Army Design Method – Identify the Problem
Understand, Visualize and Describe

“The society that separates its scholars from its warriors will have its thinking done by cowards and its fighting done by fools.”

Thucydides

AGENDA

• ARMY DESIGN METHOD
• DESIGN ETHOS
• PLANNING
• WHAT IS A PROBLEM
• USING ADM IN PROJECT MANAGEMENT
What is the Army Design Method

Army design methodology is a methodology for applying critical and creative thinking to understand, visualize, and describe problems and approaches to solving them (ADP 5-0).

Key concepts that underline the Army design methodology include —

• Critical and creative thinking.
• Collaboration and dialogue.
• Framing.
• Narrative construction.
• Visual modeling.
The Design Ethos

- Turn your organization into a “learning organization”! (para 3-35)
- Design is not a linear, lock-step process. (para 3-38)
- Your aspiration is to solve the right problem by making yourself relevant to the environment. (para 3-26)
- Adopt the virtue of humility. Expect error and try to anticipate change. (paras 1-7, 1-20)
- If there is to be a clash of perspectives and the creation of a shared narrative, the leader and design practitioners must cultivate the free, open exchange of perspectives. (para 1-32)

The scene: A bunch of persons around a whiteboard—markers in hand—sharing viewpoints, arguing, and creating a shared understanding for each frame.
Army Design Methodology

Frame an operational environment

Current state

What is going on?
Understand the current conditions of the operational environment.

Desired end state

What should the environment look like?
Visualize desired conditions of the operational environment.

Frame the problem

What are the obstacles impeding progress toward the desired end state?

Develop an operational approach

What broad general actions will resolve the problem?

Develop the plan

Using the military decisionmaking process

Continuous assessment and reframing as required
Conceptual and Detailed Planning

Design is a methodology to do conceptual planning.

**Conceptual planning includes:**
- Commander’s visualization
- Description of his Initial Planning Guidance
- Initial Commander’s Intent
- Broad Concept of Operations

**Detailed planning includes:**
- Translation of the broad operational approach into a complete and practical plan
- Science of control, including movement rates, fuel consumption, weapon effects, and time-distance factors
- Detailed planning falls under the purview of the staff, focusing on specifics of execution.
The Operations Process
What is a Problem?

“A problem is an issue or **obstacle** that makes it difficult to achieve a **desired** goal or objective.”

“In the context of operations, an operational problem is the issue or set of **issues** that impede commanders from achieving their **desired end state**.”

ADRP 5-0, para. 2-8
ABC Model and **Thinking Traps (TTs)**

**Activating Event**
The trigger; a challenge, adversity, or positive event

**Beliefs**
Your interpretation of the activating event; what you say to yourself
- Jumping to conclusions
- Magnifying the Bad
- Me, Me, Me
- Them, Them, Them
- Always, Always, Always,
- Character Assassination

**Consequences: RED**
R: Reactions
E: Emotions
D: Decisions
What is Critical Thinking?

... the *intellectually disciplined* process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on *universal intellectual values* that transcend subject matter divisions: *clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness.*

Paul and Elder

“Critical thinking is *purposeful and reflective judgment* about what to believe or what to do in response to observations, experience, verbal or written expressions, or arguments.”

ADRP 5-0, para. 1-40
Typical Brainstorming

“Outside the Box”

and

“Slicing the Old Box”

“New” Approach to Brainstorming

“Make a New Box”
Environmental Frame, part 1

“What is going on in the environment?”

Answered by means of a graphic and prose.

Problem Frame

“Where—conceptually—should we act to achieve our desired state?”

Answered by means of a graphic and prose.

Environmental Frame, part 2

“What do we want the environment to look like?”

Answered by means of a graphic and prose.

Operational Approach

“How do we get from the current state to our desired state?”

Answered by means of a graphic and prose.

