Agenda:

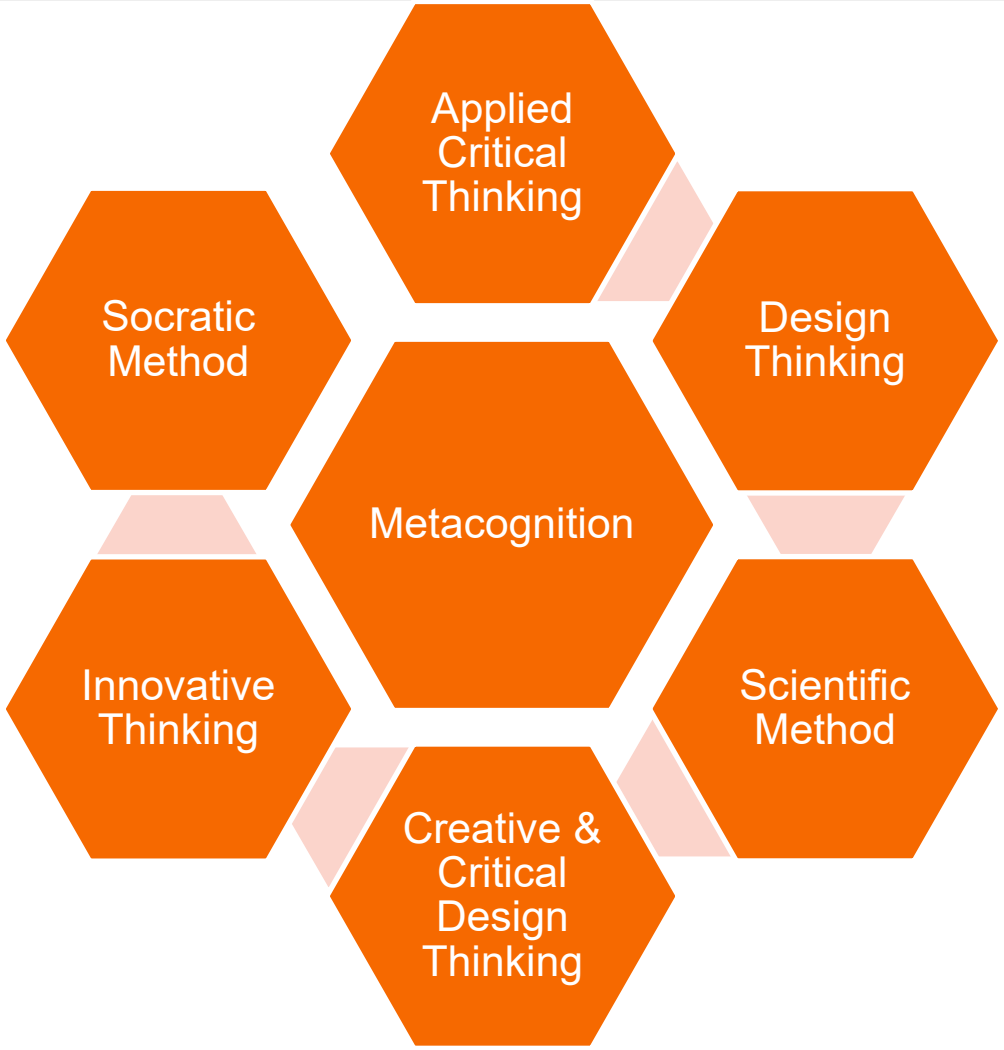
- **Review of the ACT model**
- **When do you need ACT?**
- **Cultivating ACT**
- **Building the MIND Field: Structure**

Applied Critical Thinking- ACT @ RIT

- **Our global society now comes with expectations: simply knowing is not enough.**
- **Leaders must:**
  - think critically to assess and strategize within complex interconnected systems and processes
  - continually adapt to rapidly evolving technological, aesthetic, and social environments
  - manifest new ideas, both individually and collectively.
- **Application of critical thinking connects this performance chain of knowing-doing-creating.**
- **Effective thinking in any context.**

The framing is the same across domains; the emphasis and demonstration of capacity can be different.

