

Continuous Improvement Tools



SCHOOL OF SOCIAL WORK
Jordan Institute for Families



FRANK PORTER GRAHAM
CHILD DEVELOPMENT INSTITUTE



NIRN

NATIONAL IMPLEMENTATION
RESEARCH NETWORK

Continuous Improvement Tools

Dale Cusumano, Ph.D.

National Implementation Research Network
Frank Porter Graham Child Development Institute

Kirsten Kainz, Ph.D.

Research Professor and Associate Director of Research
Development and Translation
School of Social Work

University of North Carolina Chapel Hill



NIRN

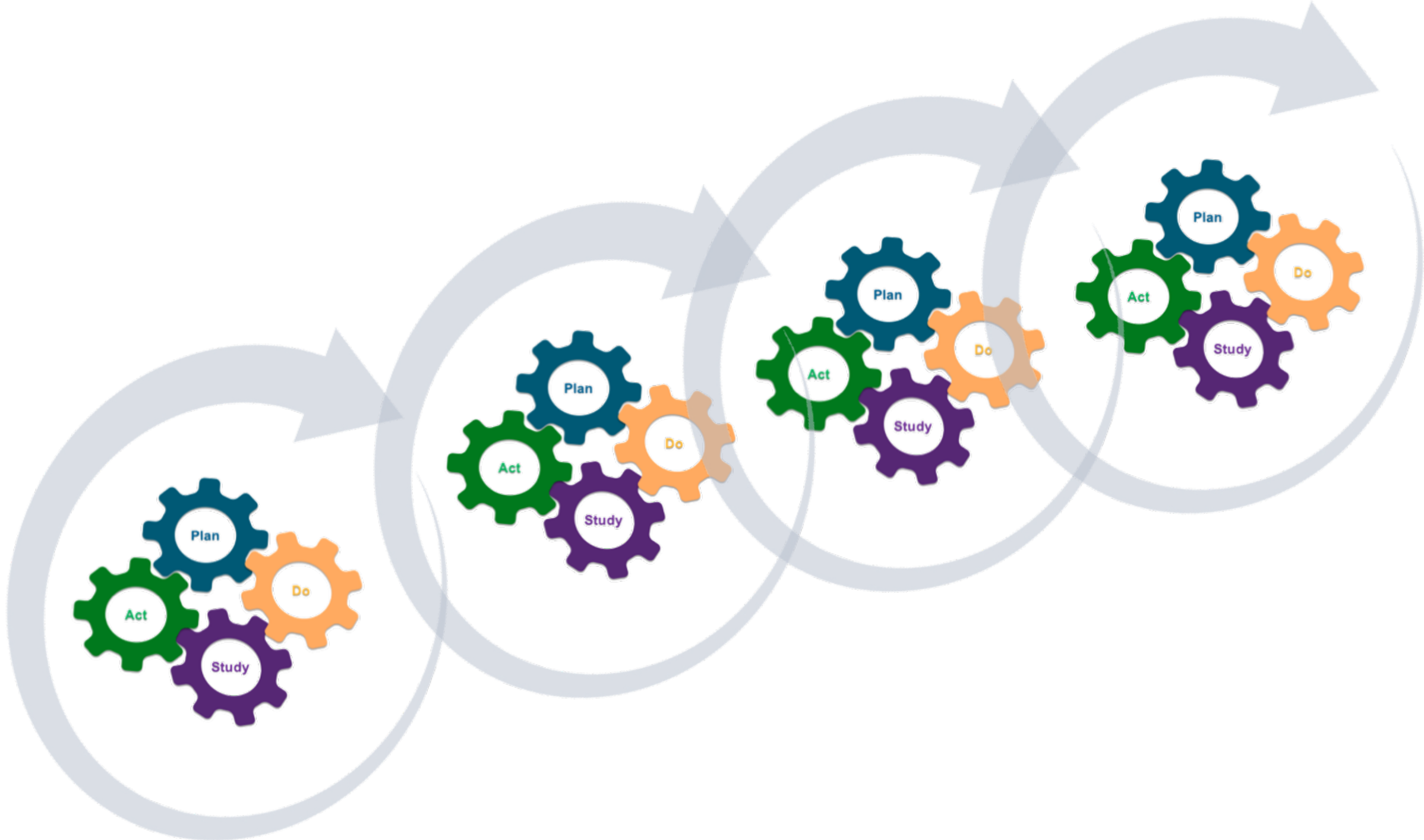
NATIONAL IMPLEMENTATION
RESEARCH NETWORK

