Barry Richmond’s Systems Thinking Skills

**Key question:** How might looking at a system with different lenses help increase understanding and improve desired outcomes?

**Use:** This set of thinking skills provides a framework for looking at any situation, whether current, theoretical, or historical. Practice the skills one at a time or in concert with one another.

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System Dynamics Models

**Key question:** How can we mathematically define interdependent elements within a system?

**Use:** Models help illustrate how systems really operate, showing results of their internal interconnections over time.

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Simulations

**Key question:** How can we test assumptions and try out “what if…” strategies?

**Use:** Simulations help compress time and space, so rather than having to wait a hundred years to see a particular result, a simulator can reveal that result quickly and in a contained space, either real or virtual.

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Iceberg Visual

**Key question:** Looking beyond easily seen events, what lies under the surface, often unseen?

**Use:** The iceberg provides a frame for looking beyond events to exploring a system more deeply - looking for trends, structures and mental models within. Because complex systems problems resist change, seeing a system through the lens of an iceberg can help reveal what’s generating behaviors seen.

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Archetypes and other Generic Models

**Key question:** Can we identify a generic structure, a pattern or behavior that occurs in a variety of situations?

**Use:** Archetypes (and other generic models) can help in the transfer of knowledge about a specific subject to other situations. Viewing behavior in a broader interdisciplinary context can reveal repeating patterns and increase understanding of potential outcomes that may be counterproductive to one’s goals.