using a 5-point scale. To determine the teacher's ability to rate the children according to criteria provided in the test, a SWRL staff member observed each Level 1 test administration and also rated the children. (The SWRL observers had been trained in the use of the scale and had administered the test during the previous year's tryout.) Agreement correlations between classroom teachers and SWRL staff members were found to be .82 for pantomime,

.67 for improvisation, and .55 for public speaking (for all three coefficients, $p < .01$). It was felt that the latter two correlations were unacceptably low. Generally, teachers rated the children lower than the trained SWRL observers. This appeared to be a result of disappointment on the part of the teachers when certain children did not perform on the posttest as well as they had been performing during instruction. To correct this problem in the future, changes have been made in the administration directions on the test. The revised version of the test may be found in Niedermeyer and Giguere (1972).

Pupil Preference Inventory. A random sample of 40 kindergarten children (five from each of the eight classes) was interviewed by SWRL staff members, using the Pupil Preference Inventory. Each child was interviewed individually and asked to state whether he liked various activities "a whole lot," "a lot," "just o.k.," or "not at all." The Level 1 Inventory contained eight items, half of which related to drama and public speaking activities and half of which related to other school activities such as singing and coloring. A copy of the Pupil Preference Inventory appears in Appendix A.

RESULTS

Lesson Observations and Teacher Meetings

Lesson observations and teacher meetings yielded much information concerning use of the program at all three levels. This information is summarized in the paragraphs below according to various categories.

Pacing. None of the Level 1 teachers completed the 30 lessons. The average number of lessons completed was 22, but only one of the eight teachers completed fewer than 20 lessons (11). Similarly,

Level 2 teachers completed an average of only 13 out of 20 Level 2 lessons. The two Level 3 teachers each completed 22 of 30 lessons.

Teacher Affect. All but one of the teachers felt the program was appropriate for most of the children. All teachers felt the activities were generally geared to the children's interests and rated the children's overall reaction to the program as enthusiastic. Teachers at one Level 2 school (School C, Table 1) utilized the program with only about half of their students. These teachers indicated that the other children were not "ready" for the program in terms of speaking and reading skills.

Time per Lesson. Most teachers conducted two sessions per weekly lesson, ranging from 15 to 25 minutes each.

Pantomime Lessons. All teachers felt pantomime lessons were the least difficult and most enjoyable for the children. One Level 1 teacher (School B) administered only the pantomime lessons and some improvisation lessons, as she felt the children were not "ready" for the speaking tasks taught in the program.

Improvisation Lessons. Five of the Level 1 teachers in two schools (Schools A and B, Table 1) considered these lessons too difficult for many of the children. They felt their children required more "experience" and "maturity" to perform the tasks. However, Level 1 teachers in one school (School D) and the Level 3 teachers (School E) found the improvisation lessons to be highly successful and "creative" activities. Observation of improvisation activities revealed that the children were having some difficulty with certain lessons, i.e., those requiring the children to make up their own stories to act out.

Public Speaking Lessons. Again the Level 1 teachers in Schools A and B felt that speaking lessons were too difficult and that their children were not "ready." The three teachers in School B stated that they had skipped over many of the public speaking lessons. Three Level 1 teachers in School D and all Level 3 teachers found the activities to be very successful, once the children became familiar with the talk structure (i.e., a beginning, middle, and end for each talk). Observations of lessons in Schools A, D, and E indicated that the speaking tasks may be initially difficult for "low-verbal" children, but appropriate and successful with sufficient practice.

Play Production Lessons. None of the Level 1 teachers had reached the play production lesson area at the time of the teacher meetings. Three Level 2 teachers in two schools (Schools A and D) had conducted two play production lessons (one play and the tongue twisters) and were very happy with the children's responses. Both Level 3 teachers had completed several play production lessons (one play, two dramatic readings) and were extremely enthusiastic about the success of these lessons. Observation of play production lessons indicated that the children enjoyed this part of the program and had little difficulty performing the reading and acting tasks. Certain revisions were indicated, however, to provide the children with more systematic instruction in scripting unfinished plays.

A summary of responses to quantitative items in the teacher questionnaire appears in Appendix B.

Level 1 Pupil Performance Test

Table 2 presents mean ratings and standard deviations for each performance outcome assessed with the Level 1 test in the eight kindergarten 1972 tryout classes. The means are based on ratings made by SWRL observers, not on ratings by teachers. The data are presented for each of the three tryout schools individually. Also shown in Table 2 are mean scores from the Spring, 1971 tryout in 14 middle-income suburban classes (Oliver et al., 1971).

When comparing the 1971 means to the 1972 means for School D (also a middle-income, suburban school), it may be seen that the mean scores for School D were generally higher in pantomime and public speaking, but lower in improvisation. The lower improvisation means for School D were primarily caused by one of the three classes. In this class, the children did not speak during the improvisation test items, but proceeded only to pantomime. (The teacher of this class felt that the children had become confused and shy due to the test situation. She indicated that these children had performed extremely well in the past during instruction.) Mean scores for Schools A and B (different socio-economic levels and minority group populations than School D and the 1971 classes) were generally lower, with School B being especially low in public speaking and improvisation.

Performances in all three 1972 schools generally averaged 3 or higher for pantomime. (Ratings of 3, 4, and 5 represent "fair," "good," and "excellent" performances, respectively. Scores of 1 or 2 represent "very poor" and "poor" performances.)

For public speaking and improvisation, however, means generally were 3 or higher (comparable to the 1971 scores) only for School D.

Pupil Preference Inventory

Table 3 indicates percentage distribution for how well the kindergarten children stated that they liked various activities. As may be seen, the children showed high preferences for drama and public speaking activities as frequently, if not more so, than for other assessed school activities.

DISCUSSION

Lesson observations and teacher meetings provided information useful at all three levels for formulating lesson revisions. Changes specified on the basis of this tryout may be examined by noting the 1972-73 lesson summaries for Levels 1-3 in Niedermeyer, Oliver, and Kalins (1972). The primary revisions are as follows:

- Many of the improvisation and play production lessons will be rewritten to provide a more systematic and gradual development of story planning skills.
- "Chain Story" lessons, where children take turns adding to the narration of a story, will be deleted from Level 1 and the beginning of Level 2, because they do not correspond to the new story planning specifications. (Children had considerable difficulty with these lessons in that they simply "rambled on" without creating a plot containing a conflict and a resolution.)
- Many play production lessons will also be rewritten to include systematic instruction in the scripting of incomplete and original plays.

The procedure of acting out stories one sentence at a time proved to be too detailed and time consuming. Instead, teachers will have the children act out stories in short sentence-groups (i.e., slash-marks will be placed after every group of two or three sentences in the stories; the teacher will stop the performance

TABLE 2

Performance Ratings for 1971 and 1972 Level 1 Tryouts

OUTCOME	1972								1971
	School A		School B		School D		Total		\bar{X}
	\bar{X}	s.d.	\bar{X}	s.d.	\bar{X}	s.d.	\bar{X}	s.d.	
<u>Pantomime</u>									
a. The child's facial expressions portrayed the situation being pantomimed.	3.16	1.11	3.11	1.32	3.66	1.37	3.35	1.31	2.8
b. The child's gestures portrayed the situation being pantomimed.	3.25	1.35	3.22	1.21	4.00	1.23	3.52	1.28	3.2
c. The child was confident and relaxed.	2.58	1.16	3.05	1.21	4.00	1.28	3.29	1.38	3.0
d. The child seemed involved in his performance.	2.50	1.08	2.77	1.14	3.88	1.13	3.12	1.24	2.9
<u>Public Speaking</u>									
a. The child's talk included several appropriate and imaginative examples or reasons related to the topic.	3.16	0.93	2.11	1.07	2.72	1.40	2.60	1.23	2.4
b. The child's talk had continuity, i.e., the sentences related and built upon each other.	2.50	0.67	1.72	0.95	2.94	1.69	2.37	1.83	2.5
c. The child spoke fluently in complete sentences without many long pauses.	2.25	0.75	2.00	0.97	3.11	1.81	2.47	1.38	2.4
d. The child spoke clearly with adequate voice volume.	2.25	1.05	1.50	0.78	3.11	1.81	2.29	1.47	2.6
e. The child's talk had a beginning, middle, and end.	2.16	0.71	1.22	0.54	3.11	1.74	2.16	1.14	---

Table 2--continued

OUTCOME	1972								1971
	School A		School B		School D		Total		\bar{X}
	\bar{X}	s.d.	\bar{X}	s.d.	\bar{X}	s.d.	\bar{X}	s.d.	
<u>Improvisation</u>									
a. The child's lines followed and contributed to the story.	2.00	0.95	1.50	0.67	3.05	1.51	2.30	1.33	3.5
b. The child improvised a considerable amount of dialogue.	2.08	1.16	1.58	0.79	2.66	1.28	2.19	1.19	4.1
c. The child used gestures, movements, and facial expressions that followed the story.	2.66	0.49	1.91	1.16	4.00	0.59	3.02	1.17	4.5
d. The child spoke clearly with adequate volume.	1.83	0.93	1.41	0.79	2.77	1.62	2.13	1.36	3.7
e. The child seemed involved in his performance.	1.83	0.83	1.75	1.05	3.66	0.76	2.59	1.26	4.1

TABLE 3

Percentage Distribution of Preference Responses by 40 Randomly Sampled Kindergarten Children.

Item	A. Liked a whole lot	B. Liked a lot	C. Liked just o.k.	D. Did not like	E. Did not do
<u>Drama and Public Speaking Activities.</u>					
-Act out things without using words	45	26	29	3	12
-Act out stories, making up your own words for the people in the stories to say	44	34	22	0	20
-Give short talks about things like "What is my favorite pet?"	44	28	28	6	15
-Read a play and act it out for the rest of the class	43	32	25	3	27
\bar{x}	44	30	26	3	18
<u>Other Activities</u>					
-Sing songs with the class	38	30	32	0	7
-Color or paint pictures	54	20	23	3	10
-Listen to other boys and girls share things they have brought to school	47	31	22	11	10
-Read a book	43	32	25	3	7
\bar{x}	46	28	26	4	9

Note: Percentages add up to more than 100 because categories A, B, and C were differentiated after the child indicated a simple yes-no preference for the activity.

of the story at these slash-marks and either have the children practice this segment again, or change performers so that many children will have an opportunity to practice the story). All stories which are to be administered utilizing this procedure, will be revised to include the sentence-groups:

- Many children had difficulty starting and stopping their own performances. Therefore, cues will now be provided on the lesson cards for the teacher to use to start and stop performances. These cues will be "Action" for start and "Cut" for stop.

- Dramatic reading lessons will be added to Level 1 and have been included in the recent revisions of Level 2. Dramatic reading lessons were found to be very successful in Level 3.

- Several stories were found to be too long, uninteresting, or extremely difficult for the children to act out, and will be rewritten or deleted.

- To increase pacing, the Teacher's Guide emphasizes planning and scheduling, and explicates several scheduling options.

Pupil performance data for Level 1 revealed that the children in the three middle-income, suburban classes at School D performed better in pantomime and public speaking than similar children in the previous year. This improvement was anticipated, since additional public speaking lessons were added following the 1971-72 tryout and teaching procedures for pantomime were extensively revised. School D's scores were generally lower in improvisation, but this was primarily a consequence of poor performance in one of the three classes. Overall, the program continues to develop dramatic and public speaking skills of middle-income, suburban children.

The pupil performance ratings were considerably lower in the five Level 1 classes in two low-income, inner-city schools. This was true particularly for public speaking and improvisation, where oral expression is required. One cause of this problem may be teachers' low expectations of what inner-city children are capable of learning in regard to oral-language skills. As has been described, inner-city

teachers generally expressed doubts whether many of their children were "ready" for the drama and public speaking activities, particularly those which required oral expression. Level 1 teachers at School B skipped entire lessons dealing with improvisation and public speaking because they felt the speaking activities were too difficult for their "low-verbal" children. Level 1 teachers at School A (as well as Level 2 teachers at School C) placed only some of their children (the more "verbal" children) in the program. Thus, many of the children received little, if any, instruction and practice.

Teacher training efforts failed to communicate to inner-city teachers that the goal of the Drama and Public Speaking Program was to promote oral expression in all children in the primary grades, i.e., both the so-called "verbal" and "low-verbal" children. When initial speaking activities proved difficult for some children, the teacher's response was to assume that these children were "not ready" for the program, and were incapable at the time of acquiring the necessary oral-language skills to perform the activities. The teacher would either remove these "non-verbal" children from the program or discard the "difficult" lessons, rather than allowing the children consistent practice opportunities to obtain the skills.

One emphasis needed for future teacher training activities should be to convince the teachers to take responsibility for instructing all children. One can only wonder how these "low-verbal" children will ever learn to speak if they are not given frequent opportunities to do so. While it is not intended for the speaking activities in the program to frustrate and discourage children, neither is it desired that their verbal skill development go unattended. The teacher needs to

find the proper balance between discouragement and encouragement.

For the 1972-73 version of the program, attempts have been made to address the teacher expectation problem through the Teacher's Guide. In a question-answer format, each guide informs the teacher to expect initial speaking activities and skills to be difficult for many children. However, the teacher is asked to assume the responsibility for providing children with frequent opportunities to practice and develop their oral-language skills. For the children who are reluctant to speak, procedures have been described which direct the teacher to assist the child in any way, even if it means initially telling him what to say and having him repeat it. A copy of the revised Level 1 Teacher's Guide may be found in Niedermeyer et al., (1972).

APPENDIX A

PUPIL PREFERENCE INVENTORY
 DRAMA AND PUBLIC SPEAKING PROGRAM

Teacher _____

Date _____

Examiner _____

Directions

- I. Make the child feel at ease.
- II. Then say, "I AM GOING TO ASK YOU SOME EASY QUESTIONS ABOUT THE THINGS YOU DO IN SCHOOL."
- III. For each item below, ask the series of three questions (a, b, c), and record the child's responses. If the child responds negatively to the first question ("...DID YOU EVER...?"), try to determine if he really hasn't participated in the activity or simply fails to recognize it from the description given.

	(a) IN SCHOOL THIS YEAR DID YOU EVER...?		(b) DO YOU LIKE TO...?		(c) DO YOU LIKE IT...?		
	yes	no	yes	no	A. WHOLE LOT	A. LOT	JUS OK
1. SING SONGS WITH THE CLASS?	_____	_____	_____	_____	_____	_____	_____
2. ACT OUT THINGS WITHOUT USING WORDS, LIKE PUTTING ON A JACKET OR THROWING A BALL?	_____	_____	_____	_____	_____	_____	_____
3. COLOR OR PAINT PICTURES?	_____	_____	_____	_____	_____	_____	_____
4. ACT OUT STORIES, MAKING UP YOUR OWN WORDS FOR THE PEOPLE IN THE STORIES TO SAY?	_____	_____	_____	_____	_____	_____	_____
5. LISTEN TO OTHER BOYS AND GIRLS SHARE THINGS THEY HAVE BROUGHT TO SCHOOL?	_____	_____	_____	_____	_____	_____	_____
6. GIVE SHORT TALKS ABOUT THINGS LIKE "WHAT IS MY FAVORITE PET?" OR "WHAT I DO WHEN I COME HOME FROM SCHOOL?"	_____	_____	_____	_____	_____	_____	_____
7. READ A BOOK?	_____	_____	_____	_____	_____	_____	_____
8. READ A PLAY AND ACT IT OUT FOR THE REST OF THE CLASS?	_____	_____	_____	_____	_____	_____	_____

APPENDIX B

Percentage Distribution of Responses
To Questionnaire from 15 Teachers for Levels 1-3

SWRL Drama and Public Speaking Program
Spring, 1972

TEACHER QUESTIONNAIRE

The SWRL Drama and Public Speaking Program is now in its second year of development. In order that we may evaluate and further improve the program, it is essential that we obtain your comments, criticisms, and suggestions with this questionnaire. Thank you.

1. To date, how many lessons of the entire program have you completed?
(no. of lessons) (percentage by level)

Comments:

Level 1 - 70% Level 3 - 73%
Level 2 - 72%

2. On the average, what proportion of your class has received instruction for each of these lessons?

less than one-fourth 13% between half and three-fourths
7% between one-fourth and half 80% more than three-fourths

Comments:

3. Is the program appropriate for most of your children?

94% yes 6% no

Comments:

4. Were the activities (stories, talk topics) generally geared to the children's interests?

100% yes no

Comments:

5. What was the overall reaction of your class to the program?

60% very enthusiastic fairly unenthusiastic
40% fairly enthusiastic very unenthusiastic
neutral

Comments:

6. How many sessions per week did you generally conduct for each lesson?

6% one 6% four
54% two five or more
34% three

Comments:

7. How long was each session, on the average?

13% less than 15 minutes

13% 25 - 35 minutes

74% 15 - 25 minutes

 more than 35 minutes

Comments:

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Working Paper 6

OBSERVATION PROCEDURES FOR CLASSROOM TRYOUT OF INSTRUCTIONAL MATERIALS AND PROCEDURES (TN 3-72-15)

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During teacher-administered tryouts of an instructional program, staff observations of classroom lessons are an important data source for later formulation of revisions. However, these data are often unavailable when needed because of a lack of systematic procedures for collection and reporting. This paper suggests certain procedures for reporting classroom observation of a program lesson. These procedures are illustrated in the observation of two Laboratory programs: Composition Skills and Drama and Public Speaking.

Observation Reporting Forms

Figure 1 is a sample observation reporting form currently being used in the Composition Skills Program. Staff observers complete the form following each observation. Copies of the report are distributed to the Activity Head and each staff member and are kept in loose-leaf notebooks.

The heading of the form in Figure 1 contains various information categories useful to those reviewing the observation report. In addition to the lesson number, it includes a brief description of the lesson. This helps the reader recall the specific lesson without having to rummage through his files to find the actual lesson. Indications of the size and level of the group of children involved in the lesson and the length of the lesson are useful for later comparisons and analyses.

