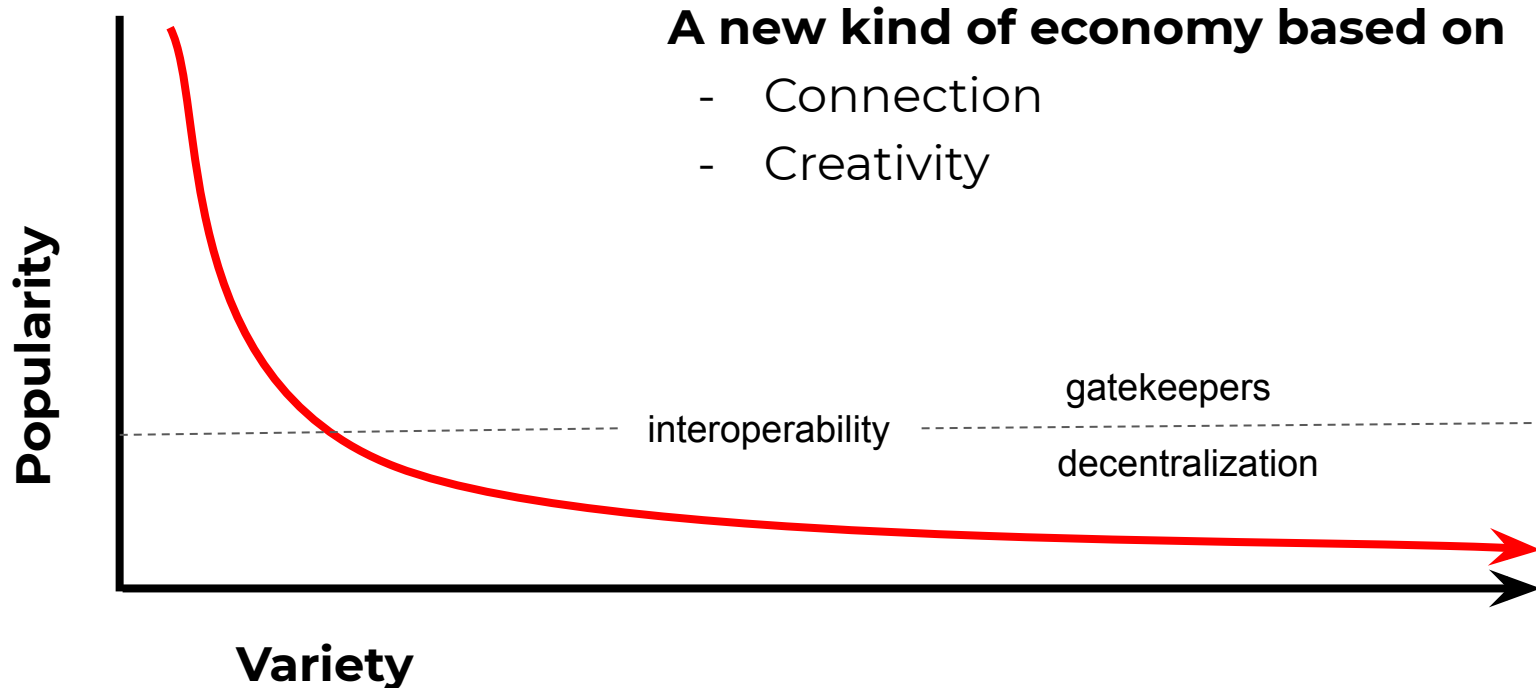


Welcome to the Sandbox

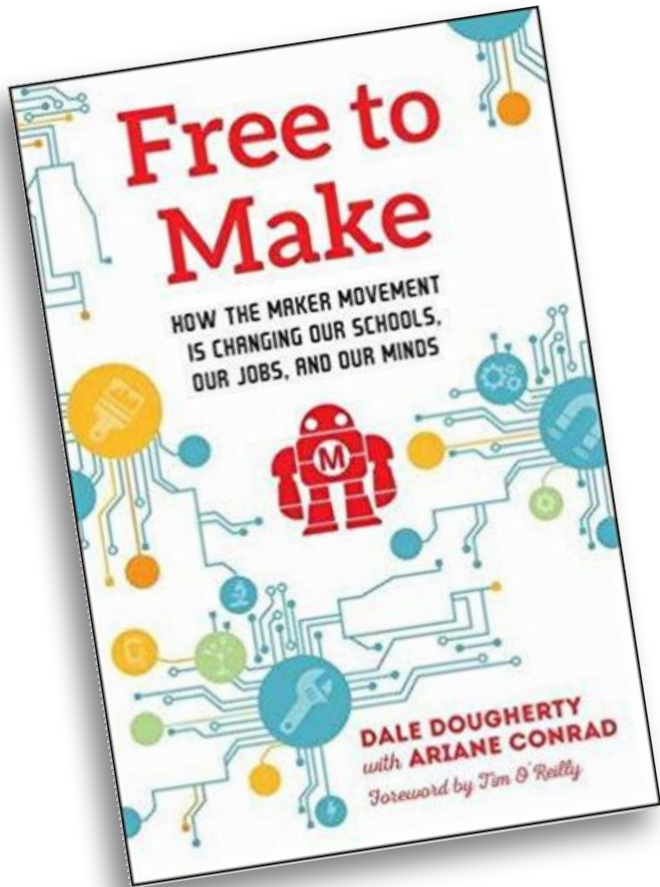
The “new industrial revolution”



The “new industrial revolution”

Internet-enabled ACCESS to:

- Tools & Materials
- Information
- Collaboration
- Funding
- Markets



Must Read

Shift in mindset combines:

Manual labor
Science
Engineering
Risk
Practicality



Mental labor
Art
Craft
Resilience
Innovation

Maker Learning

- **Growth mindset - capable of continuous learning**
 - Iteration
 - Tenacity
 - Convergent & Divergent Thinking
 - Eager & independent learning
- + **Enough to be dangerous**
 - Bias toward action in solving the problem

