



# Training Effectiveness Requirements for Simulation

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## Background

- How do we develop requirements that better insure the acquisition of effective new LVCG training systems?
- Process oriented requirements.
  - Must involve researchers, analysts, acquisitions, and combat developers.
- Need new approaches to:
  - System design
  - System development
  - System utilization.



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# Traditional Simulation Design Philosophy

Provide realistic, safer, cheaper alternatives to training with live systems.

## Engineering Focus



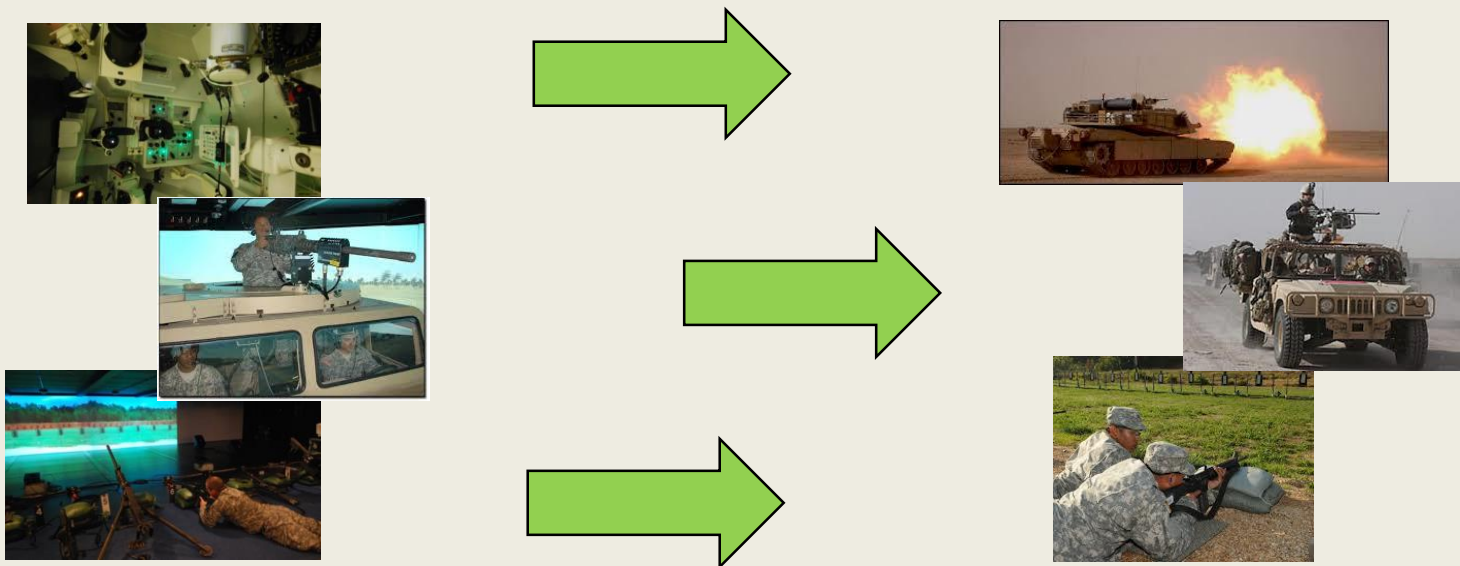
**Success = Replication of the Operational Environment**



# Outcome Focused Simulation Design Philosophy

Provide an integrated training environment to maximize individual and unit performance.

## Outcome Focus



**Success = Improved Performance,  
Effectiveness, Readiness**



# Comparison of Philosophies

## Traditional Design Philosophy

- Training approach: Substitute/Replace live with VC
- Design: maximize fidelity
- Utilization: either/or