Fig. 1. Sample Observation Reporting Form

PROGRAM: Level 1 Composition Skills.....Spring, 1972, Tryout	
DATE: _____	UNIT AND LESSON NO.: _____
SCHOOL: _____	LESSON DESCRIPTION: _____
TEACHER: _____	SIZE AND LEVEL OF GROUP: _____
OBSERVER: _____	TIME SPAN: _____
OBSERVATION	
INFERENCES AND IMPLICATIONS (Related to Teacher Procedures-- <u>TP</u> , Materials-- <u>M</u> , Other-- <u>O</u>)	

The body of the observation report is divided into two sections:

(1) observations and (2) inferences and implications. The observation section should be an objective description of what was seen and heard during the lesson. If it is well-written, it should allow the reader to make valid decisions about the extent to which recommended program procedures were followed during the lesson.

The latter section contains inferences about the lesson. Useful inferences will have implication for confirming the adequacy of program materials and procedures or for suggesting new ones. The writer should be free to suggest program revisions at this point, rather than wait until later. Generally the inferences should deal with the following areas:

- teacher implementation of suggested procedures
- pupil problems in responding to teacher or materials
- extent to which children seemed to enjoy the lesson
- teacher comments and apparent attitude about the lesson or the program.

It is possible for the writer to code the comments in this section as being related to teacher procedures, materials, or other aspects of the lesson. This is useful later when going through a large number of observation reports to pull out problems and suggestions for each of these areas.

Sample Reports

Figures 2, 3 and 4 are sample observation reports from current try-outs. The first two are from the Composition Skills Program, and the third one is from the Drama and Public Speaking Program. The writers of these reports generally did a good job of separating observations from inferences (although some prior training [and feedback] on this skill may be required initially).

After several observation reports have been submitted, it is useful to consolidate certain types of problems and revision suggestions.

Figure 4 is a listing of inferences and implications across several reports which related to the handwriting exercises used in Level 1 (kindergarten) of the Composition Skills Program.

Fig. 2. Sample Report from Level 1 of Composition Skills Program

PROGRAM: FIRST YEAR COMPOSITION SKILLS (KINDERGARTEN)...SPRING, 1972, Tryout

DATE: 2/23/72 UNIT AND LESSON NO.: Unit 1, Lesson 17

SCHOOL: XXXX LESSON DESCRIPTION: Letter Formation Practice

TEACHER: XXXX SIZE AND LEVEL OF GROUP: Entire Class (28) average

OBSERVER: XXXX TIME SPAN: 11:45-12:10 (about 6 children continued while the others joined the teacher in a circle)

OBSERVATION

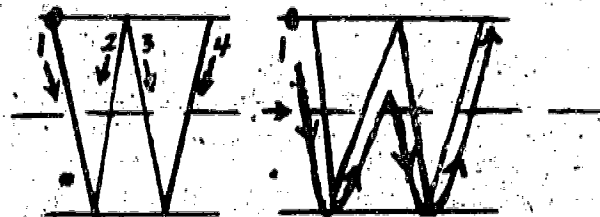
The lesson is introduced as having two letters: "E's" and "W's." The teacher goes over the stroke sequences with all the children orally. As the teacher directs, the children "write" the letters in the sky, using their fingers. The teacher then uses an extra lesson sheet to write the letters for the children as they watch. The teacher says that when they are done, the children can do the pictures on each side of the lesson.

The children are instructed to put their names on their papers. "The 'W' is an upside-down 'M', so don't make your 'W' upside-down. Also, don't erase...just go on." The children work independently while the teacher goes around the room examining the letters, praising children who write good ones. She manually assists one girl whose "W's" look like chicken tracks (V). Most of the children are having trouble forming the "W" correctly.

INFERENCES AND IMPLICATIONS

(Related to Teacher Procedures--TP, Material--M, Other--O)

- O. The children worked extremely well on their own and enjoyed writing the letters.
- O. The teacher referred to the lesson as having two letters: "E's" and "W's." Should she have said four letters: "E," "e," "W," and "w?"
- O. The teacher said some of the children find letter formation impossible. The others (approximately 90%) enjoy it.
- M. The children all had trouble with the "W." The teacher suggested that if the children did not have to lift their pencils for the stroke sequence, they could write the "W" much easier.



- TP. Since the teacher gave the children no guidance regarding the second line of letters to be written without starting dots, the letters in that second line became scrambled with too many bunched up letters. The SWRL Teacher Procedures do not mention any guidance for that second line.

Fig. 3. Sample Report from Level 2 of the Composition Skills Program .

PROGRAM: SECOND YEAR COMPOSITION SKILLS (FIRST GRADE)...SPRING, 1972, Tryout			
DATE: 2/23/72	UNIT AND LESSON:	Story 26 ("The Fog")	
SCHOOL: XXXX	LESSON DESCRIPTION:	"Story 10 ("Fun in the Sun") Word Selection	
TEACHER: XXXX	SIZE AND LEVEL OF GROUP:	(15) - above average (9) - below average	
OBSERVER: XXXX	TIME SPAN:	9:40-10:10 (still going on when I left)	

OBSERVATION

All the children were gathered around the teacher, although two different lessons would be given. Story 26 ("The Fog") was presented to the class, and the teacher noted that this lesson didn't have any pictures. Therefore, after finishing the lesson, the children could draw their own pictures. Since the advanced group knew what to do, the teacher sent them to their seats with Story 26, asking them to work quietly.

The lower group remained to hear instructions for Story 10 ("Fun in the Sun"). The teacher whispered to me that this group has difficulty reading, and some of the children are on medication. Then the teacher had the children look at the picture on Page 1 and name the characters. She went through each sentence on Page 1, asking the children whether they would choose the top word or the bottom word and why. After reading the first sentence, she had different children read the rest on the front of the lesson. As the children went back to their seats, the teacher reminded them to look at the pictures since they help when doing the exercise. When they finished, the children could either color the pictures or come to the teacher and talk about the exercise. At this point, the teacher reminded the high group that they could choose several words from the lists in Story 26. (The low group did both sides of Story 10 at their seats.)

When the children finished their lessons, they came to the teacher who either marked errors in red and had the child correct the mistakes at his seat, or wrote "Very Good" if the lesson was correctly done. The teacher noted to those children doing Story 26 that it was fun to be able to choose their own words and make their own stories.

INFERENCES AND IMPLICATIONS

(Related to Teacher Procedures--TP, Material--M, Other--O)

TP. The teacher would like to have more than two groups, but she finds it impossible because of the time element. She sees no way to have three or four groups at three or four different levels, although the class

Fig. 3. (continued)

should be arranged in that manner. (The class has children in Book 6 all the way down to Book 1 in the Reading Program, with some children barely able to get through Book 1.)

- M. In the sealed stack of Story 26, several Story 27 lessons were found.
TP. The way the teacher arranged the two groups was very clever. Since Story 10 was shorter than Story 26, the teacher helped the Story 10 children correct their papers and then let them color the pictures. Meanwhile, the Story 26 children finished their longer lesson and then went to the teacher for corrections. The timing seemed perfect, as all the children were busy and then finishing up at the same time.

Fig. 4... Sample Report from Level 3 of Drama and Public Speaking Program

DRAMA & PUBLIC SPEAKING PROGRAM

Classroom Visitation

GRADE LEVEL: 2 OBSERVER: XXXX
DATE: March 9, 1972 SIZE OF GROUP: Entire Class (approx. 30)
SCHOOL: XXXX TIME SPAN: 20 min.
TEACHER: XXXX

LESSON NO. AND DESCRIPTION: Lesson 10 -- The children practice saying first a single word and then script lines using many different tones of voice.

OBSERVATIONS

The teacher had all pupils sitting at their tables, a list of the emotion-words to be used written on the blackboard. She asked everyone to say the word "goodbye" using one of these (on the list) tones of voice. She selected volunteers (by raised hands) to go up before the class and say the word, having the class guess which emotion-word he was using. The volunteer would select children to guess his emotion-word. Most of the time the class was able to guess, but when they failed to, the teacher would ask the volunteer what his emotion was. Then, she would suggest and have the class suggest ways he could portray it. Then, the child would repeat his performance.

The teacher kept the pace very rapid, saying: "Hurry up now. Let's keep it moving." The children chose diversified emotions, rarely doing the same one in a row. If the children did have a "string" of performances of the same emotion, the teacher would ask the class to skip that one for awhile. If the children had difficulty in portraying an emotion (e.g., afraid) she would have several performers act as models, discussing what they could do to look "afraid." Then, she would have the performers who had trouble with "afraid" do it again. The teacher praised the good performances often.

INFERENCES and IMPLICATIONS

1. The teacher was very enthusiastic, and the rapid pace seemed to aid the lesson a good deal (she was like a good football coach). The rapid pacing kept the children from getting bored, since they are very quick learners.

Fig. 4. (Continued)

2. The children seemed to enjoy the lesson very much. Everyone volunteered and no one seemed embarrassed if they made mistakes.
3. The teacher had gone over in detail the meanings of all the emotions (e.g., embarrassed, bored, confused) in a previous lesson and had discussed some stereotypic ways of portraying them. The children were able to elaborate on these and come up with some very imaginative gestures and facial expressions.
4. The children did follow the example of the better performers. Especially if the better performer did something amusing.

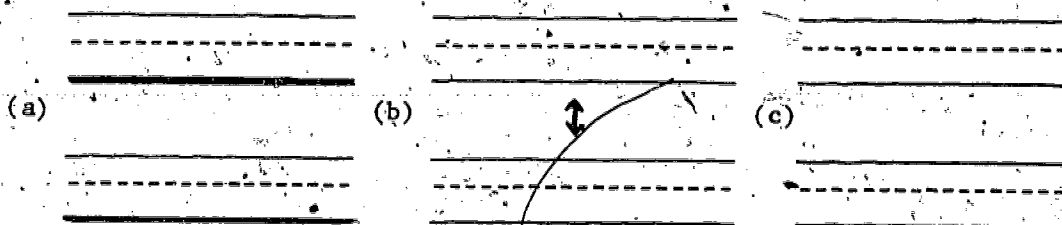
Fig. 5. Summary of Materials-related Inferences and Implications from Level 1 of Composition Skills

SPRING, 1972
COMPOSITION SKILLS PROGRAM

Observation in the Schools
Materials-Related Comments

Kindergarten

1. The 20 minutes allotted for each lesson is often not enough time to complete the entire exercise. Perhaps the exercise should consist of one letter (capital and lowercase) with space for continuation of that letter on the back of the exercise. Therefore, children who complete the front of the lesson can continue to practice on the back.
2. The dot on the small "i" is the same size as the starting dot and therefore confuses the children. They not only tend to start at the wrong place, but some children also made large circles for the dot rather than just a small dot.
3. Going from one guideline now to the next is a problem for the children. Several suggestions have been made to remedy the situation:
 - (a) bottom lines of the guidelines should be darker than the others;
 - (b) there should be a larger distance between each guideline set;
 - (c) spaces between the guideline sets should be shaded and then eventually faded.



4. In some cases children hold their papers down with their left hand while writing with their right hand, and the left hand covers up the model letter.
5. The small "t" is a difficult letter regarding its starting height. Perhaps there should be an additional line within the guideline set between the top line and broken line:

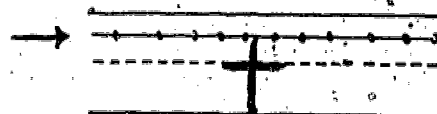
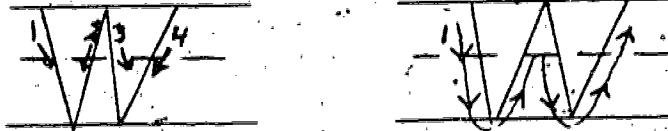
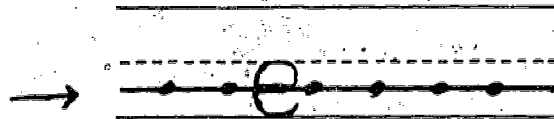


Fig. 5. (continued)

6. The "W" both capital and lowercase, is a difficult letter regarding the stroke sequence. Perhaps instead of four separate stroke sequences, the "W" should be made with one continuous stroke sequence:



7. The small "e" is extremely difficult, especially regarding placement in the guidelines. Perhaps there should be an additional line within the guideline set between the broken line and the bottom line:



(Perhaps the Teacher Procedures should include instructions on where to start the small "t" and the small "e.")

Working Paper 7

CLASSROOM TRYOUT OF A PROTOTYPE KINDERGARTEN HANDWRITING PROGRAM

Fred C. Niedermeyer and Ginny Supple

What types of activities, materials, and teaching procedures can schools use to develop beginning handwriting skills? Can kindergarten children benefit from systematic printing instruction, or should such instruction be delayed? Can children in low-income, inner-city schools learn to print as well and as early as children from middle-income, suburban schools? Can learning to print be made an enjoyable experience that will generate positive attitudes toward writing?

To answer these questions, research and development activities are being conducted at SWRL Educational Research and Development. The Laboratory is developing instructional systems in all areas of the elementary school curriculum. The handwriting instruction described here is part of a comprehensive Composition Skills Program for elementary schools.

Two outcomes were formulated for handwriting instruction: to print each capital and lower case letter of the alphabet and, to write the numerals 0 through 9. Various materials and procedures were developed and tried out in four kindergarten classes encompassing a wide range of socioeconomic and ethnic populations.

Instructional Materials

Letter Formation Exercises were developed to provide the children with initial instruction on each letter or numeral. Specifications for these exercises were obtained from a previous experimental study

of various strategies for teaching handwriting (Working Paper 3)... For each Letter Formation Exercise, the children traced dotted representations of the letter 12 times and then copied the letter 12 times from a model at the top of the page. An incentive for completing the page was provided by placing an incomplete cartoon in the last response position. A dotted representation of the letter being practiced was imbedded in the cartoon. The cartoon was complete when the child traced the letter. Two letters (usually the capital and the lower case versions of a letter) or numerals were introduced in each Letter Formation Exercise. Thus each exercise contained a total of 48 responses and was designed to be administered during a 25 minute instructional period.

Other types of exercises were developed to provide additional practice in letter formation. Story Completion Exercises were developed in which children filled in blanks in sentences by copying model words. With assistance, the children could then read the "story" which described illustrations in the exercise. The stories were humorous, and were designed to help motivate the handwriting practice. Other exercises simply provided additional practice in copying letters or required the child write each letter as the teacher dictated it.

In all, the handwriting program consisted of 90 exercises, divided into five units of 18 exercises each. Each exercise was 25 minutes long. It was suggested that teachers devote approximately six weeks to each unit. By teaching three exercises a week, a unit could be completed in six weeks. The exercises were sequenced according to difficulty of letter formation. Straight-line letters

such as t or l were taught first. Curved-line letters and numerals came later. A Teacher's Guide was provided which listed instructional procedures for the teacher. Generally, the procedures emphasized a positive approach with the children. For example, when helping children form letters with proper stroke sequence and direction, teachers were asked to say something like, "This letter is good. Try to make some that are even better."

METHOD

To determine how well the program would operate in a variety of school settings, two schools in each of four areas were identified: low-income Spanish-speaking inner city, low-income Black inner city, lower-middle-income White suburban. Each area was represented by a different school district. Within each district, one class in one school was designated as a tryout class and one class in the other school a comparison class.

Laboratory staff conducted one hour teacher training sessions at each tryout school. At this time teachers were given materials and a copy of the Teacher's Guide. The outcomes and the materials comprising the program were described and examined, and teaching procedures were presented and discussed. Comparison classes simply received normal kindergarten instruction during the year.

Before the tryout, the eight kindergarten classes (four tryout and four comparison) were administered a handwriting pretest. At the end of the school year, the eight classes were administered an alternate form as a posttest. Laboratory staff members administered both

tests. On each test, children were asked to copy a total of 10 letters and numerals. The letters and the numerals on each test were selected to represent the range of difficulty across the 52 letters (26 upper case and 26 lower case) and 10 numerals.

Each letter printed by a child on the pretest or the posttest was scored on a 6-point legibility scale. Ratings ranged from 0 (no response) to 5 (very legible). Model letters for each point in the scale were provided, and the average correlation of agreement for ratings of three judges who had no knowledge of treatment conditions were .91 on the pretest and .89 on the posttest.

To assess the children's attitudes toward the handwriting instruction, a total of 40 kindergarten children (five randomly sampled from each of the eight classes) were individually interviewed by Laboratory staff at the end of the year. Interviewers used a six-item pupil preference inventory. Each child was asked to state whether he liked various activities "a whole lot," "a lot," "just o.k.," or "not at all." Three of the items related to general writing activities (printing letters, writing his name, copying words the teacher writes) and three related to non-writing activities (listening at "sharing," reading stories, coloring or painting). To compare the responses of the children in the tryout and in the comparison classes, each item was scored by assigning a numeral ranging from 1 ("not at all") to 4 ("a whole lot"). For each child in the tryout and the comparison classes, a mean score for the three writing items and a mean score for the three non-writing items were computed.

In addition to the pretest, the posttest, and the pupil preference inventory, other sources of data for the study included Laboratory observations of a total of 13 lessons in the tryout classes and teachers' comments obtained at an end-of-year meeting.

RESULTS

Table 1 presents the distribution of pretest and posttest ratings on letters and numerals for the kindergarten tryout classes and the comparison classes. The distribution of ratings is reported in percentage. Cumulative distributions for each testing are reported in parentheses. As Table 1 shows, 47% of the pretest ratings for the comparison classes ranged from 3 through 5 (fairly legible or better), while only 23% of the pretest ratings for the tryout classes fell in this range. On the posttest, however, 90% of the ratings for the tryout classes were 3 or higher, compared with 72% for the comparison classes.