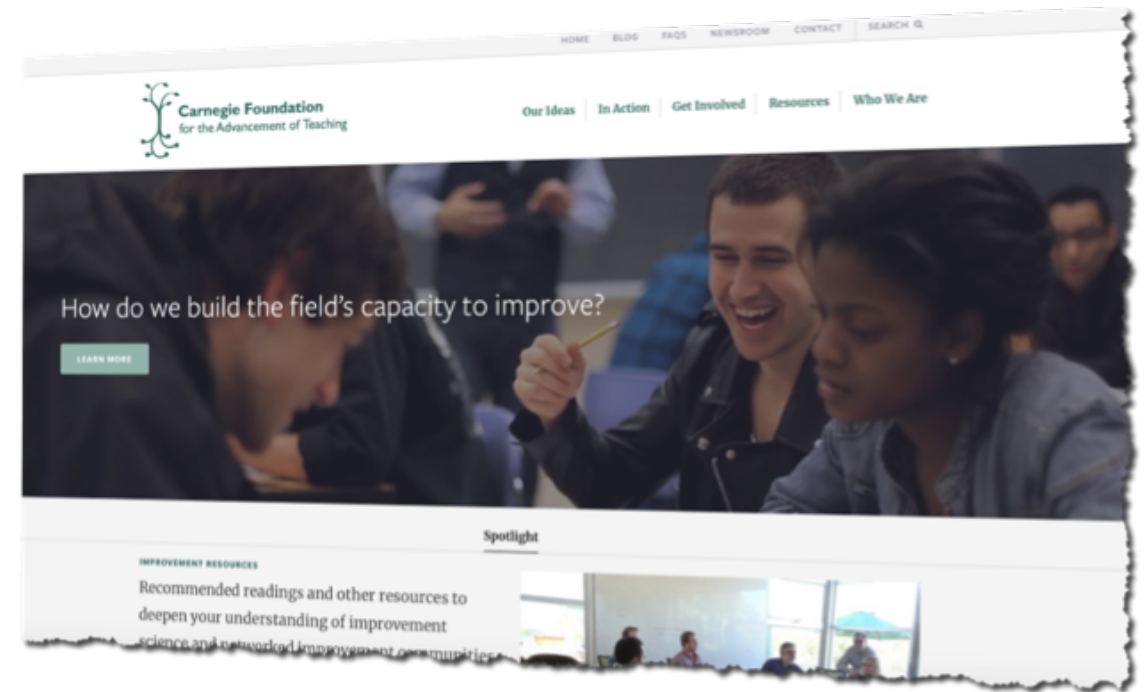
FRANK PORTER GRAHAM
CHILD DEVELOPMENT INSTITUTE



UNC

SCHOOL OF
SOCIAL WORK





Institute for Health Care Improvement

<http://www.ihl.org>

<https://www.carnegiefoundation.org>



SCHOOL OF SOCIAL WORK
Jordan Institute for Families



FRANK PORTER GRAHAM
CHILD DEVELOPMENT INSTITUTE



NATIONAL IMPLEMENTATION
RESEARCH NETWORK

First

Form a PDSA Team

Consider **Selection
Criteria** based on
Functions of Team

3-5 individuals working **collaboratively** to **plan,**
develop, and **carry out** a plan to study and **apply**
learning in support of **on-going improvement.**



Critical Processes in
High Functioning
Team Meetings

P
R
E
D
I
C
T
A
B
I
L
I
T
Y

P
A
R
T
I
C
I
P
A
T
I
O
N

C
O
M
M
U
N
I
C
A
T
I
O
N

Roles and responsibilities

Team Norms

Agendas

Attendance

T
Y

Meeting Foundations Items from the Team-Initiated Problem Solving Fidelity Checklist (TIPS-FC)

Team: _____ Date: _____

Item	Data Source	Scoring Criterion	Meeting Date			
Meeting Foundations Items (1-9)						
1. Primary and backup individuals are assigned to defined roles and responsibilities of Facilitator, Minute Taker, and Data Analyst.	Meeting Minutes Documentation of Roles and Responsibilities	0= No primary and backup individuals are assigned to the defined roles and responsibilities of Facilitator, Minute Taker, and Data Analyst. 1= Some primary and backup individuals are assigned to the defined roles and responsibilities of Facilitator, Minute Taker, and Data Analyst. 2= Primary and backup individuals are assigned to the defined roles and responsibilities of Facilitator, Minute Taker, and Data Analyst.				
2. Meeting participants have the authority to develop and implement problem-solving solutions.	Administrator/Leader confirmation or formal written policy	0= Meeting participants do not have the authority to develop and implement problem solving solutions. 1= Meeting participants have the authority to develop but not implement problem solving solutions. 2= Meeting participants have the authority to develop and implement problem solving solutions.				
3. Meeting started on time.	Direct Observation/ Meeting Minutes	0= Meeting started more than 10 minutes late. 1= Meeting started less than 10 minutes late. 2= Meeting started on time.				
4. Meeting ended on time, or members agreed to extend meeting time.	Direct Observation/ Meeting Minutes	0= Meeting ended more than 10 minutes over scheduled time. 1= Meeting ended 10 minutes over scheduled time. 2= Meeting ended on time or members agreed to extend meeting time.				
5. Team members attend meetings promptly and regularly.	Meeting Minutes, Team Roster, Direct Observation	0= Less than 75% of team members attend meetings promptly and regularly. 1= Although team members (with exception of administrator) attend meetings regularly, they are not always prompt and/or they leave early. 2= More than 75% of team members (with exception of administrator) attend meetings regularly, promptly and remain present until the meeting has concluded.				

Adapted from: Todd, A. W., Newton, J. S., Horner, R. H., Algozzine, K., Algozzine, B., & Cusumano, D. L. (2014). TIPS II Training Manual: TIPS Fidelity Checklist.







Aim

What are we trying to accomplish?

Ideas

What change can we make that will result in improvement?



