



CAREER COMPASS

Steer Your Career. Accelerate Our Mission.

Employing an Analytic Approach to Decision-Making

Participant Workbook

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Introduction

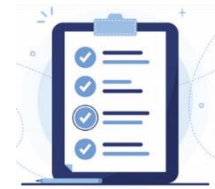
Objective

You will be able to

- Understand an analytic approach to decision-making
- Comprehend what a decision profile is and how to develop one
- Understand tips to employ an analytic approach to decision-making

Agenda

- What an analytic approach to decision-making is
- How to develop a decision profile
- Tips to employ an analytic approach to decision-making



What is an Analytic Approach to Decision-Making?

- Definition - The examination of information before taking action

-Harvard Business Review

“What gets measured, gets managed.” -Peter Drucker (Author)

Chat Question

In your current role, what do you rely on most to support your decision-making (observation, data, or facts)?

How to Develop a Decision Profile?

Decision Profile – A process to outline the relationships between competing factors that are relevant in decision-making

-Harvard Business Review

Steps to develop a decision profile

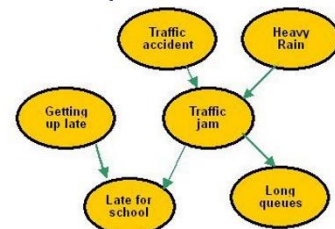
- Create a model for success
- Predict the range of possible outcomes
- Choose the right tools
- Aggregate the information
- Understand complicating factors



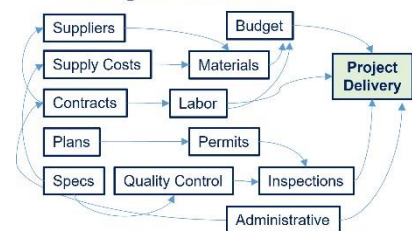
Create a Model of Success

- Develop and implement a causal model
 - Causal models are models representing causal relationships within an individual system or process
- Test the strength of your causal model
- Application (Ask Yourself)
 - Do you understand what combination of critical success factors will determine whether your decision leads to a successful outcome?
 - Do you have a precise understanding of how to achieve success?

Goal: Drop kids at school on-time



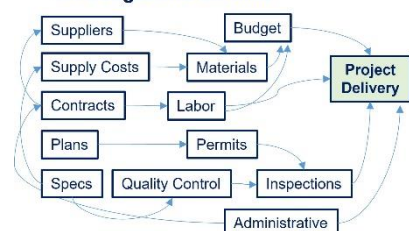
Goal: Construction project delivered on-budget and on-time



Predict the Range of Possible Outcomes

- Brainstorm possible outcomes based on the decision
- Determine ability to predict outcome with reasonable certainty and probability
- Research historical data to aid in determination
- Application (Ask Yourself)
 - Can you define the range of outcomes that could result from your decision, both in the aggregate and for each critical success factor?
 - Can you gauge the probability of each outcome?

Goal: Construction project delivered on-budget and on-time



Chat Question

What challenges might you have when trying to predict the range of possible outcomes?

Choose the Right Tools

- Use the answers from steps 1 and 2 to help determine which decision-support tool(s) to use
- You may need one tool or a combination of tools
- Possible tools
 - Budgeting tools
 - Quantitative multiple scenario tools
 - Decision analysis
 - Case-based decision analysis
 - Information aggregation



Aggregate the Information

- Collect and aggregate data needed to support the decision
- Data may be dispersed or context-specific
- Seek input from experts
- Application (Ask yourself)
 - Is the information you need centralized or decentralized?
 - If it's decentralized, can you tap the experts you need and aggregate their knowledge?
 - Is it feasible and helpful to use a group of personnel for some portions of your information gathering?



Understand Complicating Factors

- Complicating Factors – anything that can pose an issue or block progress to achieving your goal
- Complications occur when major decisions are being made
- Potential Complicating Factors:
 - You don't know what you don't know
 - Organizational processes may get in the way
 - Decision makers tend to rely on a single tool
 - Managers don't consider the option to delay a decision



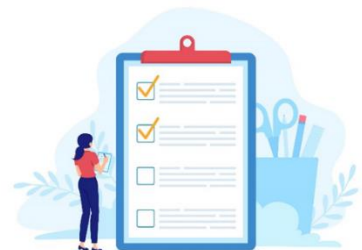
Workbook Exercise

When developing a decision profile, which of these elements is most valuable to your decision-making? Why?