When broken down by schools, the posttest data indicated consistently high performance in the tryout schools. The percents of posttest responses rated 3 or higher for the tryout classes in Districts A, B, C, and D were 95, 83, 86, and 96, respectively. In the corresponding four comparison classes, the percents were 54, 86, 75, and 74, respectively. Only in District B was the percentage of ratings 3 or higher not appreciably different between the comparison school and the tryout school. However, 61% of the pretest ratings for the comparison school in District B were 3 or higher, as compared with only 2% for the tryout school.

TABLE 1

PRETEST AND POSTTEST PERCENTAGE DISTRIBUTION OF RATINGS FOR
KINDERGARTEN TRYOUT AND COMPARISON CLASSES ON LETTER COPYING ITEMS

Ratings	Tryout Children		Comparison Children	
	Pretest	Posttest	Pretest	Posttest
5 (very legible)	0 (0)	8 (8)	0 (0)	2 (2)
4 (quite legible)	4 (4)	23 (31)	12 (12)	12 (14)
3 (fairly legible)	19 (23)	59 (90)	35 (47)	58 (72)
2 (barely legible)	47 (70)	7 (97)	38 (85)	19 (91)
1 (completely illegible)	15 (85)	3 (100)	10 (95)	6 (97)
0 (no response)	15 (100)	0 (100)	5 (100)	3 (100)
Number of subjects:	40	40	40	40
Total number of letter responses rated:	400	800	400	800

Note: Cumulative percentages are in parentheses.

Table 2 reports the mean ratings and the standard deviations on the pupil preference inventory for the writing and non-writing activities of the tryout classes and the comparison classes. The mean ratings for the tryout classes and the comparison classes on the non-writing items were identical, and would be expected. However, the children in the tryout class rated writing activities significantly more positively than children in the comparison classes ($p < .05$).

TABLE 2

MEAN RATINGS AND STANDARD DEVIATIONS ON THE PUPIL PREFERENCE INVENTO
FOR WRITING AND NON-WRITING ACTIVITIES OF TRYOUT AND COMPARISON CHILD

Group	Number of Pupils	Writing Items			Non-Writing	
		Mean	Standard Deviation	t	Mean	Standard Deviation
Tryout	20	2.8	.66	2.3 $p < .05$	3.0	
Comparison	15	2.4	.46		3.0	

Lesson observations and teacher meetings yielded much information on use of the program in kindergarten level. Generally, all four tryout teachers felt that the program was appropriate for most of the children and that the exercises were generally geared to the children's interests. The teachers rated the children's overall reaction to the program as very enthusiastic. All the teachers said that they would use the program again.

IMPLICATIONS

The results of this study shed some light on beginning handwriting instruction:

- Systematically developed and sequenced materials can effectively promote beginning printing skills. These materials must provide children with substantial amounts of direct practice on the printing task. Teachers should provide direct, positive feedback to individual children as they practice letter formation.
- Kindergarten children can effectively learn to print. There appears to be no reason to delay systematic printing instruction until later.
- There seems to be no large difference in how well children of various socioeconomic levels and ethnic groups learn to print in kindergarten.
- Systematic instruction which provides for learner success in printing can generate positive attitudes toward school activities involving handwriting in kindergarten.

The instructional program described in this study can be replicated. That is, the instructional materials, activities, and procedures are in a format that is usable by others. Also, the program has been validated in actual classrooms. That is, it has demonstrated its effectiveness in promoting specified handwriting skills. The continued development of such programs in other subject areas promises to help teachers improve the basic skill abilities of your children.

Working Paper 8

1971-72 TRYOUT OF THE LEVEL 2 COMPOSITION SKILLS EXERCISES (TN 3-72-35)

Lee Trithart, Edys Quellmalz, and Fred Niedermeyer

Level 2 of the SWRL Composition Skills Program is normally used in first grade and is designed to be coordinate with the SWRL Second-Year Reading Program. Initial formulation of the program began during the Fall of 1969. The first tryout took place in 14 classes during the last five months of the 1969-70 school year, and provided extensive performance data demonstrating the effectiveness of the program (Sullivan, Okada, and Niedermeyer, 1971). On the basis of the initial tryout, revisions were incorporated into the program and the second tryout occurred in the 1970-71 school year in an additional 14 classes. Evaluation of this tryout was limited to teacher feedback concerning the program revisions (Okada and Baker, 1971). After routine editing the materials were again tried out during the 1971-72 school year in eight first grade classes encompassing a wide range of school locations and conditions. This report describes the Level 2 program, the tryout procedures, and the results. A discussion of the results and a listing of revisions are also included.

METHOD

Outcomes

Level 2 of the SWRL Composition Skills Program was designed to teach the following skill areas of composition writing:

WRITES

1. with increasing fluency
2. good, interesting, well-expressed stories

EDITS compositions for

3. appropriate word spacing
4. word omissions
5. sentence-initial capitalization
6. capitalization of proper names
7. sentence-final punctuation

Materials

To achieve the program outcomes instruction was presented in a series of 64 sequenced writing lessons that presented progressively less structured writing formats and required children to write with increasing fluency. Each of the 64 lessons was developed to coordinate with one of the 64 fiction stories of the SWRL Second-Year Reading Program. Both sets of lessons were based on identical reading vocabulary. Plots, characters, and story sequences in the two programs were unrelated.

Composition Skills lessons were presented in the form of a story with accompanying pictures. The stories were incomplete in that the sequence of lesson formats required students to write progressively more words and sentences to successfully complete the stories. Initial exercises had one or more words missing from the sentences of the story and required the student to select the most appropriate word or words to complete the sentences from among given choices. Later exercises required children to supply their own words and phrases to complete the sentences of the story. For these and subsequent lessons, SWRL Word List Booklets containing the words from the Reading Program in an alphabetized list accompanied the standard lesson materials to facilitate spelling and variety of word usage. In later lessons one or more

sentences were gradually deleted from the story text so that lengthier and more complex responses were required to complete the story. The final exercises in the program consisted of a sequence of four illustrations and required the children to write the entire story accompanying the illustrations.

The exercises were designed to require a minimum of teacher supervision once a new lesson format or outcome was introduced. Specific teaching procedures were written on each exercise. In addition to these directions for specific lessons, teachers received a Teacher's Guide that described materials, general teaching and follow-up procedures, SWRL tryout requirements, and a description of the coordination between the Reading Program Fiction Stories and the Composition Skills Exercises.

Sample

Level 2 of the Composition Skills Program was tried out in a total of eight first-grade classes. To determine how well the program would operate in a variety of school settings, the tryout schools were selected to represent a wide range of socio-economic and minority-group populations. The chart below indicates the distribution of the classes according to school, district, socio-economic level, and predominant ethnic composition. All classes using the Level 2 Composition Skills Program were also using the Second-Year Reading Program.

District*	Number of Classes	Socio-Economic Level	Predominant Ethnic Composition
A	2	upper-middle-income suburban	White
B	2	lower-middle-income suburban	White
C	1	lower-income inner-city	Mexican-American
D	3	lower-income inner-city	Black

*one school per district

For each of the four tryout schools a class in a comparison school was designated. Comparison schools were similar to tryout schools on the basis of socio-economic level, ethnic composition, size, and geographic location.

Procedures

Prior to the initiation of the Program, teacher training sessions lasting approximately 45 minutes were conducted at each school by the Laboratory staff. Teachers were given materials and Teacher's Guides at this time. The outcomes and materials of the program were described and examined, and teaching procedures were presented and discussed.

Teacher-training sessions took place during late October of 1971. Teachers were to begin the first Composition Skills exercises when their classes reached Book 1 Story 1 of the Second-Year Reading Program. Pacing of Composition Skills lessons was contingent upon the scheduling of Reading lessons. The rate required for completion of the Program was two lessons in each program per week. Additionally, 25 minutes

of instructional time plus 5-10 minutes of follow-up time was to be allotted for each Composition Skills Program lesson.

Data Sources and Testing Procedures

Pupil Performance Tests. In late October and early November the eight tryout and four comparison classes were pretested. In late May the same 12 classes were posttested. All testing was conducted by SWRL staff members.

Pre- and posttests were in two parts: the first part required students to write five sentences from dictation and the second part required them to write a composition in response to directions and an illustration. Dictated sentences were designed to elicit use of the full range of editing outcomes (punctuation and capitalization skills) from students. The pictures and directions accompanying the composition task were designed to elicit a story containing both narration and dialogue. Children were given 15 minutes in which to plan and write their stories and were given five minutes for editing what they had written. Pre- and posttest sentence dictation and comparison items were drawn from the same item pools. A copy of the pretest and of the instructions used by the test administrator can be inspected in Niedermeyer, Quellmalz, and Trithart, 1972. A copy of the posttest procedures used by the test administrator is contained in Appendix A.

Sentences dictated were scored for word spacing, sentence completeness, capitalization, and ending punctuation using procedures established during a previous study (Labeaune, Niedermeyer, and Sullivan, 1971). Stories written by the children were analyzed for

writing fluency and sentence correctness by simply counting words and sentences, procedures also previously established (Labeaune, et al., 1971). Story quality was assessed by three types of subjective ratings on six-point scales: (1) overall quality, (2) originality, and (3) organization, using procedures established during a previous study (Niedermeyer, et al., 1972). The agreement correlation between two SWRL staff members scoring a sample of 15 pretest compositions was .89 for overall quality, .91 for originality, and .88 for organization. The agreement between three staff members scoring a sample of 15 posttest compositions was .91 for overall quality, .87 for originality, and .86 for organization. In addition, stories received a classification according to type of organization using procedures previously established (Niedermeyer, et al., 1972). Stories were categorized as organized according to chronology, space, plot, argument, or other criteria, or as a no response. The agreement correlation between two SWRL staff members classifying a sample of 15 pretest compositions was .89. The agreement between three raters classifying a sample of 15 posttest compositions was .87.

Because the test-scoring procedures for Levels 1, 2, and 3 of the Composition Skills Program involved a considerable amount of staff time, random samples of ten children from each tryout and comparison class in each district were selected for analysis. Thus the sample of first-grade students whose composition skills were analyzed consisted of 80 children (ten children randomly selected from each of the tryout and control groups in each of the four classes) on pretest and posttest. To insure

that raters had no knowledge of tryout and comparison classes, tests were coded and randomly sequenced prior to scoring.

Pupil Preference Inventories. A random sample of 38 tryout and 20 comparison group children (five from each of the tryout and comparison classes in each of the four districts) was interviewed by SWRL staff members, using the tryout or comparison group Pupil Preference Inventory. Each child was interviewed individually and asked to state whether he liked various activities "a whole lot," "a lot," "just o.k.," or "not at all." Eight of the items (five related to general writing activities and three related to non-writing activities) were identical on the tryout and control inventories. Four additional questions appeared only on the tryout inventory and concerned specific types of lessons in the Level 2 Program.

Lesson Observations. During the tryout, classroom lessons were observed by staff members on a regular basis. Procedures for systematically documenting these observations were operationalized (Niedermeyer, 1972). Essentially these procedures required the observer to write a summary of all that was seen and heard during the lesson, following each observation. Inferences about pupil attitudes and teacher performance, and implications for program materials and procedures were then recorded on the report form. In all 22 lessons were observed and documented at the first-grade level.

Teacher Questionnaires. Letters were sent to all the Level 2 teachers near the end of the school year (late May) thanking them for their participation in the program and requesting them to fill out the

Teacher Questionnaire for program evaluation. The questionnaire was designed to elicit specific comments, criticisms, revision suggestions, and teacher attitudes toward the program. A copy of the questionnaire which shows the responses of the six teachers who completed their questionnaires is contained in Appendix B.

RESULTS

Scores presented in this section have been summed across the four districts tested. However, for Tables 1-5 in this section, corresponding tables showing the data arrayed by district may be found in Appendix C.

Pupil Performance

Table 1 presents the pretest and posttest percentages of correct responses on editing outcomes (Outcomes 3-7, Page 2) as measured through the sentences dictated to the first grade tryout and comparison classes. From the data in Table 1 it may be seen that the percentage of correct responses on each editing outcome was higher for tryout classes on posttest dictated sentences than it was for comparison classes.

Table 2 indicates pretest and posttest means and standard deviations of total words and sentences in stories written by first-grade tryout and comparison classes (Outcome 1). As may be seen, tryout children progressed from an initially lower mean number of words per composition, 4.22 as compared with 9.85, to a higher mean number of words per composition on the posttest, 31.77 as compared with 23.78. On the number of sentences written per composition, the tryout classes likewise progressed from an initially lower mean, .65 as compared with 1.20, to a

TABLE 1
PERCENTAGES OF CORRECT RESPONSES ON EDITING OUTCOMES
AS MEASURED THROUGH DICTATED SENTENCES

Outcome Measured	Tryout Classes		Comparison Classes	
	Pretest	Posttest	Pretest	Posttest
3. Spacing: All words present discernible as distinct units	42	77	42	58
4. Sentence complete: All words present	51	93	43	63
5. Initial Capitalization: Correctly capitalizes initial letter of sentence	44	72	35	60
6. Capitalization: Correctly capitalizes proper names	10	65	5	19
7. Ending Punctuation: Correct ending punctuation	6	47	5	20
Number of subjects	40	40	40	40
Number of items responded to by each subject on each editing outcome: sentence complete, 5; spacing, 5; initial capitalization, 5; capitalization of proper names, 2; ending punctuation, 5.				

TABLE 2
MEANS AND STANDARD DEVIATIONS OF TOTAL WORDS AND SENTENCES IN STORIES

Outcome Measured		Tryout Classes		Comparison Classes	
		Pretest	Posttest	Pretest	Posttest
1. Number of Words	\bar{X}	4.22	31.77	9.85	23.78
	s.d.	5.48	22.49	9.40	23.21
1. Number of Sentences	\bar{X}	.65	2.90	1.20	2.70
	s.d.	.80	2.31	1.11	3.65
number of subjects		40	40	40	40

slightly higher posttest mean, 2.90 as compared with 2.70,

Table 3 shows pretest and posttest percentages of complete sentences, sentence strings, sentence fragments, and run-on sentences in stories written by first-grade tryout and comparison classes (Outcomes 4, 5, and 7). This table differs from Table 1 in that the outcomes were assessed in a constructed-response, story context, rather than in dictated sentences. There is very little difference between the two groups when employing these outcomes in a story context.

Table 4 contains the pretest and posttest cumulative percentages of subjective ratings of quality, originality, and organization of the stories written by the first-grade tryout and comparison classes (Outcome 2). The principle differences in the two groups are that (1) there were no posttest tryout students who did not attempt to respond to the composition task, whereas 25 percent of the comparison students wrote nothing, and (2) on ratings of overall quality, originality, and organization, a consistently higher percentage of posttest tryout students (53, 72, and 54 percent respectively) wrote compositions in the "3" through "5" range (fair or better) than did students in the posttest comparison group, for whom the figures were 35, 47, and 35 percent.

In Table 5 the pretest and posttest percentages of types of organization in stories written by the first-grade tryout and comparison classes may be seen (Outcome 2). Corresponding figures are approximately the same for the two groups with the exception of the higher percentage of posttest tryout students, 75 percent, who wrote compositions

TABLE 3
PERCENTAGES OF COMPLETE SENTENCES, SENTENCE STRINGS,
SENTENCE FRAGMENTS, AND RUN-ON SENTENCES

Outcome Measured	Tryout Classes		Comparison Classes	
	Pretest	Posttest	Pretest	Posttest
4., Complete Sentences	46	65	44	70
5., 7. Sentence Strings	0	3	2	0
4. Sentence Fragments	38	14	37	12
5., 7. Run-On Sentences	16	18	17	18
number of subjects	40	40	40	40

TABLE 4

CUMULATIVE PERCENTAGES OF SUBJECTIVE RATINGS OF
QUALITY, ORIGINALITY, AND ORGANIZATION OF STORIES

	Tryout Classes						Comparison Classes					
	Pretest			Posttest			Pretest			Posttest		
	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization
Excellent	0	0	0	10	0	0	0	0	0	0	5	0
Good	0	0	0	5	42	22	0	0	0	5	32	7
Fair	5	0	0	53	72	54	0	2	5	35	47	35
Somewhat Inadequate	17	15	15	88	92	72	28	20	20	55	65	53
Extremely Inadequate	35	33	33	100	100	100	60	52	55	75	75	75
No Response	100	100	100	100	100	100	100	100	100	100	100	100
Number of Ss	40	40	40	40	40	40	40	40	40	40	40	40
Coefficient of agreement	.89	.91	.88	.91	.87	.86	.89	.91	.88	.91	.87	.86

TABLE 5
PERCENTAGES OF TYPES OF ORGANIZATION IN STORIES

	Tryout Classes		Comparison Classes	
	Pretest	Posttest	Pretest	Posttest
Chronological	12	75	3	48
Spatial	0	0	0	0
Plot	0	0	0	2
Argument	2	0	2	0
Other	18	25	30	25
No Response	68	0	45	25
number of subjects	40	40	40	40
Coefficient of agreement	.92	.87	.92	.87

chronologically organized compared with 48 percent of the posttest comparison students. The difference in the percentages of posttest tryout and comparison students in the "No Response" classification has already been noted.

Pupil Preferences

Tables 6 and 7 display the percentage distributions for how well the tryout and comparison children stated they liked various activities on the Pupil Preference Inventory. As may be seen from examination of corresponding items in the two tables, the tryout classes evidenced a generally more positive attitude toward all school activities, writing and non-writing, than did the comparison classes. The tryout classes also showed a high degree of preference for activities related to the specific materials in the Level 2 Program (Items 2, 5, 8, and 11).

Lesson Observations and Teacher Questionnaires

Lesson observations and teacher questionnaires yielded much information concerning use of the Level 2 Program at the first-grade level. This information is summarized below according to various categories.

