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ABSTRACT

A study explored the effects of an expanded Language Experience Approach (LEA) on listening comprehension skills of kindergarteners. During a 2-year period, two exerpiments were conducted with different groups of kindergarteners. The second experiment replicated the first experiment and was conducted to determine if an expanded LEA would produce different effects with kindergarteners who were more representative of the population than were those in the first experiment. In both experiments, the experimental (expanded LEA) and the control (traditional LEA) conditions were implemented by the same two teachers. A total of 44 kindergarteners were involved in the first experiment (22 experimental and 22 control) and a total of 47 kindergarteners were involved in the second experiment (23 experimental and 24 control). The two LEA conditions differed only in the kinds of follow-up activities associated with each of the conditions. The results of both experiments favored the use of an expanded LEA. The oral cloze results of experiment 1 revealed significant differences between the experimental and control groups on beginning ($p < .05$), medial ($p < .01$), and total cloze ($p < .01$) scores. In experiment 2, the experimental and control groups differed significantly ($p < .05$) on beginning, medial, and total cloze scores. Significant differences in final cloze scores of the experimental and control groups were not found in either of the experiments. Results indicated that the use of an expanded LEA is likely to be more effective than the traditional LEA in facilitating development of listening comprehension skills. (Three tables of data are included and 21 references are attached.) (Author/MG)

Effects of an Expanded Language Experience Approach on Oral Cloze Performance of Kindergarteners

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Abstract

The effects of an expanded Language Experience Approach (LEA) on listening comprehension skills of kindergarteners were explored. During a two-year period, two experiments were conducted with different groups of kindergarteners. The second experiment replicated the first experiment and was conducted to determine if an expanded LEA would produce different effects with kindergarteners who were more representative of the population than were those in the first experiment. In both experiments, the experimental (i.e., the expanded LEA) and control (i.e., the traditional LEA) conditions were implemented by the same two teachers. A total of 44 kindergarteners were involved in the first experiment (22 experimental and 22 control), and a total of 47 kindergarteners were involved in the second experiment (23 experimental and 24 control). The treatment period for each experiment began in mid-October and ended in April. The two LEA conditions differed only in the kinds of follow-up activities associated with each of the conditions. The results of both experiments favored the use of an expanded LEA. The oral cloze results of experiment 1 revealed significant differences between the experimental and control groups on beginning ($p < .05$), medial ($p < .01$), and total cloze ($p < .01$) scores. In experiment 2, the experimental and control groups differed significantly ($p < .05$) on beginning, medial, and total cloze scores. Significant

differences in final cloze scores of the experimental and control groups were not found in either of the experiments. Overall, the results indicated that use of an expanded LEA is likely to be more effective than the traditional LEA in facilitating development of listening comprehension skills.

Effects of an Expanded Language Experience Approach on Oral Cloze Performance of Kindergarteners

Introduction

Successful oral cloze performance requires skill in auditory (listening) comprehension. According to Norton (1989), listening comprehersion "refers to the listener's highly conscious seeking of meaning from a listening experience" (p. 118). Research findings have indicated that listening comprehension proficiency in kindergarten and first grade is a good predictor of the level of reading comprehension attained by third grade (Anderson, Hiebert, Scott, & Wilkinson, 1985; Bagford, 1968; Lohnes & Gray, 1972) and that in later grades it is an even stronger predictor of general school achievement (Atkin, Bray, Davison, Herzberger, Humphreys, & Selzer, 1977; Humphreys & Davey, 1983).

The important role that listening comprehension proficiency plays in reading comprehension and general school achievement has implications for teachers. Since listening is the primary source of language, and is the base on which the other language communication skills (speaking, reading, and writing) are developed, a considerable amount of classroom time should be devoted to activities that build listening comprehension skills. As interactive processes, language communication skills are developed by young children when they have opportunities to engage in: (a) meaningful discussions, on a one-to-one basis with adults as well as with peers in small- and large-group situations, (b) concrete experiences which encourage

conversation, (c) the exploration of ideas that provoke elaboration and justification of their thoughts, and (d) planning, decision-making, and problem-solving activities. The degree to which these kinds of activities contribute to children's language communication development is determined largely by the classroom teacher. The way in which teachers talk to children, ask questions, and model thinking processes affects what children will learn during instructional activities (Anderson, et al, 1985; Olson, 1984; Snow & Ferguson, 1977; Taba, Samuel, & Elzey, 1964; Wells, 1981, 1983). Thought-provoking questions, in particular, stimulate thinking and cause listeners to actively seek answers through categorizing, comparing, defining, predicting, evaluating, applying, and creative problem solving processes.

