In order to ascertain the effectiveness of a short instructional program involving four marking skills required in following directions, a study was conducted with six kindergarten classes (130 children) taught by three teachers. The experimental and control groups in each class were given the pretest and posttest on the same days; otherwise, the control group participated in regular kindergarten work period experiences. The experimental group followed a two-week schedule which included the introduction and use of the four marking skills (circle around, X on, line under, and line from object to object). During the work period, several children at a time listened to and followed the directions of that day's lesson, which was prerecorded on tape and lasted approximately seven minutes. Analysis of data showed that in the pretest 40.29 percent of the experimental group children and 42.85 percent of the control group children had achieved 100 percent accuracy. Posttest results showed that 76.11 percent of the experimental group children and 61.90 percent of the control group children had achieved 100 percent accuracy. (JM)
DEVELOPING FOUR MARKING SKILLS ASSOCIATED WITH FOLLOWING DIRECTIONS

Following directions accurately is a skill necessary in all areas of life. Instruction in following directions often is related to the development of reading comprehension skills. "Following Directions" covers a variety of skills:

1. controlling the self well enough to listen to directions and understanding what to do (Gray and Reese, 1957)
2. remembering details in sequential order (Tinker and McCullough, 1962; Dallman, Rauch, Chang and DeBoer, 1974; Walcutt, Lamport and McCracken, 1974)
3. paying attention to details, comprehending facts in order, reading back for verification and getting the literal sense-meaning of the statement (Gray and Reese, 1957; Karlin, 1971)
4. using a higher order comprehension skill involving translation and application (Jones, 1971).

Much of the literature related to Following Directions assumes the attainment of prerequisite skills. Those of us who are concerned with helping young children learn must identify these prerequisite skills and begin instruction with them.

Children are often expected, however, to follow directions prior to complete mastery of prerequisite skills. In this day of accountability some of the evaluation process with young children
has moved from oral dialogue and observation to formal pencil-paper tests and assignments. The objective of the assignment or test may relate to concepts, symbols or sounds, but it often requires a particular marking response. A common frustration of teachers of young children is to know that a particular child has mastered the concept or skill and yet has marked his paper inaccurately.

The purpose of this study was to ascertain the effectiveness of a short instructional program involving four marking skills required in following directions. If this instructional program could prove effective, it could provide an option for the teacher to use with those children who had not mastered these marking skills. With the ability to "follow directions" correctly the child could concentrate on the primary objective of the assignment -- concepts, symbols, or sounds.

METHOD

Subjects. The study included six entire kindergarten classes taught by three teachers and involving one hundred and thirty kindergarten children. The kindergarteners were predominately white, rural children with some military children also included.

Procedure. Readiness materials and pre-primer oral and written assignments of several of the widely-used basal reader series were examined to determine commonly required marking skills in following directions. Four marking skills were selected for inclusion in the study: (1) circle around; (2) X on; (3) line under; and (4) line from (object) to (object).
The study was completed during the last two weeks in April, 1974. Each class was randomly divided into an experimental (N=67) and a control (N=63) group to eliminate the possibility that any gains might result from normal classroom learning rather than from the specially prepared listening lessons.

The control group was given the pretest and post test on the same days as the experimental group. However, the children in the control group did not use the listening lessons but were involved in regular kindergarten work period experiences.

The instructional program was used with the experimental group. Each lesson, pre-recorded on a cassette audio tape, was approximately seven minutes in length. During the kindergarten work period several children at a time went to the listening station in the room for the lesson. The teacher's major responsibilities were to distribute the worksheets, check to see when the children were ready, and start the tape recorder. When one group had completed the lesson, she helped another group get started.

The following schedule was used with the experimental group:

Session 1: Monday-Pretest
2: Tuesday-Introduce circle around.
3: Wednesday-Use circle around.
4: Thursday-Introduce X on.
5: Friday-Use X on.
6: Monday-Introduce line under.
7: Tuesday-Use line under.
8: Wednesday-Introduce line from-to.
9: Thursday-Use line from-to.
10: Friday-Post test
The same instructional pattern was used with each mark. The introductory session included the following:

1. The teacher identifies and verbally labels the mark.
2. The child traces on the mark with his finger.
3. The child traces on the dotted line mark with his pencil.
4. The child copies the mark below an example.
5. The child marks with his pencil the objects stated.
6. The child checks his work with his red crayon following the teacher's directions.

The second practice session continued the application of the mark to eight rows of objects. After each object in the row was named, the child was directed to mark one particular object. Self-checking was done following the completion of the fourth and the eighth rows.

RESULTS

Two different analyses of the data were made. Table 1 reveals that there were a number of children who had developed accurate use of the four marks before the program was introduced. In the pretest twenty-seven children (40.29%) in the experimental group and twenty-seven children (42.85%) in the control group had achieved 100% accuracy. Post test results showed fifty-one children (76.11%) in the experimental group and thirty-nine children (61.90%) in the control group having achieved 100% accuracy.
TABLE 1
COMPETENCY LEVELS IN USING FOUR MARKING SKILLS

<table>
<thead>
<tr>
<th></th>
<th>Experimental N=67</th>
<th></th>
<th>Control N=63</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Post test</td>
<td>Pretest</td>
<td>Post test</td>
</tr>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>100% accuracy</td>
<td>27 40.29</td>
<td>51 76.11</td>
<td>27 42.85</td>
<td>39 61.90</td>
</tr>
<tr>
<td>95% accuracy</td>
<td>12 17.91</td>
<td>7 10.44</td>
<td>15 23.80</td>
<td>8 12.69</td>
</tr>
<tr>
<td>90% accuracy</td>
<td>8 11.94</td>
<td>7 10.44</td>
<td>8 12.69</td>
<td>5 7.93</td>
</tr>
<tr>
<td>Below 90%</td>
<td>20 29.85</td>
<td>2 2.29</td>
<td>13 20.63</td>
<td>11 17.46</td>
</tr>
</tbody>
</table>

The pretest of the experimental group showed that twenty children (29.85%) scored below 90% accuracy as compared to thirteen children (20.63%) in the control group. Only two children (2.98%) in the experimental group remained below 90% accuracy in the post test scores whereas eleven children (17.46%) in the control group scored below 90% accuracy level in the post test.

An analysis of variance technique was used on the group means. There was no significant difference in pretest mean scores. However there was a statistically significant difference (p < .01) between post test mean scores.

The data indicate that this short instructional program involving four marking skills used in following directions was effective in developing a high level of competence.

Because following directions is a complex process, there is a need for further analysis and program development to assist the classroom teacher in providing activities and experiences which
improve the young child's skills in following directions. Some children may benefit from instruction in learning components of this process. This instruction in marking skills fits into a developmental program for young children.