Pacing. The percents of participating tryout students having completed different portions of the Level 2 Composition Skills Program may be seen in Table 8. Forty-five percent of the participating students in the tryout classes had completed the program or were working within the last eight lessons. An additional 55 percent were still working at different stages. Fifteen percent of the students in the tryout classes were non-participants. Since lessons were suggested for scheduling at the rate of two per week, students who were not

TABLE 6
PERCENTAGE DISTRIBUTION OF PUPIL PREFERENCE INVENTORY RESPONSES

	In school this year did you ever...?		Do you like to...?		Do you like it...?		
	yes	no	yes	no	a whole lot	a lot	just o.k.
1. write words?	100	0	100	0	24	42	34
2. write words that fit into sentences like these? (Show Stories 5 & 12.)	97	3	100	0	38	38	24
1. listen to other boys and girls share things they've brought to school?	97	3	97	3	50	36	14
write sentences?	97	3	97	3	38	31	31
choose words and write them in the numbered spaces like these? (Show Stories 17 & 26.)	89	11	100	0	44	21	35
read stories?	100	0	97	3	43	30	27
write a story that tells about a picture?	89	11	94	6	44	28	28
write your own words in spaces to finish sentences like these? (Show Stories 35 & 44.)	92	8	97	3	42	29	29
draw pictures with crayons or paint?	95	5	100	0	69	20	11
make up titles for the stories you write?	87	13	94	6	42	23	35
write stories on papers like this? (Show Stories 61 & 64.)	66	34	96	4	33	17	50
write your name?	100	0	100	0	55	13	32

TABLE 7

PERCENTAGE DISTRIBUTION OF PUPIL PREFERENCE INVENTORY RESPONSES
BY 20 RANDOMLY-SAMPLED FIRST-GRADE CHILDREN IN FOUR COMPARISON CLASSES

	In school this year did you ever..?		Do you like to..?		Do you like it..?		
	yes	no	yes	no	a whole lot	a lot	just o.k.
1. write words?	100	0	95	5	5	32	63
2. listen to other boys and girls share things they've brought to school?	95	5	95	5	22	45	33
3. write sentences?	90	10	100	0	17	44	39
4. read stories?	85	15	100	0	24	35	41
5. write a story that tells about a picture?	90	10	94	6	18	35	47
6. draw pictures with crayons or paint?	100	0	90	10	39	44	17
7. make up titles for the stories you write?	75	25	100	0	27	46	27
8. write your name?	100	0	100	0	20	35	45

TABLE 8

PERCENTS OF PARTICIPATING STUDENTS IN TRYOUT CLASSES HAVING
COMPLETED DIFFERENT PORTIONS OF THE LEVEL 2 COMPOSITION SKILLS PROGRAM

Number of Lessons	Percents of Pupils Completing
57-64	45
49-56	29
41-48	7
33-40	14
25-32	5
17-24	0
9-16	0
1-8	0

Note: Fifteen percent of the students in the tryout classes were non-participants in the program.

working within the last block of lessons appeared unlikely to complete the entire program by the time of the posttest.

Teacher Affect. Five of the six teacher questionnaire respondents felt that the program was appropriate for most of their children. All felt that the exercises were generally geared to the children's interests and rated the children's overall reaction to the program as fairly to very enthusiastic. All of the teachers stated they would use the program again.

Time per Lesson. All teachers stated that lessons took less than 25 minutes with one teacher using less than an average of 15 minutes per lesson. In general it appeared that the time taken per lesson diminished as children progressed through the program until the final lessons in which length of time was controlled by how much and how long the children wanted to write.

Teacher's Guide. Four of the six respondents felt that the teacher directions for each lesson were clear and helpful as was the Teacher's Guide itself. The other two respondents stated that they had used neither the directions specific to each lesson nor the Teacher's Guide.

DISCUSSION AND REVISIONS

The pupil performance data on editing outcomes (Outcomes 3-7) indicated that the exercises were fairly successful in teaching most of the skills assessed when they occurred in the context of a single-sentence response as in the sentence-dictation data (Table 1). However, when students were required to edit for outcomes 4, 5, and 7 in responses

longer than a single sentence in length, as in their posttest stories (Table 3), there was no difference between the performance of students in tryout and comparison classes. This may be due in part to two facts: 1) direct instruction on the correction of run-on sentences, sentence fragments, and sentence strings was not presented, and 2) the lessons most directly applicable to the practice of this skill, i.e. those requiring the student to write responses longer than a single sentence in length and then to proofread his writing, did not occur until relatively late in the program, after Lesson 55. (There are 64 lessons in the program.) Only 45 percent of the students tested reached these lessons.

The data on the average number of words and sentences written by tryout students in their posttest compositions (Outcome 1, Table 2) also appears to have been affected by the fact that more than half of the tryout students tested had not completed the program. Although writing fluency was promoted throughout the program, the posttest composition task required multiple-sentence responses comparable only to the responses required in the program after Lesson 55. The ability of tryout students to write longer posttest compositions than did the students in comparison classes is evidence of the efficacy of the fluency instruction throughout the program. However the failure of 55 percent of the students tested to reach lessons giving instruction on composing multiple sentences is reflected in the poor performance of students in this tryout (32 words, 2.9 sentences per composition) when compared with that of students in previous tryouts (71 words, 9.1 sentences per composition) for whom the average proportions of the

program completed were greater.

The superior achievement by the tryout students on ratings of overall quality, originality, and organization (Outcome 2, Table 4) and the larger percentage of them using recognizable criteria for organizing their stories (Outcome 2, Table 5) may be assumed to be largely an incidental effect of the instruction on fluency and technical accuracy. These global outcomes received very little direct instructional attention. It would appear that although students may possess competencies in the fields of originality or organization, it is impossible to accurately assess their ability as applied to story writing until a minimal level of writing fluency has been achieved. Once students are writing compositions at least several sentences in length, it becomes possible to assess existing abilities and to begin instruction to perfect them.

The data provided by the 1971-72 tryout of the SWRL Level 2 Composition Skills Program corroborated the data from preceding tryouts concerning the overall effectiveness of the program and provided additional data for program revision. On the basis of the data collected during this tryout the following program revisions will be made:

- 1) The sequence of 64 stories will be revised and organized into five units containing 12 lessons each, the last lesson in each unit being a progress check designed to identify students who have not mastered the outcomes introduced in the unit. Teachers will be instructed to give students having

difficulty with selected outcomes additional practice on the outcomes.

- 2) Editing outcomes will be introduced more explicitly and opportunities for practice more systematically provided according to detailed lesson specifications.
- 3) The sequence for promoting fluency will follow the same progression but will be accelerated so that instruction requiring multiple-sentence responses will begin by Lesson 42.
- 4) Units 4 and 5 will provide explicit instructional emphasis on planning and organization.
- 5) The Teacher's Guide and instructional procedures have been revised to reflect the above program revisions.

In addition, use of the SWRL Composition Skills Program will be made independent of any specific reading program. The Program will be rewritten to be coordinate with the SWRL Reading Program word base. Composition Skills Program story plots and characters will continue to be exclusive to the program.

APPENDIX A

PROCEDURES USED BY TEST ADMINISTRATOR

FORM 2

FIRST GRADE COMPOSITION SKILLS TEST

PART I

Directions:

- Give each child a pencil and answer sheet.
 - Tell the children that they are going to practice writing.
 - Ask each child to put his name on his answer sheet.
 - Tell the children that you are going to read them some sentences.
 - Explain that they should try to write the sentences as you read them.
 - Tell the children that they should try to write and spell each word as best they can.
 - Ask the children to listen carefully, as you will say each sentence only two times.
 - Begin reading each sentence. Say the words slowly once. Wait about 5 seconds, then repeat the sentence.
 - Check that the children are writing on the appropriate line.
-

1. She fell.
 2. He is Sam.
 3. Is she sad?
 4. I sat on the hill.
 5. Will Nat win?
-

PART II

Directions:

- Ask the children to turn to the next page.
- Explain that they are going to write a story about the picture at the top of the page.
- Read the following introduction to the children. Do not elaborate on this introduction.

Ann and Bud appear to be going away. Write a story about where they are going, what they will do once they get there, and why they seem to be so happy. Include some things that Ann and Bud say to each other while in the car.

- Point out the first line and explain that they should write the title of their story on it before they begin actually writing the story.
- After 15 minutes tell the children to stop. Read them the following directions:

Stop writing.
Go back and read your story to yourself. If you find mistakes, change them to make them right.

- Wait 3 minutes, and then collect all the papers.

APPENDIX B

SWRL SECOND-YEAR COMPOSITION SKILLS PROGRAM

Spring, 1972

TEACHER QUESTIONNAIRE

The SWRL Second-Year Composition Skills Program is still being developed and refined. In order that we may evaluate and further improve the program, it is essential that we obtain your comments, criticisms, and suggestions with this questionnaire. Thank you.

1. Please indicate the last exercise completed by your children. (If your children were not grouped, please complete Group 1 only.)

Group 1: 1-22 children; Story 50-64

Group 2: 2 children; Story 39-64

Group 3: 5-9 children; Story 25-50

Group 4: 8 children; Story 38

Non-participants: 6-17 children

2. Is the program appropriate for most of your children?

5 yes

3. What was the overall reaction of your class to the program?

4 very enthusiastic

 fairly unenthusiastic

2 fairly enthusiastic

 very unenthusiastic

 neutral

4. How long was each lesson, on the average?

1 less than 15 minutes

 25 to 35 minutes

5 15 to 25 minutes

 more than 35 minutes

5. Were the teacher directions for each exercise clear and helpful to administering the lessons?

4 yes

 no

2 did not use

6. Was the Teacher's Guide clear and complete?

4 yes

 no

2 did not use

7. Were the stories generally enjoyable and interesting to the children?
6 yes no

8. What proportion of your class was able to complete most of the lessons independently?

5 more than 80%

1 60% to 80%

 40% to 60%

 20% to 40%

 less than 20%

9. Would you use the program again?

6 yes no

10. Please write below specific comments, criticisms, or suggestions not already covered. You may want to comment on individual exercises, the sequence of the exercises, illustrations, or specific problems you encountered.

APPENDIX C

Table 1a. Pretest and Posttest Percentage Distribution of Correct Responses on Editing Outcomes as Measured Through Dictated Sentences for First-Grade Tryout and Comparison Classes in Four School Districts

Outcome Measured	District A*				District B				District C				District D			
	Tryout		Comparison		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
3. Spacing	90	80	82	88	46	92	68	88	30	68	0	16	0	66	18	42
4. Sentence Complete	94	100	78	96	56	100	64	98	38	100	0	20	16	70	28	38
5. Initial Capitalization: Sentences	68	74	60	68	50	98	38	84	28	68	0	36	30	50	42	54
6. Capitalization: Proper Names	65	85	30	35	15	90	15	20	67	55	0	0	0	12	0	8
7. Ending Punctuation	20	68	18	34	0	66	0	46	0	54	0	0	1	0	0	0
Number of subjects	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Number of items responded to by each subject on each editing outcome:
 sentence complete, 5; spacing, 5; initial capitalization, 5; capitalization
 of proper names, 2; ending punctuation, 5.

*A = white upper-middle-income suburban

*B = white lower-middle-income suburban

C = bilingual (Spanish-English) lower-income inner-city

D = black lower-income inner-city

Table 2a. Pretest and Posttest Means and Standard Deviations of Total Words and Sentences in Stories Written by First-Grade Tryout and Comparison Classes in Four School Districts

Measured		District A*				District B				District C				District D			
		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
of Words	\bar{X}	11.70	25.60	12.60	33.90	2.50	34.10	20.90	47.60	1.10	53.00	0.00	0.00	1.60	14.40	5.90	13.60
	s.d.	3.77	9.15	7.24	14.84	3.07	12.48	4.72	21.63	1.64	30.01	0.00	0.00	3.90	6.10	5.22	8.55
of Sentences	\bar{X}	1.50	3.00	1.60	3.60	.50	5.20	1.50	5.20	.40	2.10	0.00	0.00	.20	1.30	1.70	2.00
	s.d.	.92	1.26	.66	2.46	.50	2.93	.92	5.42	.49	1.30	0.00	0.00	.40	.64	1.27	1.34
f subjects		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

white upper-middle-income suburban
white lower-middle-income suburban
bilingual (Spanish-English) lower-income inner-city
black lower-income inner-city

Table 3a. Pretest and Posttest Percentages of Complete Sentences, Sentence Strings, Sentence Fragments, and Run-On Sentences in Stories Written by First-Grade Tryout and Comparison Classes in Four School Districts.

Outcome Measured	District A*				District B				District C				District D			
	Tryout		Comparison		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
4. Complete Sentences	60	77	69	67	60	71	27	81	0	38	0	0	0	38	35	50
5, 7. Sentence Strings	0	0	0	0	0	0	7	0	0	14	0	0	0	0	0	0
4. Sentence Fragments	20	0	19	3	40	19	33	8	100	19	0	0	50	15	59	40
5, 7. Run-On Sentences	20	23	12	31	0	4	33	12	0	29	0	0	50	46	6	10
Number of subjects	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

*A = white upper-middle-income suburban

B = white lower-middle-income suburban

C = bilingual (Spanish-English) lower-income inner-city

D = black lower-income inner-city

Table 4a. Pretest and Posttest Percentage Distribution of Subjective Ratings of Quality, Originality and Organization of Stories Written by First-Grade Tryout and Comparison Classes in a White Upper-Middle-Income Suburban District.

Ratings	Tryout						Comparison					
	Pretest			Posttest			Pretest			Posttest		
	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization
5 Excellent	0	0	0	0	0	0	0	0	0	0	10	0
4 Good	0	0	0	20	50	30	0	0	0	10	60	10
3 Fair	0	0	0	50	40	50	0	10	20	50	20	60
2 Somewhat Inadequate	50	40	60	30	0	0	70	40	20	30	0	30
1 Extremely Inadequate	40	50	30	0	10	20	20	30	50	10	10	0
0 No Response	10	10	10	0	0	0	10	20	10	0	0	0
number of Ss	10	10	10	10	10	10	10	10	10	10	10	10
coefficient of agreement	.89	.91	.88	.91	.87	.86	.89	.91	.88	.91	.87	.86

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Table 4a. Pretest and Posttest Percentage Distribution of Subjective Ratings of Quality, Originality and Organization of Stories Written by First-Grade Tryout and Comparison Classes in a White Lower-Middle-Income Suburban District

Ratings	Tryout						Comparison					
	Pretest			Posttest			Pretest			Posttest		
	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization
5 Excellent	0	0	0	0	0	0	0	0	0	0	10	0
4 Good	0	0	0	0	30	30	0	0	0	10	40	20
3 Fair	20	0	0	70	50	30	0	0	0	60	30	30
2 Somewhat Inadequate	0	20	0	30	20	40	40	30	40	10	20	30
1 Extremely Inadequate	10	10	30	0	0	0	50	60	50	20	0	20
0 No Response	70	70	70	0	0	0	10	10	10	0	0	0
Number of Ss	10	10	10	10	10	10	10	10	10	10	10	10
Coefficient of agreement	.89	.91	.88	.91	.87	.86	.89	.91	.88	.91	.87	.86

Table 4a. Pretest and Posttest Percentage Distribution of Subjective Ratings of Quality, Originality and Organization of Stories Written by First-Grade Tryout and Comparison Classes in a Bilingual (Spanish-English) Lower-Income Inner-City District

Ratings	Tryout						Comparison					
	Pretest			Posttest			Pretest			Posttest		
	Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization
5 Excellent	0	0	0	0	0	0	0	0	0	0	0	0
4 Good	0	0	0	0	60	30	0	0	0	0	0	0
3 Fair	0	0	0	50	30	20	0	0	0	0	0	0
2 Somewhat Inadequate	0	0	0	50	10	30	0	0	0	0	0	0
1 Extremely Inadequate	10	0	0	0	0	20	0	0	0	0	0	0
0 No Response	90	100	100	0	0	0	100	100	100	100	100	100
number of Ss	10	10	10	10	10	10	10	10	10	10	10	10
coefficient of agreement	.89	.91	.88	.91	.87	.86	.89	.91	.88	.91	.87	.86

Table 5a. Pretest and Posttest Percentages of Types of Organization
in Stories Written by First-Grade Tryout and Comparison
Classes in Four School Districts

Type	District A*				District B				District C				District D			
	Tryout		Comparison		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Chronological	50	90	50	70	0	70	40	70	0	0	0	0	0	0	50	0
Spatial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plot	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
Argument	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Other	30	10	40	20	30	30	50	30	0	20	0	0	10	40	30	50
None	10	0	10	0	70	0	10	0	100	0	100	100	90	0	60	0
number of Ss	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
coefficient	.92	.87	.92	.87	.92	.87	.92	.87	.92	.87	.92	.87	.92	.87	.92	.87

*A = white upper-middle-income suburban

B = white lower-middle-income suburban

C = bilingual (Spanish-English) lower-income inner-city

D = black lower-income inner-city

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Working Paper 9

FEASIBILITY OF USING ADULT TUTORS AND PARENTS TO ADMINISTER STRUCTURED SPEECH CORRECTION MATERIALS

Fred C. Niedermeyer

The purpose of this study was to investigate the feasibility of involving adult tutors and parents in administering structured speech therapy materials to children who lisp. This coordinated use of human resources offers promise in assisting school speech clinicians by providing effective individualized instruction that can be administered in a tutorial mode by paraprofessional aides in the schools and by the children's parent in the homes. The speech articulation program involved in the study thus comprised integrated personnel resources performing differentiated tasks structured by specially developed speech therapy materials.

PROGRAM MATERIALS

The instructional program was designed to correct the frontal /s/ lisp and other /s/ misarticulations of elementary school children. It represented an extension of the S-Pack Program system reported on by Ryan (1). Program materials included the following items:

Supervisor Materials. Procedures for the school clinician's use in initiating and supervising the articulation program (including the training of aides and parents) were contained in a program manual. The manual also included a scripted "evoking sequence" (which the clinician could use to elicit the proper /s/ response initially), a 36-item criterion test, and a 10-item transfer test.

