The purpose of this study was to examine the effect of systematic instruction with cloze tasks on the reading achievement of primary grade children. The cloze procedure was selected as an instructional strategy because of the close relationship of the cloze procedure to the psycholinguistic model of the reading process. Twenty-two first and nine second grade children from a university laboratory school were selected as subjects. Subjects ranged in reading ability from preprimer to third grade. No subject was experiencing severe difficulty in learning to read. Results from a cloze test, a test of word knowledge, and a standardized reading test indicated that the cloze treatment and the treatment combining self-selecting reading and phonic reinforcement activities had equal effect on the primary grade subjects. (RB)
AN EXAMINATION OF THE USE OF CLOZE TASKS DURING PRIMARY GRADE READING INSTRUCTION

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The purpose of this study was to examine the effect of systematic instruction with cloze tasks on the reading achievement of primary grade children. The cloze procedure was selected as an instructional strategy because of the close relationship of the cloze procedure to the psycholinguistic model of the reading process.

Psycholinguistic examinations of reading view reading as constructive, active process in which the reader uses cognitive and linguistic knowledge to reconstruct meaning from a graphic message. Although several

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psycholinguistic theories have been advanced, all of them include certain characteristics inherent in the reading process (5,10,11,13). First, the reader samples from graphic cues available rather than decoding all cues in order. Second, a guess is made based on the sampled graphic cues and the reader's knowledge of syntactic and semantic characteristics of language. Third, the guess is checked for appropriateness from the preceding and following context. Fourth, only if the guess is found to be inappropriate does the efficient reader go back to sample additional cues. Findings from several studies support the notion of both a psycholinguistic reading model and the use of various cue systems (5,7,9,14).

Cloze tasks require a searching for information from other words in the sentence rather than a matching process which occurs during normal reading when all graphic cues are available (15). The reader must be active, and construct a response based on the syntactic and semantic cues presented. The cloze procedure stresses an active reader reconstructing meaning from sampled cues. Thus, the cloze procedure incorporates the major characteristics of a psycholinguistic reading model.

Jongsma (7) reviewed research examining the cloze procedure and reported that few studies had used the cloze procedure as a teaching technique. The reviewer concluded that the research examining the cloze as an instructional method was not supportive of this technique. However, it was suggested that the lack of support might well be related to factors outside the cloze procedure itself. These factors included: (1) design of
the study, (2) methodology employed in the study, and (3) the limited amount of time spent on cloze task instruction.

Three recent studies of a more controlled nature provide support for the cloze procedure as an instructional strategy for disabled readers. Best (1) and Kennedy and Weener (8) found favorable gains in reading achievement using the cloze procedure in a systematic, controlled fashion. However, neither study provided instruction over an extended period of time.

Samuels et al. (12) provided extensive training on the components underlying a hypothesis/test model of word recognition. Parallel experiments were conducted with mentally retarded subjects and third grade subjects identified as the poor readers. Results indicated that the subjects trained on hypothesis/test subskills were superior on measures of word recognition and comprehension.

Thus while there was support for the cloze procedure there was a lack of research in which the subjects were not reading disabled. In addition, any research involving the cloze procedure should be of a controlled nature and of sufficient duration to provide for a proper measure of change.

The following study therefore, represents an examination of the effect of systematic cloze task instruction on learning to read for children who were not reading disabled. Cloze tasks were administered in a structured setting for an eight week period. Material for the cloze tasks was drawn from the basal reading selections used in the subjects daily instruction. Answers to the following questions were sought:

1. Will children receiving instruction on cloze tasks be as successful as children not receiving cloze instruction on a cloze test?
2. Will children receiving instruction on cloze tasks be as successful as children not receiving cloze instruction on a test of work recognition?

3. Will children receiving instruction on cloze tasks be as successful as children not receiving cloze instruction on a standardized reading test?

PROCEDURE

Subjects. First and second grade children from a university laboratory school were selected as subjects. Subjects ranged in reading ability from preprimer to third grade. No subject was experiencing severe difficulty in learning to read.

The sample consisted of 22 first grade subjects and nine second grade subjects. Seventeen boys and 12 girls participated for a total of 29 subjects.

Design. A posttest-only control group design was employed (2). Subjects were placed in reading instructional groups based on teacher judgement and acquisition of initial reading skills. Subjects within instructional groups were then randomly assigned to experimental and control treatments.

Treatments. The experimental treatment consisted of cloze tasks developed from selections in the basal reading series used in the classroom. The subjects were reading at levels ranging from preprimer to third grade and were given cloze tasks developed at their instructional level.

The procedure for writing a cloze task employed the following guidelines:

1. Material for the cloze task was drawn from the beginning portion of the next basal selection to be read.

2. Words to be deleted were determined by selecting the words identified by the publisher as introduced in the story and words recently introduced in previous stories.
3. An equal number of lexical and structure words was deleted.

4. More deletions occurred at the end of a sentence than at the middle or beginning in a ratio of five to three to one.

5. No systematic nth word deletion pattern was followed.

6. A lesson consisted of ten to fifteen cloze deletions.

The cloze lesson was given to the subjects prior to the actual reading of the story. The teacher read the paragraph in the story that preceded the cloze paragraph in order to provide background information. The subjects then read the cloze lesson and filled in the blanks with a minimum amount of assistance from the teacher. The teacher and subjects then discussed the words the subjects had provided. Subjects were encouraged to provide words other than the original word deleted. The merits of various words were discussed. A cloze lesson took between 10 and 15 minutes.

