INTERDISCIPLINARY RESEARCH LEADERS

A Robert Wood Johnson Foundation program

CQI Workshop: Part II

Cohort 7 (Year 2)

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1. **Introduction & Setup**

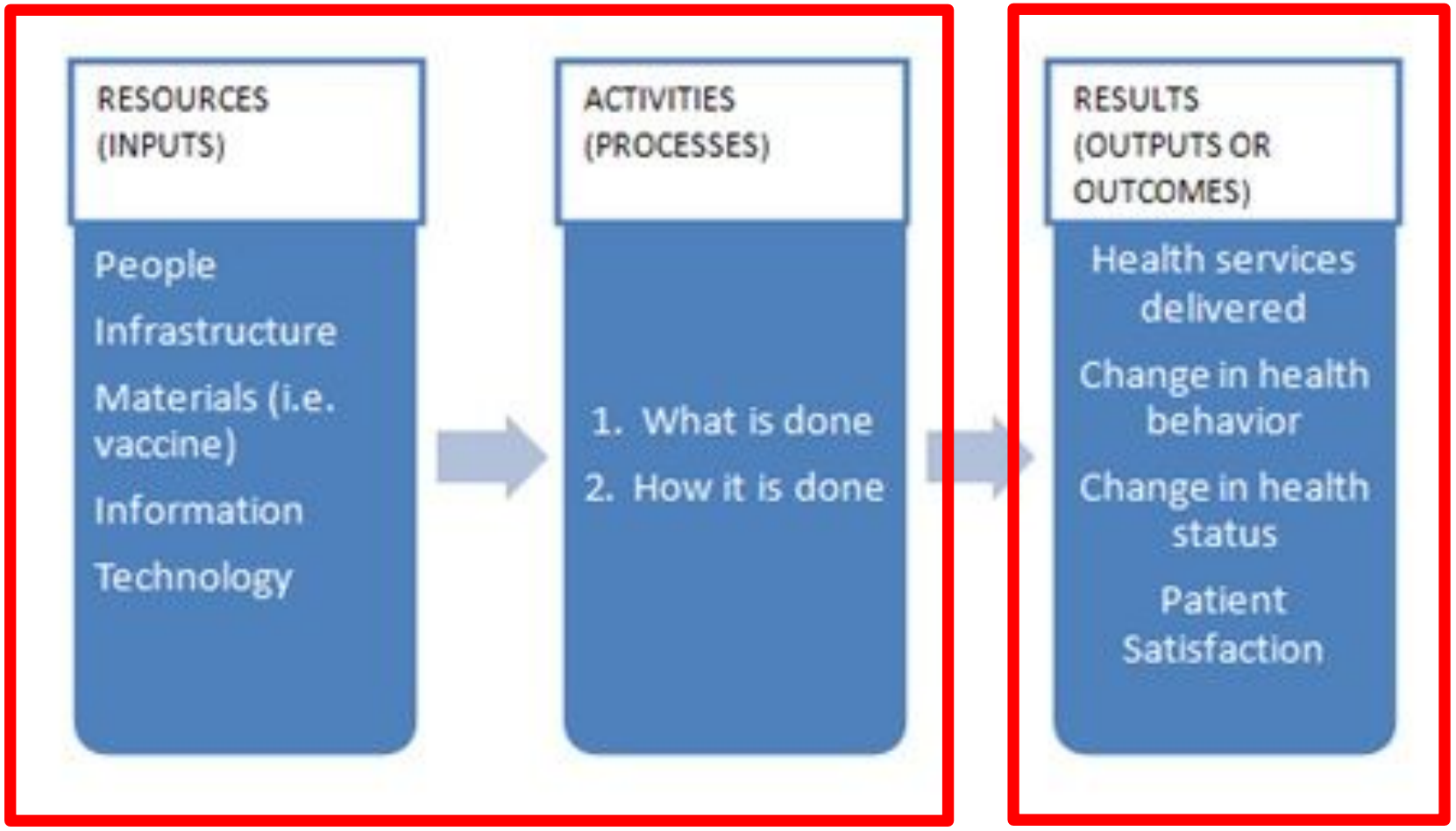
2. **Model of Improvement / PDSA**

3. **Breakout Exercise**

3. **Closing**: open discussion, offering of open OH, follow-up group / individual coaching,