Aide Materials. A programmed booklet was developed to be individually administered in the school by a trained aide in a series of 15 20-minute sessions. The booklet was designed to elicit over 1,000 /s/ responses in a variety of contexts (isolation; initial, medial and final word positions; sentences; stories; and games). Illustrations were used to cue the responses and scripted directions were provided for the aide (e.g., "This is the sun. Say sun."). Games at the end of each session were contingent upon the effort and attention of the child.

Parent Materials. Similar type programmed booklets were developed to be administered by the parent in the home following the child's completion of the aide materials in the school. The parent part of the program was designed to be administered in 15 15-minute sessions. Responses elicited in the parent-administered materials provided for extension or "carry over" of the child's /s/ articulation to less structured situations (e.g., making up and telling an original story about a series of given pictures rather than merely paraphrasing a given storyline).

PROCEDURES

The study was conducted during an eight week period in the fall of 1971. Twenty-six primary grade children, six school speech clinicians, seven adult paraprofessional aides, and fourteen parents participated in the study. The subjects were located in six schools in a large southern California metropolitan area. All but one of the schools were

located in lower-income neighborhoods. Clinicians selected the /s/ articulation-deficient children using screening procedures they normally employed. None of the 26 children had had previous /s/ therapy, and all of the children had normal dentition. Six of the children were in kindergarten, six were in first grade, ten were in second grade, and four were in third grade. Aides were paid approximately \$3 per hour by the school districts. The aides, clinicians, and children represented a variety of ethnic backgrounds.

The clinician at each school first identified from three to six children who misarticulated /s/. To help determine the effectiveness of the parent-administered part of the program, one child at each school was randomly selected not to receive the parent materials and thus serve as a control for the remaining children who would receive both the aide and parent parts of the program.

Next each clinician selected and trained an aide according to procedures provided by the author. The selection criteria stated only that the aide have acceptable articulation and be able to read aloud the scripted materials. Training activities included (1) discriminating between correct and incorrect pronunciations of /s/, (2) reading and discussing the written procedures for administering the materials, (3) observing the clinician administer a program session to a child, and (4) role-playing certain sections of the program booklet with the clinician acting as the child.

Before each clinician began any instruction with the children, each child was administered the program's criterion test as a pretest.

(All testing was conducted by an individual trained by the author.) This 36-item test asked the child to use /s/ in all of the previously mentioned contexts (words, sentences, etc.). Next, each clinician worked individually with the children to evoke the proper /s/ pronunciation. Once a child could say /s/ properly ten consecutive times within 20 seconds, he was assigned to an aide. After the child had completed the three week programmed booklet with the aide, he was readministered the criterion test.

The clinicians then contacted the parents of the 20 children who had been selected to receive the parent materials and asked them to attend a one-hour meeting at the schools. The parents of 11 of these 20 children were trained in the schools using procedures similar to those provided for training aides. Three others were trained by one of the clinicians going to the homes. All 14 trained parents then administered the three week parent part of the program to their children. Parents of the remaining 12 children (six were not invited to use the parent materials and six were invited but were never trained) did not administer the parent materials during this time.

After three weeks all 27 children were then administered the criterion test again and were administered the transfer test (the first ten /s/ responses emitted were scored as child spoke freely about a given illustration). The test administrator had no knowledge of treatment groups.

RESULTS.

Table 1 presents the articulation performance scores for the 14 children who received both the aide-administered program at school and the parent-administered program at home. Table 2 provides these data for the 12 children who received only the aide program and not the parent program. The parents of six of these latter 12 children were never asked to the parent program (Subjects 1, 5, 10, 15, 19, 23), and the parents of the remaining six were invited to use the parent program but did not (Subjects 6, 7, 11, 14, 18, 24).

As may be seen in Tables 1 and 2, the aide plus parent program children and the aide-only children averaged only 19 percent and eight percent, respectively, on the 36-item criterion test administered as a pretest. Following administration of the three week aide program at school, means of the two groups were 88 percent and 86 percent, respectively. After the administration of the three week parent program at home to the 14 aide plus parent program children, all 26 children were administered the criterion test a third time. As may be seen, the mean of the aide plus parent program children increased from a post-aide program mean of 88 percent to a post-parent program mean of 95 percent, while the corresponding mean of the aide-only children decreased from a 86 percent to 84 percent.

The mean score for the aide plus parent program children on the 10-item transfer test, administered at the end of the study, was 91 percent. The mean on this test for children not receiving the parent-administered program was 73 percent.

TABLE 1

/S/ PROGRAM TEST SCORES FOR THE 14 CHILDREN RECEIVING BOTH
AIDE AND PARENT ADMINISTERED PROGRAMS

Child's I.D. Number	36-Item Criterion Test Administered as Pretest	Criterion Test Administered as Posttest Following Aide Program	Criterion Test Repeated Following Parent Program	10-Item Transfer Test Following Parent Program
2	24	32	27	4
3	17	36	36	10
4	9	34	35	10
8	13	35	32	9
9	0	35	36	10
12	1	35	36	10
13	0	32	35	10
16	26	36	36	10
17	0	34	35	9
20	3	34	36	10
21	1	31	33	9
22	0	8	35	10
25	2	26	31	10
26	0	36	35	7
<hr/>				
	$\bar{X} = 6.8$ (19%)	31.7 (88%)	34.1 (95%)	9.1 (91%)

TABLE 2

/S/ PROGRAM TEST SCORES FOR THE 12 CHILDREN RECEIVING ONLY
THE AIDE ADMINISTERED PROGRAM (NOT THE PARENT PROGRAM)

S's I.D. Number	36-Item Criterion Test Administered as Pretest	Criterion Test Administered as Posttest Following Aide Program	Criterion Test Repeated Following Parent Program	10-Item Transfer Test Following Parent Program
1	9	34	28	8
5	1		36	9
6	0	25	21	6
7	13	33	32	9
10	5	28	24	2
11	1	32	35	10
14	0	36	36	10
15	0	32	28	4
18	1	36	36	9
19	0	35	35	10
23	2	14	18	0
24	4	36	35	10
<hr/>				
	$\bar{X} = 3.0$ (8%)	31.0 (86%)	30.3 (84%)	7.3 (73%)

A meeting was held at the end of the study with five of the six clinicians and three of the seven aides attending. Four of the five clinicians present during the meeting indicated on a questionnaire that they definitely would use the /s/ program again, if available. The fifth clinician indicated she probably would use the aides again. Three of the five stated they definitely would use parents again, and the other two indicated they probably would use parents again.

End-of-study questionnaires were returned by 12 of 14 participating parents. From the questionnaire responses it was determined that eight of the twelve parents administered all 15 lessons of the three-week program. The remaining four responding parents indicated they administered only ten of the lessons, or about two-thirds of the program. When asked to indicate their child's overall reaction to the materials, seven of the 12 parents checked "very positive," three checked "somewhat positive," and two checked "somewhat negative." Thus 10 of the 12 (83 percent) indicated their child felt somewhat positive or very positive about the program.

DISCUSSION

The data from this study indicate that the /s/ speech articulation program, used under actual school conditions, substantially improved the /s/ articulation of primary grade children in less than two months (a total of about nine or ten hours of instruction). The posttest means of around 85 percent, following the aide-administered part of the program, replicate previous results with these types of materials with other phonemes (/th/, /r/), when the materials were administered by a credentialed clinician (2).

Children receiving the parent-administered program at home following the aide-administered program at school generally did better on the third administration of the criterion test (mean of 95 percent) and on the transfer test (mean of 91 percent), than did children receiving only the aide-administered program at school (corresponding means of 84 percent and 73 percent), although about half of the aide-only children did well on the post-program measures and may not have needed to receive the home program. In retrospect, more difficult-to-obtain measures of carry-over than the transfer test may have been more sensitive to differences between the two groups, e.g., unobtrusive measures of the child's spontaneous speech in the classroom or on the playground. End-of-tryout responses by aides and parents were generally favorable. Clinicians, too, reacted positively to the program and expressed a willingness to utilize it with aides and parents in the future.

The type of instructional system resulting from this developmental study has implications for school speech clinicians. A major problem confronting clinicians in schools today is the lack of time and resources necessary to effectively respond to all needs for articulation improvement among school children. Overburdened by expanding caseloads, the clinician is often forced to limit therapy to only those children identified as the most needy. Furthermore, with responsibility for sometimes two or three entire elementary schools, the clinician is unable to provide individualized attention and instead must work with children in less effective, small-group sessions. Finally, since

resources are scant, much of the clinician's valuable time is spent in the assimilation and preparation of materials to use in eliciting responses during the therapy sessions (games, pictures, stories, etc.). Thus, both the screening and therapy activities of the clinician ultimately suffer from these exhaustive demands on limited time and resources.

A partial solution to this problem, however, involves providing the clinician with new, but accessible sources of support, and with procedures for managing these resources. First, the clinician can involve available adult personnel in therapy interaction in school. Second, the clinician can make use of parents as a source for further therapy in the home. To utilize these new personnel resources successfully, certain materials and procedures are necessary: (1) procedures for recruiting and training paraprofessional and parents, (2) simple yet structured materials for these personnel to use with children in therapy, (3) assessment and record-keeping devices which allow for constant monitoring of the child's progress, and (4) clear, systematic procedures for the clinician to follow when managing both the human and materials resources. In addition, it is essential that these materials and procedures be research-based and tested in actual school situations to ensure their validity and workability.

Obviously, these procedures imply rather substantial changes in the responsibilities and activities of today's school clinician. The new clinician would spend less time working directly with the children, and would instead become more of a manager of the support system used

to extend individualized therapy to more children. Certain therapy tasks would, of course, still be carried out by the clinician. Tasks which would continue to require the highly-skilled clinician include screening and testing children, evoking the correct sound initially, and conducting some of the carry-over work. Aides and parents would use structured materials to extend the sound (once evoked by the clinician) to words (all positions), sentences, and semi-structured spontaneous speech. One clear advantage of such a differentiation of the therapy tasks is that the clinician would have more time to work on evocation and carry-over.

Once the tasks required for improving a child's articulation are differentiated, and various human and material resources utilized, the clinician's responsibilities may be outlined as follows:

- Identifies all children who misarticulate, using normal screening procedures.
- Administers a pretest on the misarticulated sound.
- Works with the child to evoke the sound in isolation.
- Recruits, selects, and trains paraprofessionals or adult volunteers to administer individual articulation therapy in school.
- Supervises administration of the modification materials by the trained aide(s).
- Readministers the pretest as a posttest and recycles the child on tasks still misarticulated until response is stabilized.
- Conducts parent training for administering articulation extension materials (carry-over) in the home.
- Administers a transfer test following completion of parent instruction at home.

With the assistance of trained aides and parents, a clinician can institute and supervise a speech articulation program which will greatly increase the number of children who can receive systematic, effective therapy.

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Working Paper 6

OBSERVATION PROCEDURES FOR CLASSROOM TRYOUT OF INSTRUCTIONAL MATERIALS AND PROCEDURES (TN 3-72-15)

Fred C. Niedermeyer

During teacher-administered tryouts of an instructional program, staff observations of classroom lessons are an important data source for later formulation of revisions. However, these data are often unavailable when needed because of a lack of systematic procedures for collection and reporting. This paper suggests certain procedures for reporting classroom observation of a program lesson. These procedures are illustrated in the observation of two Laboratory programs: Composition Skills and Drama and Public Speaking.

Observation Reporting Forms

Figure 1 is a sample observation reporting form currently being used in the Composition Skills Program. Staff observers complete the form following each observation. Copies of the report are distributed to the Activity Head and each staff member and are kept in loose-leaf notebooks.

The heading of the form in Figure 1 contains various information categories useful to those reviewing the observation report. In addition to the lesson number, it includes a brief description of the lesson. This helps the reader recall the specific lesson without having to rummage through his files to find the actual lesson. Indications of the size and level of the group of children involved in the lesson and the length of the lesson are useful for later comparisons and analyses.

Fig. 1. Sample Observation Reporting Form

PROGRAM: Level 1 Composition Skills.....Spring, 1972, Tryout	
DATE:	UNIT AND LESSON NO.:
SCHOOL:	LESSON DESCRIPTION:
TEACHER:	SIZE AND LEVEL OF GROUP:
OBSERVER:	TIME SPAN:
OBSERVATION	
INFERENCES AND IMPLICATIONS (Related to Teacher Procedures-- <u>TP</u> , Materials-- <u>M</u> , Other-- <u>O</u>)	

The body of the observation report is divided into two sections: (1) observations and (2) inferences and implications. The observation section should be an objective description of what was seen and heard during the lesson. If it is well-written, it should allow the reader to make valid decisions about the extent to which recommended program procedures were followed during the lesson.

The latter section contains inferences about the lesson. Useful inferences will have implication for confirming the adequacy of program materials and procedures or for suggesting new ones. The writer should be free to suggest program revisions at this point, rather than wait until later. Generally the inferences should deal with the following areas:

- teacher implementation of suggested procedures
- pupil problems in responding to teacher or materials
- extent to which children seemed to enjoy the lesson
- teacher comments and apparent attitude about the lesson or the program.

It is possible for the writer to code the comments in this section as being related to teacher procedures, materials, or other aspects of the lesson. This is useful later when going through a large number of observation reports to pull out problems and suggestions for each of these areas.

Sample Reports

Figures 2, 3 and 4 are sample observation reports from current try-outs. The first two are from the Composition Skills Program, and the third one is from the Drama and Public Speaking Program. The writers of these reports generally did a good job of separating observations from inferences (although some prior training [and feedback] on this skill may be required initially).

After several observation reports have been submitted, it is useful to consolidate certain types of problems and revision suggestions. Figure 4 is a listing of inferences and implications across several reports which related to the handwriting exercises used in Level 1 (kindergarten) of the Composition Skills Program.

Fig. 2. Sample Report from Level 1 of Composition Skills Program

PROGRAM: FIRST YEAR COMPOSITION SKILLS (KINDERGARTEN)... SPRING, 1972, Tryout

DATE: 2/23/72 UNIT AND LESSON NO.: Unit 1, Lesson 17

SCHOOL: XXXX LESSON DESCRIPTION: Letter Formation Practice

TEACHER: XXXX SIZE AND LEVEL OF GROUP: Entire Class (28) average

OBSERVER: XXXX TIME SPAN: 11:45-12:10 (about 6 children continued while the others joined the teacher in a circle)

OBSERVATION

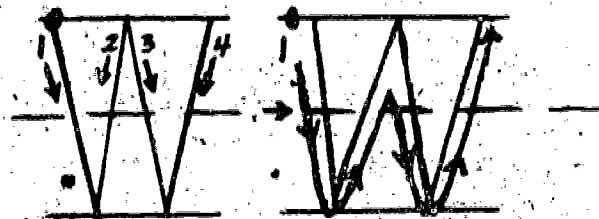
The lesson is introduced as having two letters: "E's" and "W's." The teacher goes over the stroke sequences with all the children orally. As the teacher directs, the children "write" the letters in the sky, using their fingers. The teacher then uses an extra lesson sheet to write the letters for the children as they watch. The teacher says that when they are done, the children can do the pictures on each side of the lesson.

The children are instructed to put their names on their papers. "The 'W' is an upside-down 'M', so don't make your 'W' upside-down. Also, don't erase...just go on." The children work independently while the teacher goes around the room examining the letters, praising children who write good ones. She manually assists one girl whose "W's" look like chicken tracks (✓). Most of the children are having trouble forming the "W" correctly.

INFERENCES AND IMPLICATIONS

(Related to Teacher Procedures--TP, Material--M, Other--O)

- O. The children worked extremely well on their own and enjoyed writing the letters.
- O. The teacher referred to the lesson as having two letters: "E's" and "W's." Should she have said four letters: "E," "e," "W," and "w?"
- O. The teacher said some of the children find letter formation impossible. The others (approximately 90%) enjoy it.
- M. The children all had trouble with the "W." The teacher suggested that if the children did not have to lift their pencils for the stroke sequence, they could write the "W" much easier.



- TP. Since the teacher gave the children no guidance regarding the second line of letters to be written without starting dots, the letters in that second line became scrambled with too many bunched up letters. The SWRL Teacher Procedures do not mention any guidance for that second line.

Fig. 3. Sample Report from Level 2 of the Composition Skills Program.

PROGRAM: SECOND YEAR COMPOSITION SKILLS (FIRST GRADE)...SPRING, 1972, Tryout			
DATE: 2/23/72	UNIT AND LESSON:	Story 26 ("The Fog")	
SCHOOL: XXXX	LESSON DESCRIPTION:	"Story 10 ("Fun in the Sun")	
TEACHER: XXXX	SIZE AND LEVEL OF GROUP:	Word Selection	
OBSERVER: XXXX	TIME SPAN:	(15) - above average	
		(9) - below average	
		9:40-10:10	
		(still going on when I left)	

OBSERVATION

All the children were gathered around the teacher, although two different lessons would be given. Story 26 ("The Fog") was presented to the class, and the teacher noted that this lesson didn't have any pictures. Therefore, after finishing the lesson, the children could draw their own pictures. Since the advanced group knew what to do, the teacher sent them to their seats with Story 26, asking them to work quietly.

The lower group remained to hear instructions for Story 10 ("Fun in the Sun"). The teacher whispered to me that this group has difficulty reading, and some of the children are on medication. Then the teacher had the children look at the picture on Page 1 and name the characters. She went through each sentence on Page 1, asking the children whether they would choose the top word or the bottom word and why. After reading the first sentence, she had different children read the rest on the front of the lesson. As the children went back to their seats, the teacher reminded them to look at the pictures since they help when doing the exercise. When they finished, the children could either color the pictures or come to the teacher and talk about the exercise. At this point, the teacher reminded the high group that they could choose several words from the lists in Story 26. (The low group did both sides of Story 10 at their seats.)