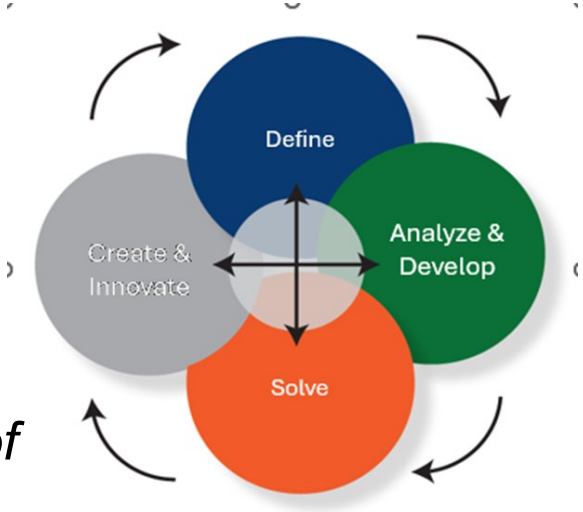
ACT draws upon many other models– these are more!

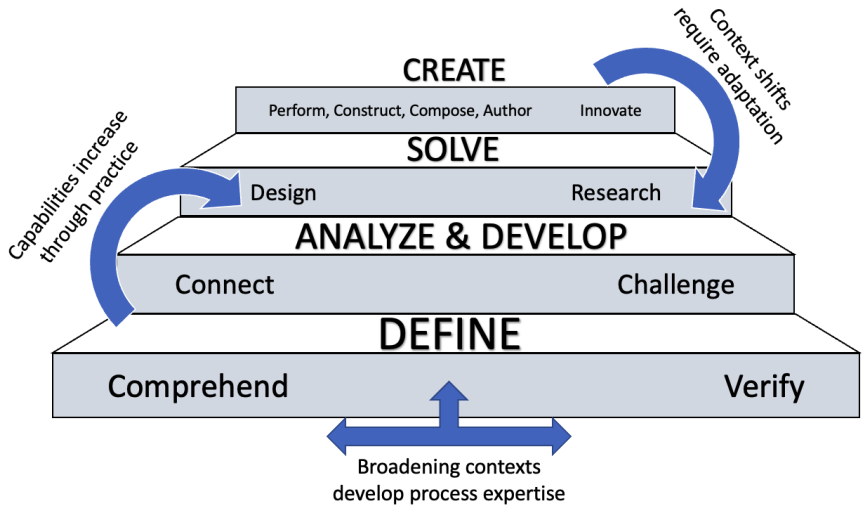


The ACT model:

ACT involves Agility and Pivoting

- *not a ladder, but a dance*
- *another look at critical thinking development*
- *multi-directional, steps and levels out of order as needed*





Critical Thinking vs Passive Thinking:

Critical Thinkers

- Build capacity & creativity
- Leverage teams
- Craft solutions
- See through dense data & Information to decisions
- Practice informed strategic thinking