Introduction to Model of Improvement & PDSA

Simply Put…


RESOURCES (INPUTS)
People
Infrastructure
Materials (i.e. vaccine)
Information
Technology
ACTIVITIES (PROCESSES)
1. What is done
2. How it is done
RESULTS (OUTPUTS OR OUTCOMES)
Health services delivered
Change in health behavior
Change in health status
Patient Satisfaction

Some Example ”Problems”

Research Methods

- Recruitment is going so slow/low
- Focus group / 1:1 interview: participants are not opening up
- Photovoice: photo submission quality is superficial, not informative
- Survey: there are a lot of missing responses/data
- Data input / collection being delayed

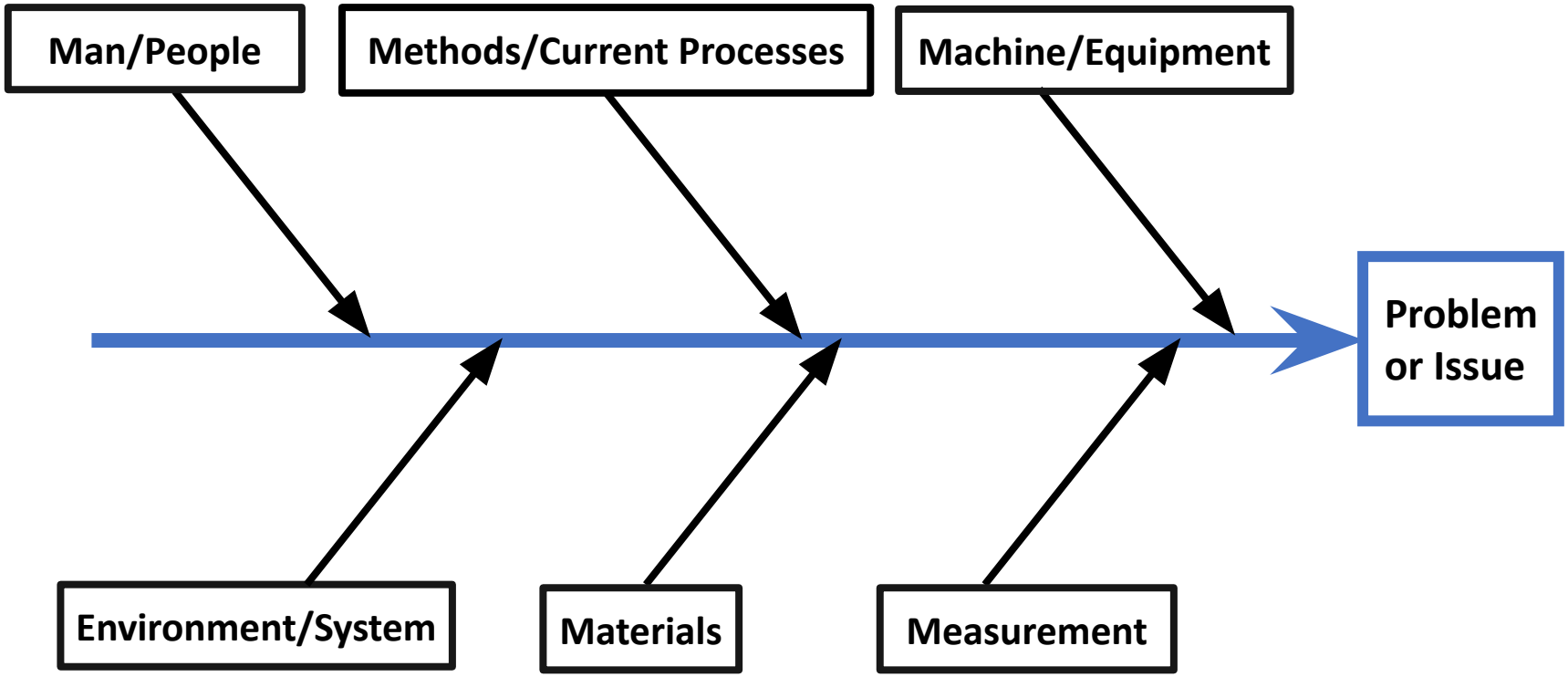
Team Dynamics / Project Management

- Team has not been meeting regularly
- We keep missing our milestones/deadlines
- We have competing priorities

Community Engagement

- Community doesn't trust working with the University
- We have low turnouts for community advisory board meetings