When the children finished their lessons, they came to the teacher who either marked errors in red and had the child correct the mistakes at his seat, or wrote "Very Good" if the lesson was correctly done. The teacher noted to those children doing Story 26 that it was fun to be able to choose their own words and make their own stories.

INFERENCES AND IMPLICATIONS

(Related to Teacher, Procedures--TP, Material--M, Other--O)

TP. The teacher would like to have more than two groups, but she finds it impossible because of the time element. She sees no way to have three or four groups at three or four different levels, although the class

Fig. 3. (continued)

should be arranged in that manner. (The class has children in Book 6 all the way down to Book 1 in the Reading Program, with some children barely able to get through Book 1.)

- M. In the sealed stack of Story 26, several Story 27 lessons were found.
TP. The way the teacher arranged the two groups was very clever. Since Story 10 was shorter than Story 26, the teacher helped the Story 10 children correct their papers and then let them color the pictures. Meanwhile, the Story 26 children finished their longer lesson and then went to the teacher for corrections. The timing seemed perfect, as all the children were busy and then finishing up at the same time.

Fig. 4.. Sample Report from Level 3 of Drama And Public Speaking Program

DRAMA & PUBLIC SPEAKING PROGRAM

Classroom Visitation

GRADE LEVEL: 2 OBSERVER: XXXX
DATE: March 9, 1972 SIZE OF GROUP: Entire Class (approx. 30)
SCHOOL: XXXX TIME SPAN: 20 min.
TEACHER: XXXX

LESSON NO. AND DESCRIPTION: Lesson 10 -- The children practice saying first a single word and then script lines using many different tones of voice.

OBSERVATIONS

The teacher had all pupils sitting at their tables, a list of the emotion-words to be used written on the blackboard. She asked everyone to say the word "goodbye" using one of these (on the list) tones of voice. She selected volunteers (by raised hands) to go up before the class and say the word, having the class guess which emotion-word he was using. The volunteer would select children to guess his emotion-word. Most of the time the class was able to guess, but when they failed to, the teacher would ask the volunteer what his emotion was. Then, she would suggest and have the class suggest ways he could portray it. Then, the child would repeat his performance.

The teacher kept the pace very rapid, saying: "Hurry up now. Let's keep it moving." The children chose diversified emotions, rarely doing the same one in a row. If the children did have a "string" of performances of the same emotion, the teacher would ask the class to skip that one for awhile. If the children had difficulty in portraying an emotion (e.g., afraid) she would have several performers act as models, discussing what they could do to look "afraid." Then, she would have the performers who had trouble with "afraid" do it again. The teacher praised the good performances often.

INFERENCES and IMPLICATIONS

1. The teacher was very enthusiastic, and the rapid pace seemed to aid the lesson a good deal (she was like a good football coach). The rapid pacing kept the children from getting bored, since they are very quick learners.

Fig. 4. (continued)

2. The children seemed to enjoy the lesson very much. Everyone volunteered and no one seemed embarrassed if they made mistakes.
3. The teacher had gone over in detail the meanings of all the emotions (e.g., embarrassed, bored, confused) in a previous lesson and had discussed some stereotypic ways of portraying them. The children were able to elaborate on these and come up with some very imaginative gestures and facial expressions.
4. The children did follow the example of the better performers. Especially if the better performer did something amusing.

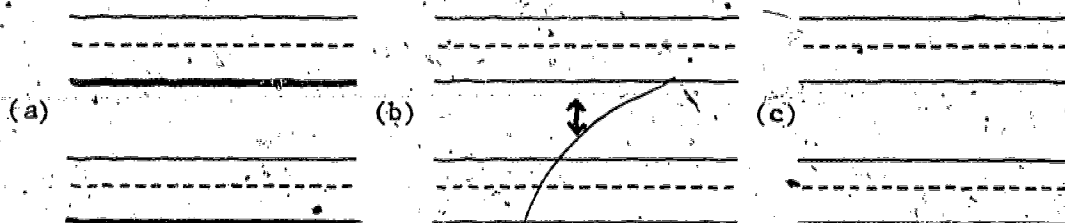
Fig. 5. Summary of Materials-related Inferences and Implications from Level 1 of Composition Skills

SPRING, 1972
COMPOSITION SKILLS PROGRAM

Observation in the Schools
Materials-Related Comments

Kindergarten

1. The 20 minutes allotted for each lesson is often not enough time to complete the entire exercise. Perhaps the exercise should consist of one letter (capital and lowercase) with space for continuation of that letter on the back of the exercise. Therefore, children who complete the front of the lesson can continue to practice on the back.
2. The dot on the small "i" is the same size as the starting dot and therefore confuses the children. They not only tend to start at the wrong place, but some children also made large circles for the dot rather than just a small dot.
3. Going from one guideline now to the next is a problem for the children. Several suggestions have been made to remedy the situation:
 - (a) bottom lines of the guidelines should be darker than the others;
 - (b) there should be a larger distance between each guideline set;
 - (c) spaces between the guideline sets should be shaded and then eventually faded.



4. In some cases children hold their papers down with their left hand while writing with their right hand, and the left hand covers up the model letter.
5. The small "t" is a difficult letter regarding its starting height. Perhaps there should be an additional line within the guideline set between the top line and broken line:

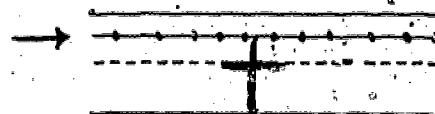
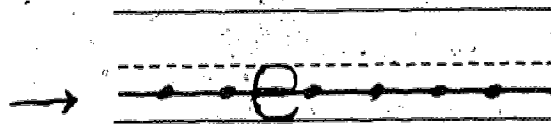


Fig. 5. (continued)

6. The "W" both capital and lowercase, is a difficult letter regarding the stroke sequence. Perhaps instead of four separate stroke sequences, the "W" should be made with one continuous stroke sequence:



7. The small "e" is extremely difficult, especially regarding placement in the guidelines. Perhaps there should be an additional line within the guideline set between the broken line and the bottom line:



(Perhaps the Teacher Procedures should include instructions on where to start the small "t" and the small "e.")

Working Paper 7

CLASSROOM TRYOUT OF A PROTOTYPE KINDERGARTEN HANDWRITING PROGRAM

Fred C. Niedermeyer and Ginny Supple

What types of activities, materials, and teaching procedures can schools use to develop beginning handwriting skills? Can kindergarten children benefit from systematic printing instruction, or should such instruction be delayed? Can children in low-income, inner-city schools learn to print as well and as early as children from middle-income, suburban schools? Can learning to print be made an enjoyable experience that will generate positive attitudes toward writing?

To answer these questions, research and development activities are being conducted at SWRL Educational Research and Development. The laboratory is developing instructional systems in all areas of the elementary school curriculum. The handwriting instruction described here is part of a comprehensive Composition Skills Program for elementary schools.

Two outcomes were formulated for handwriting instruction: to print each capital and lower case letter of the alphabet and, to write the numerals 0 through 9. Various materials and procedures were developed and tried out in four kindergarten classes encompassing a wide range of socioeconomic and ethnic populations.

Instructional Materials

Letter Formation Exercises were developed to provide the children with initial instruction on each letter or numeral. Specifications for these exercises were obtained from a previous experimental study

of various strategies for teaching handwriting (Working Paper 3)... For each Letter Formation Exercise, the children traced dotted representations of the letter 12 times and then copied the letter 12 times from a model at the top of the page. An incentive for completing the page was provided by placing an incomplete cartoon in the last response position. A dotted representation of the letter being practiced was imbedded in the cartoon. The cartoon was complete when the child traced the letter. Two letters (usually the capital and the lower case versions of a letter) or numerals were introduced in each Letter Formation Exercise. Thus each exercise contained a total of 48 responses and was designed to be administered during a 25 minute instructional period.

Other types of exercises were developed to provide additional practice in letter formation. Story Completion Exercises were developed in which children filled in blanks in sentences by copying model words. With assistance, the children could then read the "story" which described illustrations in the exercise. The stories were humorous, and were designed to help motivate the handwriting practice. Other exercises simply provided additional practice in copying letters or required the child write each letter as the teacher dictated it.

In all, the handwriting program consisted of 90 exercises, divided into five units of 18 exercises each. Each exercise was 25 minutes long. It was suggested that teachers devote approximately six weeks to each unit. By teaching three exercises a week, a unit could be completed in six weeks. The exercises were sequenced according to difficulty of letter formation. Straight-line letters

such as t or l were taught first. Curved-line letters and numerals came later. A Teacher's Guide was provided which listed instructional procedures for the teacher. Generally, the procedures emphasized a positive approach with the children. For example, when helping children form letters with proper stroke sequence and direction, teachers were asked to say something like, "This letter is good. Try to make some that are even better."

METHOD

To determine how well the program would operate in a variety of school settings, two schools in each of four areas were identified: low-income Spanish-speaking inner city, low-income Black inner city, lower-middle-income White suburban. Each area was represented by a different school district. Within each district, one class in one school was designated as a tryout class and one class in the other school a comparison class.

Laboratory staff conducted one hour teacher training sessions at each tryout school. At this time teachers were given materials and a copy of the Teacher's Guide. The outcomes and the materials comprising the program were described and examined, and teaching procedures were presented and discussed. Comparison classes simply received normal kindergarten instruction during the year.

Before the tryout, the eight kindergarten classes (four tryout and four comparison) were administered a handwriting pretest. At the end of the school year, the eight classes were administered an alternate form as a posttest. Laboratory staff members administered both

tests. On each test, children were asked to copy a total of 10 letters and numerals. The letters and the numerals on each test were selected to represent the range of difficulty across the 52 letters (26 upper case and 26 lower case) and 10 numerals.

Each letter printed by a child on the pretest or the posttest was scored on a 6-point legibility scale. Ratings ranged from 0 (no response) to 5 (very legible). Model letters for each point in the scale were provided, and the average correlation of agreement for ratings of three judges who had no knowledge of treatment conditions were .91 on the pretest and .89 on the posttest.

To assess the children's attitudes toward the handwriting instruction, a total of 40 kindergarten children (five randomly sampled from each of the eight classes) were individually interviewed by Laboratory staff at the end of the year. Interviewers used a six-item pupil preference inventory. Each child was asked to state whether he liked various activities "a whole lot," "a lot," "just o.k.," or "not at all." Three of the items related to general writing activities (printing letters, writing his name, copying words the teacher writes) and three related to non-writing activities (listening at "sharing," reading stories, coloring or painting). To compare the responses of the children in the tryout and in the comparison classes, each item was scored by assigning a numeral ranging from 1 ("not at all") to 4 ("a whole lot"). For each child in the tryout and the comparison classes, a mean score for the three writing items and a mean score for the three non-writing items were computed.

In addition to the pretest, the posttest, and the pupil preference inventory, other sources of data for the study included Laboratory observations of a total of 13 lessons in the tryout classes and teachers' comments obtained at an end-of-year meeting.

RESULTS

Table 1 presents the distribution of pretest and posttest ratings on letters and numerals for the kindergarten tryout classes and the comparison classes. The distribution of ratings is reported in percentage. Cumulative distributions for each testing are reported in parentheses. As Table 1 shows, 47% of the pretest ratings for the comparison classes ranged from 3 through 5 (fairly legible or better), while only 23% of the pretest ratings for the tryout classes fell in this range. On the posttest, however, 90% of the ratings for the tryout classes were 3 or higher, compared with 72% for the comparison classes.

When broken down by schools, the posttest data indicated consistently high performance in the tryout schools. The percents of posttest responses rated 3 or higher for the tryout classes in Districts A, B, C, and D were 95, 83, 86, and 96, respectively. In the corresponding four comparison classes, the percents were 54, 86, 75, and 74, respectively. Only in District B was the percentage of ratings 3 or higher not appreciably different between the comparison school and the tryout school. However, 61% of the pretest ratings for the comparison school in District B were 3 or higher, as compared with only 2% for the tryout school.

TABLE 1

PRETEST AND POSTTEST PERCENTAGE DISTRIBUTION OF RATINGS FOR
KINDERGARTEN TRYOUT AND COMPARISON CLASSES ON LETTER COPYING ITEMS

Ratings	Tryout Children		Comparison Children	
	Pretest	Posttest	Pretest	Posttest
5 (very legible)	0 (0)	8 (8)	0 (0)	2 (2)
4 (quite legible)	4 (4)	23 (31)	12 (12)	12 (14)
3 (fairly legible)	19 (23)	59 (90)	35 (47)	58 (72)
2 (barely legible)	47 (70)	7 (97)	38 (85)	19 (91)
1 (completely illegible)	15 (85)	3 (100)	10 (95)	6 (97)
0 (no response)	15 (100)	0 (100)	5 (100)	3 (100)
Number of subjects:	40	40	40	40
Total number of letter responses rated:	400	800	400	800

Note: Cumulative percentages are in parentheses.

Table 2 reports the mean ratings and the standard deviations on the pupil preference inventory for the writing and non-writing activities of the tryout classes and the comparison classes. The mean ratings for the tryout classes and the comparison classes on the non-writing items were identical, and would be expected. However, the children in the tryout class rated writing activities significantly more positively than children in the comparison classes ($p < .05$).

TABLE 2

MEAN RATINGS AND STANDARD DEVIATIONS ON THE PUPIL PREFERENCE INVENTORIES
FOR WRITING AND NON-WRITING ACTIVITIES OF TRYOUT AND COMPARISON CHILDREN

Group	Number of Pupils	Writing Items			Non-Writing Items		
		Mean	Standard Deviation	t	Mean	Standard Deviation	t
Tryout	20	2.8	.66	2.3 $p < .05$	3.0	.71	0.5 $p < .05$
Comparison	15	2.4	.46		3.0	.53	

Lesson observations and teacher meetings yielded much information on use of the program in kindergarten level. Generally, all four tryout teachers felt that the program was appropriate for most of the children and that the exercises were generally geared to the children's interests. The teachers rated the children's overall reaction to the program as very enthusiastic. All the teachers said that they would use the program again.

IMPLICATIONS

The results of this study shed some light on beginning handwriting instruction:

- Systematically developed and sequenced materials can effectively promote beginning printing skills. These materials must provide children with substantial amounts of direct practice on the printing task. Teachers should provide direct, positive feedback to individual children as they practice letter formation.
- Kindergarten children can effectively learn to print. There appears to be no reason to delay systematic printing instruction until later.
- There seems to be no large difference in how well children of various socioeconomic levels and ethnic groups learn to print in kindergarten.
- Systematic instruction which provides for learner success in printing can generate positive attitudes toward school activities involving handwriting in kindergarten.

The instructional program described in this study can be replicated. That is, the instructional materials, activities, and procedures are in a format that is usable by others. Also, the program has been validated in actual classrooms. That is, it has demonstrated its effectiveness in promoting specified handwriting skills. The continued development of such programs in other subject areas promises to help teachers improve the basic skill abilities of your children.

Working Paper 8

1971-72 TRYOUT OF THE LEVEL 2 COMPOSITION SKILLS EXERCISES (TN 3-72-35)

Lee Trithart, Edys Quellmalz, and Fred Niedermeyer

Level 2 of the SWRL Composition Skills Program is normally used in first grade and is designed to be coordinate with the SWRL Second-Year Reading Program. Initial formulation of the program began during the Fall of 1969. The first tryout took place in 14 classes during the last five months of the 1969-70 school year, and provided extensive performance data demonstrating the effectiveness of the program (Sullivan, Okada, and Niedermeyer, 1971). On the basis of the initial tryout, revisions were incorporated into the program and the second tryout occurred in the 1970-71 school year in an additional 14 classes. Evaluation of this tryout was limited to teacher feedback concerning the program revisions (Okada and Baker, 1971). After routine editing the materials were again tried out during the 1971-72 school year in eight first grade classes encompassing a wide range of school locations and conditions. This report describes the Level 2 program, the tryout procedures, and the results. A discussion of the results and a listing of revisions are also included.

METHOD

Outcomes

Level 2 of the SWRL Composition Skills Program was designed to teach the following skill areas of composition writing:

WRITES

1. with increasing fluency
2. good, interesting, well-expressed stories

EDITS compositions for

3. appropriate word spacing
4. word omissions
5. sentence-initial capitalization
6. capitalization of proper names
7. sentence-final punctuation

Materials

To achieve the program outcomes instruction was presented in a series of 64 sequenced writing lessons that presented progressively less structured writing formats and required children to write with increasing fluency. Each of the 64 lessons was developed to coordinate with one of the 64 fiction stories of the SWRL Second-Year Reading Program. Both sets of lessons were based on identical reading vocabulary. Plots, characters, and story sequences in the two programs were unrelated.

Composition Skills lessons were presented in the form of a story with accompanying pictures. The stories were incomplete in that the sequence of lesson formats required students to write progressively more words and sentences to successfully complete the stories. Initial exercises had one or more words missing from the sentences of the story and required the student to select the most appropriate word or words to complete the sentences from among given choices. Later exercises required children to supply their own words and phrases to complete the sentences of the story. For these and subsequent lessons, SWRL Word List Booklets containing the words from the Reading Program in an alphabetized list accompanied the standard lesson materials to facilitate spelling and variety of word usage. In later lessons one or more

sentences were gradually deleted from the story text so that lengthier and more complex responses were required to complete the story. The final exercises in the program consisted of a sequence of four illustrations and required the children to write the entire story accompanying the illustrations.

The exercises were designed to require a minimum of teacher supervision once a new lesson format or outcome was introduced. Specific teaching procedures were written on each exercise. In addition to these directions for specific lessons, teachers received a Teacher's Guide that described materials, general teaching and follow-up procedures, SWRL tryout requirements, and a description of the coordination between the Reading Program Fiction Stories and the Composition Skills Exercises.

Sample

Level 2 of the Composition Skills Program was tried out in a total of eight first-grade classes. To determine how well the program would operate in a variety of school settings, the tryout schools were selected to represent a wide range of socio-economic and minority-group populations. The chart below indicates the distribution of the classes according to school, district, socio-economic level, and predominant ethnic composition. All classes using the Level 2 Composition Skills Program were also using the Second-Year Reading Program.