Measures

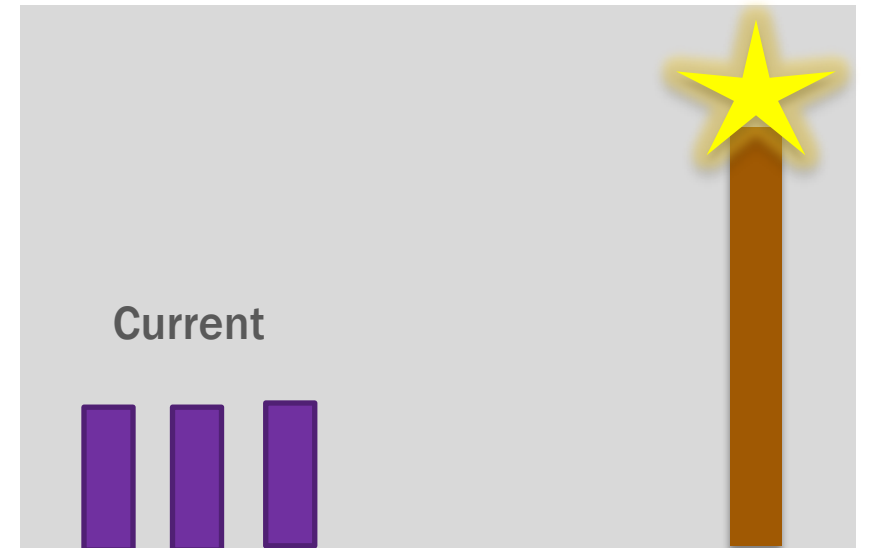
How will we know that a change is an improvement?





Aim

What are we trying to accomplish?



Act

What would **success** or **improvement** look like?

Study



What **change** is needed
and **by when?**



Is this **feasible?**

Ideas

What change can we make that will result in improvement?



Would you expect to see the change noted in the **goal?**

Study



Is there **buy-in?**

Does it align with your **goal?**

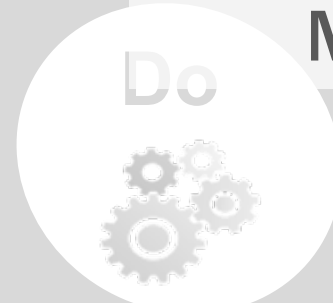




Define **plan** for data collection

Start **simple**

Make it **easy** to collect



Will **currently** collected **data** answer the question?



Study



Use percent/absolute value/ratings/scales

Measures

How will we know that a change is an improvement?



Act



How many days during the week were you able to access all files and records you needed to complete your work?

☐ 1 2 ☐ 3 4 ☐ ☐ 5 ☐

Measures

How will we know that a change is an improvement?

Feedback Data Collection Form

Directions: Answer the question below by coloring in the box that reflects your answer. Color in only one box in your respective column based on the rating below in the section indicated above. Each respondent has their own column.

Question: *The new data entry system has helped me carry out my duties more efficiently than before.*

Rating Scale (from 1-10): 1 = Strongly Disagree; 5-6 = Neutral; 10 = Strongly Agree

Current Time of Cohort Number: Cohort 4

Directions: Answer the question below by coloring the rating below in the section indicated above. Each

Que

Directions: Answer the question below by coloring the rating below in the section indicated above. Eac

Rati Question: *The new data entry system has helped m*

Rating Scale (from 1-10): 1 = Strongly Disagree; 5-6

Current Time of Cohort Number: Cohort 2

Strongly Agree	10	10	10	10	10	10
	9	9	9	9	9	9
	8	8	8	8	8	8
	7	7	7	7	7	7
	6	6	6	6	6	6
Neutral	5	5	5	5	5	5
	4	4	4	4	4	4
	3	3	3	3	3	3
	2	2	2	2	2	2
	1	1	1	1	1	1
Strongly Disagree						
Rating Scale	Time 1 or Cohort 1 Average 4.2					

Strongly Agree	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Neutral	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Strongly Disagree																				
Rating Scale	Time 1 or Cohort 1 Average 4.2					Time 2 or Cohort 2 Average 8.6					Time 3 or Cohort 3 Average 9.4					Time 4 or Cohort 4 Average 9.4				