Recognizing the interactive nature of language development, many kindergarten teachers use the language experience approach (LEA) to prepare children to receive formal reading instruction in first grade. As users of the LEA, these teachers point out that it allows each child to explore literacy from his/her own level of understanding while moving toward conventional literacy, develops knowledge of the functions and uses of print, develops metalinguistic awareness, and exposes children to the graphophonic system of written language. However, there are some teachers and parents who are not convinced that language experience instruction will develop the literacy subskills

required for success in beginning reading programs; they emphasize that traditional LEA procedures do not include systematic instruction in subskill areas, such as sound/symbol relationships, visual discrimination, auditory discrimination, and use of context clues. As a reaction to this criticism, proponents of language experience instruction have offered suggestions for expanding and varying the use of the traditional LEA so that it includes subskill instruction, but few studies have examined empirically the effects of specific LEA expansions, or variations, on emergent literacy skills. Mason (1984), in her review of early reading instruction, concluded that "while language experience is assumed to be closely related to reading, the research-into-practice evidence has not delineated the boundaries for instruction" (p. 537). Studies are needed which examine the effects of kindergarten programs that utilize the LEA in various ways.

Expansion of the LEA so that it includes subskills instruction by using content from children's experience stories has been discussed in the literature and suggestions for implementing this kind of approach at the kindergarten and first-grade levels have been described (Fields & Lee, 1987; Jensen & Hanson, 1982; May, 1990). However, expansion of the LEA to include systematic instruction in subskill areas, by designing follow-up activities which provide continued interaction with the print (text) of the children's language experience stories, has

not been empirically examined. It is not known whether or not use of an expanded LEA would be more effective chan use of the traditional LEA in developing listening comprehension skills of kindergarteners. The identification of procedures and activities which facilitate development of listening comprehension skills in young children is needed because of the significant role that listening comprehension plays in reading comprehension and general school achievement.

The purpose of this study was to explore and evaluate the effects of an expanded LEA on the listening comprehension skills of kindergarteners. During a two-year period, two experiments were conducted with different groups of kindergarteners, using the same teachers for each experiment. The second experiment replicated the first experiment and was conducted to determine if an expanded LEA would produce different effects with kindergarteners who were more representative of the population than were those in the first experiment. A comparison of the mean pretest scores obtained by the two groups of kindergarteners on subtests of the California Achievement Test (CAT) suggested that the prereading skills of those in the first experiment were "somewhat above average;" since the parents of this group had voluntarily registered their children to participate in the state-wide, pilot-year kindergarten program, it is likely that they understood the benefits of early childhood education experiences. The kindergarteners in experiment 2 were

participating in the state's first year of mandatory kindergarten. Table 1 shows the differences between the means of the two groups at the beginning of kindergarten; on most of the subtests there is a 15-20 point difference between the pretest means, and it was largely for this reason that the study was replicated.

Insert Table 1 about here

The research question addressed by the two experiments was: Will use of an expanded LEA be more effective than the traditional LEA in aiding the development of listening comprehension skills of kindergarteners, as measured by an oral cloze test?

Method

Subjects

Experiment 1: A total of 44 kindergarteners participated in the study, 22 in the experimental group and 22 in the control group. The experimental group contained 12 boys and 10 girls, and the mean chronological age of the group was 5.00 years. There were 13 boys and 9 girls in the control group, and the mean chronological age of the group was 5.10 years.

Experiment 2: A total of 47 kindergarteners participated in the study, 23 in the experimental group and 24 in the control group. The experimental group contained 13 boys and 10 girls, and the mean chronological age of the group was 5.70 years.

There were 13 boys and 11 girls in the control group, and the mean chronological age of the group was 5.48 years.

