Rapid Cycle Quality Improvement (RCQI): What Do HRSA Project Officers and Staff Need to Know?

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Key Elements of Quality

- Will to do what it takes to change to a new/improved system
- Ideas on which to base the design of the new/improved system
- Execution of the ideas (know-how)

Have You Heard of…

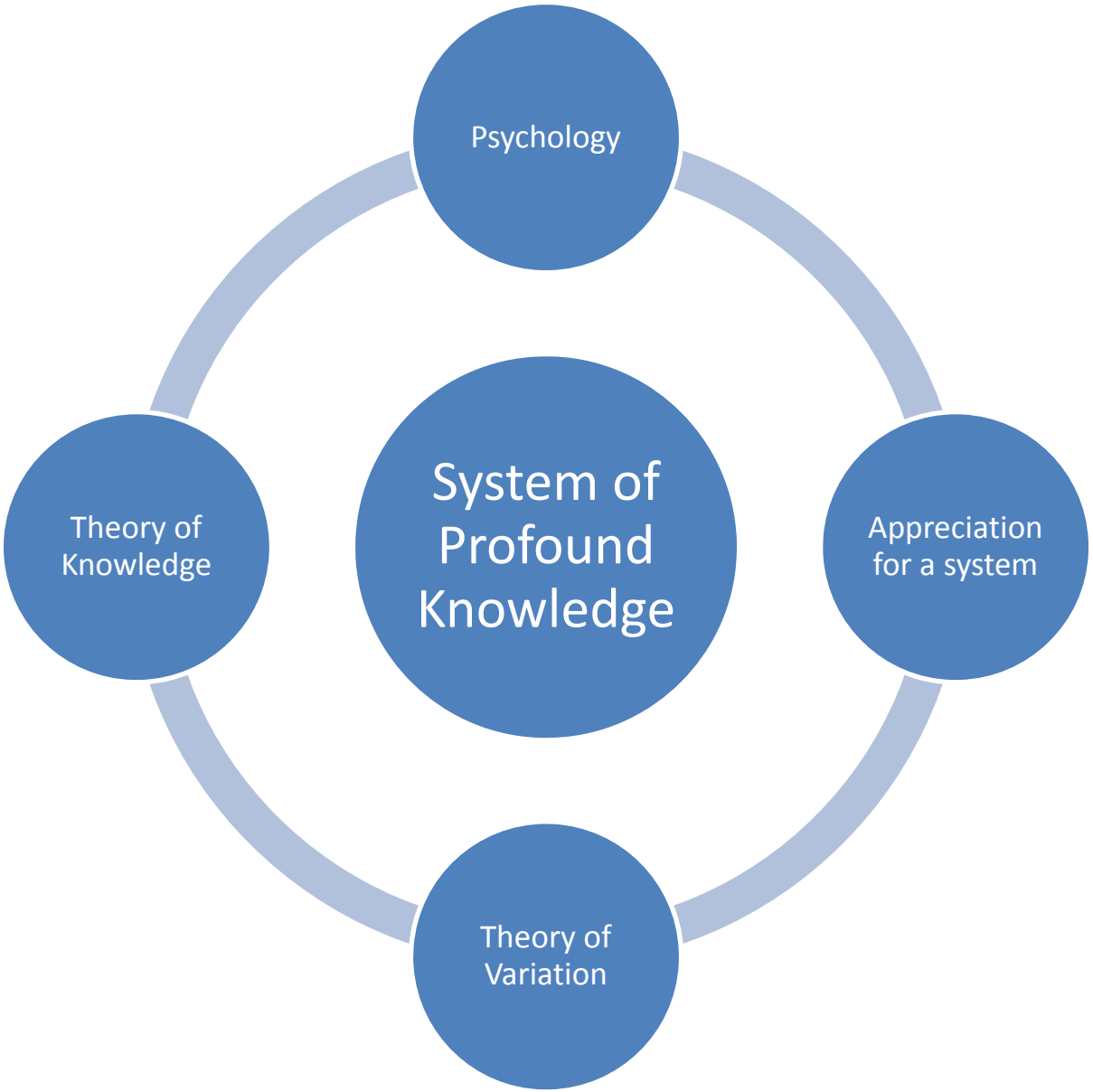
- Total Quality Management
- Continuous Quality Improvement
- Six Sigma DMAIC
- Lean
- The Model for Improvement
- Others?

A Horse of A Different Color

System of Profound Knowledge

- Appreciation for a System
  - view its organization in terms of many internal and external interrelated connections and interactions,
  - Not discrete and independent departments or processes governed by various chains of command.

When all the connections and interactions are working together to accomplish a shared aim, a business can achieve tremendous.



SETTING THE CONTEXT

RCQI APPLIED BY GRANTEES OVERSEEN BY PROJECT OFFICERS

Quality Improvement **vs.** **Quality Assurance**

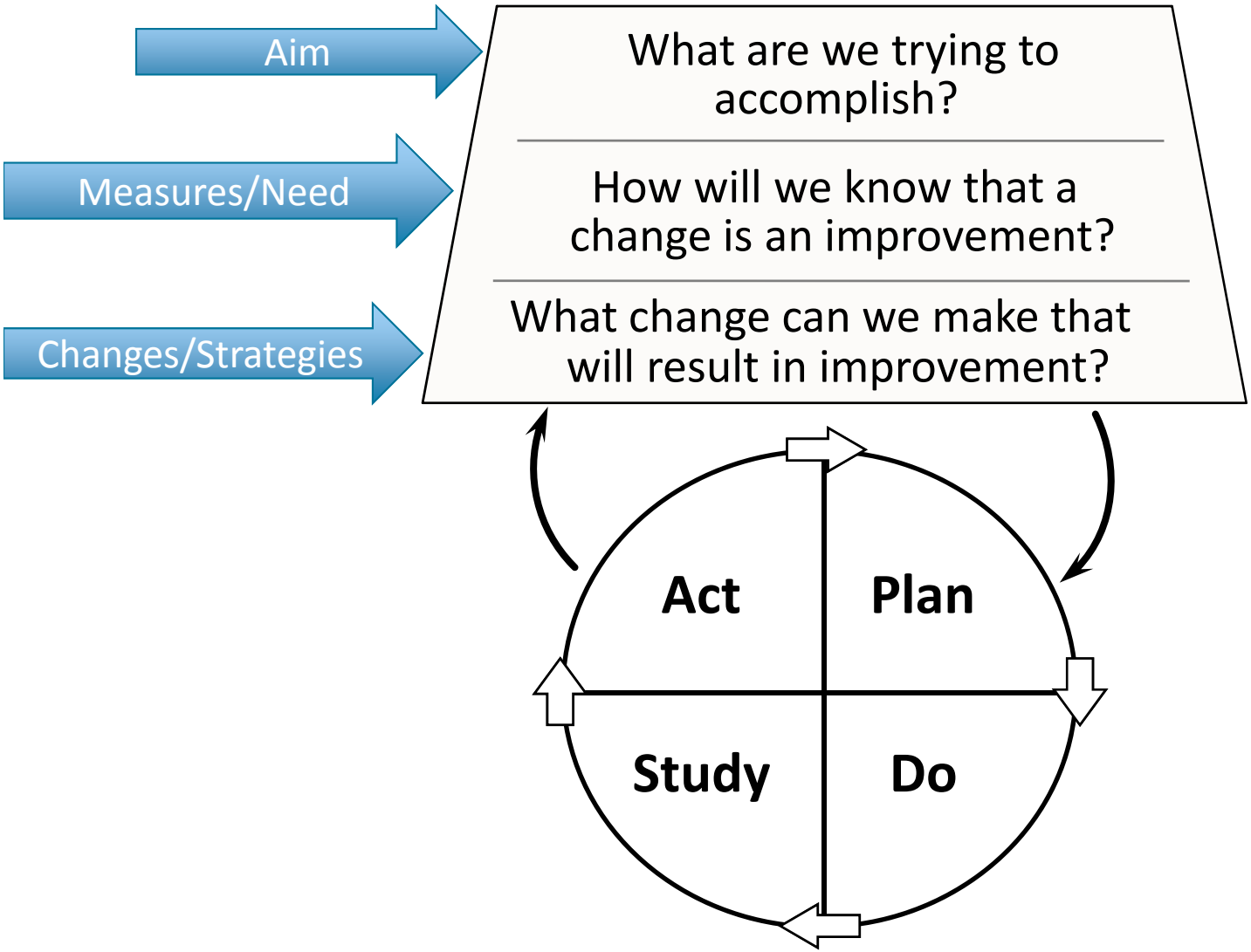
- Systems focused
- Fallibility Recognized
- Teamwork
- Errors seen as opportunities for learning

