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ABSTRACT

The gain in word analysis for elementary school students tutored in a perceptual-conditioning approach was reported. Subjects were 98 first graders, 41 fourth graders, and 16 fifth graders. The approach instructionally separated the teaching of decoding from the teaching of comprehension; only single whole words were used and always out of context. Paraprofessional tutors instructed individuals or small groups for approximately 15 minutes twice a day. The pupils were always told the sound of the word to prevent them from analyzing an unknown word by their own method. Pretest and post-test scores on the word-analysis section of the Durrell Analysis of Reading Difficulty indicated significant gain for all groups. The largest gain was found for grade-4 students, whose average gain was approximately 20 months for the 4-month experimental period. (CM)

RESEARCH SUMMARY FOR PRESENTATION AT IRA -  
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Title: The Effect of Perceptual Conditioning Upon the Decoding Ability of Elementary School Pupils Utilizing Trained Para Professionals as the Primary Instructors'

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SUMMARY

Method

Perceptual-Conditioning was developed by the staff at the Adelphi University Reading and Study Center. The approach instructionally separates the teaching of decoding from the teaching of comprehension. This ordering of the reading process allows for the use of learning techniques that develop mental sets in the reader to visually and auditorily examine words in a way that would form particular habit response patterns (conditioning) consistent with effective decoding ability. These habit response patterns were identified thru a creative and unique examination of what successful readers do (at any developmental level) when they need to identify the sound of an unknown word. In essence it was discovered (and is accepted as a rationale of the Perceptual-Conditioning approach) that a reader correctly identifies unknown words by a process which utilizes a learned perceptual and auditory set. This "set" causes the reader to identify within a whole word its structural sounding elements (letter clusters) as they have been historically consistent with the reader's experiences. Perceptual-Conditioning merely attempts

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to assure that the learner is exposed to the relevant activities that lead to habit responses that are found in every successful reader. (No matter what method was used to teach him to read.) Thus, the method is potentially both parsimonious as well as effective. (It can be demonstrated that too many of the activities and materials in use today are not only irrelevant and wasteful but may actually undermine the effective learning of decoding.)

In brief:

1. The para professional works in a "training-session" for approximately 15 minutes two times a day with an individual or small group.

2. Selected words are presented each training session. Only whole words are used and they are always out of context. The youngster in the training phase never sees less nor more than the whole word. Oral reading sessions with the classroom teacher include sentence and story reading from basals.

3. Youngsters are always told the sound of the whole word in the training session. They are not to analyze the word by their own method if this word is not known to them at sight.

### Population

Number of students receiving both pre-and post-tests	155
Number of students by grade and sex	
4 1st grade classes: 52 boys, 46 girls, grade total	98
2 4th grade classes: 20 boys, 21 girls, grade total	41
1 5th grade class: 7 boys, 9 girls, grade total	16
6 classes 79 boys 76 girls Grand Total	155

## Scoring

Test results reported in terms of the pretest and post-test scores on the word-analysis section of the Durrell Analysis of Reading Difficulty (new edition). The pupils were initially tested during the third week of February, 1969. Post-instruction testing was done during the second week of June, 1969. Thus the time elapsed is less than four months (actual instruction was somewhat less due to holidays and individual absences).

The norms for the Durrell word-analysis section are expressed in grade levels. For each grade level a classification of low (L), middle (M), and high (H) is given based upon the number of words identified correctly. However it will be noted that the results for this study are expressed in ordinal numbers. The classification of L, M and H at each grade level does not lend itself to expressing mean measures of change in decoding ability. To be able to report change in a valid and reasonable manner, five points were assigned to change from one classification (L M H) to another; e.g., if the pretest score was at a low third and the post test score was at a middle third level, the change would be a one classification change and thus a five point change (approximately four to five months growth). If the change in score went from low second to low third, the change would be 15 points i.e., from low second to middle second to high second to low third (more than one year's growth).

## Results

(10 points = approximately 8 - 10 months growth)

First Grade boys (n=52), average change: 12 points

First Grade girls (n=46), average change: 9 points

Total First Grade average change: 10 points

Fourth Grade boys (n=20) average change: 20 points

Fourth Grade girls (n=21) average change: 24 points

Total Fourth Grade (n=41) average change: 22 points

Fifth Grade boys (n=7) average change: 10 points

Fifth Grade girls (n=9) average change: 19 points

Total Fifth Grade (n=16) average change: 15 points

All boys (n=79) average change: 14 points

All girls (n=76) average change: 17 points

All boys and girls (n=155) average change: 15 points

A t test was done between pre and post test scores. The means of the groups increased from 12 to 26. The t of 24 is significant beyond the p001 level.

### Discussion

An examination of the results shows apparent significant change in word identification ability as measured by the Word Analysis section of the Durrell Analysis of Reading Difficulty. It should again be noted that the pre and post test time elapsed was less than four months. According to the test norms, movement from only one classification to another within grade level would

have been considered reasonable (5 points).

The average overall 15 point change can be considered quite sizable for many reasons:

1. Instruction was offered during the latter part of the instructional year. Studies have shown that this is the most difficult time to obtain change due to a plateauing out of skill development.
2. Included in the overall change are those first grade youngsters who were still in need of letter-identification training when the pre-test was done in February. Approximately 1/3 of the first graders were recorded as having a zero point change. These pupils, in the pre-test, indicated that they are still at the letter identification stage. Thus our goal in instruction was to teach them letter name and sounds rather than to teach whole word decoding. Although these children did "change" significantly, this progress is not reflected in our point scores, since the Durrell Analysis of Reading Difficulty makes no provision for scoring progress in learning letter names.
3. If it is assumed that the perceptual-conditioning training did have some effect upon the pupils' growth, it must be noted that all the para professionals working in the program were absolute neophytes during the early months. Their ability to apply the method could not mature until the latter part of the four month period.