Treatment Conditions used in Experiments 1 and 2

The traditional LEA was used with the control group and was limited to the following steps:

1. Each Monday, the teacher provided a stimulus object, experience, or related pictures which would interest the children.
2. The children discussed the object, experience, or pictures; the teacher asked questions to encourage discussion.
3. The children gathered around lined newsprint to dictate a story about the object, experience, or pictures.
4. The teacher recorded what the children said about the object, experience, or pictures, while the children observed the writing.
5. After the story was composed, the teacher read it aloud to the class, pointing quickly and briefly to each word; the teacher asked children to say/read with her those words they knew, to count the number of times specific words appeared, and to point to words which began with the same letter.
6. The teacher utilized follow-up activities to involve the children in additional activities re-

lated to the story, such as asking children to draw a picture about the story, letting children say/read the story aloud along with the teacher, and letting children share with the group other ideas and personal experiences related to the story topic.

7. The children's story was displayed on the bulletin board for the remainder of the week.

The expanded LEA was used with the experimental group. The expanded LEA differed from the traditional LEA only at step 6, where it was expanded to include follow-up activities designed to provide interaction with the story's print (text), emphasizing selected subskill areas. Using content from each language experience story produced by the students, the teacher planned and constructed literacy activities which emphasized one or more of the following subskills: identification of letter names, visual discrimination of letters and words, auditory discrimination of sound and meaning units, reproduction of letters and words, use of spelling patterns, comparisons of meaning units, use of context clues, and development of thinking and reasoning skills. For each of the eight subskill areas, three to five activities were created from the content of each week's language experience story. Many of the activities centered around teacher-directed discussions that included many kinds and levels of questions about the content of the children's stories; for example, questions that dealt with main ideas,

details, cause-effect relationships, sequence, logical reasoning, and comparisons of meaning units were posed. The activities were designed to increase the children's awareness of print and how print functions and to develop metalinguistic awareness.

Instruments used in Experiments 1 and 2

The California Achievement Test (CAT), Form C, Level 10, was used as a pre-test measure, because it was the standardized measure used by the school district to assess readiness skills of kindergarteners. The CAT is a group-administered test. The CAT measures: listening for information (LI), letter forms (LF), letter names (LN), total alphabet skills (TAS), letter sounds (LS), visual discrimination (VD), sound matching (SM), total visual-auditory skills (TV/A), and total prereading (TPR) skills. Scores may be obtained for each of these areas.

An oral cloze test was used as a post-treatment measure. Cloze is a procedure in which the reader (or listener) attempts to derive meaning from context and to accurately supply the deleted word(s) in a message. Research findings have demonstrated the usefulness of the cloze procedure in assessment, comprehension instruction, and language-processing instruction (Bormuth, 1968, 1969; Bortnick & Lopardo, 1976; Sampson, Valmont, & Allen, 1982). Since the procedure is an excellent technique for assessing a reader's (or listener's) ability to obtain meaning from context, it was selected for use with this study as an appropriate measure of listening comprehension.

The oral cloze test for this study was constructed by the authors of this study, in consultation with the two kindergarten teachers who participated in the study. The cloze test contained a total of nine sentences with deletions occurring in beginning, medial, and final word categories. The total possible points for the cloze test was nine, three points per deletion category. The cloze test was administered to the students individually. The directions for administering the oral cloze test were as follows:

> SAY: We are going to play a listening game. I am going to say part of a sentence and I want you to tell me what could be said to finish the sentence. You may say any word that will make sense in the sentence. I will say "uhmmm" for the part of the sentence where you are to say a word that will make it make sense. For example, if I said, "The car is going 'uhmmm'," what could you say to finish the sentence? WAIT FOR A RESPONSE. IF HELP IS GIVEN, TRY ANOTHER EXAMPLE SENTENCE, SUCH AS 'It is fun to pay 'uhmmm'." AS SOON AS THE CHILD HAS THE IDEA, DO THE PRACTICE SENTENCE AND BEGIN THE TESTING.

A practice sentence preceded the testing for each of the deletion categories. The practice sentences were:

> (final word deletion) A pretty color is "uhmmm."
>
> (beginning word deletion) "Uhmmm" was singing.

(medial word deletion) The rabbit "uhmmm" the carrot.

