A 3-year study concerning teaching a phonics-oriented kindergarten readiness program of letter recognition and beginning consonant sounds was discussed. Sixty-eight children attending kindergarten in a suburban middle and upper-middle class community composed the sample. The experimental group consisted of 33 children; the control group consisted of 35. Groups were considered equivalent through random assignment to kindergarten classes. All children included were considered to have normal hearing as measured by recent school examinations for hearing acuity. After a 10-week instructional period in phonics-oriented material for the experimental group and a similar nonphonics-oriented instructional period for the control group, the Wepman Auditory Discrimination Test and the New York State Readiness Test were administered. The significantly higher scores on the NYS Readiness Test supported the hypothesis that the phonics program would enhance the readiness of the children. However, the hypothesis that kindergarten children who received phonics training as part of the readiness program would show significantly higher scores in auditory discrimination than children who did not was not only rejected but also yielded results to the contrary. Further research in this area was recommended. References are included. (CL)
THE EFFECTS OF A PHONICS-ORIENTED KINDERGARTEN PROGRAM
ON AUDITORY DISCRIMINATION AND READING READINESS

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Many reading specialists recognize poor auditory discrimination as a deterrent to the development of beginning reading skills. Furthermore, research has consistently noted that among poor and remedial readers a definite lack of ability to make auditory discriminations is often a contributing factor in reading difficulties. Other studies which have attempted to establish the most efficient learning mode for primary age children have indicated a preference among young children for aural presentation of learning materials. The implications of these reports make clear the necessity of focusing attention upon developing aural skills at the primary level.

For three years one of the investigators participated in teaching a phonics-oriented kindergarten readiness program of letter recognition and beginning consonant sounds commencing in the second half of the school year. The value of this phonics program in making a positive contribution to the general reading readiness of these children has been observed in the beginning months of first grade through early reading progress. How much such a program aids in the development of specific reading and learning skills is still being evaluated.

It was hypothesized that kindergarten children who received training in listening for an identifying initial consonant sounds as part of the kindergarten reading readiness program would show significantly higher scores in auditory discrimination than children who did not receive this training. Secondly, it was hypothesized that the phonics program would enhance the readiness of the children so that scores on the New York State Readiness Test would be significantly higher.

A review of the literature has, with few exceptions, tended to demonstrate and support the following statements:
1. Almost all authorities in the field of reading have confirmed the importance of the auditory discrimination ability to success in beginning reading (Nila, 1953).

2. Auditory discrimination ability has been found to be maturational in nature with its greatest period of development occurring prior to the third grade and with its consequent impact upon reading ability being greatest during the beginning years of reading instruction (Wepman, 1960; Thompson, 1963).

3. The auditory discrimination skill can be enhanced by specific training in that area (Durrell & Murphy, 1952; Olsen, 1963; Silvaroli & Wheelock, 1966; Robertson, 1968).

4. The majority of studies reviewed showed that reading readiness and reading achievement scores have correlated significantly with auditory discrimination scores (Thackray, 1965).

5. Children from economically disadvantaged homes tended to have lower auditory discrimination ability in the early school years than did children from nondisadvantaged backgrounds (Clark & Richards, 1966).

6. Poor reading ability and poor auditory discrimination skills have been shown to be positively related to each other (Christine, 1964), and children who initially were poorest in auditory discrimination profited most from training in this area (Thompson, 1963).

The fact that only consonant sounds in the beginning position in words received attention in the training period, while the task on the Wepman Auditory Discrimination Test required discrimination of both consonant and vowel sounds in beginning, medial, and final positions in words must be considered a limitation in the evaluation of this study. A second limitation was the fact that the sample population was limited to middle and upper-middle class children. The size of the sample was also smaller than would be desirable for drawing any broad conclusions.
Sixty-eight children attending kindergarten in a suburban middle and upper-middle class community were subjects of the study. The experimental group consisted of 33 children from two classes, and the control group had 35 children from two other classes. Groups were considered equivalent through random assignment to kindergarten classes. All children included were considered to have normal hearing as measured by recent school examinations for hearing acuity.

A ten-week period of instruction in letter recognition and listening for beginning consonant sounds as incorporated in the reading readiness program Getting Ready to Read by Houghton Mifflin was begun in January. Lessons and activities suggested in the teacher's manual were taught to the experimental classes as a group using a large teaching version of the individual work book available with this series. Exercises in using spoken context and letter sound associations, and using spoken context and the first letter of a printed word were developed as described in the teacher's manual, with the omission of follow-up work in individual work books.

The control groups, throughout the same period, participated in a kindergarten program similar to the experimental group with the exception of the use of any Getting Ready to Read materials or other exercises designed to develop listening for letter sounds or concepts of using spoken context clues. This group did participate, however, in a program of learning letter names employing a variety of techniques.

The Worman Auditory Discrimination Test, Form I, was administered by the investigator who did the training to all subjects at the completion of the ten-week instructional period. This test was constructed of 30 pairs of words about which the subject was to make a 'same' or 'different' judgment after each pair was presented. Testing took place over a three-day period in quiet rooms which were relatively free of distraction.
The New York State Readiness Test, Form A, was also administered, to
groups of 8 to 10 children at the end of training in three sessions, as
recommended by the test manual. These tests were administered by the pupils' own teachers in the familiar surroundings of their own classrooms.

The total scores of both the Wepman and the New York State Readiness Tests were recorded and the mean scores computed for both groups. A *t* test was applied to determine whether the differences between the control and experimental groups on each test were significant at the .05 level. Results are shown in Table 1.

**TABLE 1**

<table>
<thead>
<tr>
<th>Test</th>
<th>Experimental Group Mean</th>
<th>Experimental Group SD</th>
<th>Control Group Mean</th>
<th>Control Group SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYS Readiness Test</td>
<td>48.61</td>
<td>11.64</td>
<td>43.03</td>
<td>9.02</td>
<td>2.17*</td>
</tr>
<tr>
<td>Wepman Test</td>
<td>5.12</td>
<td>3.89</td>
<td>3.26</td>
<td>2.64</td>
<td>2.26*</td>
</tr>
</tbody>
</table>

*p < .05.

The hypothesis that a phonics-oriented kindergarten readiness program, as described in this study, would enhance the reading readiness of the participating children has been supported in that readiness scores for the experimental group were significantly higher than those for the group not participating in the program. It may be concluded, therefore, that the Getting Ready to Read materials and methods did provide an effective and useful base as a readiness program when used at the kindergarten level in the manner described.
The hypothesis that the auditory discrimination ability of children exposed to the phonics-oriented program would be significantly superior to that of the control group was not only rejected but yielded results to the contrary, showing the control group as having significantly better auditory discrimination than the experimental group.

Rather than reflecting a detrimental effect of the program on the development of auditory discrimination, or the converse, of the superiority of a non-phonics readiness program, it is suggested that the difficulty of the testing situation might have accounted for the Wepman findings. Many children who apparently understood the instructions and comprehended the "same" and "different" concepts still had difficulty in attending to the task until the end of the full list. Five children from the experimental group and three from the control group were excluded from the sample because of invalid tests (answered "different" to more than three word pairs that were the same, or indicated "same" to more than 15 word pairs that were different).

It has also been suggested that the readiness program might be considered more visual than auditory, relying more on printed symbols, despite the fact that many of the exercises used spoken context. The need for further research in this area is evident.
References