Fishbone (Ishikawa) Diagram



RCA : 5 Best Practices to Remember

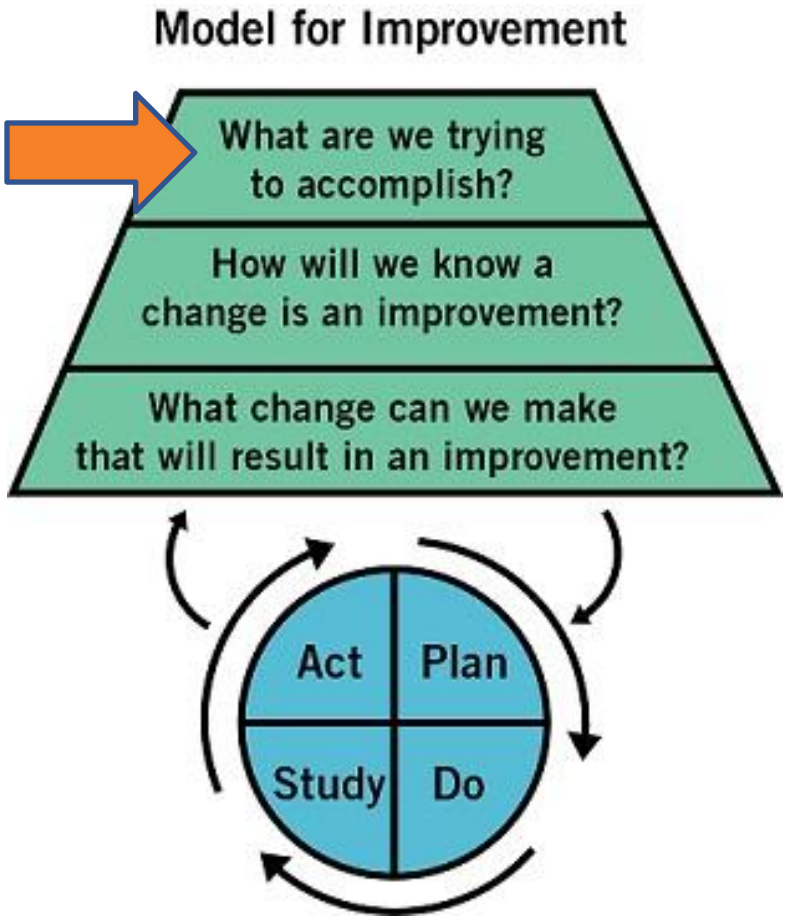
1. Your RCA is only as good as the info/data you collect.
2. Your knowledge (or lack of it) can get in the way of a good RCA.
3. You must understand what happened *before* you can understand why it happened.
4. You can't solve all human and relational problems with discipline, training, and procedures.
5. Often people can't see effective corrective actions even if they can find the root cause.

PDSA Cycles Must Have:

- Need a **QUESTION**: If I do x, will y result? (A test of change, PDSA cycle seeks to answer this question)
- Need a **PREDICTION**: What we think will happen when we try this, or test this out
- The test, including a **PLAN** for collecting data
- The plan was attempted (**DO** the plan)
- Time was set aside to **STUDY** the results to compared to prediction
- **ACTION** was rationally based on what was learned

Step 1: Set an Aim

- How good?
- For whom?
- By when?



What Are We Trying To Accomplish?

The AIM is

- Not just a vague desire to do better
- A commitment to achieve measured improvement
  - In a **specific** system
  - With a **definite** timeline
  - And **numeric** goals

The AIM adds

- Direction
- Constancy of purpose
- Predictor of team success
- And communicates magnitude of change

"Hope" is not a plan

"Soon" is not a time

"Some" is not a number

Setting a S.M.A.R.T.I.E. Aims

Specific: specify what to improve/change, who, for whom, where, how, by how much, by when

Measurable: Includes standards by which reasonable people can agree on whether the goal has been met (by numbers or defined qualities)

Achievable: consider known trends and evidence, and your resources

Realistic (Relevant): understand your population and the external context

Time-bound: includes clear and realistic timelines

Inclusive: Brings traditionally marginalized people—particularly those most impacted—into processes, activities, and decision/policy-making that shares power

Equitable: Seeks to address systemic injustice, inequity, or oppression

Let's Create an Aim: Example

We will outreach to as many individuals as we can within the community x and have them complete the baseline survey.

