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ABSTRACT

A study investigated the effectiveness of a listening program using the reciprocal teaching procedure and the direct instruction model. Subjects, 95 9- to 11-year-old students from 6 special schools for children with learning disabilities, were chosen based on their very low scores on a decoding test, low scores on a reading comprehension test, and low or average scores on a listening comprehension test. Subjects were administered pretests, posttests, and retention tests. The 48 students in the experimental group were instructed in a listening program consisting of 20 lessons of 30 minutes each. The 47 students in the control group attended regular reading lessons, which did not contain comprehension strategy instructions. Results indicated that students trained by the program performed better during the posttest on the strategic listening and reading tests than the control group, and the better performance was maintained on the strategy retention tests (3 months after the posttest). Results also indicated no interaction between group and listening level, and no transfer effect to general listening and reading comprehension. (Contains two tables and four figures of data.) (RS)

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# Teaching reading comprehension strategies to very poor decoders in a listening situation

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This paper is structured into four sections: introduction, method, results and discussion.

## 1. Introduction

Many students with learning disabilities do not learn reading comprehension strategies. Their decoding skills are so poor that it is difficult for them to direct their attention to the meaning of a text. These students receive many decoding exercises; they do not receive instruction in reading comprehension.

The question is: Is it possible to teach these students text comprehension strategies by listening to texts? The rationale behind this idea is that listening and reading comprehension are strongly related. They use the same meaning system and require the same thinking strategies.

The question of our study is:

What is the near and far transfer effect of an experimental program for students who are very poor in decoding, poor in reading comprehension and poor or normal in listening comprehension? Or more specific:

What is the near and far transfer effect of a listening program in which we use the reciprocal teaching procedure a la Palincsar and Brown (1984) and the direct instruction model?

## 2. Method

### *Subjects*

We selected a total of 95 9 to 11-year-old students from six special schools for children with learning disabilities.

These children were selected with three standardized tests: a word identification test, a reading comprehension test and a listening comprehension test.

For the selection of these students we used the following criteria:

- a very low score on the decoding test ( $< -1.5 Sd$ );
- a low score on a reading comprehension test (a delay of at least one year);
- a low score ( $< -1 Sd$ ) or average score on a listening comprehension test.

### *Measurement instruments*

Table 1 shows the tests administered during the pretest, posttest (after two months) and retention test (three months after the retention test).

The *One-Minute-Test* (Brus & Voeten, 1973) is a standardized test which measures word decoding ability. This test is used as a selection test.

The *Reading Comprehension Test* (Aarnoutse, 1988) is a standardized test developed for second graders and measures general reading comprehension. The test consists of 36 multiple-choice questions and is used as a selection test, pretest and posttest. The test could not be administered for the third time at some schools, because the summer holidays had already started.

The *Listening Comprehension Test* (Krom, 1994) is a standardized test which measures general listening comprehension. Different kinds of texts are presented on audio-cassettes: stories, conversations and expository texts. After listening to a text or passage, students answer multiple-choice questions. The test consists of three forms which measure the same construct. Form M5-1 is developed for third graders and is used as a selection test and pretest. Form M5-2 is used as a posttest and form M5-3 is a mix of form 1 and 2. It is used as a retention test.

We developed two strategic tests: the Strategic Listening Test and the Strategic Reading Test. The *Strategic Listening Test* measures the strategies of clarifying, questioning, summarizing and predicting in a listening to text situation. This test consists of 24 items: six multiple-choice items for each strategy. The test consists of expository texts and two parallel forms. The test is used as a pretest, posttest and retention test.

The *Strategic Reading Test* measures the four above mentioned strategies in a reading to text situation. The test consists of 32 items; eight multiple-choice questions for each strategy. The test consists of expository texts and two parallel

forms. This test is used as a posttest and retention test. The development of this test was not complete at the pretesting stage. The reliability of the Strategic Listening Test and the Strategic Reading Test is .84 and .91, respectively.

### *Program assignment procedure*

The experimental group consisted of 48 students. In total 12 groups of four students were formed; two groups in each experimental school. Each group consisted of two poor listeners and two normal listeners. The control group consisted of 47 students who were very poor in decoding, poor in reading comprehension and poor or average in listening comprehension.

### *Intervention program*

The Listening program consisted of 20 lessons of 30 minutes each. The strategies were first taught 'by themselves' before they were practised in combination with each other. The strategies were taught in a cumulative order. Table 2 shows the structure of the program.

In the first two lessons the students learn to predict the future content of a text. Then they learn to find the meaning of an unknown word by using the context. In lesson 5 and 6 the strategies are practised in combination with each other. Each lesson consisted of three phases: introduction, instruction and application.

#### Introduction

The teacher motivates the students, repeats the main points of the previous lesson and explains the objective of the lesson.

#### Instruction

This phase is focused on one strategy. The group listens to a paragraph on audiotape. The teacher explains and models the strategy by thinking aloud. He shows how a strategy can be executed by asking one or more of the following questions:

- Did I hear a difficult word? (clarifying);
- What is most important in the text? (summarizing);

- Which question suits the text best? (questioning);
- How will the text continue? (predicting).