- Individual Focused
- Perfection Myth
- Solo practitioner
- Errors punished

“Every system is perfectly designed to get the results it gets”

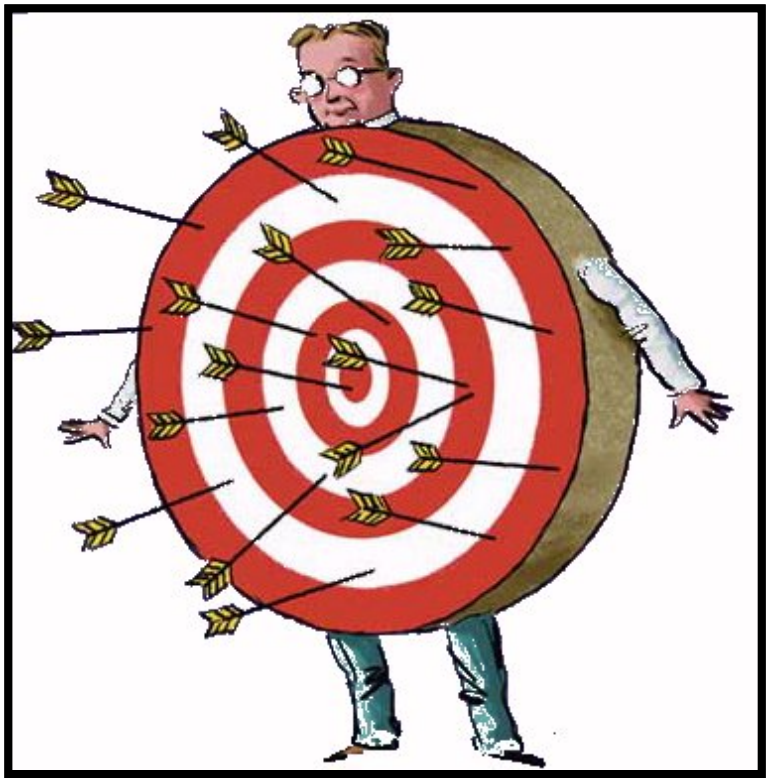
~Paul Bataldin

Model for Improvement



What are we trying to accomplish?

- Aim statement:
  - What?
  - For whom?
  - By when?
  - How much?



Aim Statement

- What will you do
- How much will you improve
- For Who
- By When

Smart Goal

Establish Clear Definitions

- Define the **Who**
  - Exactly who will this work impact
- Define the **What**
  - What do these terms mean specifically for your work
- Ask "**How** might somebody be confused by this statement?"

Example – Advanced Nursing Edu.

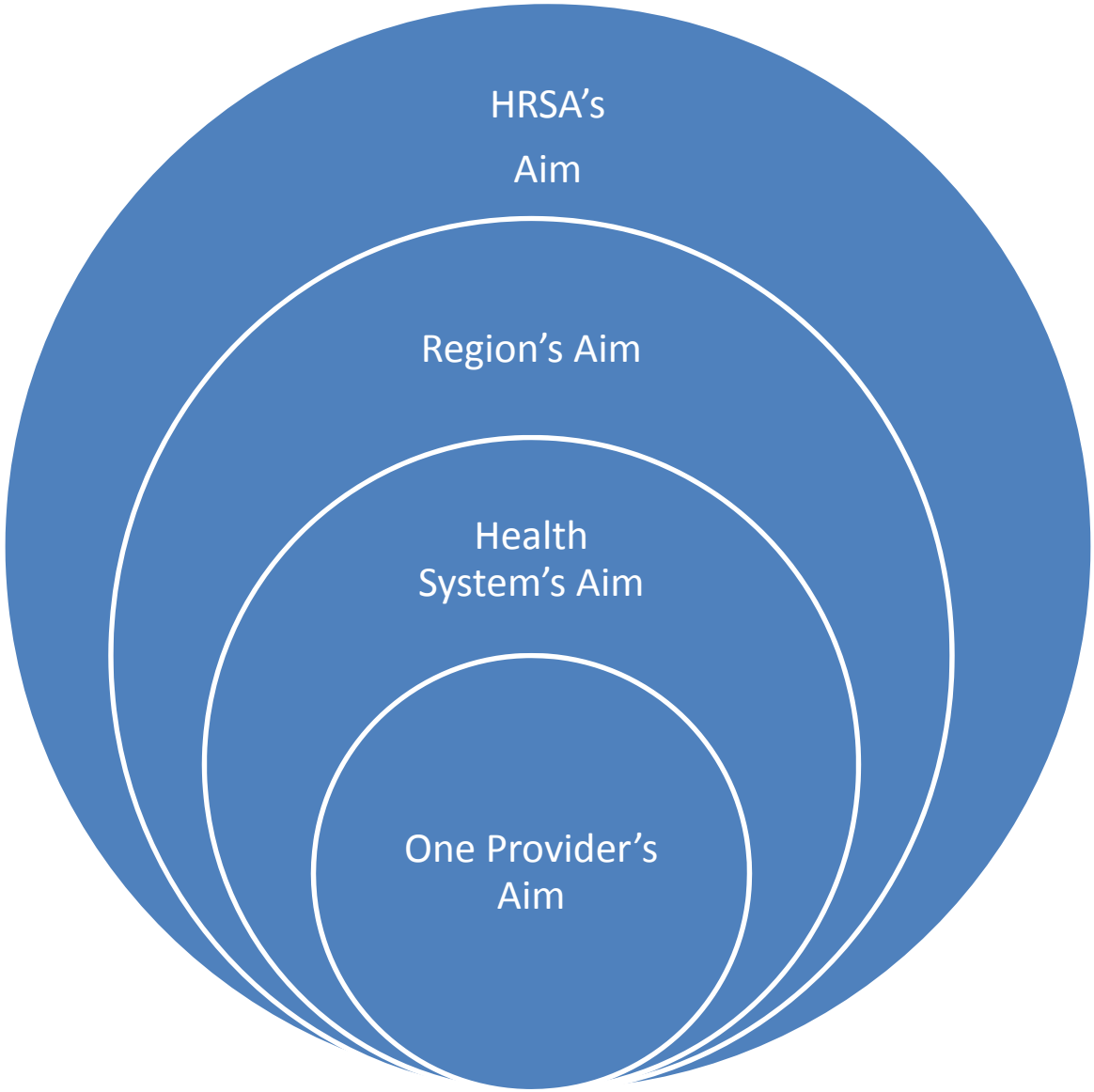
- By June 2016, XYZ University will ensure that 100% of clinical preceptors are prepared to facilitate a positive clinical experience for students. All preceptors will undergo an annual clinical competency evaluation and will score at least 90% competency in four domains:
    - Student evaluation
    - Goal setting
    - Teaching strategies
    - Demonstration of organized knowledge”