Multidimensional Maker Learning

(it's really just Design Thinking)

Design Thinking



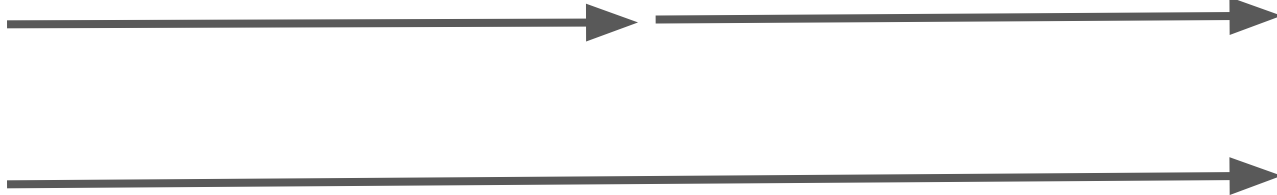
Design Thinking

Understanding

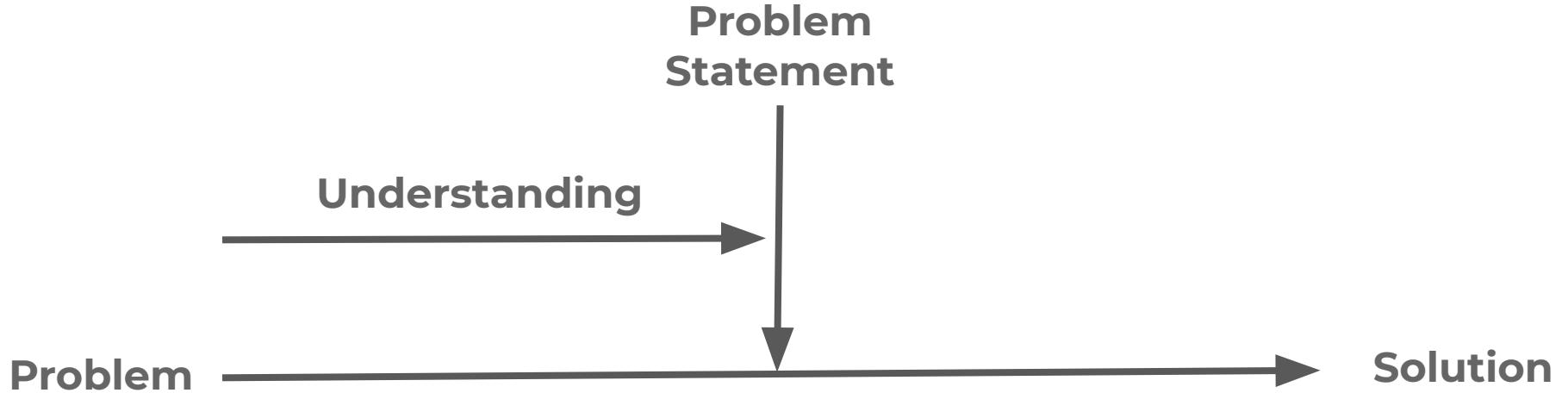
Solving

Problem

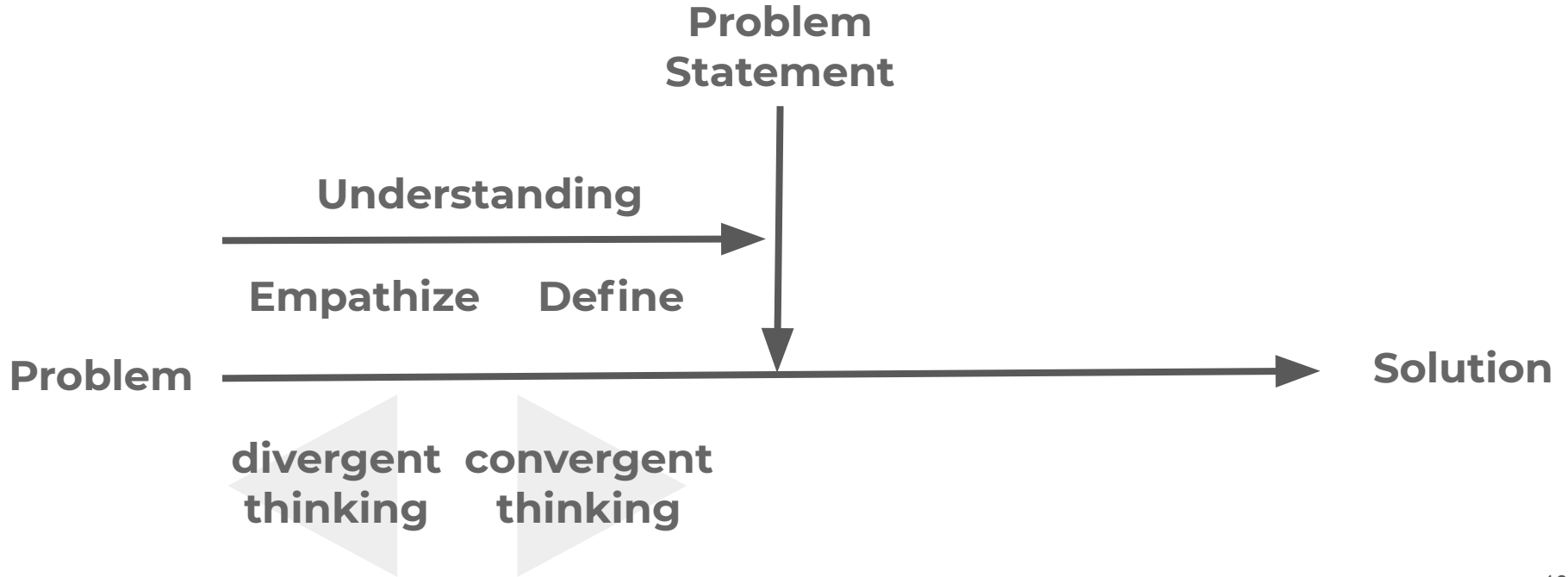
Solution



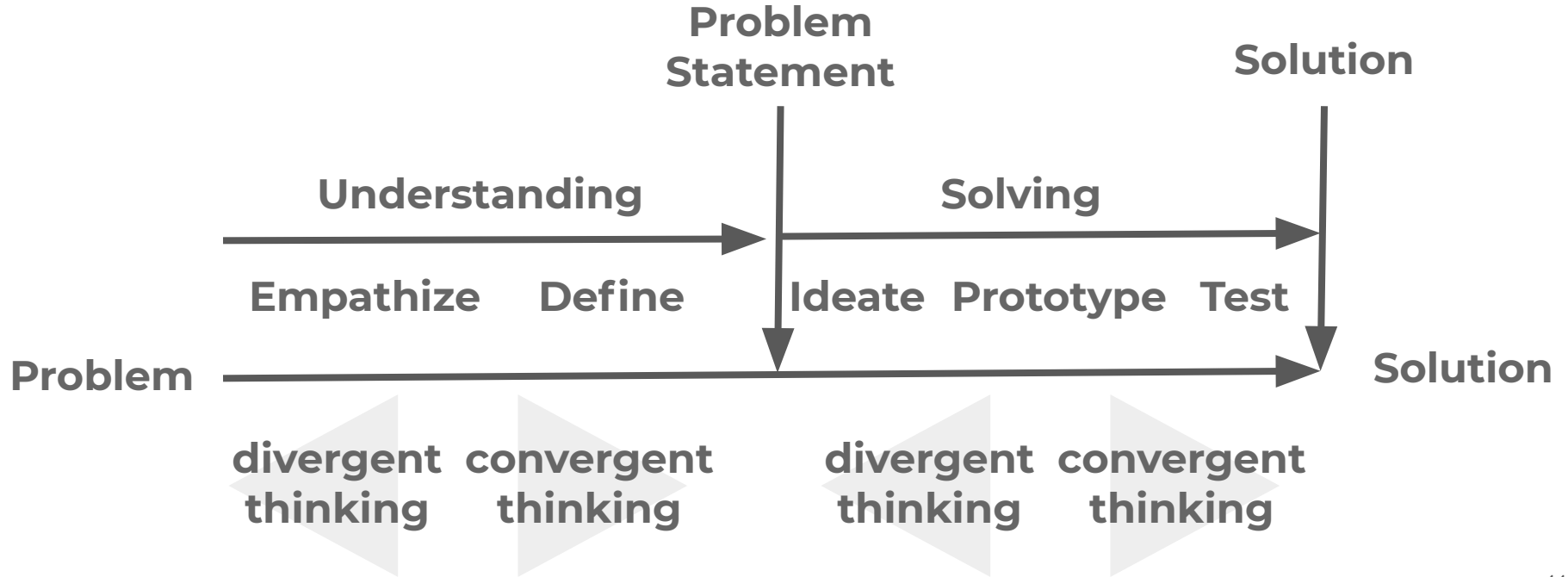
Design Thinking



