

The Military Design Movement: A Postmodernist Pairing of Systems Thinking and Organizational Change

**Mr. Ben Zweibelson (US Army retired)
Australian National University
(Doctoral Candidate in Philosophy)
Program Director for Design
Joint Special Operations University, USSOCOM**

© Copyright 2017 Ben Zweibelson. All rights reserved.

Military Design: Creating what is needed but *does not yet exist*...so that the military organization gains relevance and advantage in the future system that is emerging.

Why is a military design movement necessary in 2017?



Little Green Men



Man-made Islands



© EPA



Social Media and Revolts



Lone Wolves



WKMJ/Earlier
Orlando

Soon: Police Briefing On Nightclub Shooting

BREAKING NEWS

MASS SHOOTING AT ORLANDO NIGHTCLUB OVERNIGHT

CNN
7:02 AM ET

TODAY DENVER 85° SACRAMENTO 88° SALT LAKE CITY 78°
NEW DAY





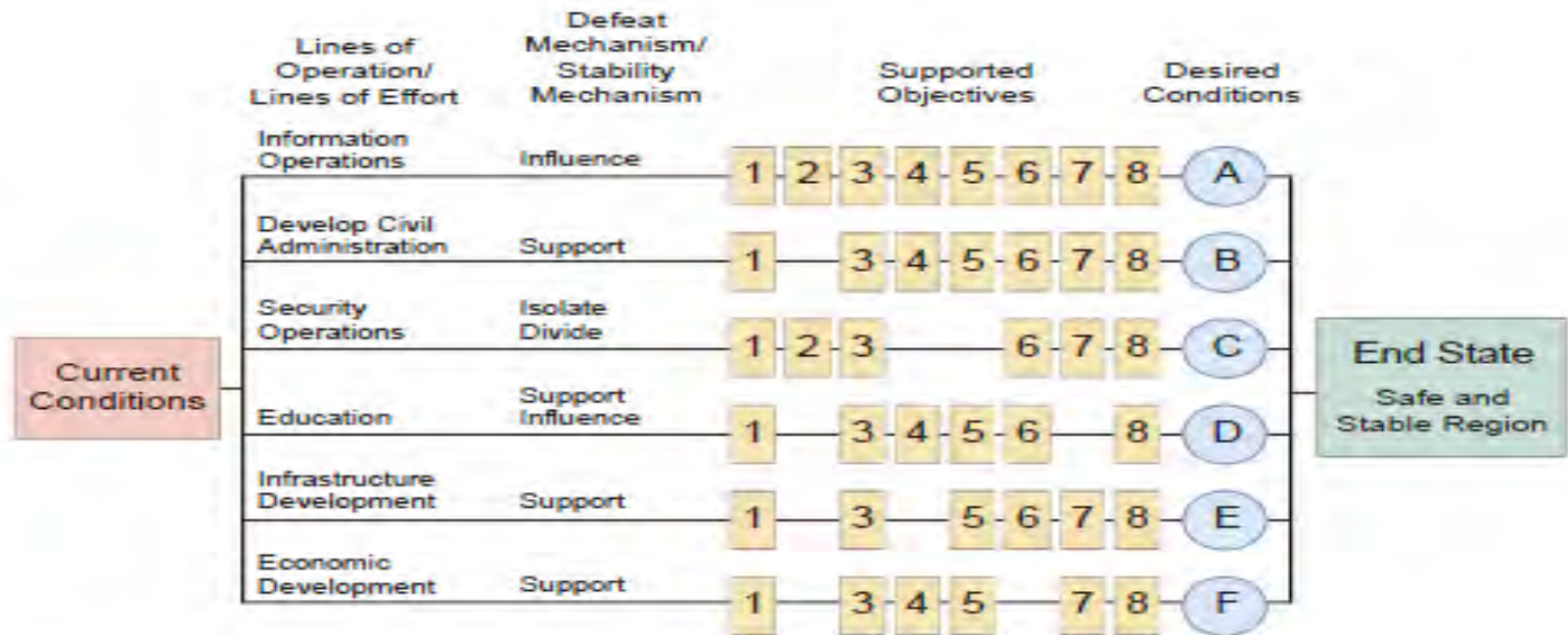
Refugees and War





Modern Campaign Plan Example (JP 5-0)