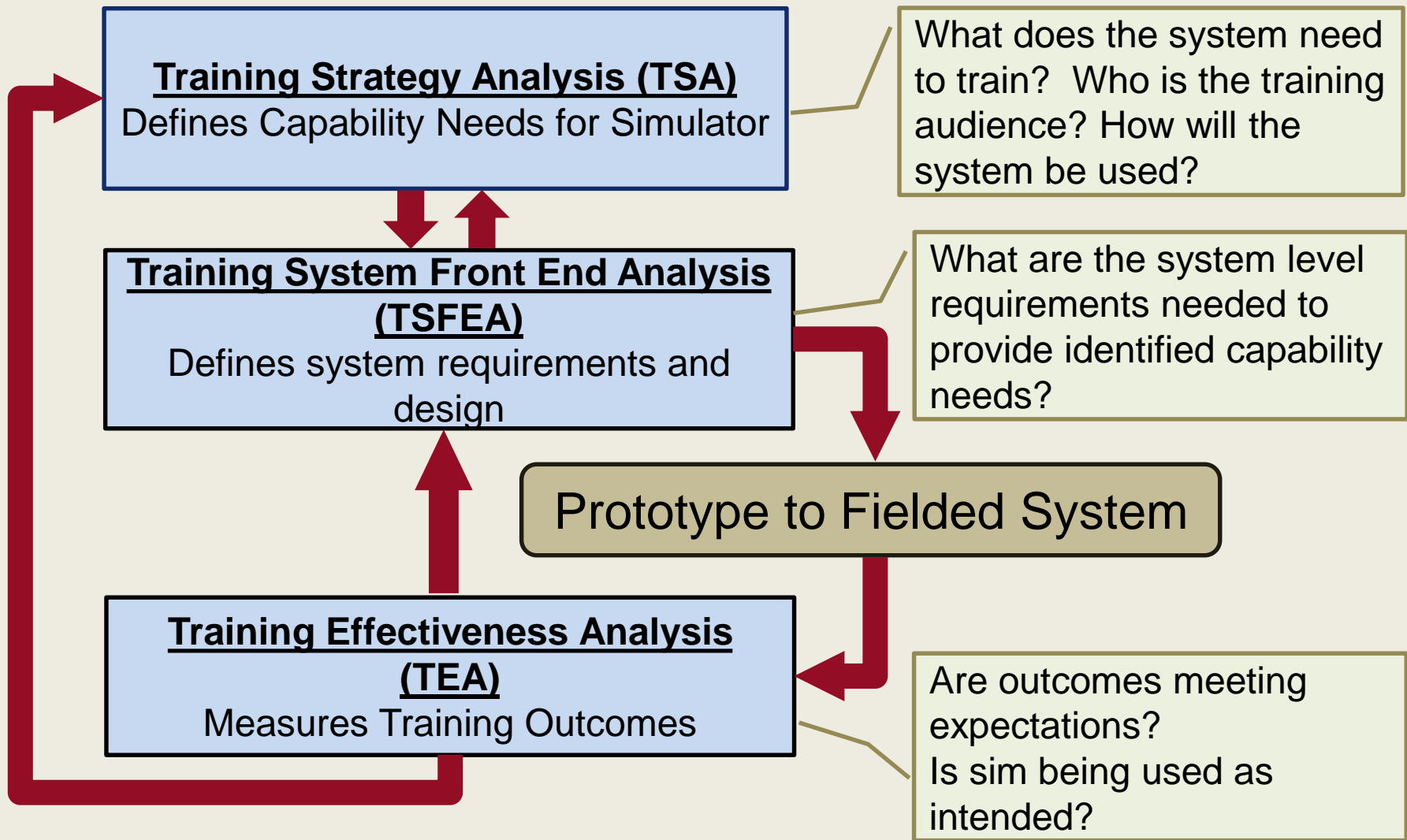
## Outcome Focused Design Philosophy

- Training approach: Use LVCG as a system so that KSAs can be developed using strengths of each.
- Design: driven by training needs.
- Utilization: must use systems together.