Example – Geriatric Workforce

By June 2017. Improve primary care engagement in the early identification of Alzheimer's disease and related dementias (ADRD) so that:

- At least 90% of patients 75 years of age or older are assessed for ADRD at least once per year
- 90% or more of those identified with ADRD have education provided directly to the primary caregiver

The Aim – A Simple and Powerful Tool



Questions?

How Will we Know if a Change is an Improvement?

How Do We Know That a Change is an Improvement?

- Quality Improvement is about changing and improving care provided
- It is not about measurement.
- However ……

Measurement Assumptions

- The purpose of measurement in QI is for ***learning*** not judgment
- All measures have limitations, but the limitations do not negate their value
- Measures are one voice of the system. Hearing the voice of the system gives us information on how to act within the system
- Measures tell a story; goals give a reference point

Performance Measurement in 3 Worlds

Aspect	Improvement	Accountability	Research
Aim	Improve care	Compare, reassure, spur change	New knowledge
Methods **Test Observable**	Yes	N/A. Evaluate current performance	Test blind or controlled
Bias	Accept stable bias	Adjust data to reduce bias	Design to eliminate
Sample Size	Just enough data, small sequential samples	N/A. Report 100%	Just in case data
Hypothesis Flexible	Yes. Revised as learn and test	No hypothesis	Fixed hypothesis
How to determine improvement	Run or Shewhart charts	No focus on change	Hypothesis, Statistical tests: F-test, t-test, chi square, p value
Testing Strategy	Small sequential tests	No tests	1 large test
Data confidential	Data used only by those involved in improvement	No subjects. Data is for public	Subjects protected

Types of Measures

- Outcome Measures
- Process Measures
- Balancing Measures
- Activity Measures

A Closer Look

Process Measures

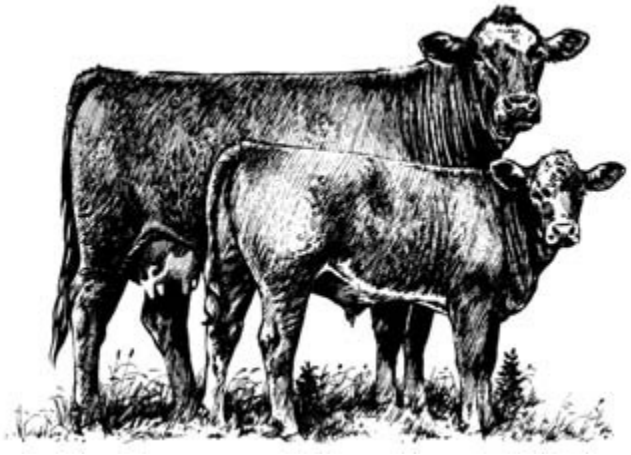
- Data collection may be time limited
- Are within our control
- Are linked to your ideas (changes)
- Are a means to the ends – not the ends

Outcome Measures

- Are patient/family focused
- Reflect how care is experienced differently by a patient/family
- Sometimes take time to "move the marker"
- Are in your aim!

Measurement Guidelines

- Need a balanced set of measures to assure that the system is improved.
- These measures should reflect your aim statement & make it specific
- Measures are used to guide improvement and test changes
- Integrate measurement into daily routine



“You can’t fatten a cow by weighing it”