Operational Approach -- an Example



Supported Objectives

- 1 Positively influence people
- 2 Trained and professional security force
- 3 Civil security operations
- 4 Literacy rate improved
- 5 Population has access to essential services
- 6 Qualified and trained civil service
- 7 Diminish illegal networks
- 8 Revenues increased

Desired Conditions

- A) Populace regularly, readily interacts with provincial government
- B) Civil servants maintaining regular work hours and actively pursuing their responsibilities
- C) Available and trained security forces employed effectively by the provincial government
- D) School attendance increased
- E) Improved conditions for basic services
- F) Increased investment/projects in the provinces





Systems Theory



Dr. Russell L. Ackoff

Problem Absolution
Problem Solution
Problem Resolution
Problem Dissolution

“It is better to do the right thing wrong than the wrong thing right because it offers the possibility of improvement.”



Philosophy,
Organizational Theory,
Sociology

Reflective Practice

On Metaphors

Supra-Organism Learning

Frame Reflection

Dr. Donald Schon

Postmodernism

Language games

Death of meta-narratives

Radical Change (Reality)

Civilization in Motion



Dr. Jean-Francois Lyotard

Three War Movements Framed for a Design Discussion

Limited Wars
Rules-based
Oral/tacit knowledge transfer
Mechanical, linear
Simplification (cause=effect)

Attrition-based Total War
Military Science
Professionalization (academies)
Engineering, reductionist
Complicated (cause and effects)

Asymmetric
Emergent
Critical Reflection
Complex/Chaotic
Dynamic Change

Classical Military Movement (antiquities through late 1600s-1800s)

Strategic intent, order of battle, and tactical directions; no formal military education or academies; no doctrine; learning through apprentice and mentors.



Modern Military Movement (1800-1990s)

Engineering focus on reducing complexity in war. Formal military schooling, doctrine, organizational forms.



Post-Modernist Military Movement (2000+)

Design

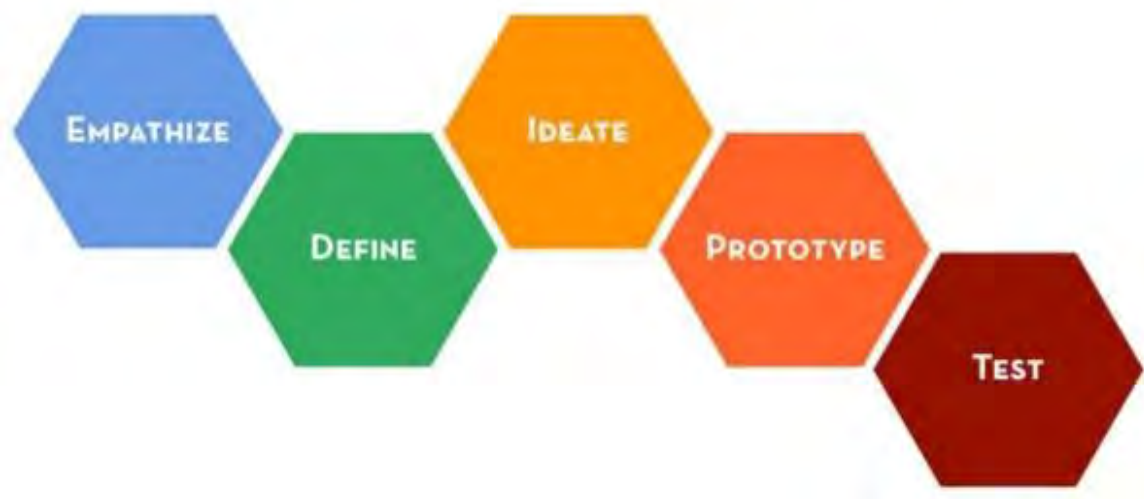
★ Wars could be started and potentially concluded within a single battle, or across a series of localized battles. Larger conflicts still had tactical battles isolated in time and space.

★ Wars required an 'operational level' due to time/space and technology. Few conflicts resolved in single battles. War had a blend of modern and classical qualities; increased complexity.