Procedures used in Experiments 1 and 2

At the beginning of each school year, all kindergarteners were placed in classrooms through random assignment within sex and race categories. For each experiment, the same two teachers implemented the experimental (i.e., the expanded LEA) and control (i.e., the traditional LEA) conditions. The two teachers were well matched, each possessing Master's degrees in education and having previously taught three years at the kindergarten level. Both teachers had used the traditional LEA in the past and were very familiar with its procedures.

The control and experimental groups were pre-tested with the California Achievement Test (CAT) at the beginning of the school year. An oral cloze test was given as the post-treatment measure near the end of the school year.

The treatment period, which lasted six months, began in mid-October and ended in April. Both the experimental and control groups composed group language experience stories each Monday throughout the treatment period; however, the follow-up activities that were used to provide additional experiences related to each story differed for the two groups.

The teacher of the control group provided follow-up activities typically associated with the traditional LEA. Each Monday after the kindergarteners had composed their group language experience story, the teacher planned follow-up

activities to be used for the remainder of the week which involved the kindergarteners in whole group, small group, and individual experiences. The activities included asking children to draw a picture about the story, letting them say/read the story aloud along with the teacher, asking them recall questions about the story, and encouraging them to talk about their personal experiences related to the story topic. All children in the control group participated in the follow-up activities designed for the whole group; participation in small group and individualized activities was voluntary, with the teacher encouraging participation by those children whose levels of literacy development seemed appropriate for the tasks required by the activities.

The teacher of the experimental group provided an expanded LEA experience for the children, by using the content of each language experience story to prepare follow-up activities that emphasized the various subskill areas listed above while providing opportunities for the children to continue interaction with the story's print (text). Each Monday after the kindergarteners had composed their group language experience story, the teacher used the content to construct a variety of literacy activities to be used for the remainder of the week which would involve the kindergarteners in whole group, small group, and individualized experiences. The activities did not pressure the kindergarteners to read but invited them to

participate in a variety of matching, auditory, and manipulative experiences. Some of the activities included physical manipulation of letters or words and did not require continual supervision by the teacher; careful supervision was provided for those activities that facilitated development of left-to-right orientation, such as letter and word sequencing to form meaning units. The children usually did the activities at the language arts learning center. The auditory activities were conducted by the teacher and included many kinds and levels of oral questions about the children's stories as well as practice in listening for likenesses and differences in sounds and words that were contained in the stories. For each subskill area, the follow-up activities were carefully sequenced, so that task difficulty gradually increased over time. For example, matching activities involving single words were presented before matching activities involving phrases. All children in the experimental group participated in the follow-up activities designed for the whole group; participation in the activities designed for small groups and individuals was voluntary, with the teacher encouraging participation by those children whose levels of literacy development seemed appropriate for the tasks required by the activities.

Data Analyses used with Experiments 1 and 2

The data were analyzed using two-way (treatment-by-sex) analysis of variance procedures. The .05 level of significance was utilized for the analyses.

Results

Experiment 1: The analysis of variance results indicated significant differences between the two groups on beginning, medial, and total cloze scores. The F-ratios for the cloze test are shown in Table 2. The experimental group's mean performance was better than the control group on beginning cloze ($\bar{X}_E$ = 2.09, $\bar{X}_C$ = 1.55, F (1,40) = 4.23, p <.05), medial cloze ($\bar{X}_E$ = 2.27, $\bar{X}_C$ = 1.50, F (1,40) = 8.57, p. <.01), and total cloze ($\bar{X}_E$ = 7.18, $\bar{X}_C$ = 5.86, F (1,40) = 7.48, p <.01) scores. The final cloze scores of the two groups did not differ significantly.

Insert Table 2 about here

Experiment 2: The analysis of variance results indicated significant differences between the two groups on beginning, medial, and total scores. The F-ratios for the cloze test are shown in Table 3. The experimental group's mean performance was better than the control group on beginning cloze ($\bar{X}_E$ 1.56, $\bar{X}_C$ = 1.00, F (1,43) = 4.50, p <.05), medial cloze ($\bar{X}_E$ = 2.24, $\bar{X}_C$ = 1.73, F (1,43) = 4.08, p <.05), and total cloze ($\bar{X}_E$ = 6.76, $\bar{X}_C$ =

5.64, F (1,43) = 6.41), p <.05) scores. The final cloze scores of the two groups did not differ significantly.