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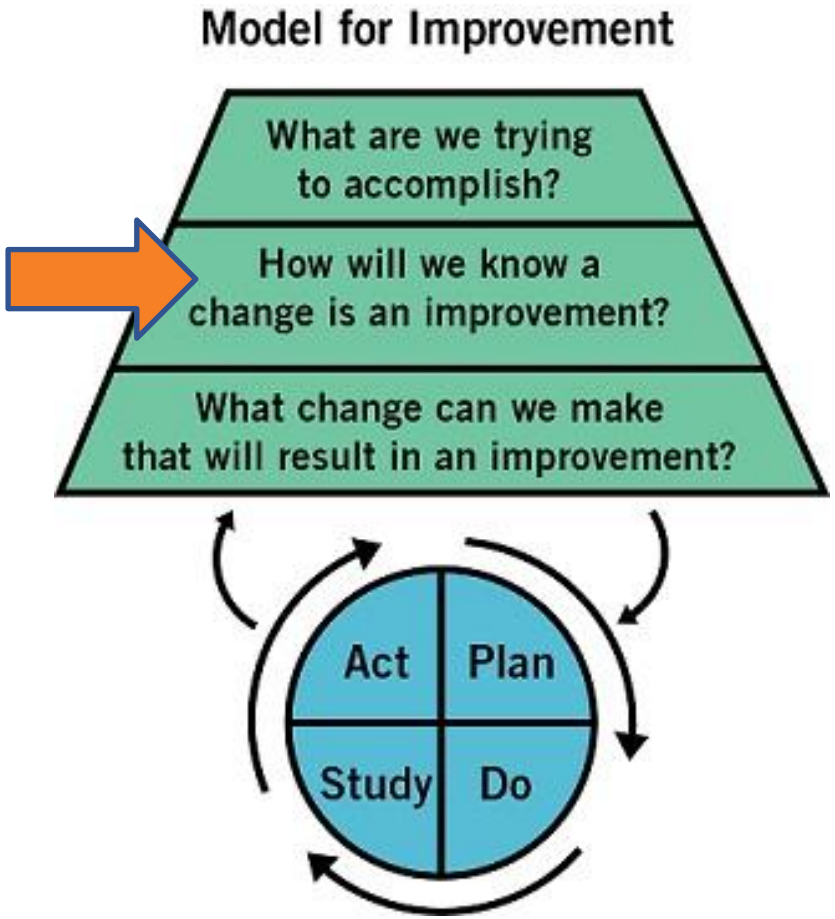
By April 30, 2023, we will outreach to 500 eligible individuals from the community of X, and recruit 300 participants among them for the baseline survey of 15 questions with 80% response rate (240 / 300) and 100% completion (15 / 15 answered).

This can be further broken down:

By January 31, 2023, we will outreach 500 eligible individuals from the community of X, and recruit 300 participants among them.

Step 2: Establish Measures

- Outcome measures
- Process measures
- Balancing measures



A Family of Measures

- **Outcome** Measure(s): How these changes impact my problem (aim statement). The "what." *Where are we going?*