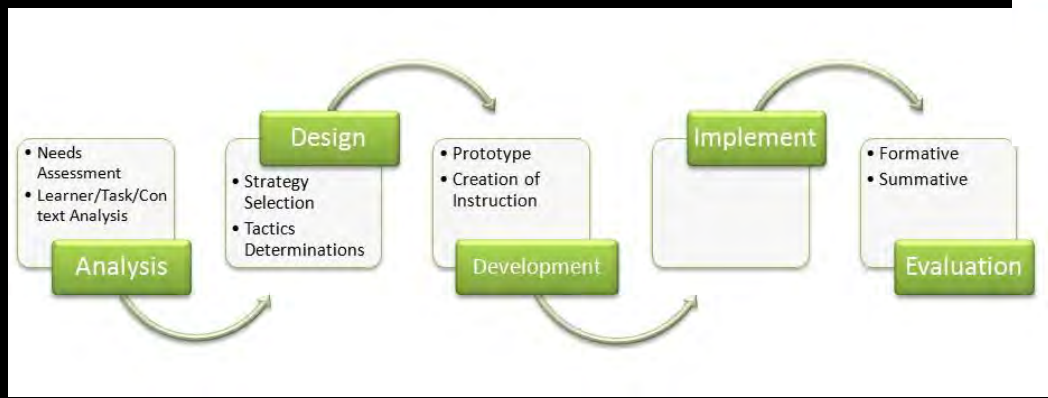
★ Wars no longer adhere to modernist processes exclusively. Greater paradox, complexity, emergence; non-state entities and networks challenge traditions.

Stanford Design Methodology, ADDIE and AGILE models for Civilian Design

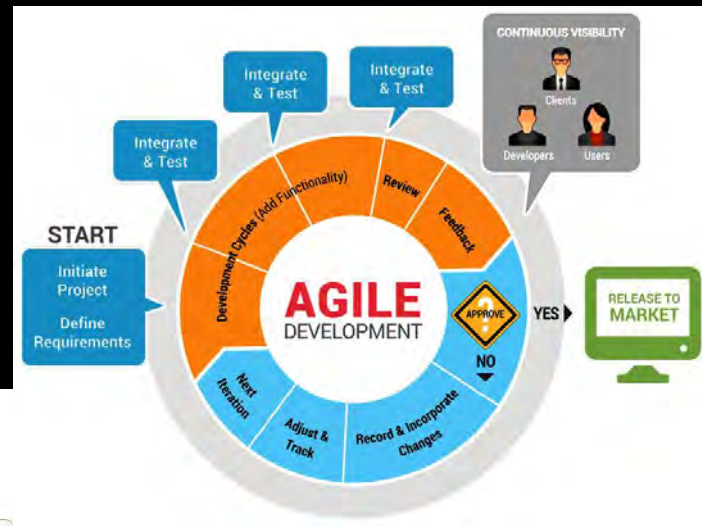
The Stanford d.school Design Thinking Process



ADDIE Model:



AGILE Model:



Graphic source for Stanford Model: <http://www.slideshare.net/wellbeme/triple-aim-design-thinking-standford-medx-2014>.

