How do I Implement Financial Management Critical Thinking (Strategically in My Organization or Tactically in My Team)?

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No Cookbook Solution but create a Critical Thinking Culture (strategic) and adopt thinking methods with your team (tactical)
Agenda

- Background
- Need for Critical Thinking
- Strategic and Tactical Enablers
- Thinking Example
- Resources
- Your Action Plan
What’s In It For Me (WIIFM)?

- Better job performance
- Critical skill desired by industry and public sector*
- Improve my quality of life
- Help my team and DoD succeed
- Have fun!

*World Economic Forum’s *Future of Jobs Report 2018*
Critical Thinking Enables Good Decisions

- College Major
- Career
- Where to live?
- Who to date?
- Whether to marry & who?
- Rent or buy?
- Children?
- End a marriage?
- Where to vacation?
- What to do about Dad?
- Change jobs?
This Message Serves To Prove How Our Minds Can Do Impressive Things! How Fast Did You Understand This Message Well Enough To Identify The Number Being Used To Replace “A”?

(4)
Background - Need for Critical Thinking

- Recognized Need by Leadership
- Needed Now More Than Ever
  - Imperative to Go Faster
  - Closing Innovation Gap with Adversaries
- Improve the Quality of our Work and Results

The Section 809 Panel is committed to proposing recommendations to make the acquisition system more responsive, innovative, and cost effective. The time for superficial conversation and insubstantial changes to regulations and statutes has passed. The global threat is rapidly changing, the relevance of the unique defense industrial base is waning, the processes for acquisition are no longer efficient or effective, and implementing these processes is left to a workforce that is mired in constricted thinking and risk aversion.
Too Complex or “Piece of Cake”?
Acquisition Financial Management

- Planning
- Programming
- Budgeting
- Estimating
- Enactment
- Execution
- Accounting
- Audits and Audit Compliance

And must be 100% accurate?
Financial Management Complexity

Start Here

Requirements

Operational Concept

Feedback

Budget Execution
Reprogramming

Commitment Obligation Expenditure Outlay

Operational Capability

Budget Authority

Budget Resolution
Authorization Law
Appropriation Law

Congressional Enactment Process

HAC HASC HBC SAC SASC SBC

President’s Budget

Planning, Programming, Budgeting and Execution Process

Estimate

Full

Incremental Funding Policies

Exceptions Annual

DPG JPG POM BES
CPA PDM PBD FYDP MFP

Fiscal Environment

Cost Analysis

CCA ICE AOA CAIV POE LCC

Start Here

To End Here
What is Critical Thinking?

*Critical thinking is the **objective analysis** of **facts** (and assumptions) to form a judgment

- Helps us design a way forward when dealing with complex environments like defense acquisition

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Problem Solving versus Critical Thinking

• Problem Solving
  – Follow some defined process
  – Determine an optimum solution
  – More tactical, may be used to support some elements of critical thinking

• Critical Thinking
  – Follow some defined process
  – Determine a strategy or plan
  – More strategic, may combine several problem solving outputs

Both are necessary for effective acquisition teams
Critical Thinking Standards

Clear    Fair    Relevant
Accurate    Precise
Significant    Breadth    Logic
Depth
Thinking Frameworks

- Thinking Frameworks - How we approach thinking
  - Argumentative Thinking
  - Parallel Thinking

- Many Thinking Tools
  - SWOT Analysis (Strengths, Weaknesses, Opportunities, & Threats)
  - Theory of Constraints
  - Six Thinking Hats

- What methods are used in your program? Are they effective?


