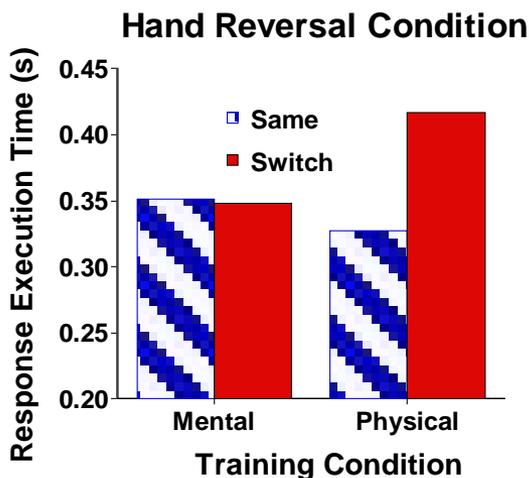




# Training for the Networked Battlefield (FY05 MURI)



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Prior mental practice has no cost in response execution time when responding hand is switched, whereas physical practice does.

## OBJECTIVE

Construct theoretical and empirical framework for relation between training methods and performance in networked battlefield

## DOD CAPABILITIES ENHANCED

- Predict impact of training on performance
- Assess new training options (simulator, WWW)
- Design optimal, cost-effective training

## SCIENTIFIC/TECHNICAL APPROACHES

- Experiments
  - Test individual training principles
  - Test multiple principles in complex environments
- Taxonomic analysis
  - Consistent with task modeling system IMPRINT (Improved Performance Res'rch Integration Tool)
- Predictive computational models
  - Assessment for accuracy and efficiency
  - Implementation in IMPRINT and hybrid cognitive modeling system ACT-R (Adaptive Character of Thought-Rational)

## ACCOMPLISHMENTS

- Working list of empirically based training principles
- Taxonomic analysis for task types, training methods, performance context and measures
- Initial IMPRINT and ACT-R computational models
- Design of complex military-like laboratory tasks
- Initial results on value of mental training (see graphic)

## WORK IN PROGRESS

- Assessment of 2 principles (variability, specificity) for training to fly UAV's (with ARL, Orlando)
- Performance shaping functions for incorporating training variables into IMPRINT (with ARL, Aberdeen)