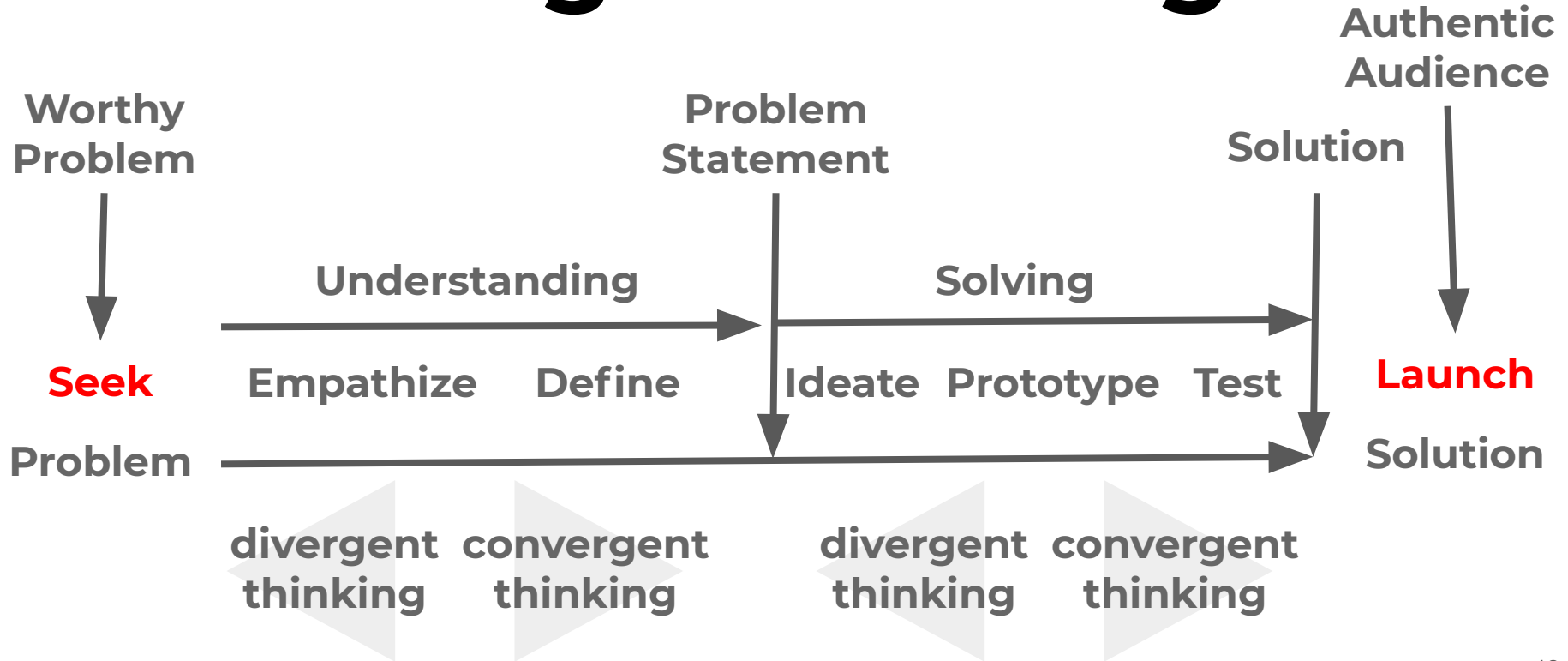
Design Thinking



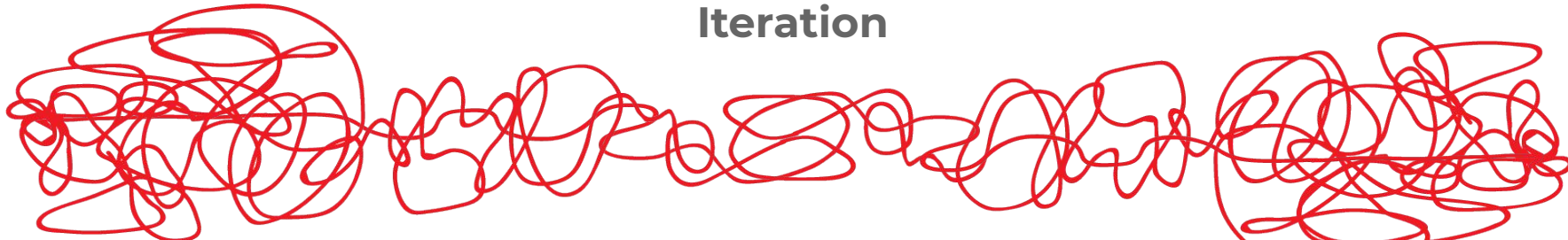
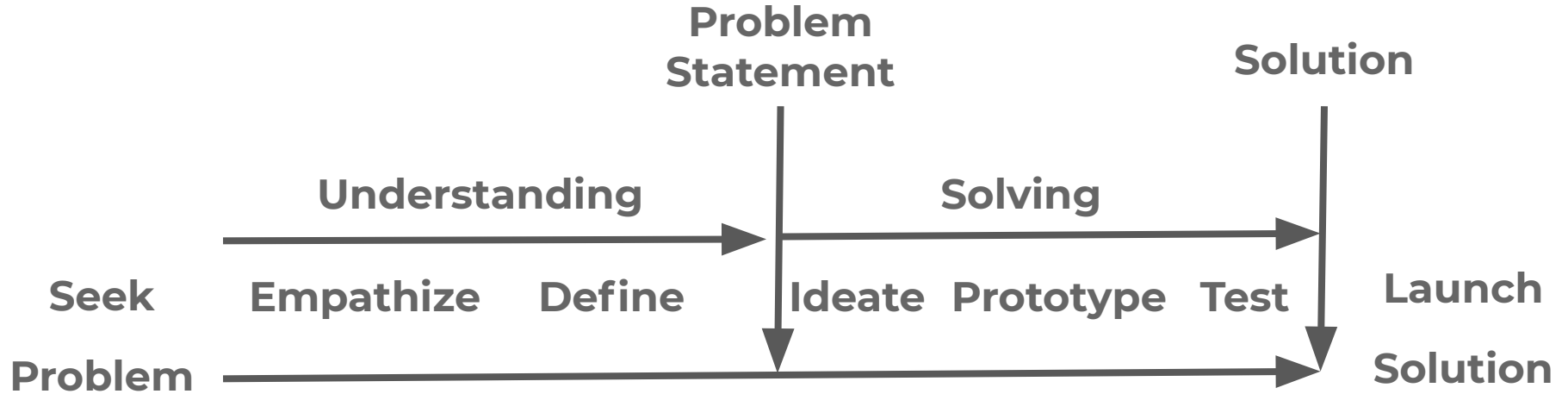
Design Thinking