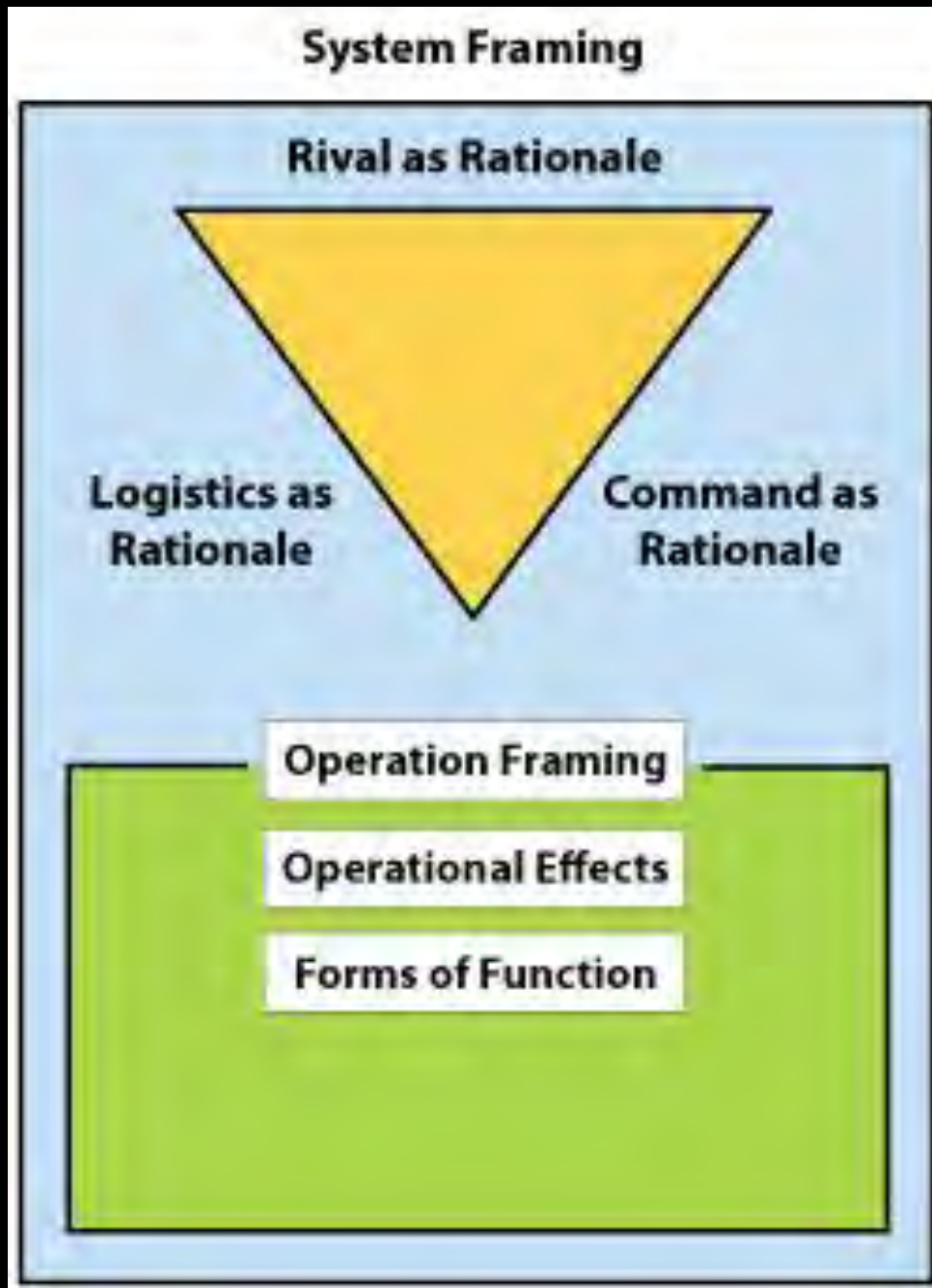
Graphic source for ADDIE model: <http://nschutte.com/wp-content/uploads/2010/01/ADDIE-model.jpg>

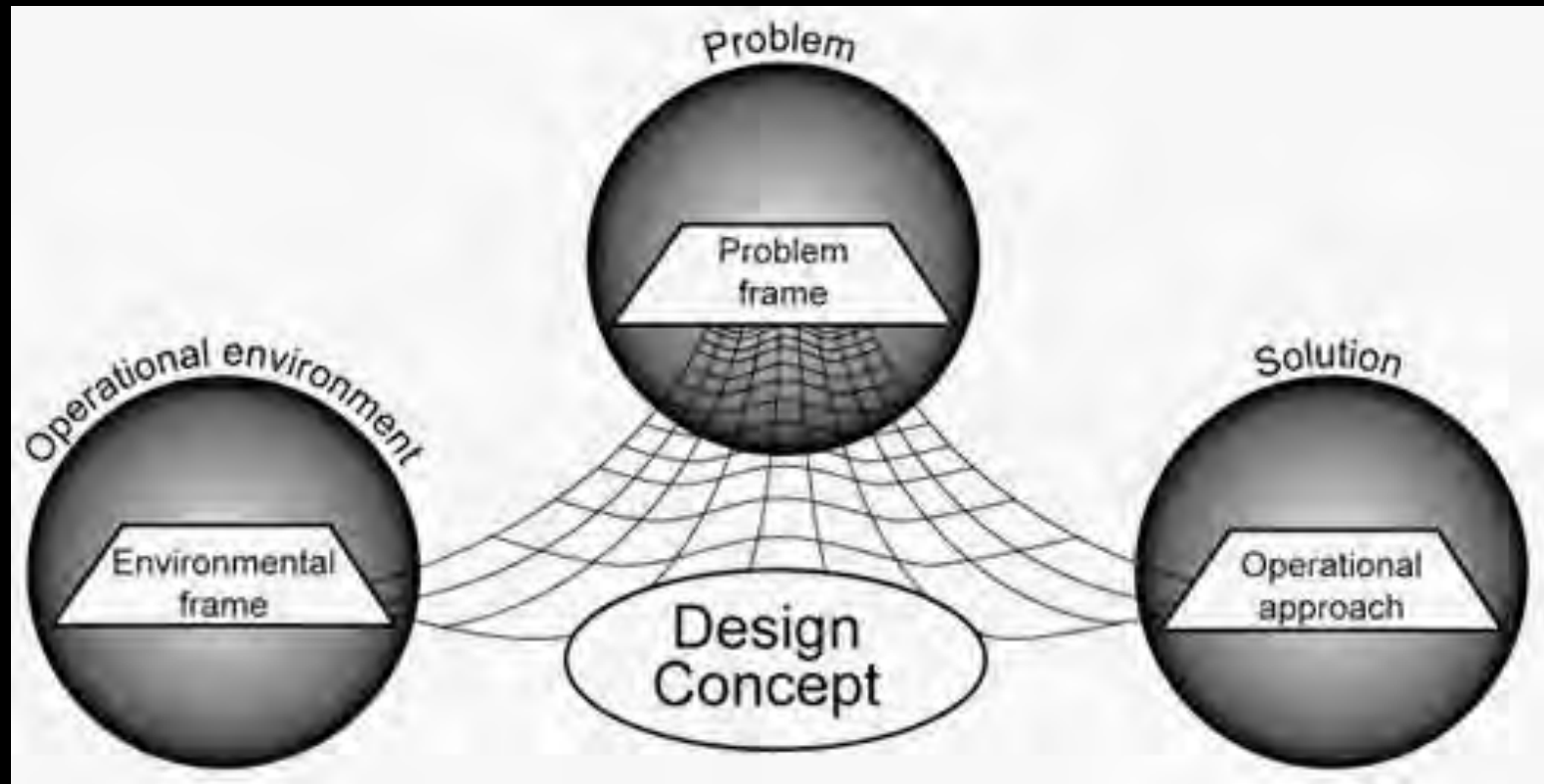
Graphic source for AGILE model: <https://dreamztech.com/tag/agile-model/>