- ***Create a model for success***
- ***Predict the range of possible outcomes***
- ***Choose the right tools***
- ***Aggregate the information***
- ***Understand complicating factors***

5 Tips to Employing an Analytic Approach to Decision-Making

1. Be a knowledgeable skeptic
2. Investigate anomalies
3. Articulate testable hypothesis
4. Produce hard evidence
5. Probe cause and effect



Tip 1: Be a Knowledgeable Skeptic

- Ensure biases and errors won't block truth
- Employ reason, require evidence
- Be open to new ideas
- Seek independent confirmation of facts
- Examine competing hypotheses



Tip 2: Investigate Anomalies

- Anomalies - things that are unexpected, don't look right, or seem strange
- Explore anomalies
 - Insights, opportunities, perspectives, problems?
- Identify and question assumptions



Chat Question

How would your team benefit from investigating anomalies?

Tip 3: Articulate Testable Hypotheses

- Hypothesis - an interpretation of a practical situation or condition taken as the grounds for action or testing
- Ensure it can be quantifiably confirmed or disproved with data
- Measure it so you can make a case for it
- Remember that it's an iterative process of testing and refining



Tip 4: Produce Hard Evidence

- Seek out conclusive evidence (data)
- Avoid conclusions based on feelings, experiences, guesses, or status
- Remember that data tells the story
- Establish mechanisms to collect and analyze the correct data



Tip 5: Probe Cause and Effect

- Recognize that assumptions can be dangerous
- Maintain an unbiased approach
- Experiment
 - Change one variable (the presumed cause) and observe changes in the outcome (the effect)
- Isolate and change the cause to achieve an effect



Workbook Exercise

From the 5 tips to employing an analytic approach to decision-making, order your level of competency (1=highest, 5=lowest)

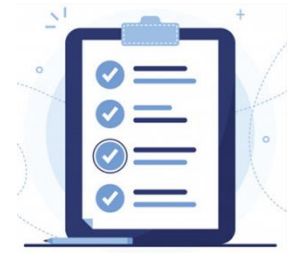
How can you improve these areas?

- ***Be a knowledgeable skeptic***
- ***Investigate anomalies***
- ***Articulate testable hypothesis***
- ***Produce hard evidence***
- ***Probe cause and effect***

Summary

Learning Objectives:

- Understand an analytic approach to decision-making
- Comprehend what a decision profile is and how to develop one
- Understand tips to employ an analytic approach to decision-making



- ✓ What an analytic approach to decision-making is
- ✓ How to develop a decision profile
- ✓ Tips to employ an analytic approach to decision-making

Final Reflection

What actions can you take now to employ an analytic approach to your decision-making?

Key Takeaways

What are some of the key takeaways from today's course?

Course Credit

You will receive credit for participating in this course. Email the address below. Make sure to include all the following information:

Component	Include in Email
Address	W_NAVFAC_PRTN_NITC_NFI_ADMINS_US@navy.mil
Email Subject Line	Self-Certification – Employing an Analytic Approach to Decision-Making
Course Name	Employing an Analytic Approach to Decision-Making
Course Completion Code	a4AaHZ

Or, if you have a smart phone, you can simply scan the QR code below to generate the email with all the necessary information. If you use this method, please include your Navy email in the body of the email.



Contact Information

BD17 Contact Information: Write to us! We are always seeking to improve our learning and development products and encourage your feedback. Please email us with your suggestions and we will incorporate them into future work. Additionally, we are available to answer any questions about the content you may have and provide additional resources to support your learning endeavors.

- NAVFACHQTotalForceDevelopment@us.navy.mil

Development Resources

Career Compass Resource Center: An online source of information that provides NAVFAC civilian employees access to professional growth and development opportunities.

- <https://www.navfac.navy.mil/Careers/Career-Compass-Workforce-Development/Career-Compass-Resource-Center/>

To access more content specific to the **Evidence-Based Decision-Making competency:**

- <https://www.navfac.navy.mil/Careers/Career-Compass-Workforce-Development/Career-Compass-Resource-Center/Competency-Development-Content/Evidence-Based-Decision-Making/>

Career Compass Catalog: an online tool which provides you with information to help you take ownership of your professional development. It identifies options to assist in planning and creating a successful career path within NAVFAC.

- <https://www.navfac.navy.mil/Careers/Career-Compass-Workforce-Development/Career-Compass-Resource-Center/Career-Compass-Catalog/>