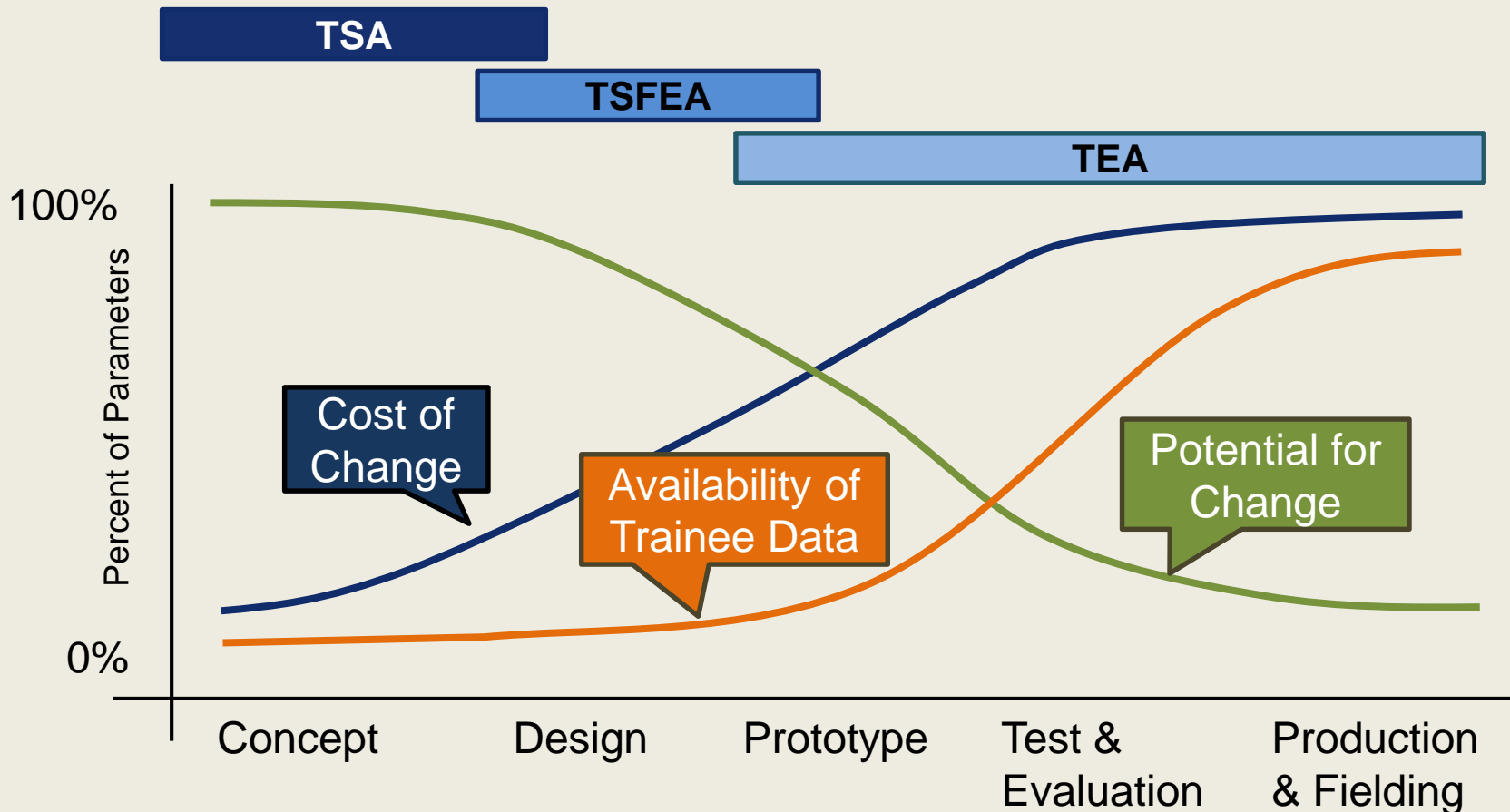
# Process Centered Approach to Development





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# Process Timeline for Training System Development



From: Simpson, H. (1995). Cost Effectiveness Analysis of Training in the Department of Defense. Defense Manpower Data Center: Training & Readiness and Evaluation and Analysis Division. Monterrey, CA. ADA302985.



# Collaboration Among Key Communities Is Essential

**Research and Analysis Community:** Identify technologies, methods, and processes that yield effective training systems

**Combat Developer Community:** Describe requirements needed to implement technologies, methods, and processes identified by the research and analysis community

**Acquisition Community:** Understand and know how to implement requirements needed to implement technologies, methods, and processes that yield effective training systems.