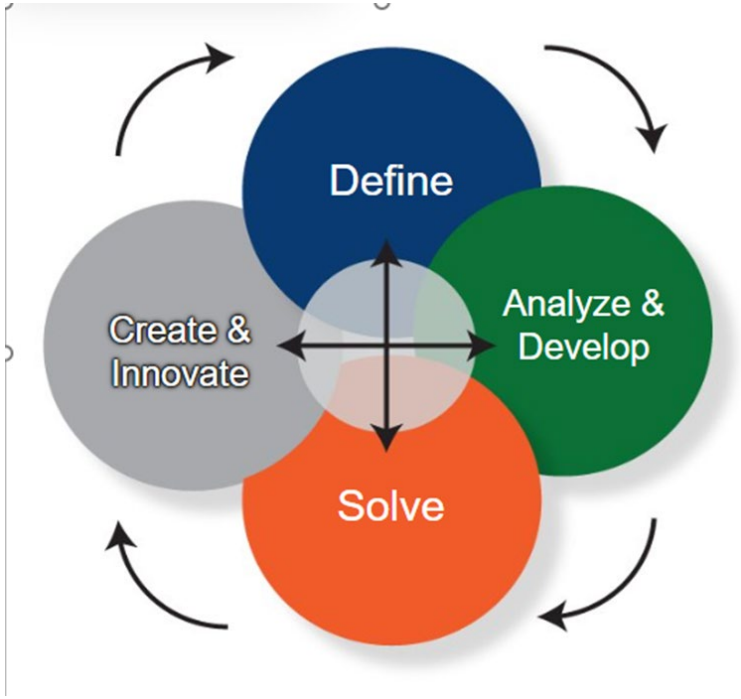
- Driven by opportunity

Passive Thinkers

- Fearful of making decisions
  - Fear of failing
- Ineffective collaborators
- Frustrated by unpredictability
- Analyze using rote methods or only their own experiences & opinions

- Driven by norm

Do you need to integrate Applied Critical Thinking?



Create: translate vision into reality? Viable solutions? Sense issues and resolve?

Execute: all parts complete? On time? Quality?

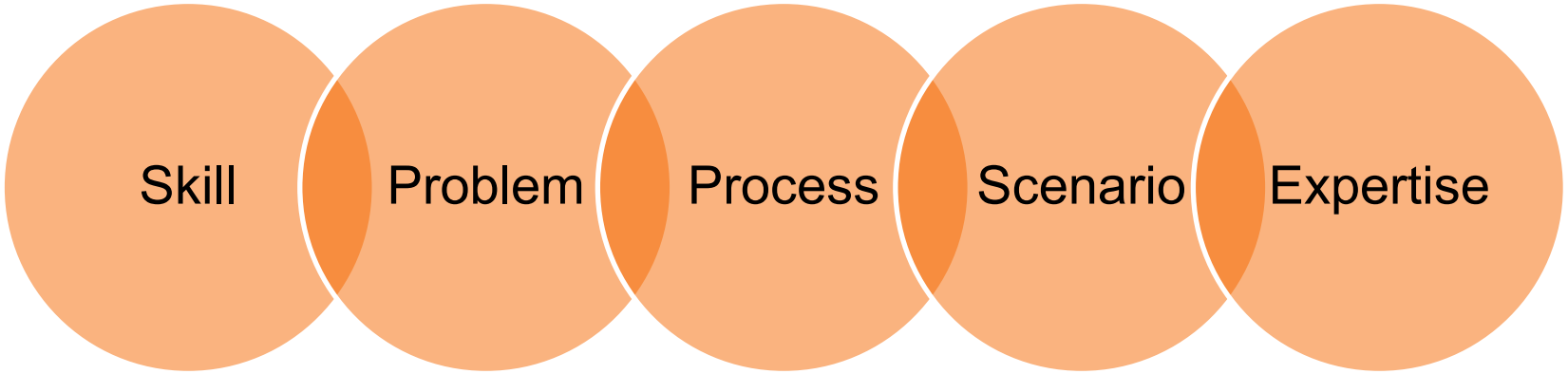
Solve: support reasoning without consistent guidance? Appreciate downsides? Consider alternatives?

Synthesize: build insights-: prioritize import, exclude unimportant, assess importance? Communicate it well?

Define: scope parameters, know what to ask and why?

The FRAM Mind Field Elevates how thinking is cultivated

What do leaders need to cultivate critical thinking for?



- **Critical thinking is not cookie cutter learning, it is the cultivation of this 'habit of mind' that drives success in our professional lives (and personal lives too).**

ACT has two key capacities that integrate:

- Technical capacity (best parts)
- Evaluative capacity (best path)

- Examples of this in Apollo 13 movie:

https://www.youtube.com/watch?v=TA8SXpyg4O4 *(failure is not an option)*

https://www.youtube.com/watch?v=Sij7y-EEei0 (square peg, round hole-duct tape)

What is a Mind Field?

