MASTER OF SCIENCE
IN
MODELING, VIRTUAL ENVIRONMENTS, AND SIMULATION

DESIGN, IMPLEMENTATION, AND ANALYSIS OF AN ARMY INTERACTIVE MULTIMEDIA THREAT IDENTIFICATION TRAINING SYSTEM

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Correctly identifying a weapon system as "friend" or "foe" is vital to the success of the Army mission. Incorrect identification can leave the enemy to fight another day or cause a fratricide event. A current threat identification training method is to use Army Field Manual (FM) 1-402, which has not been updated since 1984, and is difficult to tailor towards specific and evolving threat training and mission requirements. This thesis, therefore, has two main purposes: development of a modifiable computer-based program that individual units can easily tailor to meet their current threat training requirements, and a statistical analysis to determine if Computer-Based Training (CBT) is suitable for individual soldier threat identification training. The CBT application developed for this thesis is dynamically linked to image and text files maintained by the unit-training officer, thus allowing for modification and updates as required. Experimental results indicate that using this CBT application can be a suitable, and in some aspects better, training tool than FM 1-402. After a 20-minute study period, experiment participants using the CBT had an average nomenclature final test score increase of 38.4 percent over a similarly experienced control-group.

Dod KEY TECHNOLOGY AREAS: Computing and Software, Other (Computer-Based Training, Threat Identification)

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