



Read2Lead

Systems Thinking

Jamshid Gharajedaghi

Summary from Google Books:

Systems Thinking (Third Edition) combines systems theory and interactive design to provide an operational methodology for defining problems and designing solutions in an environment increasingly characterized by chaos and complexity. This new edition has been updated to include all new chapters on self-organizing systems as well as holistic, operational, and design thinking.

The book covers recent crises in financial systems and job markets, the housing bubble, and environment, assessing their impact on systems thinking. A companion website is available at interactdesign.com.

Book's Applicability to Junior Army Officers:

Junior Army officers lead teams, and each team requires systems, processes, and functions to accomplish the mission and improve the organization. Most systems emplaced for small military teams are legacy systems inherited from tradition or forced in a top-down way. Considering the fundamentals of systems thinking, design thinking, and structuring organizations will help junior officers get back to first principles thinking. It will provide them with the theoretical toolkit to think about practical problems in new ways. It will give them the vocabulary and mental models to process change, innovation, and disruption in ways that scale and fit high-performance teams.

What is Read2Lead?

Read2Lead is a series of book studies published by the Center for Junior Officers, a small Army research center dedicated to empowering junior officers to develop themselves and their teams. Read2Lead modules give junior officers a ready-to-use product that they can integrate into leader professional development programs.

What's in this module?

Every Read2Lead module contains:

- A short summary of the book that you can circulate to prime people for reading
- Advice for running your Read2Lead session
- A series of questions that can be used in multiple sessions, with options for using the questions over different lengths of time
- Additional resources that may be helpful for the facilitator



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What do I need to provide to run a Read2Lead program?

First, the time. Read2Lead sessions work best when they're done over multiple sessions, so participants can digest books in small "chunks" instead of trying to cram them in all at once. Make sure you give your participants enough time to read the book and not fake the funk.

Second, the books. Books can be purchased with a government purchase card if they remain in the hands of the unit. Buying books for a Read2Lead session can be a great kick-starter for a battalion or even brigade library. You can also provide the books to Soldiers with the expectation that they pass them along to another Soldier when they are done with them. If you choose this approach, you should ensure you mark the books appropriately per the purchasing regulations and legal guidance of your organization.

Third, the space. Read2Lead sessions should be conducted in spaces where everyone can hear and see one another. Be creative: maybe you do them as hip-pocket training on a range, or at the end of motor stables. Or as a brownbag lunch in a barracks dayroom.

When you run the actual session, think of it as a time for your Soldiers to think outside the box, discuss something beyond the day-to-day concerns of the unit, and improve their communication skills. The questions provided on the subsequent pages are a starting point, but feel free to add or substitute your own to make the session more meaningful for your Soldiers.



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Systems Thinking, 6 Week Question Guide

Week 1: Competitive Advantage & Interdependency (Part 1)

Discussion Questions:

- What are historical examples within global military history of forces losing competitive advantage over time, at both the strategic and tactical level?
- How do the “five forces” erode competitive advantage?
- What are possible antidotes to those negative forces?
- How does the Army create interdependency within commands and staffs?

Guiding Thoughts:

- Great organizations, successful for so long, eventually start to fail. This is because of a hierarchy of forces that “erode competitive advantage.” The very success of great organizations can be a downfall when environments change.
- Five forces erode competitive advantage (from micro to macro):
 - Imitation;
 - Inertia;
 - Suboptimization;
 - Change of game;
 - Shift of paradigm.
- “As systems become more and more sophisticated, the reality of interdependency becomes more and more pronounced.” What does this mean? Compare this to GEN Stanley McChrystal’s “Team of Teams” concept.

Supplemental Video: [“Why great businesses fail”](#)



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Week 2: Systems Theory (Part 2)

Discussion Questions:

- What are good and bad examples of when the principles of multi-minded systems are or aren't present in organizations?
- How does Army culture end up creating its own system?
- In leading a platoon or company, how do you balance stability and change? For example, how do you give Soldiers predictability while also challenging them in disruptive ways?

Guiding Thoughts:

- Good “multi-minded” systems have five principles:
 - Openness;
 - Purposefulness;
 - Multidimensionality;
 - Emergent property;
 - Counterintuitive behavior
- Page 41 explores the tension between concerns for stability vs. concerns for change, and labels these organizations as either radical, anarchical, conservative, or mature.