### Application

In this phase the strategies are practised through reciprocal teaching. One student is appointed to discussion leader. He executes one or more strategies. The other students react and discuss the answers.

### *Design and procedure*

The experiment was designed according to a pretest-posttest-retention test, control group design.

The control group attended the regular reading lessons, which did not contain comprehension strategy instructions. The experimental lessons were delivered by graduate students after an intensive training of at least 8 hours.

## **3 Results**

In this section we will first present the results on the selection tests and on the Strategic Listening Test and the Strategic Reading Test with respect to the near transfer effects. Thereafter we will present the results on the standardized Listening Comprehension Test and the Reading Comprehension Test.

With regard to the selection tests: no differences were found between the experimental and control group.

### *Strategic Listening Test*

The differences between the two groups at the posttest and at the retention test were significant ( $p < .05$ ) (see Figure 1). The program did not have significant effects on the differences between the poor and normal listeners.

### *Strategic Reading Test*

The same results were found as on the Strategic Listening Test (see Figure 2). This means that the students transferred their comprehension strategies to reading contexts.

#### *Listening Comprehension Test M5-2*

The effect on the posttest was not significant (see Figure 3). The effect on the differences between the poor and normal listeners were also not significant.

#### *Listening Comprehension Test M5-3*

The effect on the retention test was not significant. We hesitate to interpret this effect as a postponed program effect. The differences between the poor and normal listeners was not significant.

#### *Reading Comprehension Test*

The effect on the posttest was not significant (see Figure 4).

### **4. Discussion**

Students trained by the program performed better during the posttest on the strategic listening and reading tests than the control group. They transferred their comprehension strategies to reading contexts. The better performance in comparison with the control group maintained on the strategy retention tests (three months after the posttest). The strategies can be taught at various levels of listening ability (no interaction between group and listening level was found). A transfer effect to general listening and reading comprehension did not take place. How to explain this lack of far transfer effects to general listening and reading tests? Was the program too short? The program was indeed short. Was the program not powerful enough? The program can be improved. Are the general tests not sensitive enough? The general tests measure often other strategies than included in experimental programs. Besides these tests, other tests should be developed and administered.

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An article of this paper is submitted to The Journal of Special Education:

Aarnoutse, C.A.J., Bos, K.P. van den, & Brand-Gruwel, S. Effects of listening comprehension training on listening and reading.



# Tests administered at the pretest, posttest and retention test

|                              | pretest  | posttest | retention test |
|------------------------------|----------|----------|----------------|
| One-Minute-Test              | X        | --       | --             |
| Reading Comprehension Test   | X        | X        | --             |
| Listening Comprehension Test | X (M5-1) | X (M5-2) | X (M5-3)       |
| Strategic Listening Test     | X        | X        | X              |
| Strategic Reading Test       | --       | X        | X              |

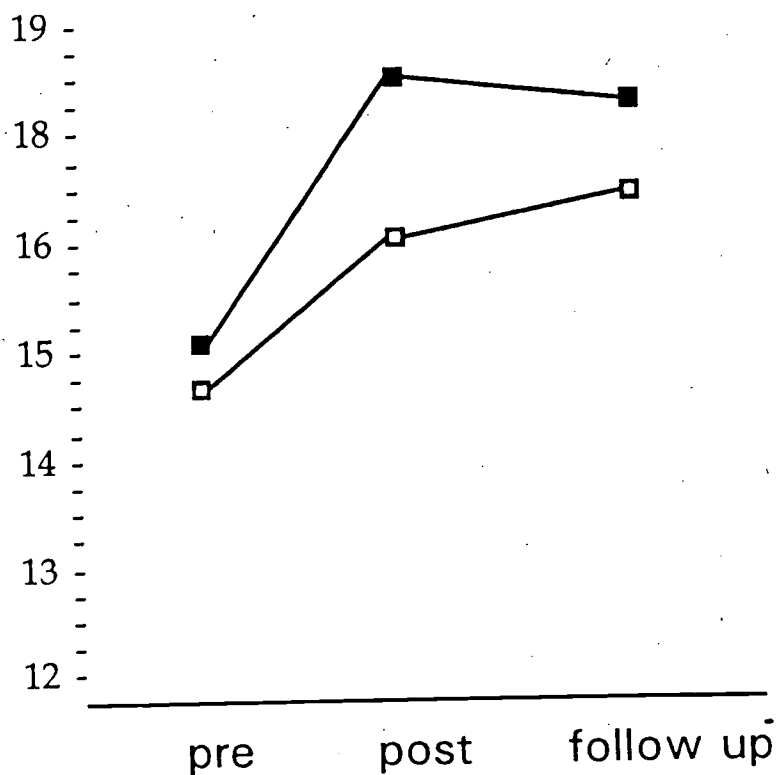
# The structure of the program

| lesson strategy |                                 | topics                            |
|-----------------|---------------------------------|-----------------------------------|
| 1               | predicting                      | Paradise                          |
| 2               | predicting                      |                                   |
| 3               | clarifying                      |                                   |
| 4               | clarifying                      |                                   |
| 5               | integration                     | Animals                           |
| 6               | integration                     |                                   |
| 7               | summarizing                     |                                   |
| 8               | summarizing                     |                                   |
| 9               | summarizing (+pred.+clar.)      | Sport                             |
| 10              | summarizing (+pred.+clar.)      |                                   |
| 11              | integration                     |                                   |
| 12              | integration                     |                                   |
| 13              | questioning                     | Children<br>in other<br>countries |
| 14              | questioning                     |                                   |
| 15              | questioning (+pred.+clar.+sum.) |                                   |
| 16              | questioning (+pred.+clar.+sum.) |                                   |
| 17/20           | integration                     | Traffic                           |