- **Process** Measure(s): The "how" we make the changes? *What are we doing?*

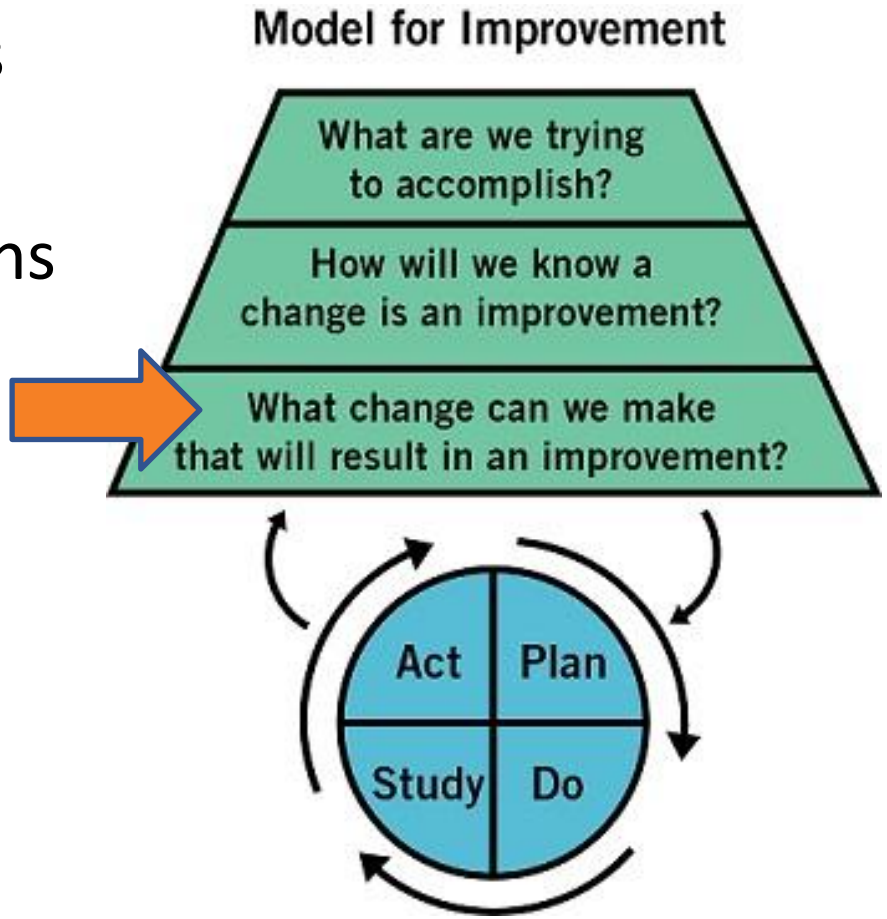
- **Balance** Measure(s): Is the change causing another problem we did not consider? *What else is happening?*

Measurement for Improvement vs. Research

	Measurement for Learning and Process Improvement	Measurement for Research
Purpose	To bring new knowledge into daily practice	To discover new knowledge
Tests	Many sequential, observable tests	One large "blind" test
Biases	Stabilize the biases from test to test	Control for as many biases as possible
Data	Gather "just enough" data to learn and complete another cycle	Gather as much data as possible, "just in case"
Duration	"Small tests of significant changes" accelerates the rate of improvement	Can take long periods of time to obtain results

Step 3: Developing Changes

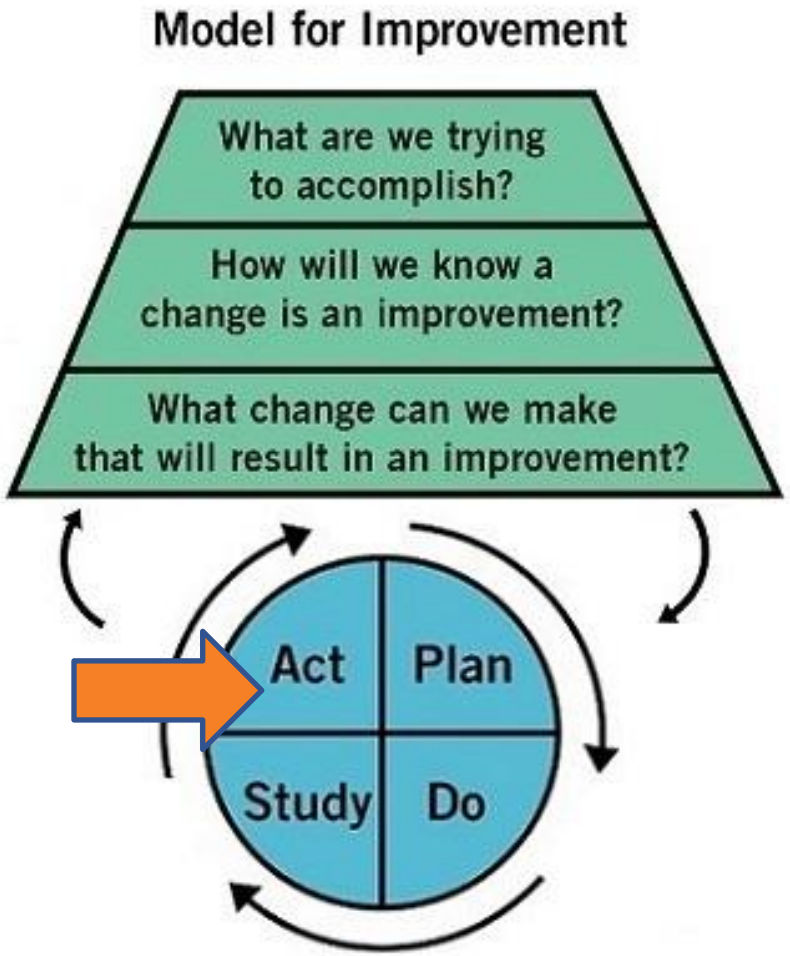
- Process analysis tools
- Benchmarking
- Technological solutions
- Creative thinking
- Change concepts



Change Concepts: Examples

1. Eliminate waste
2. Improve workflow
3. Optimize inventory
4. Enhance the human/community relationships
5. Change the work environment
6. Manage time
7. Manage variation
8. Design systems to prevent errors
9. Focus on the design of products and services

Step 4: Testing Changes, PDSA Cycles



Plan

- Questions & predictions (why)
- Plan who/what/where/when?