“.....Yet the **quality of our life** and that of what we produce, make, or build depends precisely on the **quality of our thought**. Shoddy thinking is costly, both in money and in quality of life. Excellence in thought, however, must be systematically cultivated.”
Argumentative vs Parallel Thinking

**Argumentative Thinking**
- Western Philosophy
- Big 3 (Socrates, Plato, Aristotle)
- Thesis-Antithesis-Synthesis
- Empirical Observation
- Individual Focus
- Competitive

**Parallel Thinking**
- Eastern Philosophy
- Confucius
- Answer Grows From Group
- Holistic View
- Collective Contribution
- Collaborative

**Nature**
- Not “Right” or “Wrong”
  Just Different
Parallel Thinking

• Parallel Thinking
  – Networking ideas and build on each others thoughts
  – Look at issue from different perspectives but one perspective at a time
  – Get the whole team involved

• A Creative and Critical Thinking Process
  – Holistic view of your Plan for Change
    • Decision
    • Problem Solving
  • Build Thought Map
Build a Thought Map

Graphic representation of the thinking process
Quick Survey

1. How Many of You Have the Tools Needed to Conduct Effective Critical Thinking?

2. ....With Your Team?
What Separates Great Organizations from Others?

- Think of organizations that achieved great success
- What did they do well?
  - Leadership
  - Strategy
  - Speed
  - Trust

- Think of organizations that under-performed or failed
- What were the problems?
  - Leadership
  - Strategy
  - Speed
  - Trust
Strategic Enablers

• Strategic Plans that prioritize a thinking culture
• Clear expectations
  – Thinking Plans
  – Battle Rhythm
• Organizational Norms
  – Depth and breadth of thinking
  – Participation and tools
  – Governance
• Investment in thinking culture
  – Venture Capital – investment leads to long term growth
  – Lean Start-up – rapidly discover if model is viable
How Do You Develop Strategies & Plans?

• What tools do you use?
• How do you engage the team?
• How do you decide the scope?
• How do you determine the timeline?
• When do you seek help?
• How do you develop your purpose and expected outcome?
• How will you measure progress?
• How do you evaluate after the task is complete?
Tactical Enablers

• Decompose big, complex tasks into smaller ones that support the goal
• Maintain Focus
  – Avoid multi-tasking
  – Block time
  – Minimize interruptions
• Break normal thought patterns
  – Use of a catalyst
  – Think backwards
Decomposing Big Tasks into Smaller Tasks

1. **Technology/Technical Strategy Drivers**
   - Business Strategy
     - Competition
     - Contract Type
     - Incentives
   - Affordability & Cycle Time Considerations
   - Other Key Drivers
     - International
     - Operational Urgency
     - Supportability
   - Market & Industrial Considerations

*Repeat Flow and Feedback Loops to Enable Cohesive Thinking*
Let's further decompose technical strategy.

Technical Strategy Elements:
- Technical Constraints
- Scope
- Requirements
- Prototyping
- Architecture
- Modeling and Simulation
- Technology Maturity
- Manufacturing
- Test

...and further analyze elements to ensure we think through key parts of the strategy.
Avoid Multi-Tasking

• Errors
• Inefficient – slows down thinking
• Stress
• “Inattentinal blindness”
• Degrades short-term memory
• Degrades creativity
• Safety Issues
• Impacts relationships
• Career and even brain damage?
Breaking Normal Thought Patterns

- Use of a catalyst
- Think Backward
Notional Thinking Plan

- Define outcome and scope
- Determine priorities and constraints
- Gather data and determine gaps
- Develop assumptions
- Generate criteria to evaluate alternatives
- Develop alternatives
- Evaluate alternatives
- Iterate as Needed

Some tasks can be conducted in parallel
Purchase a New Car Example

• Define outcome and scope: Buy high quality and economical Car (SUV) with 4 wheel drive
• Determine priorities and constraints: Price, Quality, Reliability, Need Soon
• Gather data and determine gaps: Online research, consumer reports, check inventories
• Develop assumptions: Availability, Dealer Incentives, Discount pricing participation
• Generate criteria to evaluate COAs: Price, Styling, MPG, Warranty, Towing Capacity, MPG, Cargo, and Safety
• Develop COAs: Buy one of five cars
• Evaluate COAs: Assess each car against criteria
• Iterate as Needed
### Notional Purchase Example