Directions: Answer the question the rating below in the section in

Question: *The new data entry sy:*

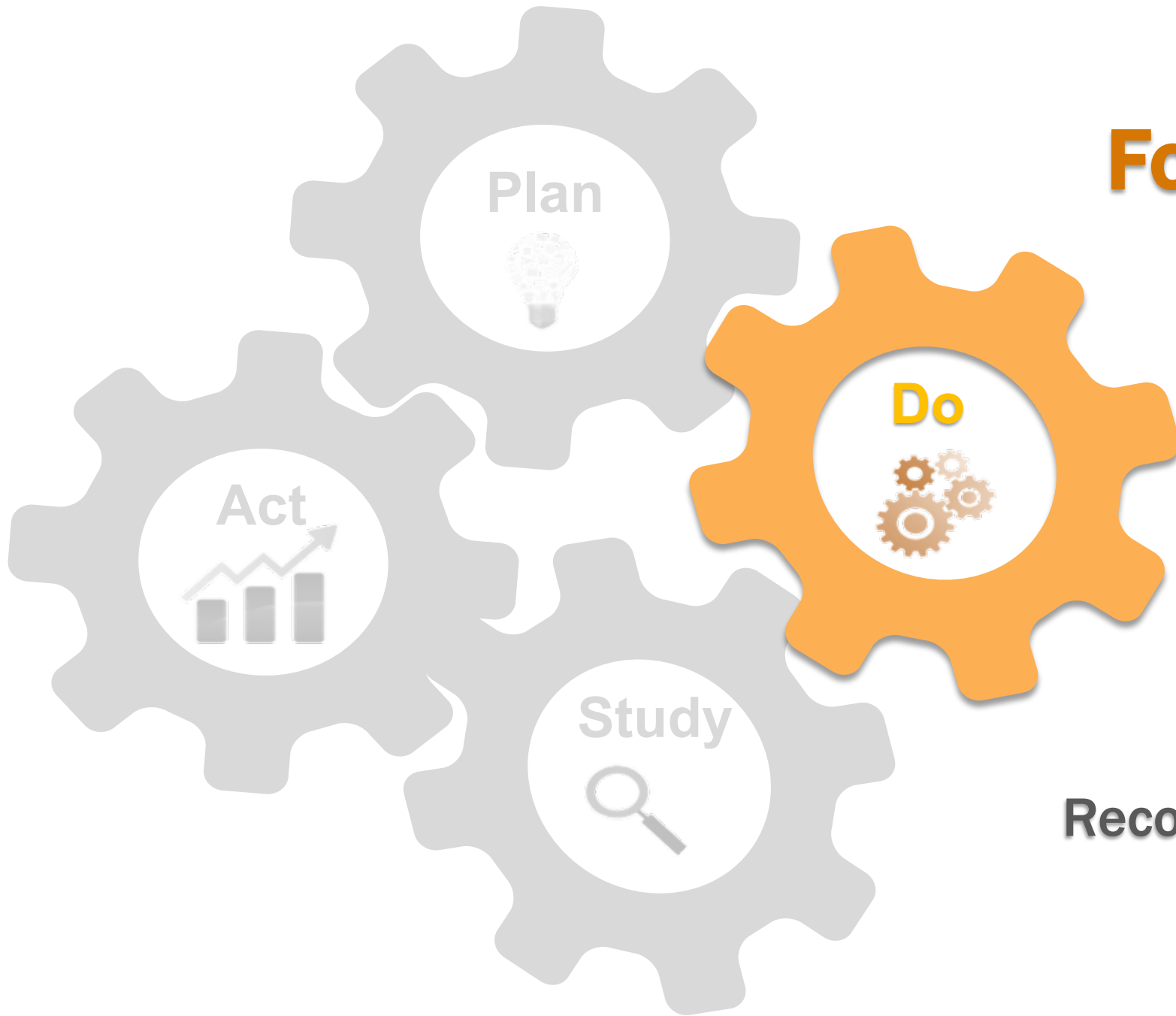
Rating Scale (from 1-10): 1 = Strongly Dislike

Current Time of Cohort Number:

Strongly Agree	10	10	10	1	Strongly Disagree	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	9	9	9	5	Rating Scale	Time 1 or Cohort 1					Time 2 or Cohort 2					Time 3 or Cohort 3				
	8	8	8	5		Average 4.2					Average 8.6									
	7	7	7	7																
Neutral	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Strongly Disagree	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Rating Scale	Time 1 or Cohort 1					Time 2 or Cohort 2					Time 3 or Cohort 3					Time 4 or Cohort 4				
	Average 4.2																			

6	6	6	6	6	6	7	7	7
5	5	5	5	5	5	6	6	6
4	4	4	4	4	4	5	5	5
3	3	3	3	3	3	4	4	4
2	2	2	2	2	2	3	3	3
1	1	1	1	1	1	2	2	2
3	Time 4 or Cohort 4					1	1	1

[illegible][illegible][illegible]



Follow the Plan

Collect **data**

Document any **unexpected observations** or **variations** to the **plan**

Record any **problems** or **issues**

Study

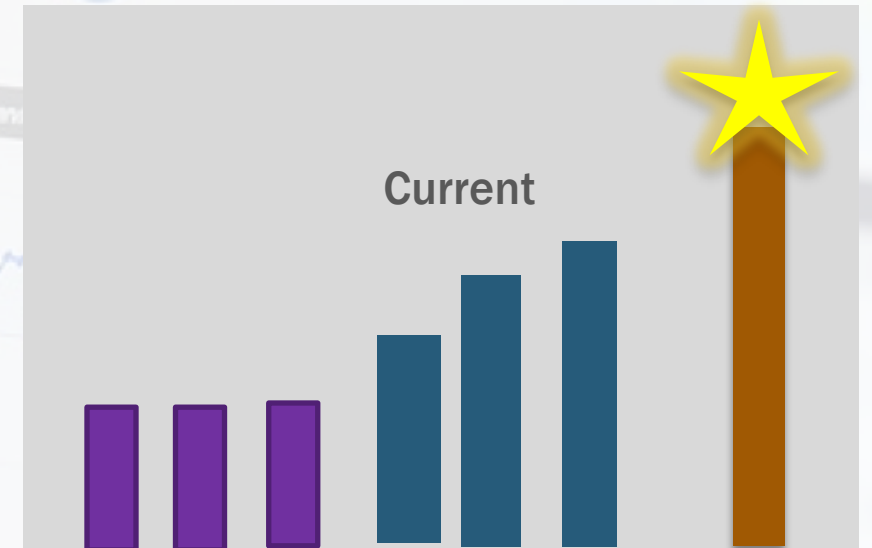
What does your **data** say?