pred. = predicting / clar. = clarifying / sum. = summarizing

# Results

## Strategic Listening Test



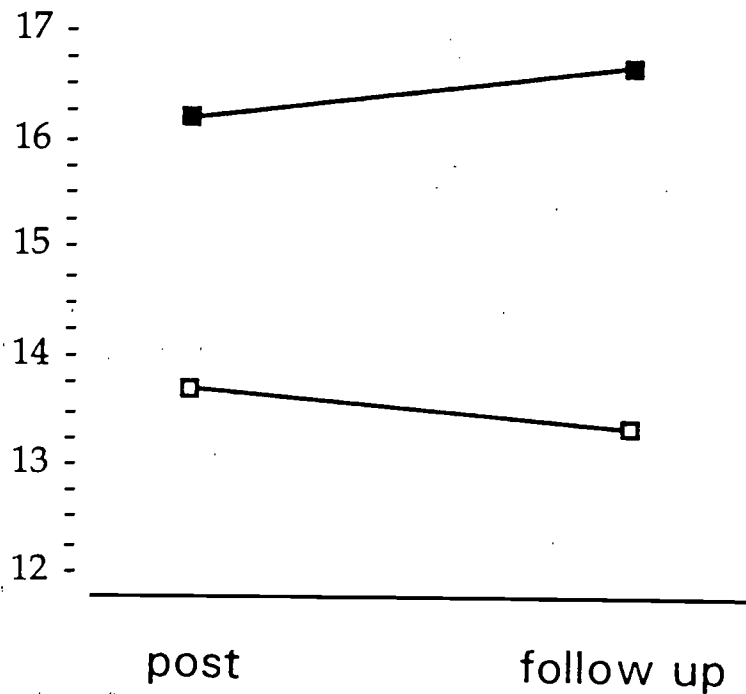
■ = experimental group

□ = control group

analysis of variance with repeated measures

# Results

## Strategic Reading Test



■ = experimental group

□ = control group

analysis of variance with repeated measures

# Results

## Standardized Listening Comprehension Test

posttest (analysis of variance)

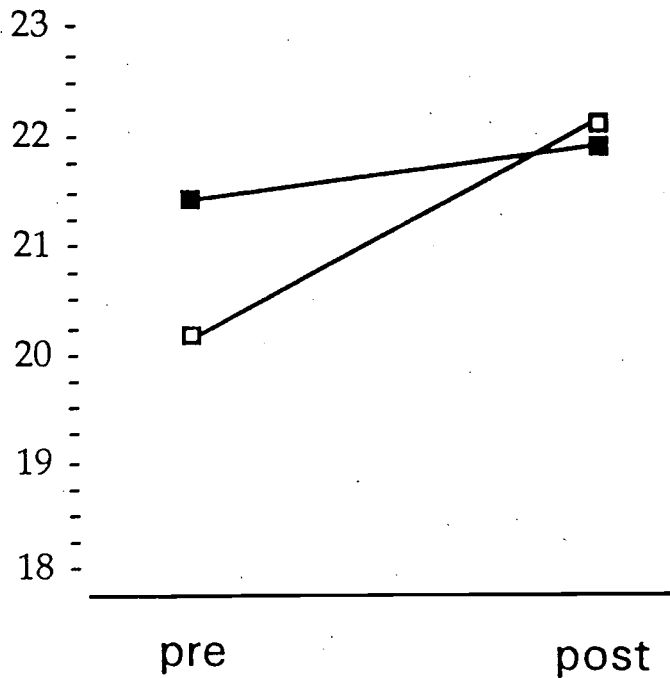
|       | X     | sd   | F    | p     |
|-------|-------|------|------|-------|
| exp.  | 21.33 | 4.55 | 2.85 | > .05 |
| cont. | 20.02 | 4.60 |      |       |

follow up (analysis of variance)

|       | X    | sd   | F    | p     |
|-------|------|------|------|-------|
| exp.  | 9.04 | 2.62 | 4.31 | < .05 |
| cont. | 7.87 | 3.09 |      |       |

# Results

## Standardized Reading Comprehension Test



■ = experimental group

□ = control group

analysis of variance with repeated measures



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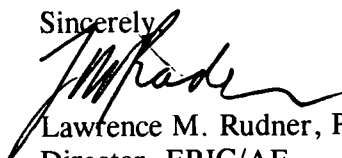
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