<table>
<thead>
<tr>
<th></th>
<th>Car #1</th>
<th>Car #2</th>
<th>Car #3</th>
<th>Car #4</th>
<th>Car #5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Price</strong></td>
<td>G</td>
<td>Y</td>
<td>G</td>
<td>R</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Styling</strong></td>
<td>G</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>G</td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td><strong>Towing</strong></td>
<td>G</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>Y</td>
</tr>
<tr>
<td><strong>MPG</strong></td>
<td>Y</td>
<td>G</td>
<td>G</td>
<td>Y</td>
<td>G</td>
</tr>
<tr>
<td><strong>Cargo</strong></td>
<td>G</td>
<td>Y</td>
<td>Y</td>
<td>R</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
</tr>
</tbody>
</table>
## Which Car Should I Buy?

<table>
<thead>
<tr>
<th></th>
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<th>Car #4</th>
<th>Car #5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>G</td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Styling</td>
<td>G</td>
<td></td>
<td></td>
<td></td>
<td>G</td>
</tr>
<tr>
<td>Warranty</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>G</td>
</tr>
<tr>
<td>Towing</td>
<td>G</td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>MPG</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>G</td>
</tr>
<tr>
<td>Cargo</td>
<td>G</td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Safety</td>
<td>G</td>
<td></td>
<td></td>
<td></td>
<td>G</td>
</tr>
</tbody>
</table>
### Now What Car Should I Buy?

<table>
<thead>
<tr>
<th></th>
<th>Car #1</th>
<th>Car #5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Price</strong></td>
<td>$26,500</td>
<td>$28,699</td>
</tr>
<tr>
<td><strong>Styling</strong></td>
<td>Good</td>
<td>Very Good</td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
<td>3 Years 36,000</td>
<td>4 Years 50,000</td>
</tr>
<tr>
<td><strong>Towing</strong></td>
<td>2,000 lbs</td>
<td>1,500 lbs</td>
</tr>
<tr>
<td><strong>MPG</strong></td>
<td>23 City, 30 Highway</td>
<td>24 City, 32 Highway</td>
</tr>
<tr>
<td><strong>Cargo</strong></td>
<td>68 ft³ with seat area</td>
<td>62 ft³ with seat area</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>Acceptable</td>
<td>Good</td>
</tr>
</tbody>
</table>

Not necessarily clear answer but helps us make informed decision
Should I Buy It A Different Way?

• Traditional Approach: I go to the dealer and find the car I like (styling, exterior features, interior features) and I offer a price I’m willing to pay

• Let’s reverse it:
  – I give dealers my requirements and they come to me with their best price
  – Online price quotes include huge networks of car dealerships across the country
  – The more quotes, the more discounts you'll likely get and you control the decision!
DAU Resources Available

- *Tailored Workshop to fit your needs
- *WSD 011 Critical Thinking for Decision Makers and Teams
- *WSD 014 Six Thinking Hats Workshop
- ^CLM 058 Critical Thinking
- ^HBS 421 Innovation and Creativity
- ^HBS 437 Strategic Thinking

*Resident Offering
^On-line Offering
Your Action Plan to Improve

• Senior Leaders
  – How important is critical thinking to your organizations’ success? How are you enabling improvements?
  – How do you ensure staff gets the tools and training?
  – How are you building a thinking culture?
  – How does your governance support a thinking culture?

• Mid-Level and Junior Leaders
  – How good are your critical thinking skills?
  – What training do you need?
  – How do you practice this skill?
  – How can you improve your teams’ critical thinking?
Summary

• Imperative to improve our critical thinking as environment gets more complex and challenging
• Leaders at all levels need to address actions necessary to develop thinking culture
• Improving critical thinking skills is a lifetime journey enabled by education, training, and practice