District*	Number of Classes	Socio-Economic Level	Predominant Ethnic Composition
A	2	upper-middle-income suburban	White
B	2	lower-middle-income suburban	White
C	1	lower-income inner-city	Mexican-American
D	3	lower-income inner-city	Black

*one school per district

For each of the four tryout schools a class in a comparison school was designated. Comparison schools were similar to tryout schools on the basis of socio-economic level, ethnic composition, size, and geographic location.

Procedures

Prior to the initiation of the Program, teacher training sessions lasting approximately 45 minutes were conducted at each school by the Laboratory staff. Teachers were given materials and Teacher's Guides at this time. The outcomes and materials of the program were described and examined, and teaching procedures were presented and discussed.

Teacher-training sessions took place during late October of 1971. Teachers were to begin the first Composition Skills exercises when their classes reached Book 1 Story 1 of the Second-Year Reading Program. Pacing of Composition Skills lessons was contingent upon the scheduling of Reading lessons. The rate required for completion of the Program was two lessons in each program per week. Additionally, 25 minutes

of instructional time plus 5-10 minutes of follow-up time was to be allotted for each Composition Skills Program lesson.

Data Sources and Testing Procedures

Pupil Performance Tests. In late October and early November the eight tryout and four comparison classes were pretested. In late May the same 12 classes were posttested. All testing was conducted by SWRL staff members.

Pre- and posttests were in two parts: the first part required students to write five sentences from dictation and the second part required them to write a composition in response to directions and an illustration. Dictated sentences were designed to elicit use of the full range of editing outcomes (punctuation and capitalization skills) from students. The pictures and directions accompanying the composition task were designed to elicit a story containing both narration and dialogue. Children were given 15 minutes in which to plan and write their stories and were given five minutes for editing what they had written. Pre- and posttest sentence dictation and comparison items were drawn from the same item pools. A copy of the pretest and of the instructions used by the test administrator can be inspected in Niedermeyer, Quellmalz, and Trithart, 1972. A copy of the posttest procedures used by the test administrator is contained in Appendix A.

Sentences dictated were scored for word spacing, sentence completeness, capitalization, and ending punctuation using procedures established during a previous study (Labeaune, Niedermeyer, and Sullivan, 1971). Stories written by the children were analyzed for

writing fluency and sentence correctness by simply counting words and sentences, procedures also previously established (Labeaune, et al., 1971). Story quality was assessed by three types of subjective ratings on six-point scales: (1) overall quality, (2) originality, and (3) organization, using procedures established during a previous study (Niedermeyer, et al., 1972). The agreement correlation between two SWRL staff members scoring a sample of 15 pretest compositions was .89 for overall quality, .91 for originality, and .88 for organization. The agreement between three staff members scoring a sample of 15 posttest compositions was .91 for overall quality, .87 for originality, and .86 for organization. In addition, stories received a classification according to type of organization using procedures previously established (Niedermeyer, et al., 1972). Stories were categorized as organized according to chronology, space, plot, argument, or other criteria, or as a no response. The agreement correlation between two SWRL staff members classifying a sample of 15 pretest compositions was .89. The agreement between three raters classifying a sample of 15 posttest compositions was .87.

Because the test-scoring procedures for Levels 1, 2, and 3 of the Composition Skills Program involved a considerable amount of staff time, random samples of ten children from each tryout and comparison class in each district were selected for analysis. Thus the sample of first-grade students whose composition skills were analyzed consisted of 80 children (ten children randomly selected from each of the tryout and control groups in each of the four classes) on pretest and posttest. To insure

that raters had no knowledge of tryout and comparison classes, tests were coded and randomly sequenced prior to scoring.

Pupil Preference Inventories. A random sample of 38 tryout and 20 comparison group children (five from each of the tryout and comparison classes in each of the four districts) was interviewed by SWRL staff members, using the tryout or comparison group Pupil Preference Inventory. Each child was interviewed individually and asked to state whether he liked various activities "a whole lot," "a lot," "just o.k.," or "not at all." Eight of the items (five related to general writing activities and three related to non-writing activities) were identical on the tryout and control inventories. Four additional questions appeared only on the tryout inventory and concerned specific types of lessons in the Level 2 Program.

Lesson Observations. During the tryout, classroom lessons were observed by staff members on a regular basis. Procedures for systematically documenting these observations were operationalized (Niedermeyer, 1972). Essentially these procedures required the observer to write a summary of all that was seen and heard during the lesson, following each observation. Inferences about pupil attitudes and teacher performance, and implications for program materials and procedures were then recorded on the report form. In all 22 lessons were observed and documented at the first-grade level.

Teacher Questionnaires. Letters were sent to all the Level 2 teachers near the end of the school year (late May) thanking them for their participation in the program and requesting them to fill out the

Teacher Questionnaire for program evaluation. The questionnaire was designed to elicit specific comments, criticisms, revision suggestions, and teacher attitudes toward the program. A copy of the questionnaire which shows the responses of the six teachers who completed their questionnaires is contained in Appendix B.

RESULTS

Scores presented in this section have been summed across the four districts tested. However, for Tables 1-5 in this section, corresponding tables showing the data arrayed by district may be found in Appendix C.

Pupil Performance

Table 1 presents the pretest and posttest percentages of correct responses on editing outcomes (Outcomes 3-7, Page 2) as measured through the sentences dictated to the first grade tryout and comparison classes. From the data in Table 1 it may be seen that the percentage of correct responses on each editing outcome was higher for tryout classes on posttest dictated sentences than it was for comparison classes.

Table 2 indicates pretest and posttest means and standard deviations of total words and sentences in stories written by first-grade tryout and comparison classes (Outcome 1). As may be seen, tryout children progressed from an initially lower mean number of words per composition, 4.22 as compared with 9.85, to a higher mean number of words per composition on the posttest, 31.77 as compared with 23.78. On the number of sentences written per composition, the tryout classes likewise progressed from an initially lower mean, .65 as compared with 1.20, to a

TABLE 1
PERCENTAGES OF CORRECT RESPONSES ON EDITING OUTCOMES
AS MEASURED THROUGH DICTATED SENTENCES

Outcome Measured	Tryout Classes		Comparison Classes	
	Pretest	Posttest	Pretest	Posttest
3. Spacing: All words present discernible as distinct units	42	77	42	58
4. Sentence complete: All words present	51	93	43	63
5. Initial Capitalization: Correctly capitalizes initial letter of sentence	44	72	35	60
6. Capitalization: Correctly capitalizes proper names	10	65	5	19
7. Ending Punctuation: Correct ending punctuation	6	47	5	20
Number of subjects	40	40	40	40
Number of items responded to by each subject on each editing outcome: sentence complete, 5; spacing, 5; initial capitalization, 5; capitalization of proper names, 2; ending punctuation, 5.				

TABLE 2
MEANS AND STANDARD DEVIATIONS OF TOTAL WORDS AND SENTENCES IN STORIES

Outcome Measured		Tryout Classes		Comparison Classes	
		Pretest	Posttest	Pretest	Posttest
1. Number of Words	\bar{X}	4.22	31.77	9.85	23.78
	s.d.	5.48	22.49	9.40	23.21
1. Number of Sentences	\bar{X}	.65	2.90	1.20	2.70
	s.d.	.80	2.31	1.11	3.65
number of subjects		40	40	40	40

slightly higher posttest mean, 2.90 as compared with 2.70.

Table 3 shows pretest and posttest percentages of complete sentences, sentence strings, sentence fragments, and run-on sentences in stories written by first-grade tryout and comparison classes (Outcomes 4, 5, and 7). This table differs from Table 1 in that the outcomes were assessed in a constructed-response, story context, rather than in dictated sentences. There is very little difference between the two groups when employing these outcomes in a story context.

Table 4 contains the pretest and posttest cumulative percentages of subjective ratings of quality, originality, and organization of the stories written by the first-grade tryout and comparison classes (Outcome 2). The principle differences in the two groups are that (1) there were no posttest tryout students who did not attempt to respond to the composition task, whereas 25 percent of the comparison students wrote nothing, and (2) on ratings of overall quality, originality, and organization, a consistently higher percentage of posttest tryout students (53, 72, and 54 percent respectively) wrote compositions in the "3" through "5" range (fair or better) than did students in the posttest comparison group, for whom the figures were 35, 47, and 35 percent.

In Table 5 the pretest and posttest percentages of types of organization in stories written by the first-grade tryout and comparison classes may be seen (Outcome 2). Corresponding figures are approximately the same for the two groups with the exception of the higher percentage of posttest tryout students, 75 percent, who wrote compositions

TABLE 3
PERCENTAGES OF COMPLETE SENTENCES, SENTENCE STRINGS,
SENTENCE FRAGMENTS, AND RUN-ON SENTENCES

Outcome Measured	Tryout Classes		Comparison Classes	
	Pretest	Posttest	Pretest	Posttest
4., Complete Sentences	46	65	44	70
5., 7. Sentence Strings	0	3	2	0
4. Sentence Fragments	38	14	37	12
5., 7. Run-On Sentences	16	18	17	18
number of subjects	40	40	40	40

TABLE 4.

CUMULATIVE PERCENTAGES OF SUBJECTIVE RATINGS OF
QUALITY, ORIGINALITY, AND ORGANIZATION OF STORIES

	Tryout Classes						Comparison Classes					
	Pretest			Posttest			Pretest			Posttest		
	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization
Excellent	0	0	0	0	0	0	0	0	0	0	5	0
Good	0	0	0	5	42	22	0	0	0	5	32	7
Fair	5	0	0	53	72	54	0	2	5	35	47	35
Somewhat Inadequate	17	15	15	88	92	72	28	20	20	55	65	53
Extremely Inadequate ^a	35	33	33	100	100	100	60	52	55	75	75	75
No Response	100	100	100	100	100	100	100	100	100	100	100	100
Number of Ss	40	40	40	40	40	40	40	40	40	40	40	40
Coefficient of agreement	.89	.91	.88	.91	.87	.86	.89	.91	.88	.91	.87	.86

TABLE 5
PERCENTAGES OF TYPES OF ORGANIZATION IN STORIES

	Tryout Classes		Comparison Classes	
	Pretest	Posttest	Pretest	Posttest
Chronological	12	75	23	48
Spatial	0	0	0	0
Plot	0	0	0	2
Argument	2	0	2	0
Other	18	25	30	25
No Response	68	0	45	25
number of subjects	40	40	40	40
Coefficient of agreement	.92	.87	.92	.87

chronologically organized compared with 48 percent of the posttest comparison students. The difference in the percentages of posttest tryout and comparison students in the "No Response" classification has already been noted.

Pupil Preferences

Tables 6 and 7 display the percentage distributions for how well the tryout and comparison children stated they liked various activities on the Pupil Preference Inventory. As may be seen from examination of corresponding items in the two tables, the tryout classes evidenced a generally more positive attitude toward all school activities, writing and non-writing, than did the comparison classes. The tryout classes also showed a high degree of preference for activities related to the specific materials in the Level 2 Program (Items 2, 5, 8, and 11).

Lesson Observations and Teacher Questionnaires

Lesson observations and teacher questionnaires yielded much information concerning use of the Level 2 Program at the first-grade level. This information is summarized below according to various categories.

Pacing. The percents of participating tryout students having completed different portions of the Level 2 Composition Skills Program may be seen in Table 8. Forty-five percent of the participating students in the tryout classes had completed the program or were working within the last eight lessons. An additional 55 percent were still working at different stages. Fifteen percent of the students in the tryout classes were non-participants. Since lessons were suggested for scheduling at the rate of two per week, students who were not

TABLE 6
PERCENTAGE DISTRIBUTION OF PUPIL PREFERENCE INVENTORY RESPONSES

	In school this year did you ever..?		Do you like to..?		Do you like it..?		
	yes	no	yes	no	a whole lot	a lot	just o.k.
1. write words?	100	0	100	0	24	42	34
2. write words that fit into sentences like these? (Show Stories 5 & 12.)	97	3	100	0	38	38	24
3. listen to other boys and girls share things they've brought to school?	97	3	97	3	50	36	14
4. write sentences?	97	3	97	3	38	31	31
5. choose words and write them in the numbered spaces like these? (Show Stories 17 & 26.)	89	11	100	0	44	21	35
6. read stories?	100	0	97	3	43	30	27
7. write a story that tells about a picture?	89	11	94	6	44	28	28
8. write your own words in spaces to finish sentences like these? (Show Stories 35 & 44.)	92	8	97	3	42	29	29
9. draw pictures with crayons or paint?	95	5	100	0	69	20	11
10. make up titles for the stories you write?	87	13	94	6	42	23	35
11. write stories on papers like this? (Show Stories 61 & 64.)	66	34	96	4	33	17	50
12. write your name?	100	0	100	0	55	13	32

TABLE 7

PERCENTAGE DISTRIBUTION OF PUPIL PREFERENCE INVENTORY RESPONSES
BY 20 RANDOMLY-SAMPLED FIRST-GRADE CHILDREN IN FOUR COMPARISON CLASSES

	In school this year did you ever..?		Do you like to..?		Do you like it..?		
	yes	no	yes	no	a whole lot	a lot	just o.k.
1. write words?	100	0	95	5	5	32	63
2. listen to other boys and girls share things they've brought to school?	95	5	95	5	22	45	33
3. write sentences?	90	10	100	0	17	44	39
4. read stories?	85	15	100	0	24	35	41
5. write a story that tells about a picture?	90	10	94	6	18	35	47
6. draw pictures with crayons or paint?	100	0	90	10	39	44	17
7. make up titles for the stories you write?	75	25	100	0	27	46	27
8. write your name?	100	0	100	0	20	35	45

TABLE 8

PERCENTS OF PARTICIPATING STUDENTS IN TRYOUT CLASSES HAVING
COMPLETED DIFFERENT PORTIONS OF THE LEVEL 2 COMPOSITION SKILLS PROGRAM

Number of Lessons	Percents of Pupils Completing
57-64	45
49-56	29
41-48	7
33-40	14
25-32	5
17-24	0
9-16	0
1-8	0

Note: Fifteen percent of the students in the tryout classes were non-participants in the program.

working within the last block of lessons appeared unlikely to complete the entire program by the time of the posttest.

Teacher Affect. Five of the six teacher questionnaire respondents felt that the program was appropriate for most of their children. All felt that the exercises were generally geared to the children's interests and rated the children's overall reaction to the program as fairly to very enthusiastic. All of the teachers stated they would use the program again.

Time per Lesson. All teachers stated that lessons took less than 25 minutes with one teacher using less than an average of 15 minutes per lesson. In general it appeared that the time taken per lesson diminished as children progressed through the program until the final lessons in which length of time was controlled by how much and how long the children wanted to write.

Teacher's Guide. Four of the six respondents felt that the teacher directions for each lesson were clear and helpful as was the Teacher's Guide itself. The other two respondents stated that they had used neither the directions specific to each lesson nor the Teacher's Guide.

DISCUSSION AND REVISIONS

The pupil performance data on editing outcomes (Outcomes 3-7) indicated that the exercises were fairly successful in teaching most of the skills assessed when they occurred in the context of a single-sentence response as in the sentence-dictation data (Table 1). However, when students were required to edit for outcomes 4, 5, and 7 in responses

in tryout and comparison classes. This may be due in part to two facts: 1) direct instruction on the correction of run-on sentences, sentence fragments, and sentence strings was not presented, and 2) the lessons most directly applicable to the practice of this skill, i.e. those requiring the student to write responses longer than a single sentence in length and then to proofread his writing, did not occur until relatively late in the program, after Lesson 55. (There are 64 lessons in the program.) Only 45 percent of the students tested reached these lessons.

The data on the average number of words and sentences written by tryout students in their posttest compositions (Outcome 1, Table 2) also appears to have been affected by the fact that more than half of the tryout students tested had not completed the program. Although writing fluency was promoted throughout the program, the posttest composition task required multiple-sentence responses comparable only to the responses required in the program after Lesson 55. The ability of tryout students to write longer posttest compositions than did the students in comparison classes is evidence of the efficacy of the fluency instruction throughout the program. However the failure of 55 percent of the students tested to reach lessons giving instruction on composing multiple sentences is reflected in the poor performance of students in this tryout (32 words, 2.9 sentences per composition) when compared with that of students in previous tryouts (71 words, 9.1 sentences per composition) for whom the average proportions of the

program completed were greater.

The superior achievement by the tryout students on ratings of overall quality, originality, and organization (Outcome 2, Table 4) and the larger percentage of them using recognizable criteria for organizing their stories (Outcome 2, Table 5) may be assumed to be largely an incidental effect of the instruction on fluency and technical accuracy. These global outcomes received very little direct instructional attention. It would appear that although students may possess competencies in the fields of originality or organization, it is impossible to accurately assess their ability as applied to story writing until a minimal level of writing fluency has been achieved. Once students are writing compositions at least several sentences in length, it becomes possible to assess existing abilities and to begin instruction to perfect them.

The data provided by the 1971-72 tryout of the SWRL Level 2 Composition Skills Program corroborated the data from preceding tryouts concerning the overall effectiveness of the program and provided additional data for program revision. On the basis of the data collected during this tryout the following program revisions will be made:

- 1) The sequence of 64 stories will be revised and organized into five units containing 12 lessons each, the last lesson in each unit being a progress check designed to identify students who have not mastered the outcomes introduced in the unit. Teachers will be instructed to give students having

difficulty with selected outcomes additional practice on the outcomes.

- 2) Editing outcomes will be introduced more explicitly and opportunities for practice more systematically provided according to detailed lesson specifications.
- 3) The sequence for promoting fluency will follow the same progression but will be accelerated so that instruction requiring multiple-sentence responses will begin by Lesson 42.
- 4) Units 4 and 5 will provide explicit instructional emphasis on planning and organization.
- 5) The Teacher's Guide and instructional procedures have been revised to reflect the above program revisions.

