Up Your Game: Leveraging Models and Concepts to Increase your Effectiveness

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“All Models are Wrong...

...some are useful”*

- Statistician George Box

* This aphorism was phrased by him various ways over the years. Additional details: https://en.wikipedia.org/wiki/All_models_are_wrong
Models/Concepts

- Name the Game
- Internal vs. External Locus of Control
- Crucial Conversations
- Wall of Confusion
- Dunning-Kruger
- Cone of Uncertainty

- Lead/Lag Measures
- Theory of Constraints
- Agile/Scrum - Not just for Software
- Lean Six Sigma
- Anti-Patterns
- 3D Negotiating
Name the Game

• Generally, once someone “Names the Game”, you know what to do.
• Be aware there may be a model or concept that helps explain your current situation
Internal vs. External Locus of Control

Internal:

• Assume Responsibility
• “I have control over my choices”

External:

• Abdicate Responsibility
• “I am a victim of external forces”
Crucial Conversations

Link to short summary: https://www.progressivedairy.com/topics/management/crucial-conversations-on-your-dairy
Wall of Confusion

• Dev: New features!
• Ops: Change nothing!
• Competing Incentives & Priorities = Recipe for Confusion
• Solution: elevate shared goals
Dunning-Kruger Effect

Dunning-Kruger effect

peak of "Mt. Stupid"

valley of despair

plateau of sustainability

slope of enlightenment

"low" confidence

"know-nothing"

wisdom

"high" confidence

"guru"

http://www.understandinginnovation.wordpress.com
Cone of Uncertainty

• Mathematical model
• Estimation is a range
• More information = Greater Accuracy
• Don’t wait for perfect information to act
Lead/Lag Measures

Lag Measures:
- Commonly called “Metrics”
- Can not be directly changed
- Only tells you about the past
- Ex: Weight, Software Quality Measures, Cybersecurity

Lead Measures:
- Actions you can take to influence Lag Measures
- Must be tested
- Predicts the future
- Ex: Exercise/Diet, Work In Process (WIP), Attitudes about Cybersecurity
Theory of Constraints

Every process (set of steps) has a bottleneck (a constraint) that determines (has a causal relationship) the maximum throughput (work over time) of that process.

• With measurements in place, you can ignore 90%+ of all steps and just improve the constraint
Agile/Scrum

• Not just for Software
• Small batches of work
• Quick feedback/Constant adjustment
Lean Six Sigma

- Improve performance by systematically removing Waste
- Lean (removal of waste)
- Six Sigma (statistical tools)
- Example: if a task takes 30 minutes, but takes us 10 hours before customer sees value, there is 9 ½ hrs of waste.

8 Kinds of waste:
- Defects
- Over-Production
- Waiting
- Non-Utilized Talent
- Transportation
- Inventory
- Motion
- Extra-Processing
Anti-Patterns

Silver Bullets, Seagull Management, Requirements as Architecture, Cat Hearding, ScapeGoat

Know to be wrong, yet we do it all the time. Calling these out can help us avoid them in the future. Also, because it’s known, common occurrence, there are ways to solve them.
3D Negotiation

• 1D: At the table, face to face
• 2D: Deal Design
• 3D: Change factors away from the table
References & Further Reading

- [https://en.wikipedia.org/wiki/All_models_are_wrong](https://en.wikipedia.org/wiki/All_models_are_wrong)
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- The 4 Disciplines of Execution - by Chris McChesney, Sean Covey, Jim Huling
- Nicole Forsgren, ADO Call in Episode [https://www.arresteddevops.com/callinshow/](https://www.arresteddevops.com/callinshow/)
- Theory of Constraints: The Phoenix Project - by Kevin Behr, George Spafford, Gene Kim
- Theory of Constraints: The Goal - by Eliyahu Goldratt
- Agile/Scrum: Jeff Sutherland - twice the work in half the time [https://www.youtube.com/watch?v=s4thQcgLCqk&t=20s](https://www.youtube.com/watch?v=s4thQcgLCqk&t=20s)
- [https://www.wisc.edu/search/?q=lean+six+sigma](https://www.wisc.edu/search/?q=lean+six+sigma)
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- [http://c2.com/cgi/fullSearch?search=CategoryAntiPattern](http://c2.com/cgi/fullSearch?search=CategoryAntiPattern)
- 3D Negotiation - by David A. Lax, James K. Sebenius