Palestinian Proverb

Example Measures

Process

students trained

who graduate during each reporting period

of clinical sites

training programs

Outcome

# of graduates who pursue careers in general, pediatric, or public health dentistry or dental hygiene

Quality of care provided by graduates

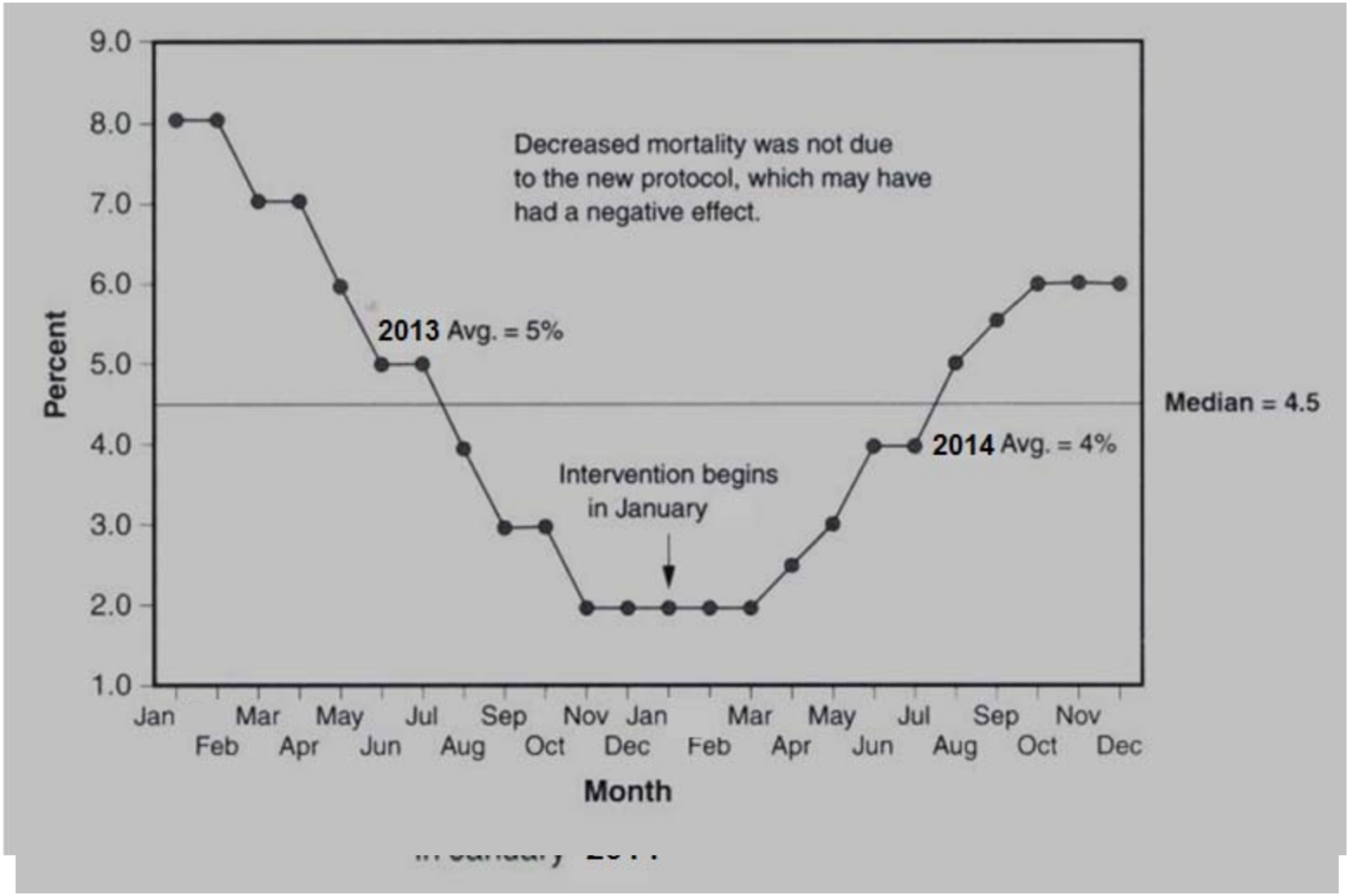
Cost of care provided by trainees & faculty