In addition, use of the SWRL Composition Skills Program will be made independent of any specific reading program. The Program will be rewritten to be coordinate with the SWRL Reading Program word base. Composition Skills Program story plots and characters will continue to be exclusive to the program.

APPENDIX A

PROCEDURES USED BY TEST ADMINISTRATOR

FORM 2

FIRST GRADE COMPOSITION SKILLS TEST

PART I

Directions:

- Give each child a pencil and answer sheet.
 - Tell the children that they are going to practice writing.
 - Ask each child to put his name on his answer sheet.
 - Tell the children that you are going to read them some sentences.
 - Explain that they should try to write the sentences as you read them.
 - Tell the children that they should try to write and spell each word as best they can.
 - Ask the children to listen carefully, as you will say each sentence only two times.
 - Begin reading each sentence. Say the words slowly once. Wait about 5 seconds, then repeat the sentence.
 - Check that the children are writing on the appropriate line.
-

1. She fell.
 2. He is Sam.
 3. Is she sad?
 4. I sat on the hill.
 5. Will Nat win?
-

PART II

Directions:

- Ask the children to turn to the next page.
- Explain that they are going to write a story about the picture at the top of the page.
- Read the following introduction to the children. Do not elaborate on this introduction.

Ann and Bud appear to be going away. Write a story about where they are going, what they will do once they get there, and why they seem to be so happy. Include some things that Ann and Bud say to each other while in the car.

- Point out the first line and explain that they should write the title of their story on it before they begin actually writing the story.
- After 15 minutes tell the children to stop. Read them the following directions:

Stop writing.
Go back and read your story to yourself. If you find mistakes, change them to make them right.

- Wait 3 minutes, and then collect all the papers.

APPENDIX B

SWRL SECOND-YEAR COMPOSITION SKILLS PROGRAM

Spring, 1972

TEACHER QUESTIONNAIRE

The SWRL Second-Year Composition Skills Program is still being developed and refined. In order that we may evaluate and further improve the program, it is essential that we obtain your comments, criticisms, and suggestions with this questionnaire. Thank you.

1. Please indicate the last exercise completed by your children. (If your children were not grouped, please complete Group 1 only.)

Group 1: 7-23 children; Story 50-64

Group 2: 2-9 children; Story 39-64

Group 3: 5-9 children; Story 25-50

Group 4: 8 children; Story 38

Non-participants: 6-17 children

2. Is the program appropriate for most of your children?

5 yes 1 no

3. What was the overall reaction of your class to the program?

4 very enthusiastic fairly unenthusiastic

2 fairly enthusiastic very unenthusiastic

 neutral

4. How long was each lesson, on the average?

1 less than 15 minutes

5 15 to 25 minutes

 25 to 35 minutes

 more than 35 minutes

5. Were the teacher directions for each exercise clear and helpful to administering the lessons?

4 yes no 2 did not use

6. Was the Teacher's Guide clear and complete?

4 yes no 2 did not use

7. Were the stories generally enjoyable and interesting to the children?
6 yes no

8. What proportion of your class was able to complete most of the lessons independently?

5 more than 80%

1 60% to 80%

 40% to 60%

 20% to 40%

 less than 20%

9. Would you use the program again?
6 yes no

10. Please write below specific comments, criticisms, or suggestions not already covered. You may want to comment on individual exercises, the sequence of the exercises, illustrations, or specific problems you encountered.

APPENDIX C

Table 1a. Pretest and Posttest Percentage Distribution of Correct Responses on Editing Outcomes as Measured Through Dictated Sentences for First-Grade Tryout and Comparison Classes in Four School Districts

Outcome Measured	District A*				District B				District C				District D			
	Tryout		Comparison		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
3. Spacing	90	80	82	88	46	92	68	88	30	68	0	16	0	66	18	42
4. Sentence Complete	94	100	78	96	56	100	64	98	38	100	0	20	16	70	28	38
5. Initial Capitalization: Sentences	68	74	60	68	50	98	36	84	28	68	0	36	30	50	42	54
6. Capitalization: Proper Names	65	85	30	35	15	90	15	20	67	55	0	0	0	12	0	8
7. Ending Punctuation	20	68	18	34	0	66	0	46	0	54	0	0	1	0	0	0
Number of subjects	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Number of items responded to by each subject on each editing outcome:
 sentence complete, 5; spacing, 5; initial capitalization, 5; capitalization
 of proper names, 2; ending punctuation, 5.

*A = white upper-middle-income suburban

*B = white lower-middle-income suburban

C = bilingual (Spanish-English) lower-income inner-city

D = black lower-income inner-city

Table 2a. Pretest and Posttest Means and Standard Deviations of
Total Words and Sentences in Stories Written by First-
Grade Tryout and Comparison Classes in Four School Districts

Outcome Measured		District A*				District B				District C				District D			
		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1. Number of Words	\bar{X}	11.70	25.60	12.60	33.90	2.50	34.10	20.90	47.60	1.10	53.00	0.00	0.00	1.60	14.40	5.90	13.60
	s.d.	3.77	9.15	7.24	14.84	3.07	12.48	4.72	21.63	1.64	30.01	0.00	0.00	3.90	6.10	5.22	8.55
1. Number of Sentences	\bar{X}	1.50	3.00	1.60	3.60	.50	5.20	1.50	5.20	.40	2.10	0.00	0.00	.20	1.30	1.70	2.00
	s.d.	.92	1.26	.66	2.46	.50	2.93	.92	5.42	.49	1.30	0.00	0.00	.40	.64	1.27	1.34
number of subjects		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

*A = white upper-middle-income suburban

B = white lower-middle-income suburban

C = bilingual (Spanish-English) lower-income inner-city

D = black lower-income inner-city

Table Ja. Pretest and Posttest Percentages of Complete Sentences, Sentence Strings, Sentence Fragments, and Run-On Sentences in Stories Written by First-Grade Tryout and Comparison Classes in Four School Districts

Outcome Measured	District A*				District B				District C				District D			
	Tryout		Comparison		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
4. Complete Sentences	60	77	69	67	60	71	27	81	0	38	0	0	0	38	35	50
5, 7. Sentence Strings	0	0	0	0	0	0	7	0	0	14	0	0	0	0	0	0
4. Sentence Fragments	20	0	19	3	40	19	33	8	100	19	0	0	50	15	59	40
5, 7. Run-On Sentences	20	23	12	31	0	4	33	12	0	29	0	0	50	46	6	10
number of subjects	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

*A = white upper-middle-income suburban

B = white lower-middle-income suburban

C = bilingual (Spanish-English) lower-income inner-city

D = black lower-income inner-city

Table 4a. Pretest and Posttest Percentage Distribution of Subjective Ratings of Quality, Originality and Organization of Stories Written by First-Grade Tryout and Comparison Classes in a White Upper-Middle-Income Suburban District.

Ratings	Tryout						Comparison					
	Pretest			Posttest			Pretest			Posttest		
	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization
5 Excellent	0	0	0	0	0	0	0	0	0	0	10	0
4 Good	0	0	0	20	50	30	0	0	0	10	60	10
3 Fair	0	0	0	50	40	50	0	10	20	50	20	60
2 Somewhat Inadequate	50	40	60	30	0	0	70	40	20	30	0	30
1 Extremely Inadequate	40	50	30	0	10	20	20	30	50	10	10	0
0 No Response	10	10	10	0	0	0	10	20	10	0	0	0
number of Ss	10	10	10	10	10	10	10	10	10	10	10	10
coefficient of agreement	.89	.91	.88	.91	.87	.86	.89	.91	.88	.91	.87	.86

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Table 4a. Pretest and Posttest Percentage Distribution of Subjective Ratings of Quality, Originality and Organization of Stories Written by First-Grade Tryout and Comparison Classes in a White Lower-Middle-Income Suburban District

Ratings	Tryout						Comparison					
	Pretest			Posttest			Pretest			Posttest		
	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization	Overall Quality	Originality	Organization
5 Excellent	0	0	0	0	0	0	0	0	0	0	10	0
4 Good	0	0	0	0	30	30	0	0	0	10	40	20
3 Fair	20	0	0	70	50	30	0	0	0	60	30	30
2 Somewhat Inadequate	0	20	0	30	20	40	40	30	40	10	20	30
1 Extremely Inadequate	10	10	30	0	0	0	50	60	50	20	0	20
0 No Response	70	70	70	0	0	0	10	10	10	0	0	0
number of Ss	10	10	10	10	10	10	10	10	10	10	10	10
coefficient of agreement	.89	.91	.88	.91	.87	.86	.89	.91	.88	.91	.87	.86

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Table 4a. Pretest and Posttest Percentage Distribution of Subjective Ratings of Quality, Originality and Organization of Stories Written by First-Grade Tryout and Comparison Classes in a Bilingual (Spanish-English) Lower-Income Inner-City District

Ratings	Tryout						Comparison					
	Pretest			Posttest			Pretest			Posttest		
	Quality	Originality	Organiza- tion	Overall Quality	Originality	Organiza- tion	Overall Quality	Originality	Organiza- tion	Overall Quality	Originality	Organiza- tion
5 Excellent	0	0	0	0	0	0	0	0	0	0	0	0
4 Good	0	0	0	0	60	30	0	0	0	0	0	0
3 Fair	0	0	0	50	30	20	0	0	0	0	0	0
2 Somewhat Inadequate	0	0	0	50	10	30	0	0	0	0	0	0
1 Extremely Inadequate	10	0	0	0	0	20	0	0	0	0	0	0
0 No Response	90	100	100	0	0	0	100	100	100	100	100	100
number of Ss	10	10	10	10	10	10	10	10	10	10	10	10
coefficient of agreement	.89	.91	.88	.91	.87	.86	.89	.91	.88	.91	.87	.86

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Table 5a. Pretest and Posttest Percentages of Types of Organization
in Stories Written by First-Grade Tryout and Comparison
Classes in Four School Districts

Type	District A*				District B				District C				District D			
	Tryout		Comparison		Tryout		Comparison		Tryout		Comparison		Tryout		Comparison	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Chronological	50	90	50	70	0	70	40	70	0	80	0	0	0	60	0	50
Spatial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plot	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
Argument	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Other	30	10	40	20	30	30	50	30	0	20	0	0	10	40	30	50
None	10	0	10	0	70	0	10	0	100	0	100	100	90	0	60	0
number of Ss	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
coefficient	.92	.87	.92	.87	.92	.87	.92	.87	.92	.87	.92	.87	.92	.87	.92	.87

*A = white upper-middle-income suburban

B = white lower-middle-income suburban

C = bilingual (Spanish-English) lower-income inner-city

D = black lower-income inner-city

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Working Paper 9

FEASIBILITY OF USING ADULT TUTORS AND PARENTS TO ADMINISTER STRUCTURED SPEECH CORRECTION MATERIALS

Fred C. Niedermeyer

The purpose of this study was to investigate the feasibility of involving adult tutors and parents in administering structured speech therapy materials to children who lisp. This coordinated use of human resources offers promise in assisting school speech clinicians by providing effective individualized instruction that can be administered in a tutorial mode by paraprofessional aides in the schools and by the children's parent in the homes. The speech articulation program involved in the study thus comprised integrated personnel resources performing differentiated tasks structured by specially developed speech therapy materials.

PROGRAM MATERIALS

The instructional program was designed to correct the frontal /s/ lisp and other /s/ misarticulations of elementary school children. It represented an extension of the S-Pack Program system reported on by Ryan (1). Program materials included the following items:

Supervisor Materials. Procedures for the school clinician's use in initiating and supervising the articulation program (including the training of aides and parents) were contained in a program manual. The manual also included a scripted "evoking sequence" (which the clinician could use to elicit the proper /s/ response initially), a 36-item criterion test, and a 10-item transfer test.

Aide Materials. A programmed booklet was developed to be individually administered in the school by a trained aide in a series of 15 20-minute sessions. The booklet was designed to elicit over 1,000 /s/ responses in a variety of contexts (isolation; initial, medial and final word positions; sentences; stories; and games). Illustrations were used to cue the responses and scripted directions were provided for the aide (e.g., "This is the sun. Say sun."). Games at the end of each session were contingent upon the effort and attention of the child.

Parent Materials. Similar type programmed booklets were developed to be administered by the parent in the home following the child's completion of the aide materials in the school. The parent part of the program was designed to be administered in 15 15-minute sessions. Responses elicited in the parent-administered materials provided for extension or "carry over" of the child's /s/ articulation to less structured situations (e.g., making up and telling an original story about a series of given pictures rather than merely paraphrasing a given storyline).

PROCEDURES

The study was conducted during an eight week period in the fall of 1971. Twenty-six primary grade children, six school speech clinicians, seven adult paraprofessional aides, and fourteen parents participated in the study. The subjects were located in six schools in a large southern California metropolitan area. All but one of the schools were

located in lower-income neighborhoods. Clinicians selected the /s/ articulation-deficient children using screening procedures they normally employed. None of the 26 children had had previous /s/ therapy, and all of the children had normal dentition. Six of the children were in kindergarten, six were in first grade, ten were in second grade, and four were in third grade. Aides were paid approximately \$3 per hour by the school districts. The aides, clinicians, and children represented a variety of ethnic backgrounds.

The clinician at each school first identified from three to six children who misarticulated /s/. To help determine the effectiveness of the parent-administered part of the program, one child at each school was randomly selected not to receive the parent materials and thus serve as a control for the remaining children who would receive both the aide and parent parts of the program.

Next each clinician selected and trained an aide according to procedures provided by the author. The selection criteria stated only that the aide have acceptable articulation and be able to read aloud the scripted materials. Training activities included (1) discriminating between correct and incorrect pronunciations of /s/, (2) reading and discussing the written procedures for administering the materials, (3) observing the clinician administer a program session to a child, and (4) role-playing certain sections of the program booklet with the clinician acting as the child.

Before each clinician began any instruction with the children, each child was administered the program's criterion test as a pretest.

(All testing was conducted by an individual trained by the author.) This 36-item test asked the child to use /s/ in all of the previously mentioned contexts (words, sentences, etc.). Next, each clinician worked individually with the children to evoke the proper /s/ pronunciation. Once a child could say /s/ properly ten consecutive times within 20 seconds, he was assigned to an aide. After the child had completed the three week programmed booklet with the aide, he was administered the criterion test.

The clinicians then contacted the parents of the 20 children who had been selected to receive the parent materials and asked them to attend a one-hour meeting at the schools. The parents of 11 of these 20 children were trained in the schools using procedures similar to those provided for training aides. Three others were trained by one of the clinicians going to the homes. All 14 trained parents then administered the three week parent part of the program to their children. Parents of the remaining 12 children (six were not invited to use the parent materials and six were invited but were never trained) did not administer the parent materials during this time.

After three weeks all 27 children were then administered the criterion test again and were administered the transfer test (the first ten /s/ responses emitted were scored as child spoke freely about a given illustration). The test administrator had no knowledge of treatment groups.

RESULTS

Table 1 presents the articulation performance scores for the 14 children who received both the aide-administered program at school and the parent-administered program at home. Table 2 provides these data for the 12 children who received only the aide program and not the parent program. The parents of six of these latter 12 children were never asked to the parent program (Subjects 1, 5, 10, 15, 19, 23), and the parents of the remaining six were invited to use the parent program but did not (Subjects 6, 7, 11, 14, 18, 24).

As may be seen in Tables 1 and 2, the aide plus parent program children and the aide-only children averaged only 19 percent and eight percent, respectively, on the 36-item criterion test administered as a pretest. Following administration of the three week aide program at school, means of the two groups were 88 percent and 86 percent, respectively. After the administration of the three week parent program at home to the 14 aide plus parent program children, all 26 children were administered the criterion test a third time. As may be seen, the mean of the aide plus parent program children increased from a post-aide program mean of 88 percent to a post-parent program mean of 95 percent, while the corresponding mean of the aide-only children decreased from a 86 percent to 84 percent.

The mean score for the aide plus parent program children on the 10-item transfer test, administered at the end of the study, was 91 percent. The mean on this test for children not receiving the parent-administered program was 73 percent.

TABLE 1

/S/ PROGRAM TEST SCORES FOR THE 14 CHILDREN RECEIVING BOTH
AIDE AND PARENT ADMINISTERED PROGRAMS

S's I.D. Number	36-Item Criterion Test Administered as Pretest	Criterion Test Administered as Posttest Following Aide Program	Criterion Test Repeated Following Parent Program	10-Item Transfer Test Following Parent Program
2	24	32	27	4
3	17	36	36	10
4	9	34	35	10
8	13	35	32	9
9	0	35	36	10
12	1	35	36	10
13	0	32	35	10
16	26	36	36	10
17	0	34	35	9
20	3	34	36	10
21	1	31	33	9
22	0	8	35	10
25	2	26	31	10
26	0	36	35	7
<hr/>				
	$\bar{X} = 6.8 (19\%)$	31.7 (83%)	34.1 (95%)	9.1 (91%)

TABLE 2

/S/ PROGRAM TEST SCORES FOR THE 12 CHILDREN RECEIVING ONLY
THE AID ADMINISTERED PROGRAM (NOT THE PARENT PROGRAM)

S's I.D. Number	36-Item Criterion Test Administered as Pretest	Criterion Test Administered as Posttest Following Aide Program	Criterion Test Repeated Following Parent Program	10-Item Transfer Test Following Parent Program
1	9	34	28	8
5	1	31	36	9
6	0	25	21	6
7	13	33	32	9
10	5	28	24	2
11	1	32	35	10
14	0	36	36	10
15	0	32	28	4
18	1	36	36	9
19	0	35	35	10
23	2	14	18	0
24	4	36	35	10
<hr/>				
	$\bar{X} = 3.0$ (8%)	31.0 (86%)	30.3 (84%)	7.3 (73%)