A MIND field is:

- **A focused learning/thinking opportunity structure that is customized**
  - With fun (hopefully),
  - And sometimes-fast & furious!
- **Building applied critical thinking competency for**
  - addressing a challenging complex problem(s) with no direct answer
  - a particular skillset, or both

MIND Fields are built for active learning – focusing on specific issues and questions!

Characteristics

Great MIND Fields have:

- Well curated learning opportunities (LOTS of prep)
- Feedback
- Style/ Framing to your context
- Measure capacity/skill gains, not just final output

Best Practices

Great MIND Fields:

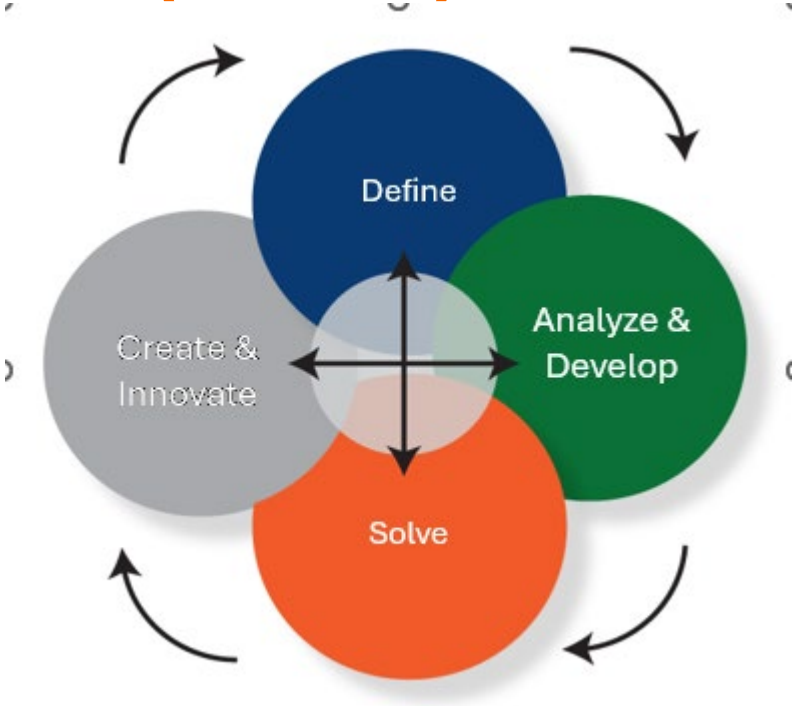
- Are Scenario and/or question driven
- Have an informed and connected audience or participant
- Are Leveled/Scaled to participant capacity & expectation
- Have explicit decisions by designer… *a map and a goal*

How to structure your field?

Thinking in a linear fashion, there are 8 steps to creating a MIND Field (each with their own purpose).

1) *Structuring the Field*
   - Standard: What stays the same in the work?
   - Custom: What relevant questions or issues do we want to examine?
2) *Building the Context*
   - Situational awareness, data, rules, goals, biases
3) *Determine Learner Path*
   - Where learners start and where you want them to arrive
4) *Leveling the Field*
   - Assess learner capacities and adjust expectations
5) *Scenario Garden*
   - Specific issues, areas of need, pain points relevant to the setting/purpose
6) *Navigating the Field*
   - How will you guide students through the field?
7) *Completion*
   - What does success look like? How will you assess outcomes?
8) *After Action Review*
   - How did it go? What would you do differently next time?

How to structure your field? (cont.)