Dr. Shimon Naveh (IDF BG, ret)

Naveh's Original Systemic Operational Design as used by the IDF (2000-2005)





- *“Three Ball Chart” simplifies Naveh’s SOD depicted in Figure 2*
- *IDF’s elements of ‘rationale’ removed, with frames adhering to system thinking and analytic processes (objectivity) as offered in ‘Commander’s Appreciation and Campaign Design’ and other Army doctrine*
- *Maintains ‘sensemaking, idea making, decision making’ logic that underpins ADM’s efforts to generate new solution sets*

Australian Adaptive Campaigning Concept and John Boyd's OODA Loop

Adaptive Action



Figure 9. The Adaptation Cycle



Adaptive Action graphic source:
<http://resilienceandsecurity.blogspot.com/2012/05/could-this-be-resilience-cycle-or-just.html>

OODA Loop graphic source:
<http://www.austinimpact.com/wp-content/uploads/2015/04/ooda-loop.jpg>

Current Design Developments Internationally:

Israeli Defense Force (SOD version 3)

US Army (Leavenworth, ADM)

Royal Netherlands Land Warfare

US Air War College (GSS)

Canadian Forces College

US Naval Postgraduate School (Stanford-D)

NATO Warsaw National Defense

Academy (Polish Army)

US Special Operations Command

Swedish Armed Forces

US Joint Staff

US Marine Corps University

How Might the Canadian Armed Forces Contribute to the Larger Military Design Movement?

- *Experimentation **beyond** current frames*
- ***Trans-Disciplinary Practice & multi-paradigm Awareness***
- *Produce and share design **research** within peer-reviewed and open forums*
- ***Novel language** is needed; **novel concepts** too*
- *Continue hybrid design combinations*
- *Investment in **career-long** design practitioners*
- *Education in design requires **more...***

Design: Synthetic Thinking and Innovation

Traditional Military Decision Making and Analytic Problem Solving

Explorer with Compass and Edge of Map



Design Models and Systems Thinking:

- Complex Adaptive Contexts
- Emergence
- Learning through Design
- Epistemology forces methodological adaptation/innovation
- *Novel discovery tends to be misunderstood by merchants seeking things already on the map*

Merchant with Map and Compass



Analytic Based decision-making and problem-solving:

- Simple and complicated contexts
- Gaining stability provides for predictive methodologies
- Vulnerable to change, complacency and adaptation
- Many military processes require this
- Rationalization



Shall we begin?