Supplemental White Paper: [An Army COL dives deep into systems theory and C2](#)

Week 3: Holistic Thinking (Part 3, Chapter 5)

Discussion Questions:

- How is your unit structured? Is it very similar to other organizations like it?
- How does your unit function day to day? At training exercises? Can we impact this or are we subject to other systems? What are they?
- What are our unit's processes? Do we do them well? At scale?
- How do we adapt to changing contexts, like a new AOR or strategic shift? What about technological change? When do we decide to throw out the old SOPs and create new ones?

Guiding Thoughts:



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- “Iteration is the key to understanding complexity,” says p. 92. Structure, function, and process (within a certain context) help organizations understand chaotic and complex situations.
- Look at page 105, figure 5.9, about “means” and “ends.” Each Army unit has a different way of doing things. Leaders change often. Think of your experience being part of teams (or hearing of teams) that adjusted to this change with each of the four types of relational responses:
 - Conflict (incompatible means and ends);
 - Competition (compatible ends, but not means);
 - Coalition (compatible means, but not ends);
 - Cooperation (compatible means and ends).

Supplemental Article: [Are ends and means in sync with the Army’s H2F program?](#)

Week 4: Operational Thinking (Part 3, Chapter 6)

Discussion Questions:

- How do smaller units think about second and third order impacts of decisions?
- Think about the Marine Corps’ concept of the “strategic corporal.” What are decisions you make daily that you think harder about than others, out of considerations of second and third order affects?
- How do you mentor and develop your NCOs and Soldiers to think in these terms? Does it impact your daily operations or battle rhythm?

Guiding Thoughts:

- On pages 111-113, the author talks about open and closed loop systems, linear vs. nonlinear systems, and positive feedback loops. He notes that even with positive feedback loops, the reality of limited supply (what he calls “carrying capacity,” means success is rarely a curve sloping gradually upward. Rather, it usually takes the form of an “S” shape (see figure 6.6).

Think about carrying capacity in a strategic and tactical sense. The author talks about “overshoot & collapse” as what happens when organizational goals fail and impact the entire system. Some Army examples of this could be a) “Black Hawk down” in Somalia and its affect against subsequent US support to UN peacekeeping in Rwanda; b) “Desert One” and the passing



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of Goldwater-Nichols to create unified, geographic combatant commands;
c) 1990s Russian bond auctions in the wake of USSR collapse that created today's "oligarch" structure, with its European foreign policy enforced largely by mercenaries and energy companies, etc. Note that some of these affects can lead to positive structural change if done well.

Supplemental Article: [A great breakdown of "second-order thinking"](#)

Week 5: Design Thinking (Part 3, Chapter 7)

Discussion Questions:

- Where do you think military leadership fits? Is it more art, science, or design? What types of situations would change your opinion?
- A good way to translate system characteristics into military leadership would be thinking of them as **key tasks**, **battle rhythm**, and **task organization**. What are other elements that the author is missing? What other variables must units master in order to create desirable systems?
- What are ways the Army transfers knowledge to leaders coming after them, and how could those ways be improved?

Guiding Thoughts:

- Page 134, figure 7.1, describes human intelligence as having three dimensions: art, science, and design.
- A good way to think about unit leadership is on page 146, where the author talks about system characteristics. He mentions three desirable characteristics:
 - Functions ("What are we creating and for whom?")
 - Critical processes ("What are the desired specifications for throughput and organizational processes?")
 - Structure ("What are the desired specifications of the organizational structure?")
- On page 151, the author talks about creating a cohesive "social calculus" within teams. He mentions vertical, horizontal, and temporal compatibility. The Army is generally good at defining vertical and horizontal power relationships, but sometimes has trouble with



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temporal compatibility, like maximizing the use of “continuity books” and SOPs.

Supplemental Article: [Should the Army have “Leadership Continuity Committees?”](#)

Week 6: Case Studies (Part 4)

Discussion Questions:

- Moving forward, what are ways to implement local systems within your organizations to increase performance?
- What processes your unit does well, and which can be improved?
- How can units create interdependency within different sections, rather than trying to stitch together independent functions?

Guiding Thoughts:

- The author goes through successive case studies about systems thinking using various social and business organizations.
- Have an open discussion on Talk about formal systems, informal systems, and sociocultural concerns. Focus on a case study or two of your choice and post similar questions.

Supplemental Article: [The Army needs to innovate from both top-down and bottom-up](#)

This Read2Lead was developed by Addison McLamb. Addison is a Military Intelligence Captain at Ft. Bragg, NC. He is a 2021 CJO Leadership Fellow. The views expressed above are his own and do not necessarily reflect the views of the Department of the Defense or US Military Academy.