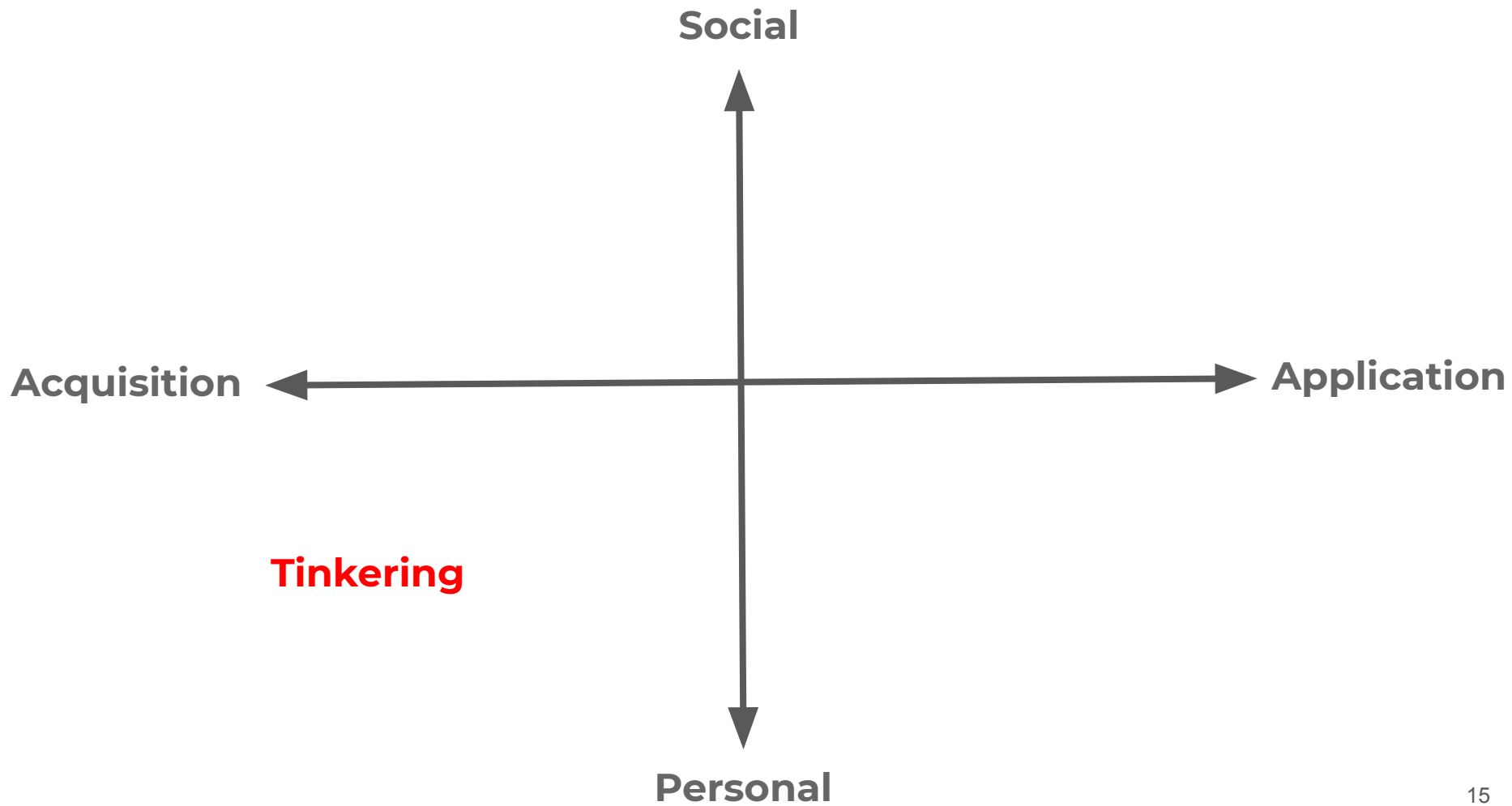
Design Thinking



Design Thinking



Multidimensional Maker Learning



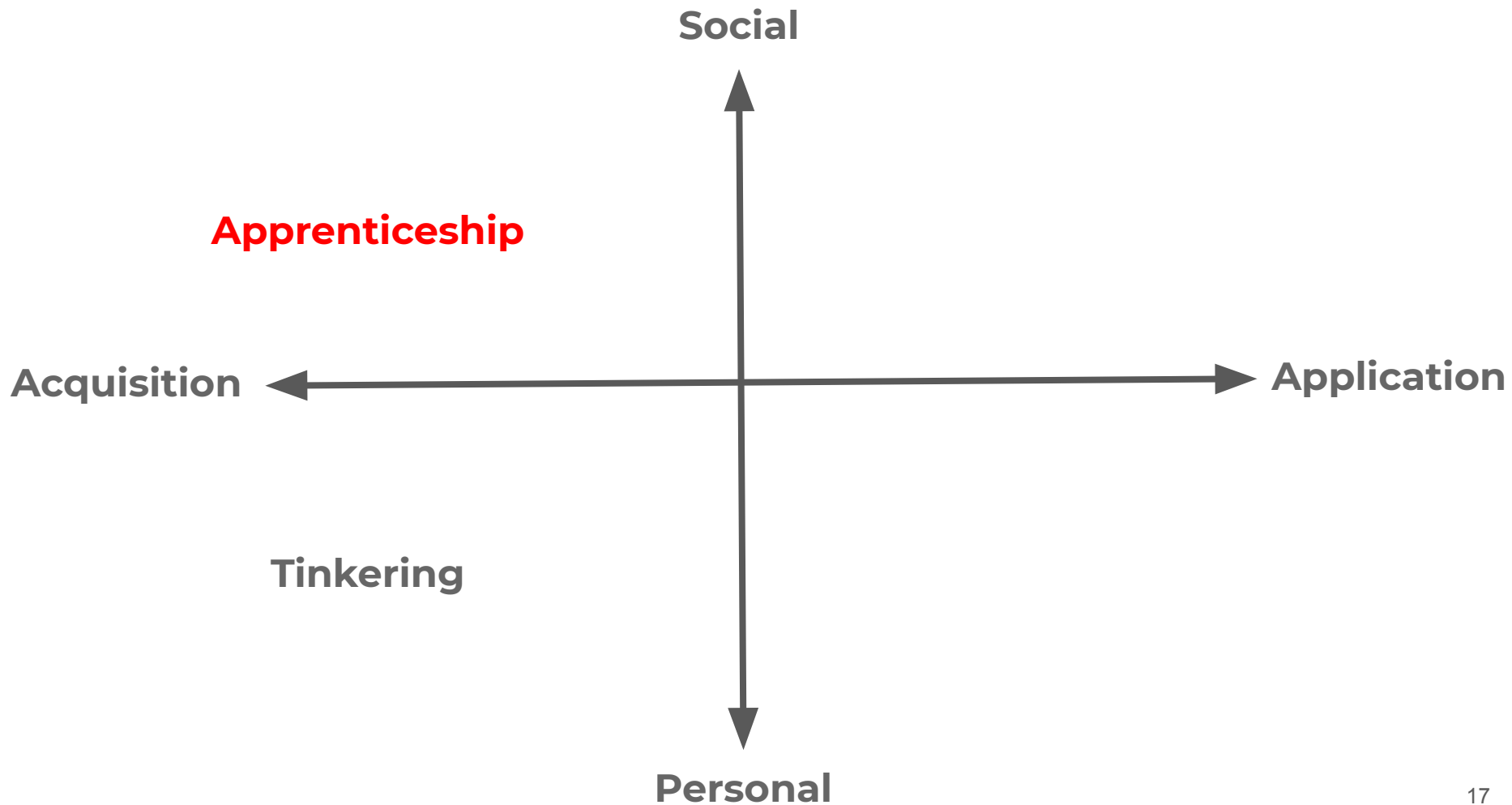
Tinkering

Tinkering enables discovery

Low-directive playful, creative sessions

- **Goals:**

- Create engagement through *tension* between what WAS known, the discovery & what they now want to know
- Familiarity & respect for the space, the stuff and the culture