Do (small scale)

- Carry out the plan, observe the test
- Document problems, unexpected observations, results
- Begin analysis of the data

Study

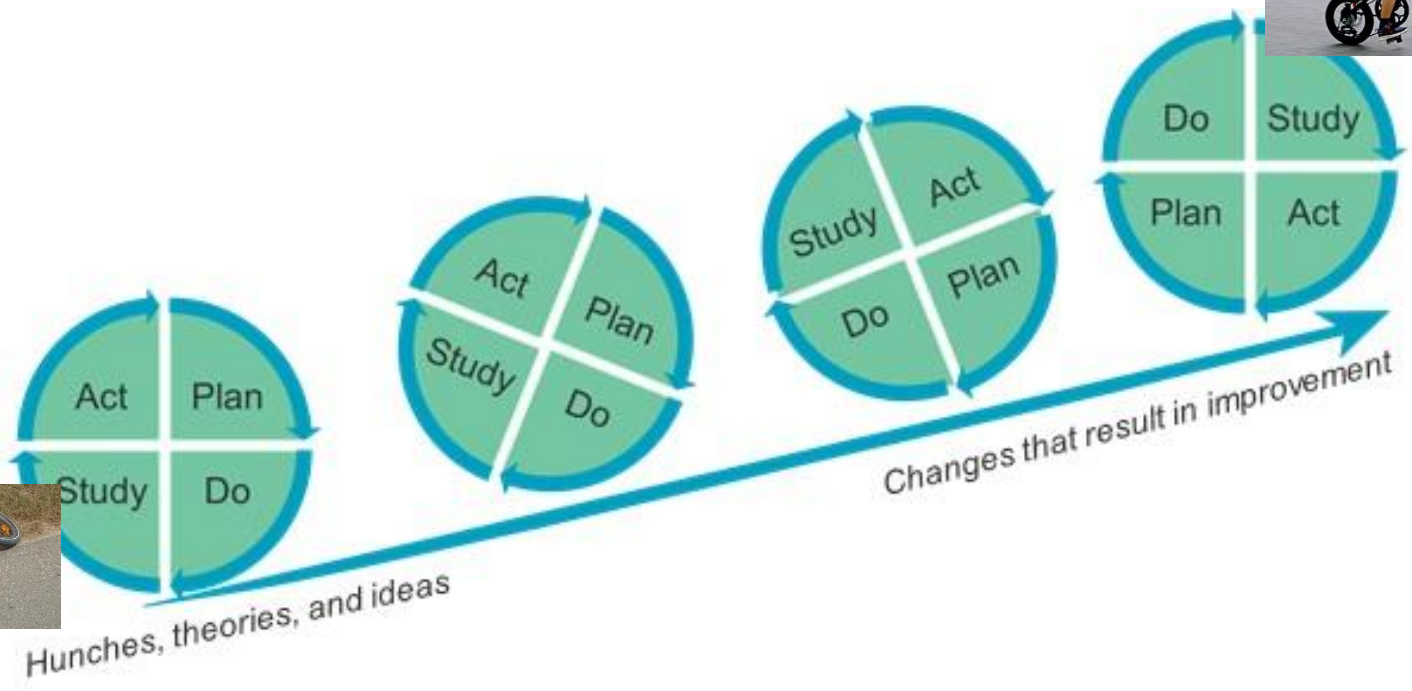
- Complete the analysis of the data
- Compare data to predictions
- Summarize what was learned

