The Effects of Individualized Instruction on Head Start Pupils' Achievement

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Fourteen students at the University of South Carolina, most of them experienced teachers, enrolled in an experimental training program in early childhood education attempting to determine whether or not short periods of individualized training over a period of 5 weeks would be reflected in pupils' readiness as measured by the Metropolitan Readiness Test. Fourteen Head Start classes were assigned randomly to the experimental teacher-students and 14 Head Start classes to the control teacher-students. One male and one female were selected randomly from each of the experimental and control classes. On Form A, the pretest, the T-ratio did not approach significance. On Form B, the post-test, the T-ratio approached significance at the 10 percent level of confidence. Data showed that pupils who received special instruction gained during the pre- to post-testing periods and that most pupils in the control group either lost or remained at about the same level. The study recommended that a similar experiment be conducted for various time periods. It is recommended that teachers learn more about diagnosing pupils' instructional levels and about strategies for appropriate treatments. This paper was presented at the American Educational Research Association Conference (Chicago, February 6-10, 1968). (JM)
THE EFFECTS OF INDIVIDUALIZED INSTRUCTION
ON HEAD START PUPILS' ACHIEVEMENT

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In the summer of 1967 at the University of South Carolina 14 students were enrolled in a special training program in early childhood education sponsored by the Southern Education Foundation. The majority of the students were experienced teachers, one student was a principal who was beginning a program in his school for young children and one student held a Bachelor's degree but had no public school experience as a teacher. The six weeks included a variety of experiences in an attempt to retrain the students in the education of young children. In addition to the usual input of knowledge in a large group, seminars and individual conferences were held. Each student had the opportunity of selecting a particular area for special investigation. Since the study of young children can sometimes more effectively be learned from children and from teachers who are actively involved in the teaching-learning process, it was decided to select randomly 14 Head Start classes for the teacher-student to use for laboratory experience. The time and participation in the Head Start classes provided the teacher-student the opportunity of analyzing and diagnosing behavioral and personality patterns of children and afforded them with the chance of devising individual strategies for working with "disadvantaged children". (The criteria for inclusion in a Head Start center for the pupils were determined by OEO and are the same as are found nationally.)

The purpose of the investigation was to determine whether or not short periods of individualized training for five weeks by persons involved in retraining would be reflected in pupils' readiness as measured by the **Metropolitan Readiness Tests**.

There were twenty-eight Head Start classes selected randomly to participate in the study. Fourteen of them were assigned randomly to the experimental group and 14 to the control group. There were two pupils (one male and one female) selected randomly from each of the 14 experimental classes (28 subjects) and two pupils (one male and one female) selected randomly from each of
the control classes. The 14 teacher-students were assigned at random to each of the experimental classes.

All subjects were tested on the Metropolitan Readiness Tests (Form A) at the beginning of the experiment. A t-Test was performed and the t-ratio of 1.09 did not approach significance. It was assumed that subjects were similar in "school readiness" prior to the initiation of the study.

The teacher-students administered and examined the pupils' responses to the Metropolitan and spent more than five hours discussing and planning strategies for working with the pupils assigned them with the primary purpose of attempting to build strengths in areas known to be deficient. Additional planning occurred each day for the entire 25 day period. Each of the pupils in the experimental group had 10 minutes of individual instruction that was planned especially for him. The instructional periods were observed at least five times for each subject's sessions by the investigators.1

The Metropolitan (Form B) was administered to all subjects at the end of the experiment. Table 1 shows that the t-ratio of 1.24 was approaching significance at the 10 per cent level of confidence.

<table>
<thead>
<tr>
<th>Table 1</th>
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<tr>
<td>Results of t-test on Metropolitan Scores for Experimental and Control Groups</td>
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<table>
<thead>
<tr>
<th>Groups</th>
<th>Number</th>
<th>Mean</th>
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<tbody>
<tr>
<td>Experimental</td>
<td>28</td>
<td>36</td>
<td>1.24³</td>
</tr>
<tr>
<td>Control</td>
<td>27</td>
<td>32</td>
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</tbody>
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³Approaching significance at .10 level of confidence

1Materials, facilities, and the general curriculum plan were similar in all classes, experimental and control. Of course, teacher variability persisted, but in 28 classes some of the variability could be expected to randomize out.
Although the data were not significant at the accepted probability level of (.05), they did show clearly that the pupils who received special instruction gained from the pre- to post-testing periods. Inspection of the data revealed that most pupils in control group either lost or remained at about the same level. Since the time span was so short, it is recommended that a similar experiment be conducted for various time periods, e.g., three, six, and nine-month periods.

This study was not designed to measure the growth of teacher-students and it is further recommended that since, subjectively, skill appeared to increase substantially that further work be done to determine the value that may be derived in having teachers work specifically in situations in which they learn more about diagnosing pupils' specific instructional levels and devising strategies for appropriate treatments. A vast majority of the materials being marketed for use with young children are so "canned" that it becomes almost impossible for teachers to individualize instruction without special training.