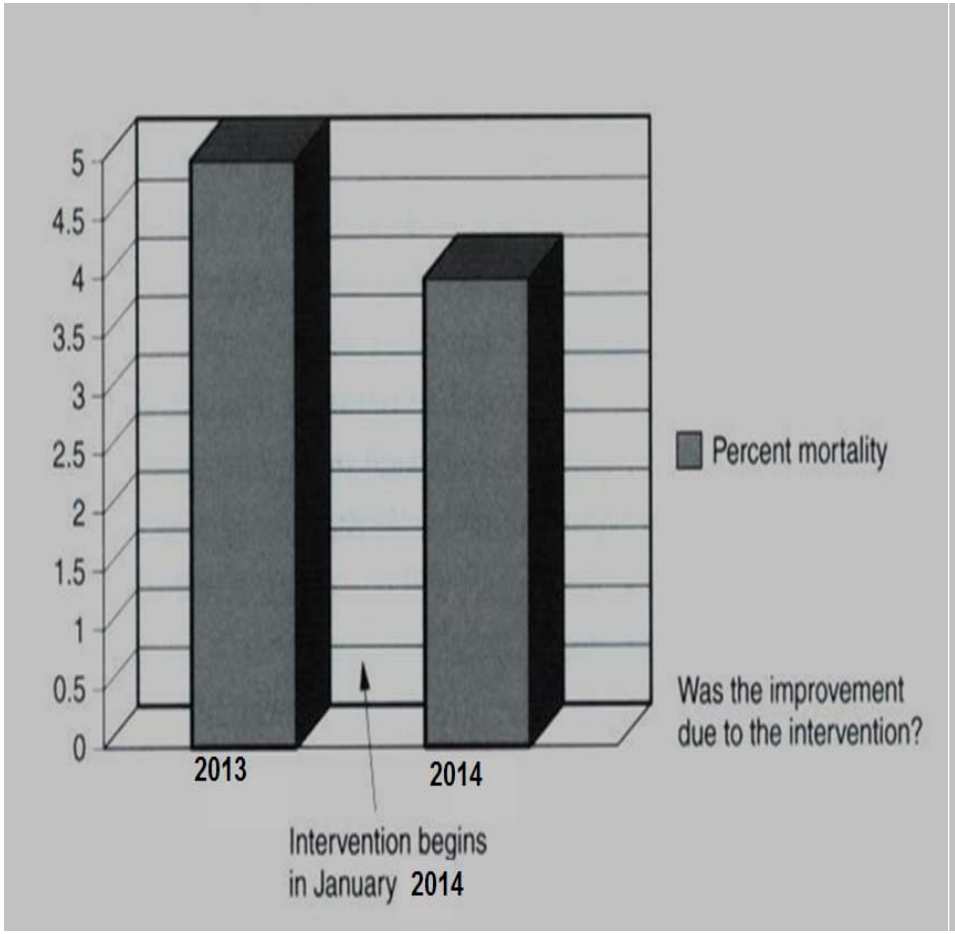
Using your Data

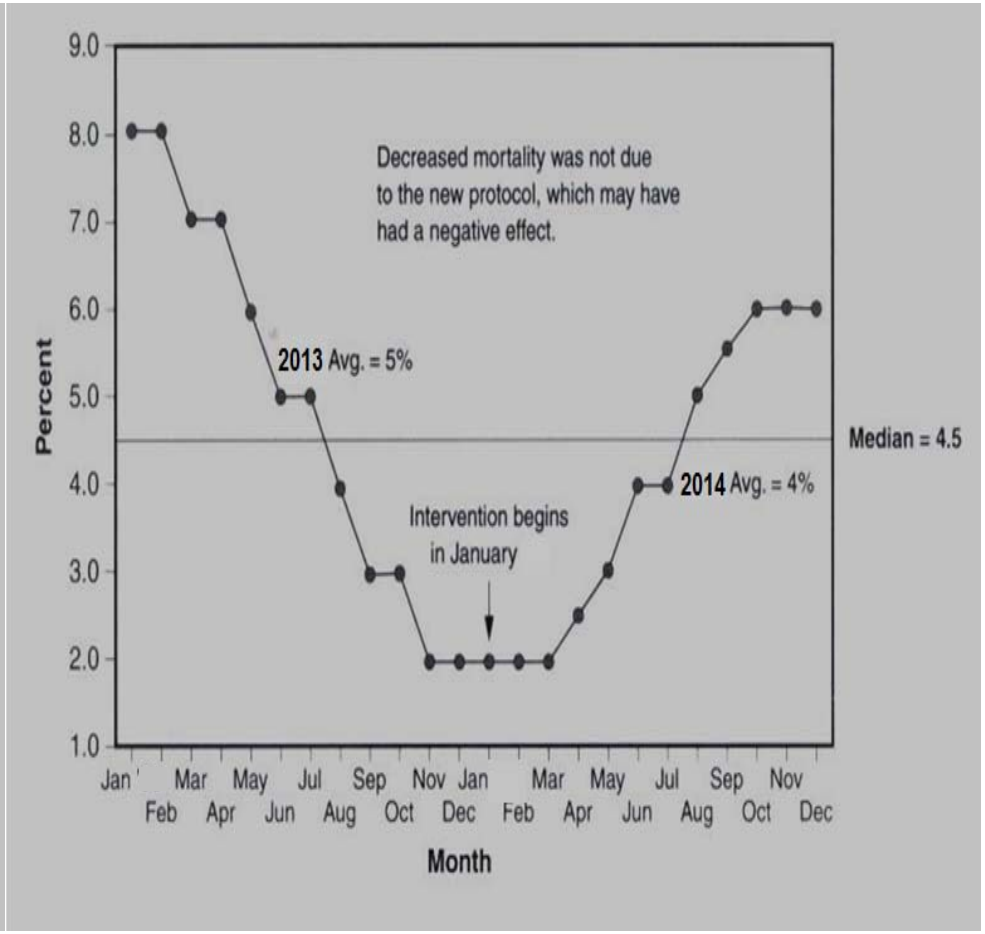
- Once you have collected data it is important to show it off!
- How you graph your data has a major impact on what you can do with it.

How we display our data influences how we use our data

Aggregate vs. Time Ordered Statistics




5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
Intervention begins
in January 2014
Percent mortality
Was the improvement
due to the intervention?


9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
Percent
Decreased mortality was not due
to the new protocol, which may have
had a negative effect.
2013 Avg. = 5%
Median = 4.5
2014 Avg. = 4%
Intervention begins
in January
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
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Aug
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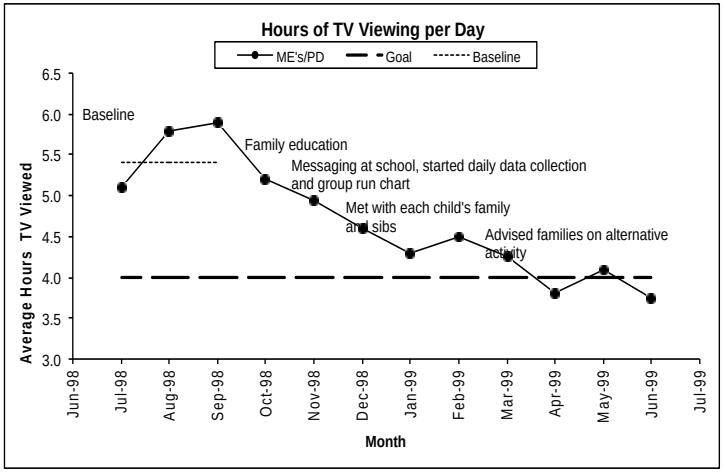
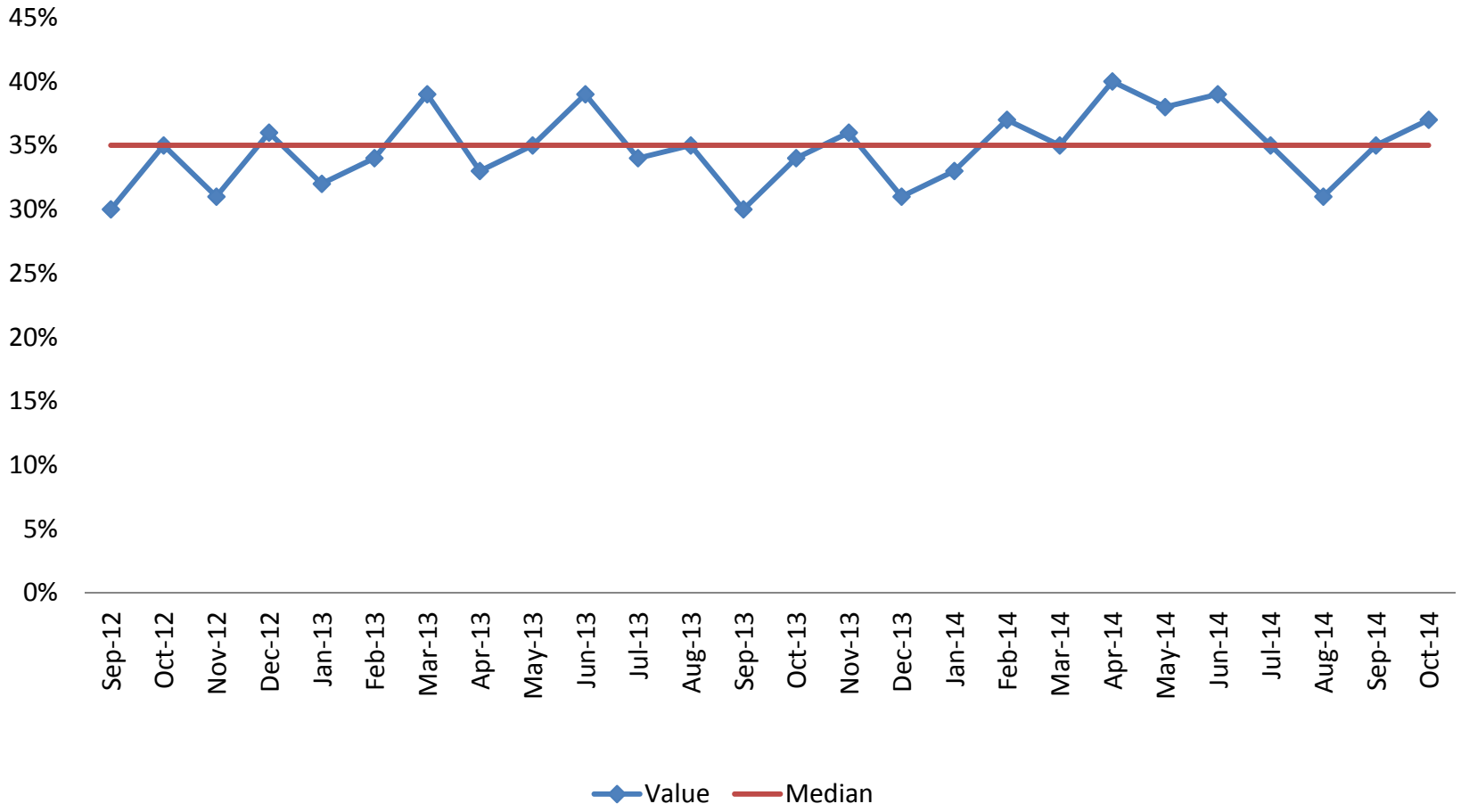
Nov
Dec
Month