Plan

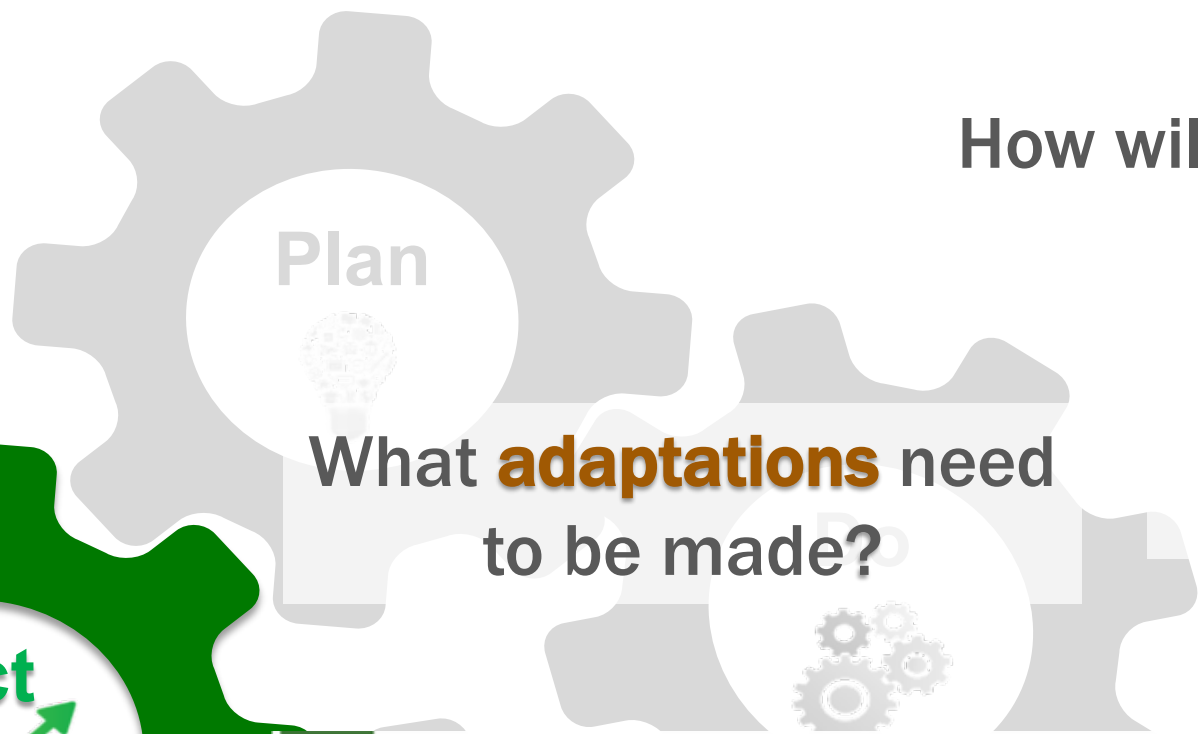
Do

Act

Study



What can you **learn** from these data?



How will

Plan

What **adaptations** need to be made?

Do

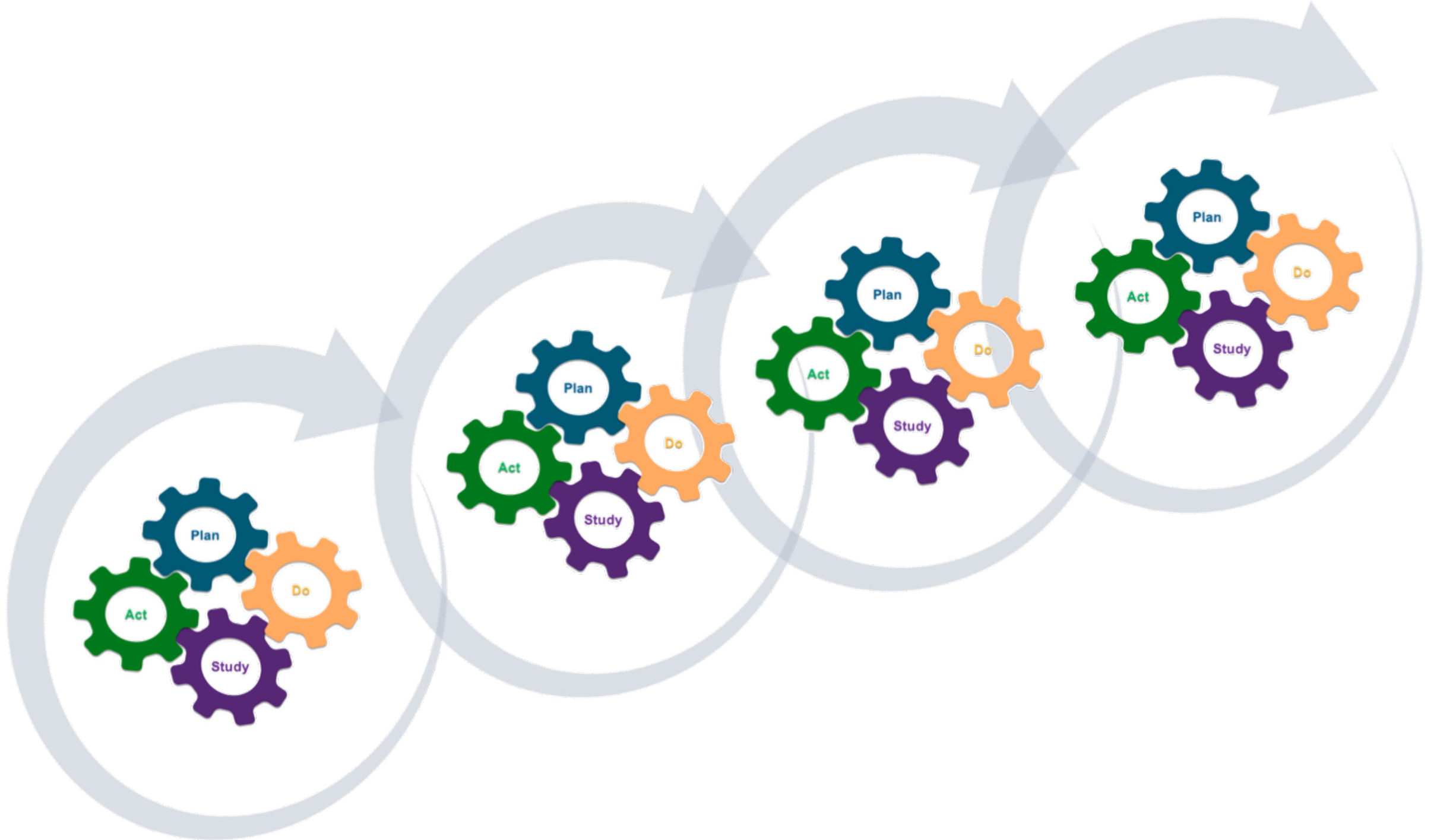
What will be **adopted** into practice?

