

Using Multimedia Instruction as a Training Enhancement for Aircraft Maintenance Technicians

Carrollea Hubbard, A.A., B.S.

University of Alaska Anchorage

Spring 2014

USING MULTIMEDIA INSTRUCTION AS A TRAINING ENHANCEMENT FOR
AIRCRAFT MAINTENANCE TECHNICIANS

By

Carrollea E. Hubbard

RECOMMENDED:

Jean Marcey, Ed.D.
Advisor, Career & Technical Education
Chair, Advisory Committee

Rocky Capozzi, M.S.
Director, UAA Aviation Technology Division
Advisory Committee

Lou Nagy, M.S.
Professor, UAA Aviation Technology Division
Advisory Committee

Cathy LeCompte, M.S.
Associate Dean, Community and Technical College
Chair, Career and Technical Education

APPROVED:

Karen R. Schmitt, Ph.D.
Dean, Community and Technical College

Date

Abstract

This research conducted an evaluation of new and different modalities of aircraft maintenance training for flight line technicians. The primary types of instruction analyzed were instructor based training (IBT), aircraft simulator (SIM) training, on-the-job training (OJT), virtual reality (VR), and video-based training (VBT). The focus was the analysis of training effectiveness for the various instructional platforms. The two aircraft types for training program consideration were the McDonnell Douglas MD-11 (MD-11) and the Boeing B-777 (B-777). Aircraft manufacturers and the Federal Aviation Administration (FAA) set the training standards for all aircraft mechanics in the airline industry. This study examined the development of effective training for aircraft mechanics. Twenty Anchorage flight line technicians completed two anonymous surveys, and three members from the training department participated in an unstructured interview. The research analyzed the results of the surveys and the interviews to determine what types of multimedia instruction are the most effective for enhancing flight line technician training. The goal was to maximize the educational platform and increase launch reliability numbers efficiently. The best practice to achieve these goals is to have effectively trained technicians.