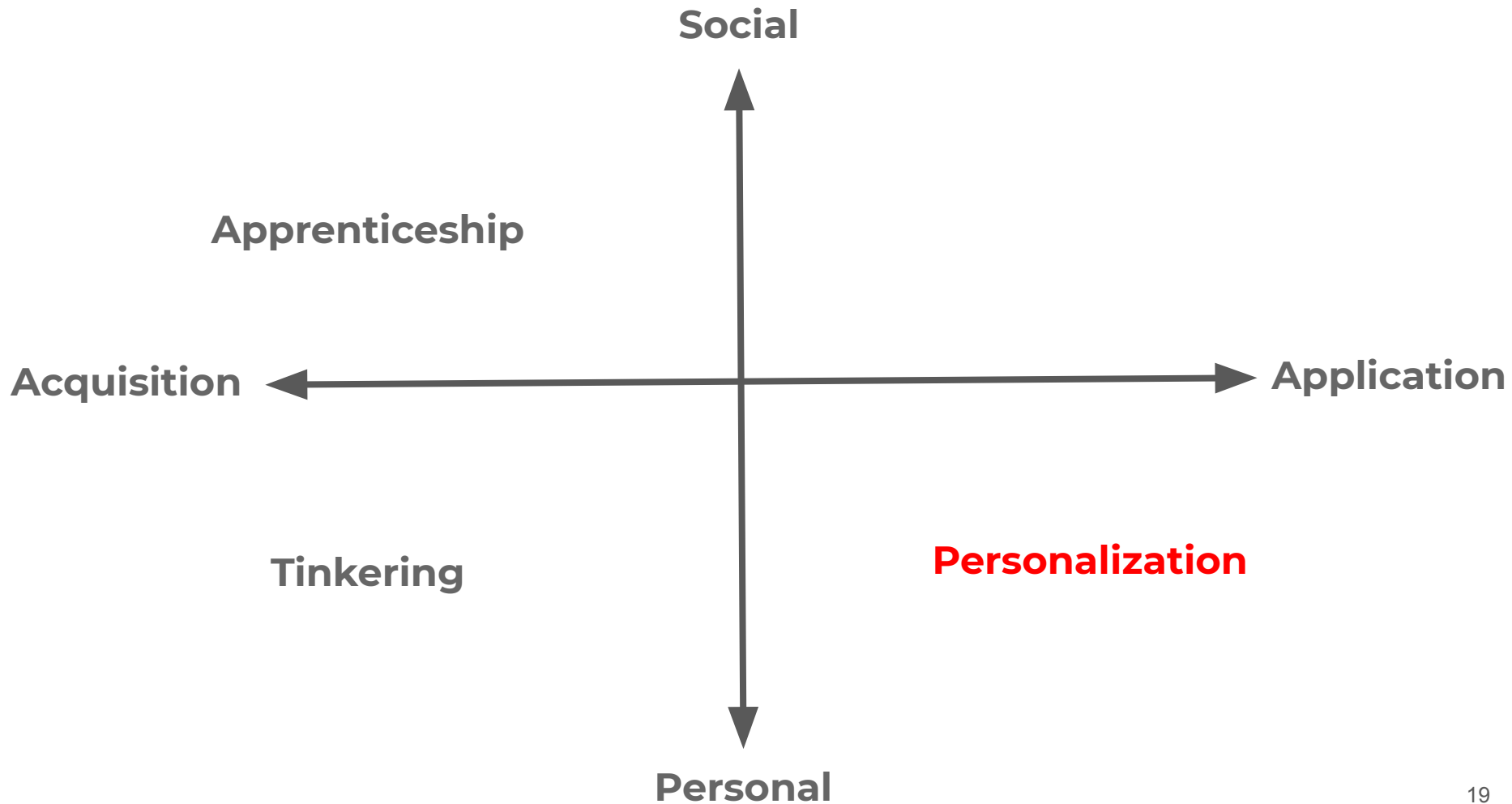
Apprenticeship

Directive projects/exercises to learn specific skills and processes

Facilitated learning

- **Goals:**

- Build specific skills - working knowledge of concepts, techniques and processes
- Address gap between the known and the desire to know.