Display of Data in a Run Chart

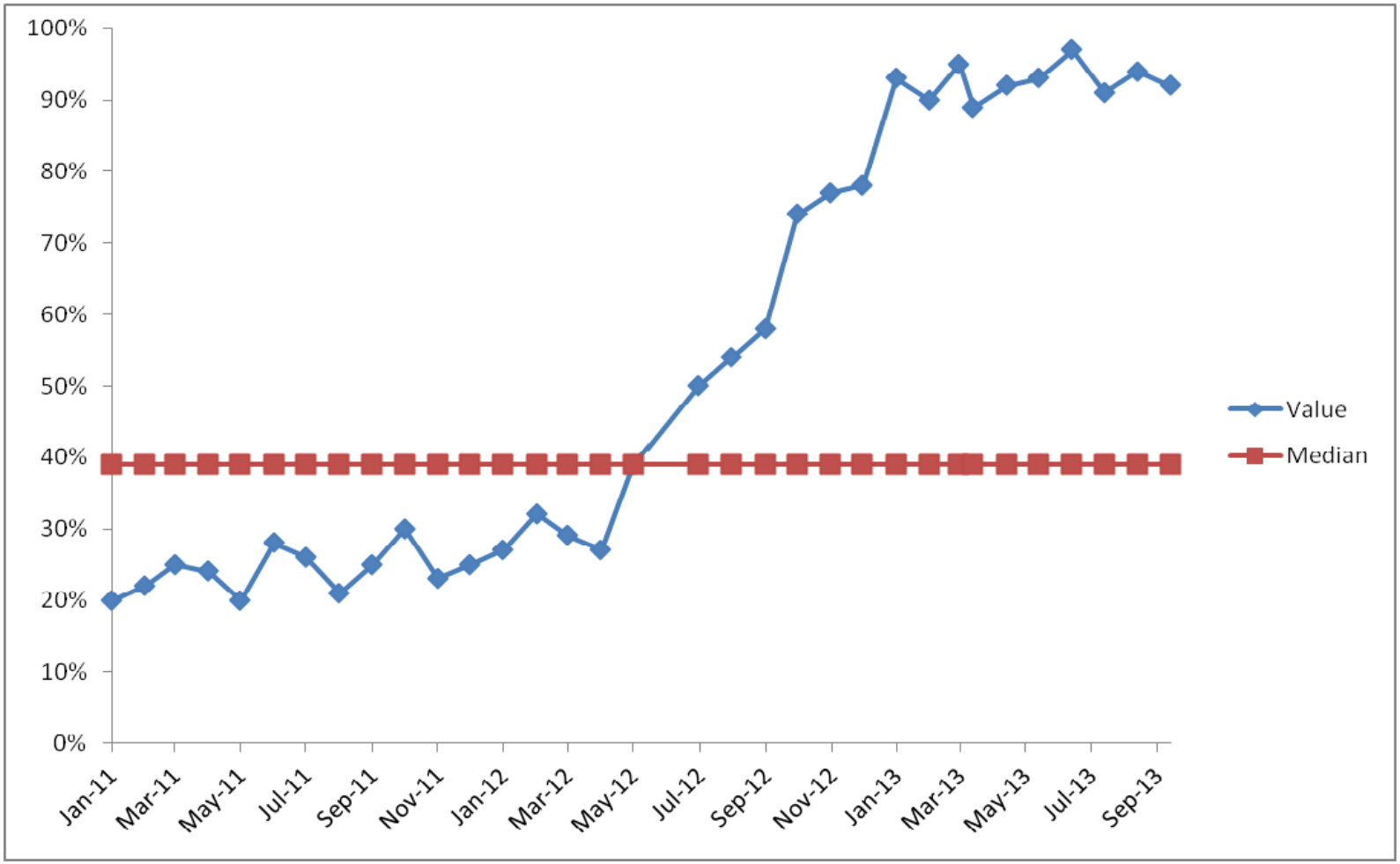


- Graphical display of data
- Simple to make, use and interpret
- Data is plotted in some order
  - often time order
- Lets you
  - Communicate and understand variation
  - Displays key measures over time to make progress visible
  - Determine if changes made are an improvement
  - Illustrates if gains held