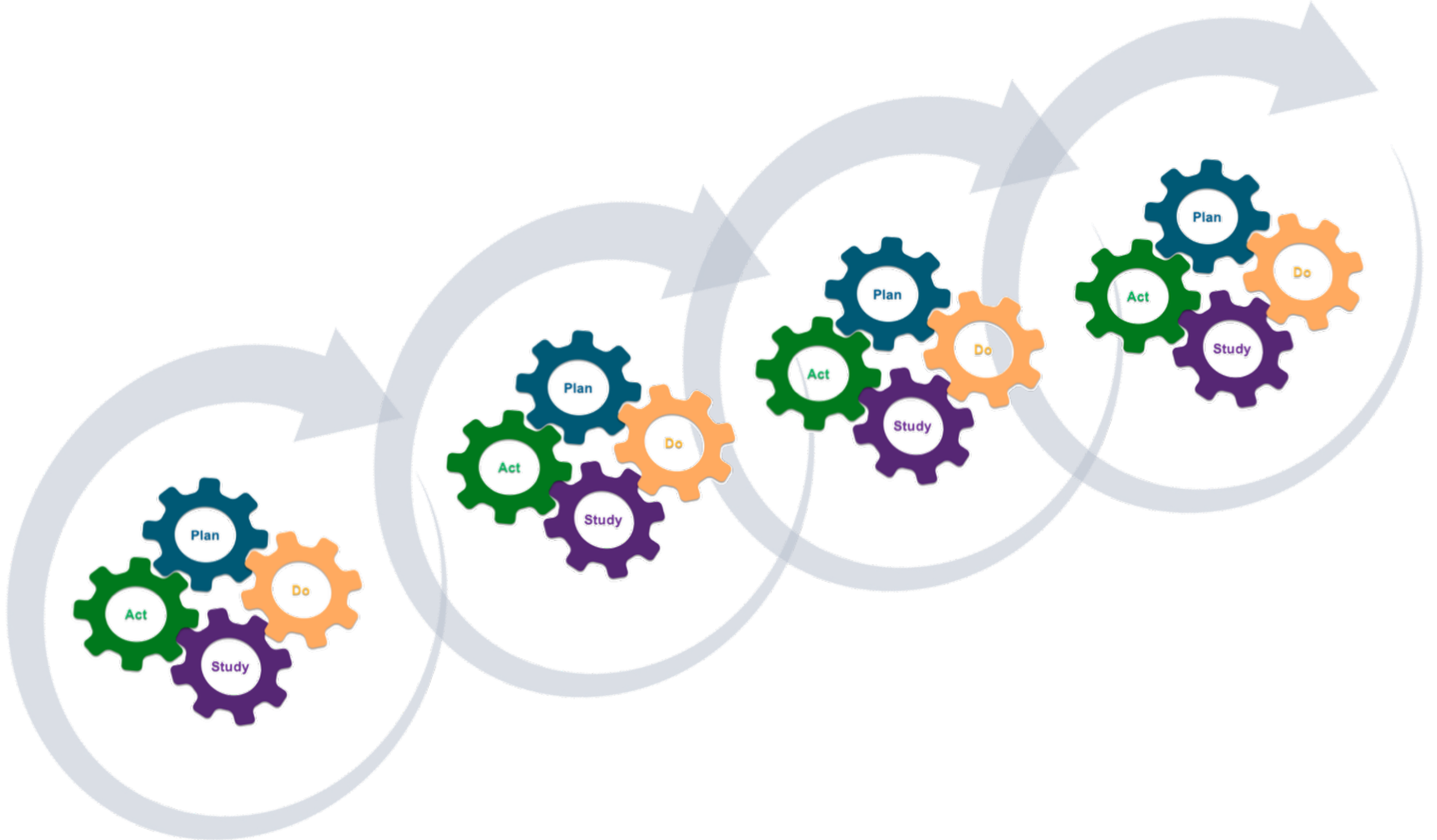
Plan

What **adaptations** need to be made?