Insert Table 3 about here

Discussion

At the end of both experiments, the oral cloze scores of kindergarteners in the experimental groups were significantly greater than the control groups on beginning cloze items (p <.05 for both experiments), medial cloze items (p <.01 for experiment 1 and p <.05 for experiment 2), and total cloze scores (p <. 01 for experiment 1 and p <.05 for experiment 2). It was not surprising that the experimental and control groups did not differ on the final cloze items, because deletions in the final position of sentences are the easiest to anticipate (fill). The results of these two experiments provide support for the use of an expanded LEA, which systematically utilizes follow-up activities designed to provide interaction with print (text) derived from children's language experience stories, to aid the development of listening comprehension skills of kindergarteners. Also, these findings suggest that use of an expanded LEA improves the listening comprehension skills of children with differing levels of language knowledge upon entry into kindergarten.

Since the oral cloze test measures the ability to comprehend the context of a spoken message, the results of the two

experiments indicate that the treatment condition positively influenced the kindergarteners' abilities to both anticipate and construct meaning from language. According to Peterman (1990), children's "attempts to construct meaning from language are signs of readiness to move toward conventional literacy" (p.60). Because of the importance of listening to later success in reading, as evidenced by previous studies (Anderson, Hiebert, Scott, & Wilkinson, 1985; Atkin, Bray, Davison, Herzberger Humphreys, & Selzer, 1977; Bagford, 1968; Beller, 1973; Humphreys & Davey, 1983; Lohnes and Gray, 1972), further exploration of the effects of an expanded LEA on listening comprehension skills is recommended.

The usefulness of oral cloze measurement with kindergarteners was indicated by the two experiments. Use of oral cloze procedures to assess a kindergartener's ability to anticipate and construct meaning from context provides information about the child's listening comprehension and language processing skills. The appropriateness of using cloze measurement to assess the effectiveness of language experience instruction and whole language programs is apparent---when instructional emphasis is on total language development, it doesn't make sense to assess these kinds of approaches with traditional readiness tests that measure a composite of separate skills rather than whole language processes.

Based on the results of the two experiments, two conclusions were drawn. First, an expanded LEA may be more beneficial than the traditional LEA in the development of kindergarteners' listening comprehension skills. The oral cloze test results offer strong support for this conclusion. Second, oral cloze tests are more appropriate measures of listening comprehension skills in young children than are traditional readiness (standardized) tests. It is recommended that teachers and researchers use cloze measures, as well as other informal measures such as checklists and anecdotal records, to assess young children's language communication proficiencies.

Overall, the results of the two experiments indicate that use of an expanded LEA is likely to be more effective than the traditional LEA in facilitating development of some emergent literacy skills among kindergarteners. Replication of the study with other samples of kindergarteners should be conducted to determine whether the benefits associated with an expanded LEA remain constant and to identify those kinds of literacy activities that may significantly affect children's linguistic and cognitive development.

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Table 1

Mean Differences on CAT at Beginning of Kindergarten

Subtest	Experiment 1	Experiment 2	Difference
LI	213.68	195.82	17.86
LF	217.43	194.84	22.59
LN	215.22	200.14	15.08
TAS	208.59	191.09	17.50
LS	220.19	203.89	16.30
VD	208.11	202.43	5.68
SM	215.57	226.05	-10.48
TVA	208.05	209.81	- 1.76
TPR	206.27	190.76	15.51

LI = Listening for Information
LF = Letter Forms
LN = Letter Names
TAS = Total Alphabet Skills
LS = Letter Sounds
VD = Visual Discrimination
SM = Sound Matching
TVA = Total Visual/Auditory Skills
TPR = Total Prereading Skills

Table 2

F-Ratios for ANOVAs: Cloze Test, Experiment 1

Measure	Treatment(T)	Sex(S)	T X S
Beginning	4.23*	3.73	0.47
Medial	8.57**	0.59	0.08
Final	0.00	2.09	1.58
Total	7.48**	3.82	0.88

* p <.05
** p <.01

Table 3

F-Ratios for ANOVAs: Cloze Test, Experiment 2

Measure	Treatment(T)	Sex(S)	T X S
Beginning	4.50*	1.17	0.16
Medial	4.08*	1.21	2.01
Final	0.03	1.48	0.50
Total	6.41*	1.77	0.24

* p <.05