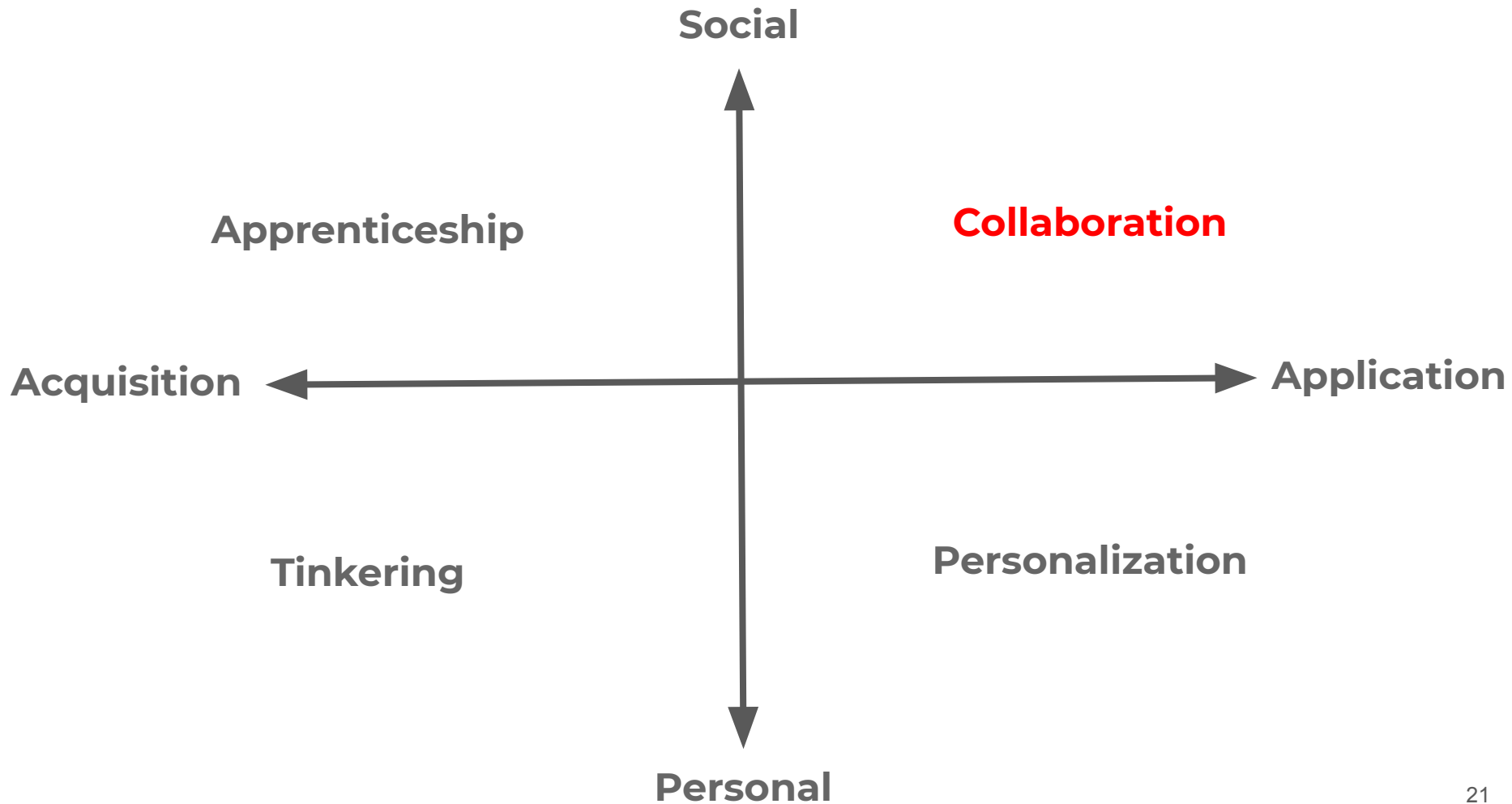


Personalization

Develop personal strengths through open-ended projects

Application of skills/techniques with personal experience

- **Goals:**
 - Develop PERSONAL strengths and expertise with new knowledge baseline
 - Communication skills: planning, questioning, documentation & presentation