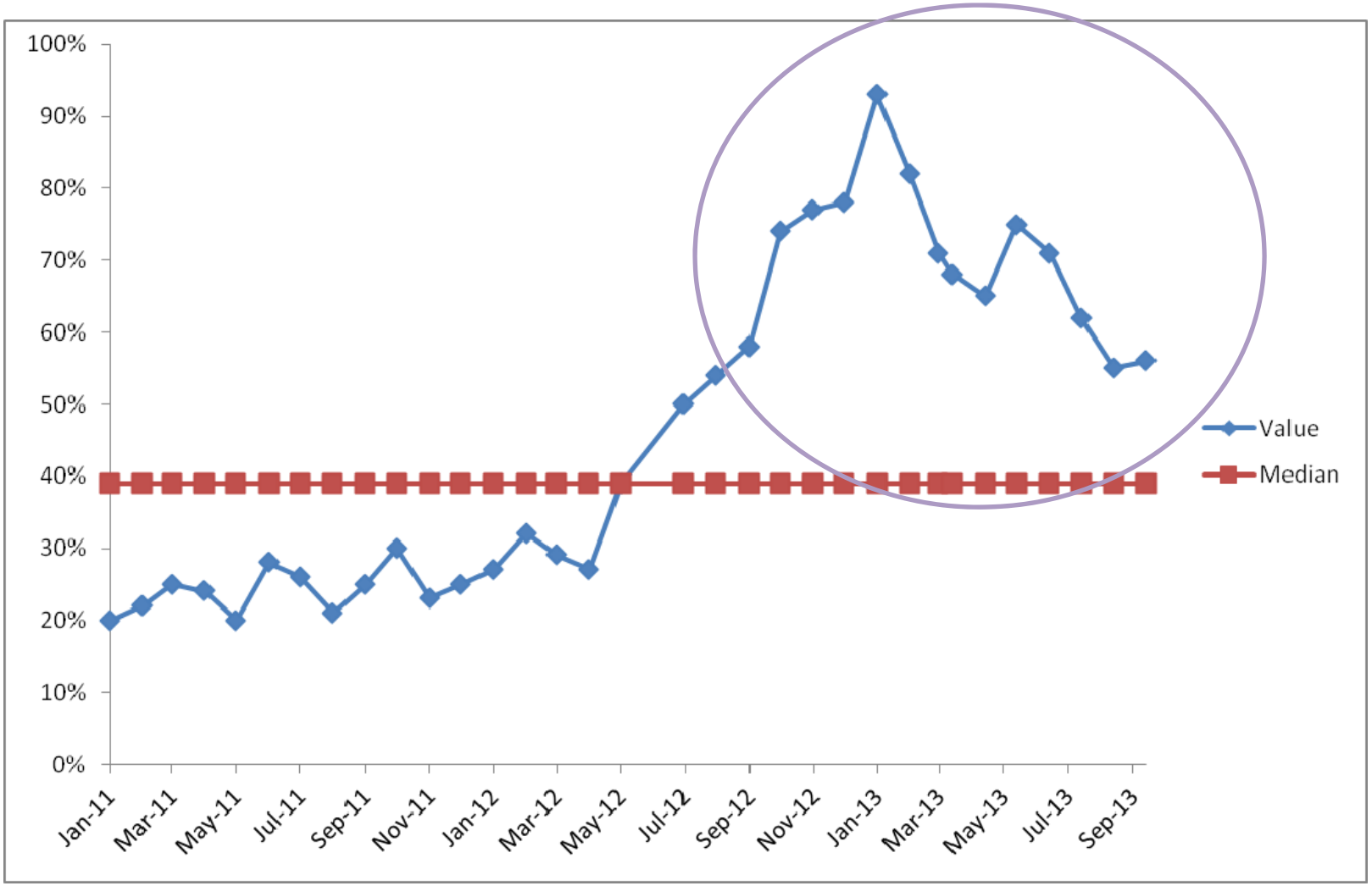
Determine if you are improving



Determine if you are holding the gains



Identify when your losing the gains



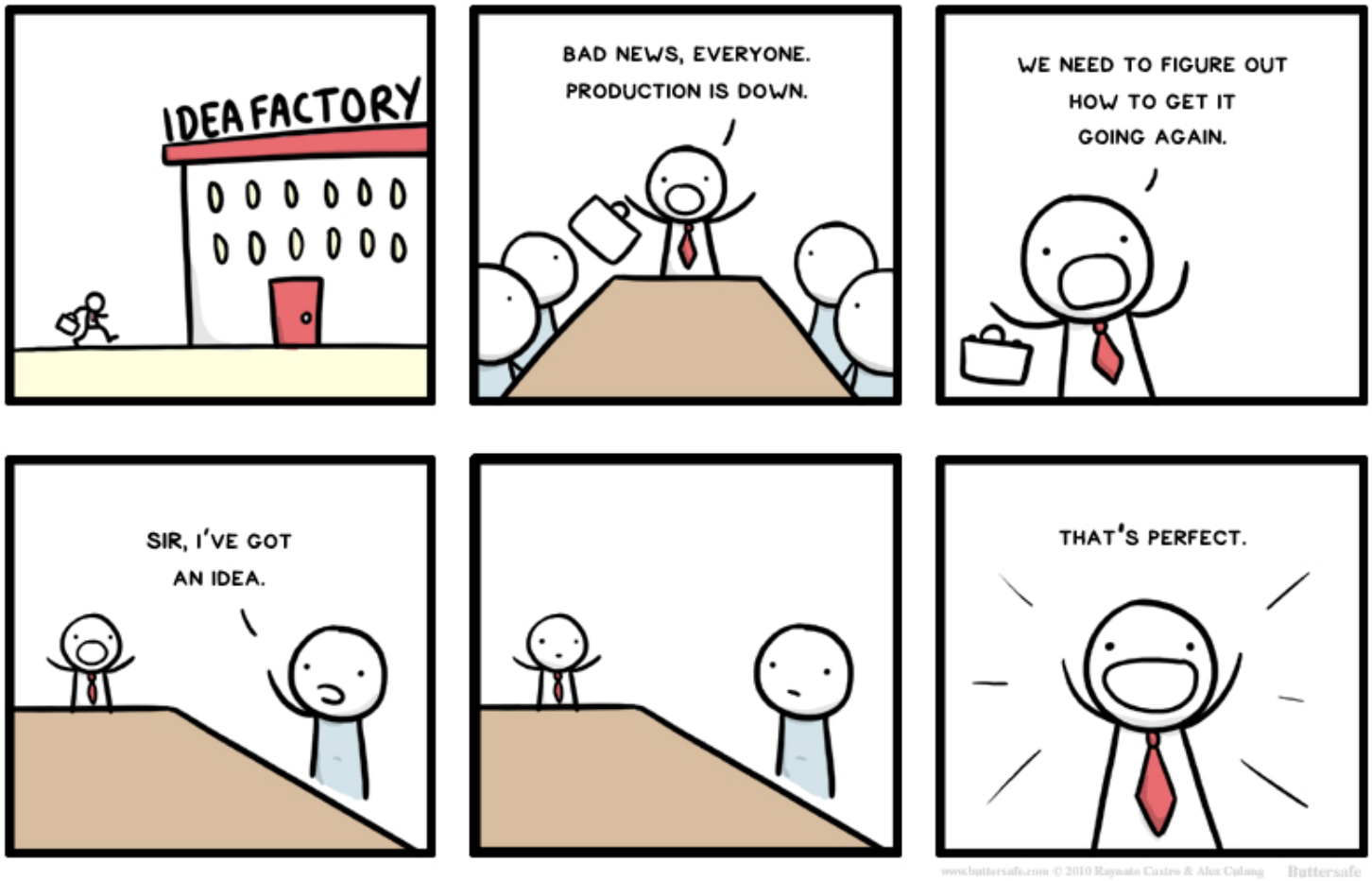
Key Elements of Data Collection

- If you aren't using it don't collect it
- The more frequent the data is collected the better
- Look at your data often – be excited
- Have a measurement "package" – keep it balanced
- Make data collection reasonable/practical
- Give data back to those who give it to you

Questions?

WHAT CHANGES CAN WE MAKE THAT WILL RESULT IN IMPROVEMENT?

