

should accompany the more expensive mockups and cutaways to encourage the use of the most economical aid that will fulfill the training requirement.—*L. Twyford.*

SWANSON, ROBERT A. "The Relative Effectiveness of Training Aids Designed for Use in Mobile Training Detachments." *Research Review, AFPTRC-TR-54-1 Air Force Personnel and Training Research Center, Lackland Air Force Base, Texas. 14 pages. 1954.*

Purpose: Operating mockups, nonoperating mockups, cutaway mockups, animated panels, charts and symbolic diagrams can be used to provide transitional training to Air Force maintenance personnel. There are large differences in their cost and ease of production and utilization. The purpose of this study was to measure the relative effectiveness of six representative types of training devices when these devices are used in conjunction with a lecture presentation.

Procedure: Skilled mechanics were given instruction on the maintenance of the hydraulic, fuel, and rudder power control systems of the B-47 aircraft. The six different types of training aids were used to explain each system. The same lecture presentation was used with each training aid. Tests were given before and after the instruction to measure the effectiveness of the various aids.

Results: There were no appreciable differences in training effectiveness of the various training aids employed. There was no evidence that certain training aids were more effective with lower proficiency men or with higher proficiency men. On six to eight weeks delayed recall differences in training effectiveness between training devices were negligible. These results suggest that for satisfying training objectives using methods similar to those employed in this experiment some of the complex and expensive training aids may not be any more effective than less complex and less expensive devices.—*L. Twyford.*

MURIN, J. A.; VANDERMEER, A. W.; and VRIS, T. "Comparison of Training Media: Trainee Manipulation and Observation of Functioning Electrical Systems Versus Trainee Drawing of Schematic Electrical Systems." *Technical Report SDC269-7-101. Research by the Instructional Film Research Program, Pennsylvania State University for the Special Devices Center, Office of Naval Research, Port Washington, L. I., N.Y. 30 pages. June 23, 1954.*

Purpose: This study tested the assumption that training aids that permit the student to observe actual manifestations of principles being taught lead to more effective understanding of the principles. This "breadboard" type of device includes electrical, hydraulic, or mechanical setups which function in such a manner that the learner is able to observe what occurs as a result of his manipulations and calculations. In this research the training effectiveness of a wiring board on which a trainee manipulated components was compared with a diagram on which circuits were drawn by the trainee for the purpose of learning basic electricity; i. e., circuit theory, circuit problems, and the use of electrical meters.

Procedure: Using a wiring board, Naval personnel connected power supplies, lights, buzzers and electrical meters together and compared their actual