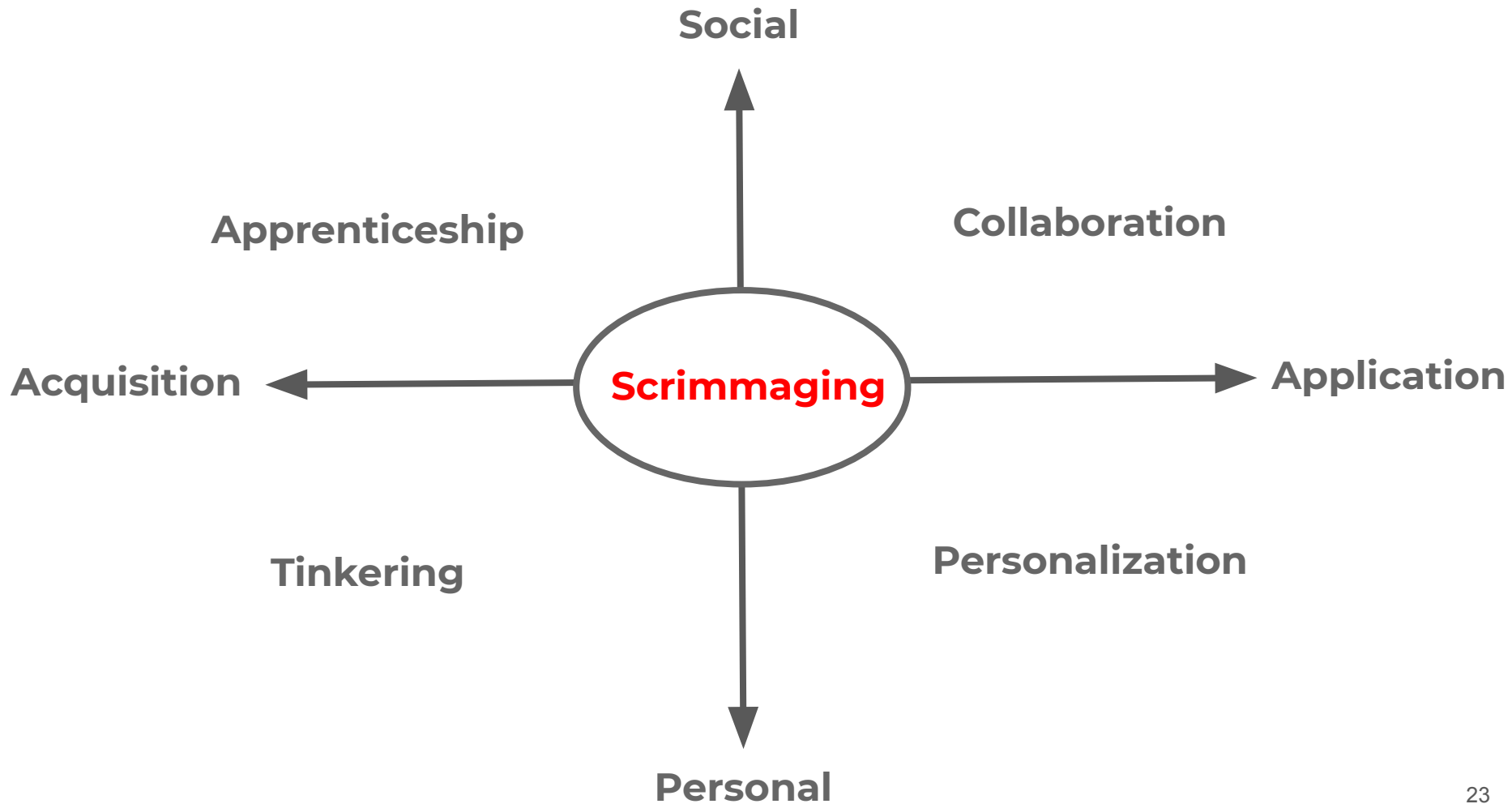


Collaboration

Design thinking through collaboration

Group-determined initiatives on outward opportunities/challenges

- **Goals:**
 - Full application of design process
 - Develop leadership **AND** supportive skills (first follower)

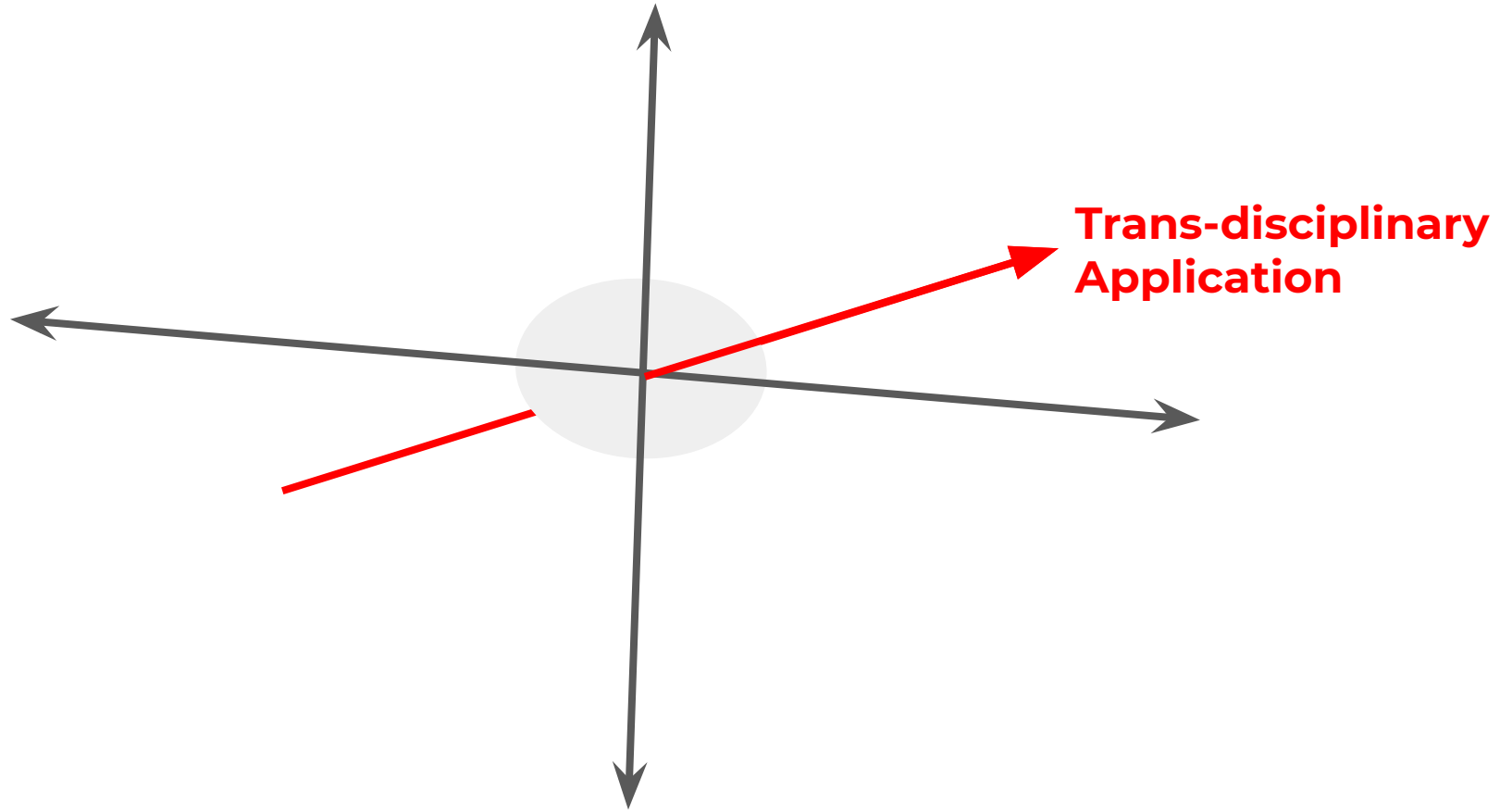


Scrimmaging

Demonstration of skills through maker scrimmages

The “DI Instant Challenges” of maker learning

- **Goals:**
 - Practice/coach the language and behavior of high-functioning collaborative teams
 - Challenge, reflect, repeat



Trans-disciplinary Application

Maker learning across disciplines

Getting beyond STEAM subjects

- **Goals:**

- To bring the mindset of maker learning into **any** subject
- Use the maker mindset with design thinking to navigate **life**

“This is so much more than STEAM - it's about navigating life with a super-power to embrace curiosity, learn deeply, build skills and contribute our strengths and creativity to moving the world forward.”

Multidimensional Maker Learning