Act

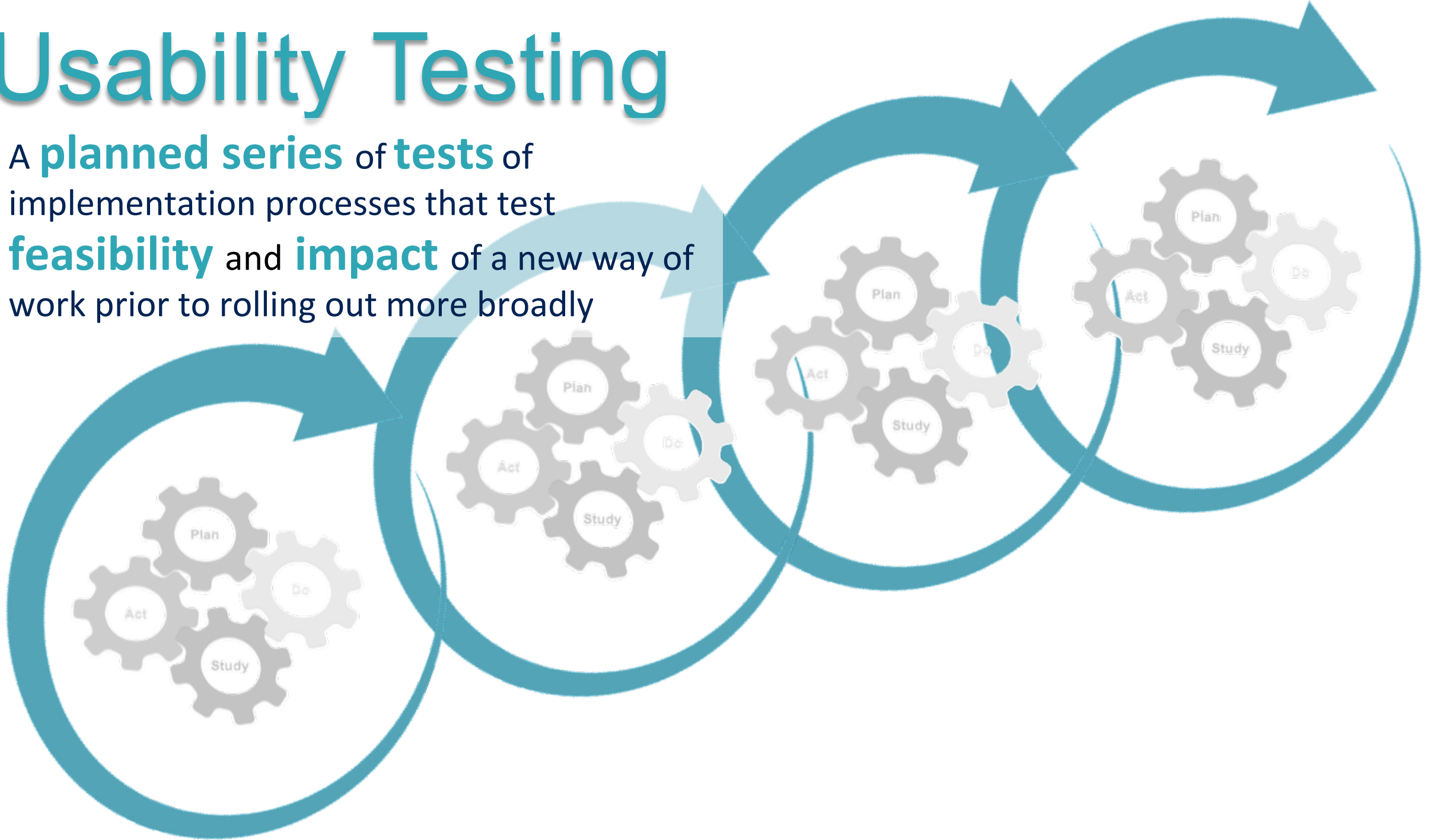
[illegible]