Act

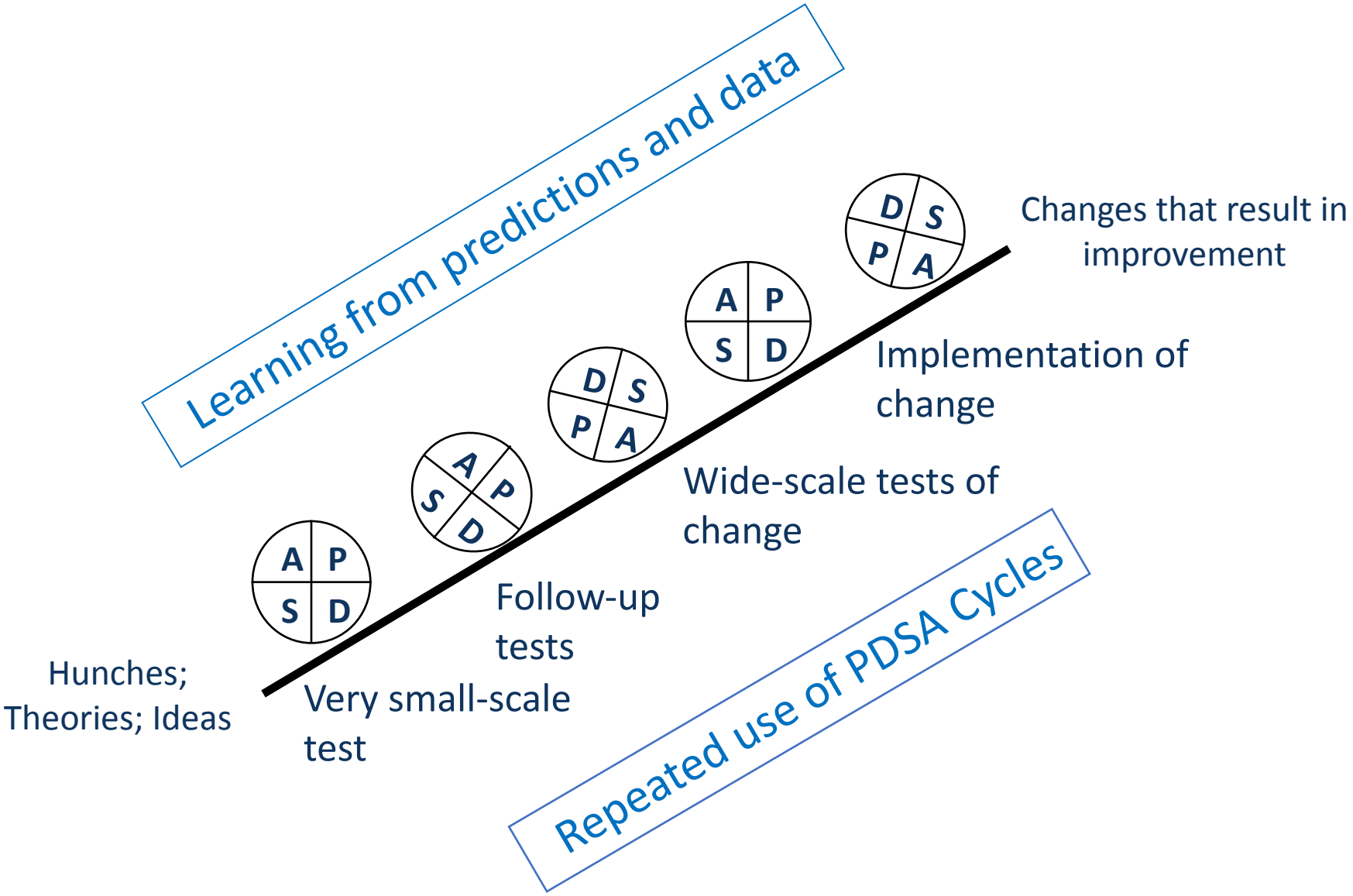
- Refine the change and plan for the next cycle
- Adapt, adopt, abandon

Linking PDSA Test Cycles

- Start small
- Think ahead
- Don’t wait to begin!



Learning with the PDSA Cycles



Theory

vs.

Field Experience:

TIPS

1. **People management is what often makes projects a success or failure**
2. Understand your community/stakeholders and why the project is important to them
3. Engage stakeholders support and interest
4. Triple Constraint: Time, Money, Resources
5. (Real) Leadership support is also key
6. Control your project, be transparent and communicate as regularly and often as possible – this includes lessons learned
7. There isn't one right way to get things done; keep an open mind; seek & foster continuous improvement
8. **Projects fail more often due to poor implementation, less due to poor initial idea or plan**