Define

1.Structuring the Field

2. Build out the Context-both details and team or individual

Analyze/Develop:

3. Determine Learner Path

4. Leveling the Field

5. Scenario Garden

Solve:

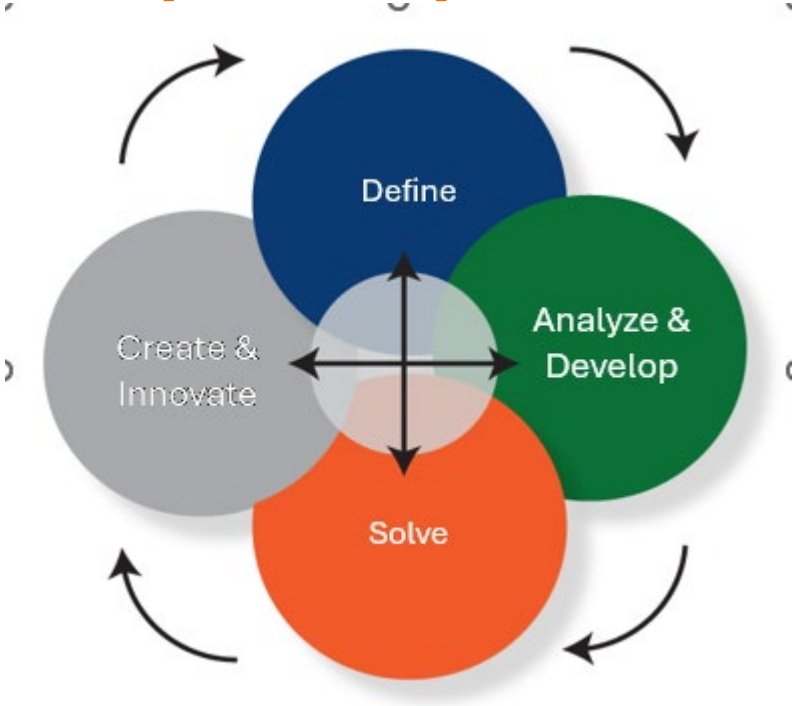
6. Navigating the Field

Create:

7. Completion

8. After Action Review

How to structure your field? (cont.)



However, following steps in sequence is not required.

Example:

- *While Determining the Learner Path (step 3) through the field, adjustments can be made to the field structure and context (steps 1 & 2).*
- *When applying a scenario to the field (step 5), you may find steps 2 no longer applies and the field context must be adjusted.*

Remember, this is a dance. Not a ladder.

Signal verbs within ACT

ETHICS: Choices/priorities

Fundamentals

Applied Critical Thinking

Know	Define	Analyze & Develop	Solve	Create or Innovate
• List • Name • Identify	• Focus/Discuss • Calculate • Explain • **Intro Research?**	• MAP • Differentiate • Examine • Connect	• **Deep Research** • Assess • Validate • Evaluate	• Originate • Construct • Design • Integrate

Visualize thinking… as a first step ‘mini field’

- **Individual challenge (balls/balloons)**
- **Team challenge (string)**
  - What did you notice?
  - What did you do, what were your ACTIONS? (actions result from thoughts [fast & slow])
  - How did you get to solving the problem?