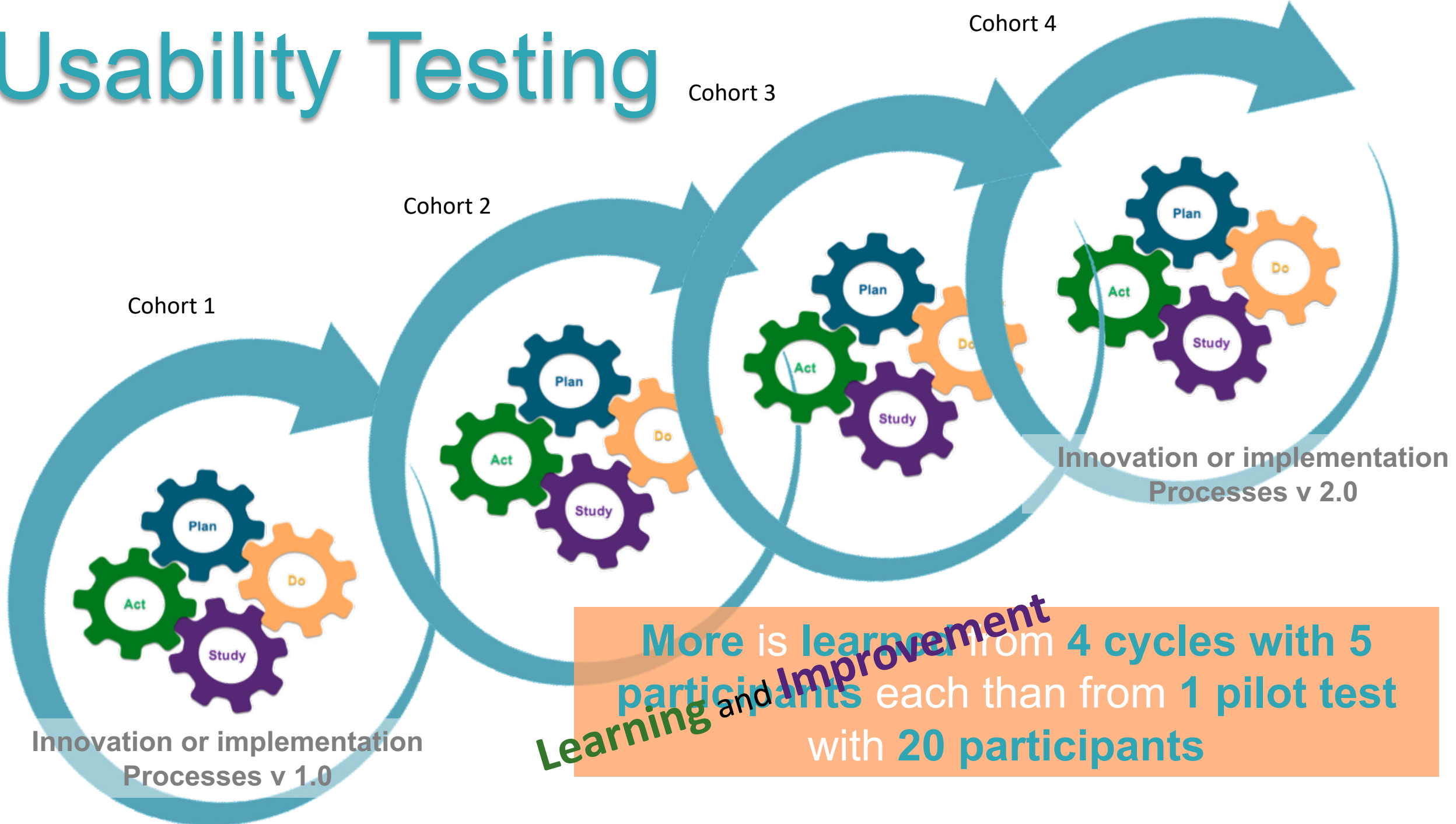


Usability Testing

A **planned series** of **tests** of implementation processes that test **feasibility** and **impact** of a new way of work prior to rolling out more broadly



Usability Testing



Tools for Usability Testing



Guidance on Usability Testing What is it, When Do You Use It, and How?

The following guidance explains the purpose of usability testing, when and how implementation teams should use it. The guidance will:

- Prepare leaders and staff for the usability discussions with their teams and stakeholders
- Assist the team in thinking about a limited number of critical components they want to set up for usability testing during the initial rollout of the innovation/effort
- Ensure that leadership, teams, and staff are all on the same page regarding the purpose and process of usability testing and the relationship of usability testing to formative evaluation

WHAT IS IT?

The overarching purpose of usability testing is to improve and "stabilize" the early occurring components of an innovation or system, the implementation supports, and the data collection processes so that components or processes are improved. Implementation Drivers can support the "right" processes, and formative evaluation can proceed more confidently. Usability testing begins during the Initial Implementation of the protocol, practice, or program.

Usability testing has several purposes and functions including:

- maximizing learning from the fewest possible examples,
- quickly detecting challenges related to key processes,
- making revisions and retesting the processes to see if they are better, and
- stabilizing early components of an intervention, implementation supports, and data collection processes.

Usability testing uses rapid cycle (Plan, Do, Study, Act) detection of strengths and gaps and quick tests of intended solutions. By "testing" the innovation as it is expected to be implemented with only a few examples (e.g., three to five districts initiating new assessments) across counties/regions, districts, and schools, improvements can be made quickly from one cycle to the next. Ensuring that the cycles are representative of the innovation allows for the differentiation of individual user issues from regional/county issues from systemic issues, which affects the resolution. Usability testing proceeds until few major problems are detected (there always will be problems in human service programs; the goal is to solve the more obvious and difficult problems).

Usability testing is best played out in "transformation zones." A transformation zone is smaller than a full rollout, but representative of the intervention as a whole. This scope of testing provides enough breadth to ensure a valid test of the early components.



Usability Testing Plan for _____



Usability Testing is a planned series of tests of an innovation, components of an innovation, or implementation processes. It is a series of Plan-Do-Study-Act (PDSA) cycles with small groups of participants ($n = 4$ to 5) to refine and improve the innovation elements and/or the implementation processes. *Usability Testing* can be used proactively to test the feasibility and impact of a new way of work prior to rolling out the innovation or implementation processes more broadly



The PDSA cycles consists of four phases:

- **Plan** — Identify barriers or challenges, using data whenever possible, and specify the plan to move programs or interventions forward as well as the outcomes that will be monitored.
- **Do** — Carry out the strategies or plan as specified to address the challenges.
- **Study** — Use the measures identified during the planning phase to assess and track progress.
- **Act** — Make changes to the next iteration of the plan to improve implementation.

Usability Testing Plan for Action Period (Series of 3-4 PDSA Cycles):

❖ *Usability Testing Core Team* (A small team of 5-7 individuals to lead the effort):

Name of Team Member	Position

Implementation
v 2.0

Innovation or
Proces

Time for Sharing and Thinking



Innovation or implementation
Processes v 1.0



Innovation or implementation
Processes v 2.0

