

meter readings with those obtained by calculations. A comparable group learned by a diagram method in which trainees merely drew line drawings of the circuits and were given the data by the instructor. These two groups at a Naval base were compared with those who received their regular instruction in basic electricity.

Results: Learning how to solve electrical problems was not improved by use of either training device. The diagram and the wiring board improved learning how to use meters to an equal extent. Learning of theory by the lower GCT group was slightly improved by use of the diagram but not by the wiring board. Learning of basic principles of electricity, as measured by the entire test battery, was not improved by either device. It was concluded that manifestations of electrical phenomena are not necessary to learn Ohm's law. This study gives further validity to previous studies that have shown no great differences in the training effectiveness of charts and operable mockups.—*L. Twyford.*

DENENBERG, VICTOR H. "The Training Effectiveness of a Tank Hull Trainer." *Technical Report No. 3, Human Resources Research Office, The George Washington University, Washington 7, D. C. 28 pages. February 1954.*

Purpose: The purpose of this study was to determine the effectiveness of a tank hull trainer and an inexpensive mockup of the instrument panel and driver's controls of the M47 tank for teaching starting and stopping procedures and driver's instruments and controls. The trainer was also studied for its effectiveness in teaching about the track and suspension system.

Procedure: Under the regular procedure each trainee actually practices starting and stopping the M47 tank. The two experimental groups received instead instruction on the hull trainer and the mockup. Training effectiveness was measured by a performance test of starting and stopping the M47 tank, plus a paper and pencil test to measure knowledge of names and locations of control panel instruments. A 15 item test was used to measure learning about the track and suspension system. One instructor taught both experimental and control groups. Groups were equated for intelligence.

Results: For teaching starting and stopping procedures the inexpensive mockup was found to be a better training aid than the tank hull trainer. Actual participation was not found to be required. For teaching nomenclature and location of various driver's instruments and controls, the mockup, the hull trainer, and the tank itself were found to be equally effective when used in training. In terms of cost it was concluded that the mockup is a better training aid than the hull trainer for teaching this lesson. For teaching information on the track and suspension system the tank hull trainer was better than the tank itself.—*L. Twyford*