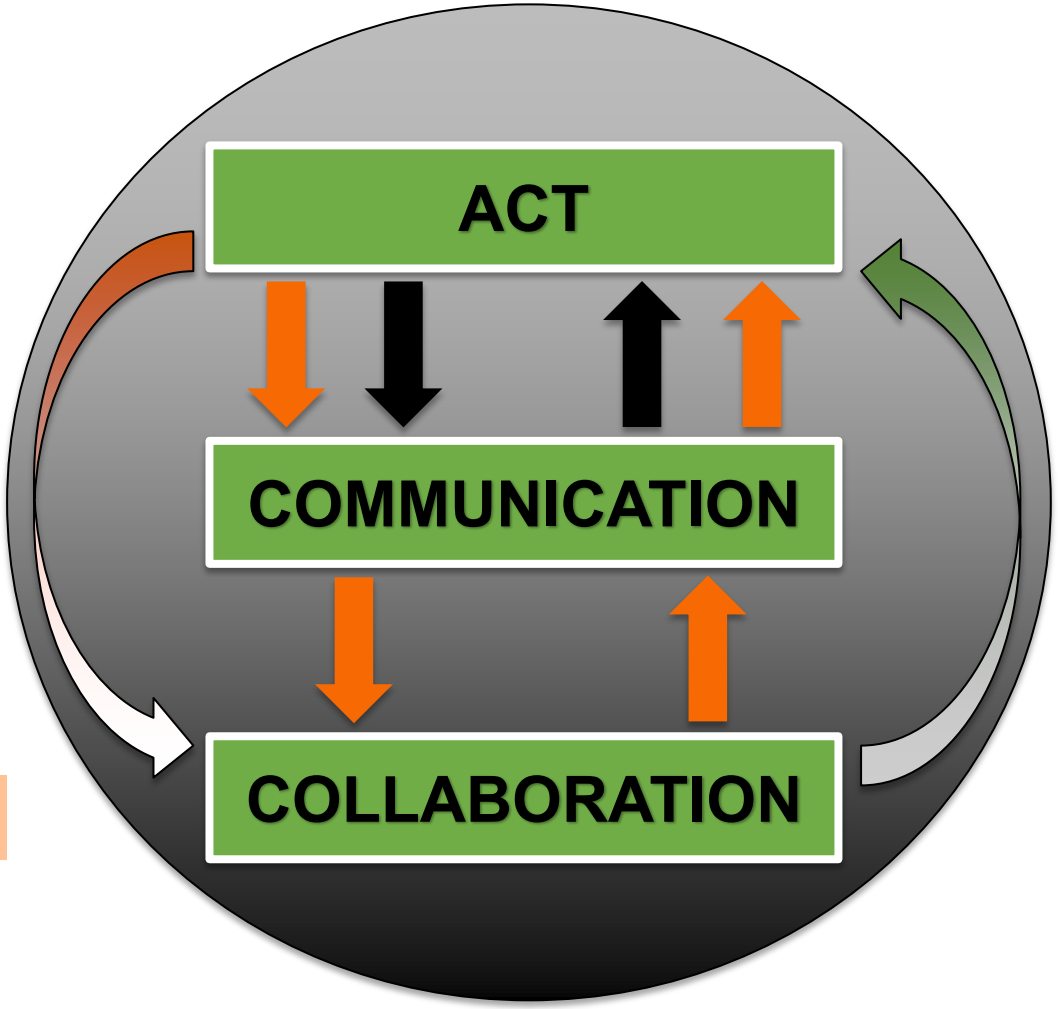
J. Schneider, ChatGPT image ‘*pebble in pond*’. 2024 11 30

Teamwork and problem-solving

Powerful tools to build *applied* critical thinking

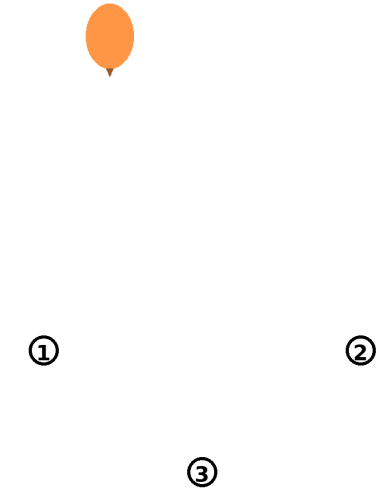
- Teaming builds capacity across critical thinking, communication, collaboration
- Requires *individual* and *team* expectations - control for “barnacles” that are not contributing
- Rounds of feedback/iterative
- Relationship building
- AI may not be the best “teammate”

String exercise: map the thought movement



Active visual to stimulate thinking

- **Balloon/ ball batting**



- **String exercise**

Summary

MIND Fields are how we structure our processes for problem solving to use Applied Critical Thinking most effectively and build our thinking capacity.

CONTEXT is key– MIND Fields are:

- Question and scenario driven
- Leverage both group and individual resources to gain an advantage
- Allow you to drive capacity building in a curated set of situations and applications

- Works for enterprise applications and for teaching hands on learning!

Questions/ Support for Critical Thinking curricula

- **Jen Schneider, Fram Chair in Applied Critical Thinking**
  - jlwcem@rit.edu
- **Fram Resources Webpage:**
  - See: https://www.rit.edu/criticalthinking/resources