“What is our Problem Statement or Problem Set?”
Idea Proofing Protocol:
Sniffing out Bad Ideas Before They Kill Again

**Descriptive:** Can I *reframe* the idea in my own words and with my own graphic depiction accurately? Can I accurately relay this idea to others?

**Analytical:** Does the data *support* the stated conclusion supporting this idea?

**Evaluative:** Can this idea stand up to criticism with soundness intact?

**Interpersonal:** Is *emotional interference* (such as ego) getting in the way of the ability think clearly about the issue?

**Synthetic:** When I *describe* this idea to others, can they reframe the idea for me in their own words and with their own Graphic depiction accurately?

**Reflective:** Does this idea stand the test of *quiet consideration*?
Mental Models in Doctrine & Academia

Cognitive Hierarchy Model
ADRP 6-0, Mission Command
What is Decision Making?
(are we solving the right problem)

→ Process of making choices or reaching conclusions

→ Selecting a course of action to resolve a problem

“Decisionmaking requires knowing if, when, and what to decide and understanding the consequences of that decision.”

ADRP 6-0, para. 2-35

WHAT IS THE END STATE?
**Variance:**

- **Opportunity** to accomplish the mission more effectively.
- **Threat** to mission accomplishment or survival of the force.

ADRP 5-0, The Operations Process
Stability Operations – Lines of Effort

Focus

Civil Control

- Establish Bench Maji Provence Local Police Forces Training

Civil Security

- Isolate Population from EKM

Essential Services

- Sewage Treatment Plants Operating vicinity

Economic / Infrastructure Development

- Repair/Reopen "XYZ" Plant

Governance

- Assist the Gambela City Council

Objectives / Decisive Points

Conditions / Effects Leading to PHIV Endstate

Rule Of Law Established

Safe and Secure Environment Established

Essential Services Restored

Foundation for Development Established

Regional and Local Governance Established

End State
## OBJECTIVE
Establish Local Police Forces

### OBJECTIVE DESCRIPTION

<table>
<thead>
<tr>
<th>Indicators / Effects</th>
<th>Measure Of Effectiveness</th>
<th>Information Requirements</th>
<th>Decision</th>
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<tbody>
<tr>
<td>*Facilities are identified</td>
<td>Size and capacity of facilities</td>
<td>Enemy</td>
<td></td>
</tr>
<tr>
<td>*Recruits are available</td>
<td>Recruits available</td>
<td>Friendly</td>
<td></td>
</tr>
<tr>
<td>*Unit tasked to train Forces</td>
<td>Does a program of instruction exist? / Do we have the skill set to train?</td>
<td>(If one)</td>
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### Enemy Reaction
- Bombing the facilities
- Kidnapping / Killing recruits
- Pressuring families/ Local population / Threats

### Counter Action
- Establish check points on main access into facilities – Prevent / provide early warning
- Preempt – have IO / media plan ready to denounce action and discredit the enemy force
- Non-Lethal - Prevent – Influence population, gain awareness of enemy from populous.
- Lethal – Target locations, destroy enemy

### Analysis of Task Organization / Tasking
1. Does the current TO provide the ability to counter act without changes to the TO? Is there enough flexibility?
2. What risk are we taking? Mitigation?

### Target (Lethal)

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### Measure of effectiveness
A criterion used to assess changes in system behavior, capability, or operational environment that is tied to measuring the attainment of an end state, achievement of an objective, or creation of an effect. (JP 3-0)

### Notes:

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Project Management

Where can ADM help you during project management?

Project Management Process Groups

- Initiating
- Planning
- Executing
- Monitoring and Controlling
- Closing
Managing a Project

Managing a project typically includes, but is not limited to:

• Identifying requirements
• Addressing the various needs, concerns, and expectations of stakeholders in planning and executing the project
• Setting up, maintaining, and carrying pit communications among stakeholders
• Managing stakeholders towards meeting project requirements and creating project deliverables
• Balancing the competing project constraints