The control treatment consisted of motivated self-selected reading and activities designed to reinforce phonic skills. Approximately two-thirds of the treatment time consisted of independent reading and/or conferences with the teacher discussing what had been read. The other third consisted of teacher initiated phonic skill reinforcement activities. This treatment took between 10 and 15 minutes per session and was conducted concurrently with the experimental treatment.

**Experimental Procedure.** The duration of the study was 8 weeks beginning in mid-February and ending in mid-April. The treatments were administered simultaneously in either two or three sessions per week for an average time of 30 minutes per week. During the 8 week study, a total of 4 hours was devoted to administering the treatments.
A treatment session consisted of the following procedure:

1. The reading instructional group was separated into experimental and control treatments and while in different areas of the room, remained in the same room.

2. The teacher provided motivation for the control group.

3. The teacher introduced the cloze lesson to the experimental group and remained with them until they had begun filling blanks.

4. Teacher reinforced the control group.

5. Teacher discussed with the experimental group.

6. Teacher discussed with the control group.

The described procedure provided control for the teacher variable by having each teacher work with the administration of experimental and control treatments.

Measuring Instruments. Following the 8 weeks of treatment, three measuring instruments were administered to all subjects. The instruments consisted of:

1. a cloze test designed for the study, consisting of a set of graded paragraphs with an every tenth word deletion pattern, 
2. the "Word Recognition Lists" from the Diagnostic Reading Scales, and 
3. the reading subtests from the Stanford Achievement Test, Primary Level I.

RESULTS

Table I reports the mean scores and standard deviations obtained by the experimental and control groups on the three measuring instruments. Tables II, III, and IV report the degrees of freedom, mean squares and F ratios for the three measuring instruments. One-way analysis of variance indicated no significant differences between mean scores at the .05 level.
Table V reports the variances and F ratios for the three measuring instruments. An F test for homogeneity of variance indicated no significant differences between variances at the .05 level.

CONCLUSIONS AND IMPLICATIONS

This study sought information regarding the effect of long-term instruction with cloze tasks on the reading success of first and second grade children who were not reading disabled. Results from a cloze test, a test of word knowledge, and a standardized reading test indicated no significant effect from cloze task instruction.

The results of this study indicate that the cloze treatment and a treatment combining self-selecting reading and phonic reinforcement activities had equal effect on the primary grade subjects.

A test for homogeneity of variances indicated no significant differences even though the differences appeared substantial and consistently in the same direction. The differences may have been due to the randomizing procedure, where an improbable and yet possible division of the sample resulted. The differences also may have been attributable to the nature of the experimental treatment, where the treatment itself produced the variability.

In a recent study, Samuels, et al., (12) reported favorable results when using a cloze type procedure with mentally retarded subjects and disabled third grade readers. Seven subskills of the cloze procedure were identified and specific instruction in these subskills was provided.

The results were discussed in terms of Guthrie's (6) report which suggested that for good readers, reading is a unitary process, while for poor readers, the process consisted of independent subskills. The recommendation from Samuels, et al., was to extend practice for poor readers
beyond accuracy to a point of automatic responses in order to move toward a unitary process.

The findings of the present study may have been influenced by the fact that subjects were not disabled readers. Thus, the act of reading may not have been a set of separate skills for the subjects, but rather, a unitary process.

When reading is a unitary process, it may be that the specific skills which the cloze procedure enhances can be developed in different types of materials. The results of the present study indicate that the subjects gained equal amounts of reading skills from specific cloze task instruction and from a more general type of self-directed reading.

The instructional implication is to consider specific skill instruction for less able readers where reading is not a unitary process. For more able readers where reading is a unitary process, a broader range of alternative instructional strategies may be appropriate.


TEST REFERENCES


### TABLE I

**MEAN SCORES AND STANDARD DEVIATIONS ON THREE MEASURING INSTRUMENTS**

<table>
<thead>
<tr>
<th></th>
<th>Cloze Test</th>
<th>Word Recognition Lists</th>
<th>Stanford Achievement Test</th>
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<tbody>
<tr>
<td><strong>Experimental (N=16)</strong></td>
<td>X 25.94</td>
<td>94.06</td>
<td>137.19</td>
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<tr>
<td></td>
<td>SD 9.54</td>
<td>30.43</td>
<td>12.03</td>
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<td><strong>Control (N=13)</strong></td>
<td>X 30.31</td>
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<td>140.08</td>
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<td></td>
<td>SD 5.63</td>
<td>17.69</td>
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### TABLE II

**DEGREES OF FREEDOM, MEAN SQUARES AND F RATIOS FOR THE CLOZE TEST**

<table>
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<th>DF</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
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<tr>
<td><strong>Between Groups</strong></td>
<td>1</td>
<td>136.98</td>
<td>2.12</td>
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<td><strong>Within Groups</strong></td>
<td>27</td>
<td>64.66</td>
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### TABLE III

**DEGREES OF FREEDOM, MEAN SQUARES AND F RATIOS FOR THE WORD RECOGNITION LISTS**

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<td><strong>Within Groups</strong></td>
<td>27</td>
<td>653.36</td>
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TABLE IV

DEGREES OF FREEDOM, MEAN SQUARES AND F RATIOS
STANFORD ACHIEVEMENT TEST

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TABLE V

VARIANCES AND F RATIOS FOR THE THREE MEASURING INSTRUMENTS

<table>
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