Ideas


IDEA FACTORY
BAD NEWS, EVERYONE.
PRODUCTION IS DOWN.
WE NEED TO FIGURE OUT
HOW TO GET IT
GOING AGAIN.
SIR, I'VE GOT
AN IDEA.
THAT'S PERFECT.
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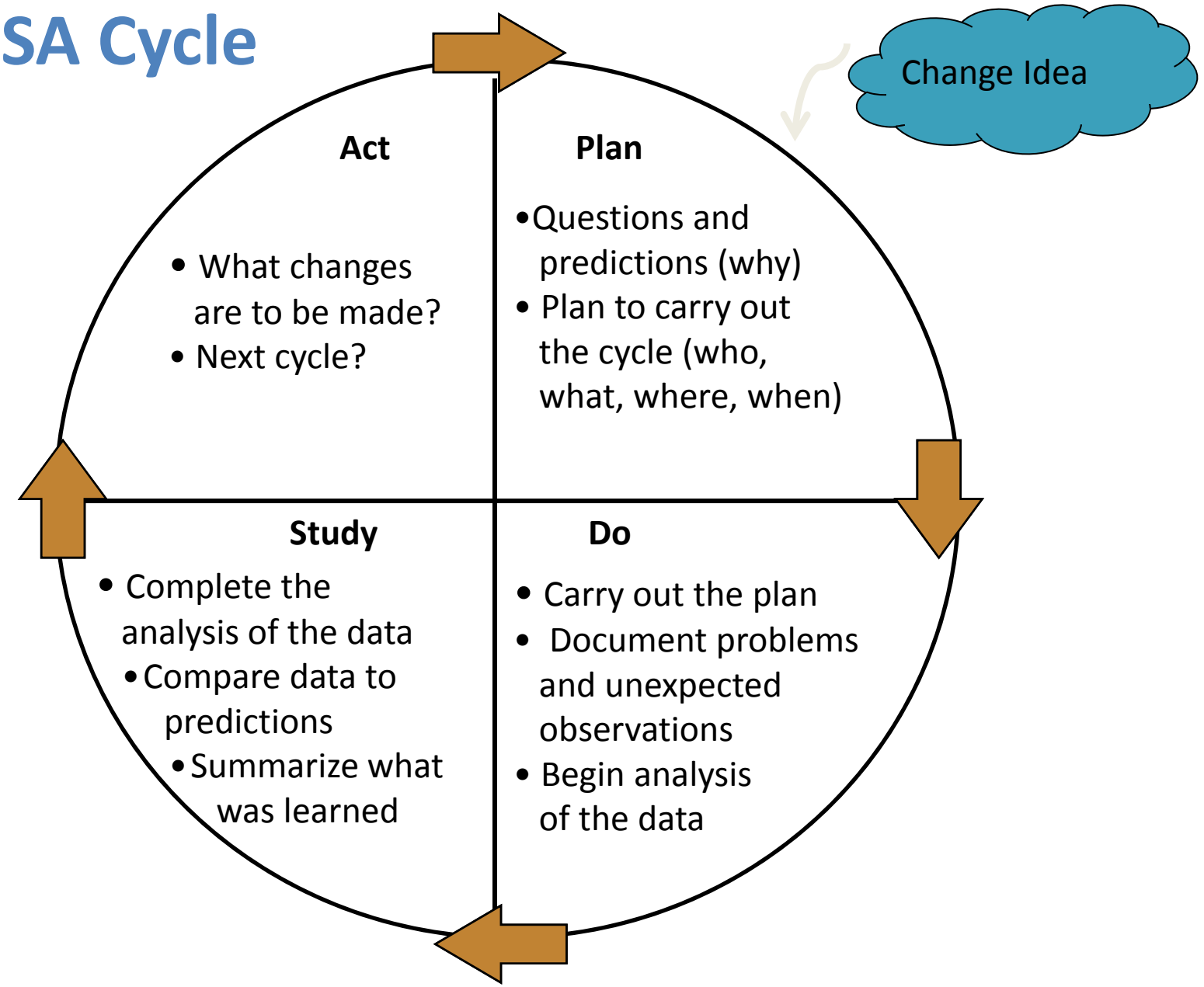
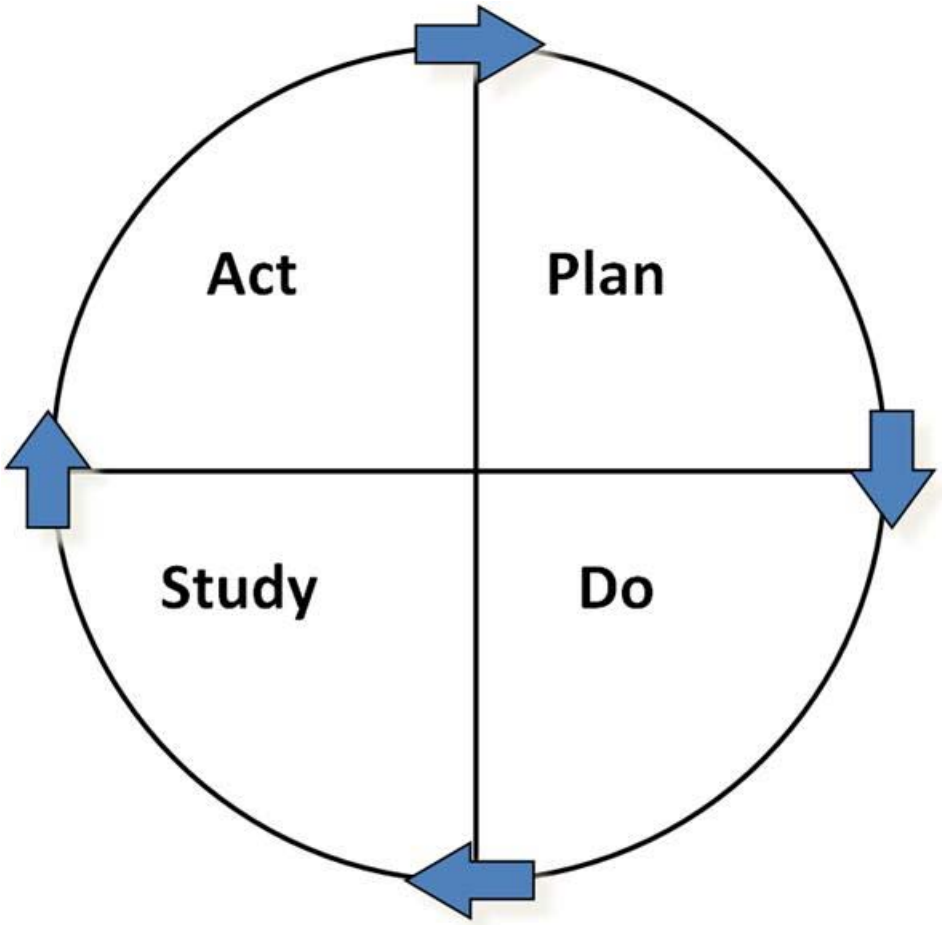
Why we PDSA

- Fast – We have a short attention span
- Low risk – no harm option
- Try everything
- Create confidence
- Learn how to adapt
- Evaluate side-effects
- Build momentum
- Decrease resistance
- Make REAL improvement

The PDSA Cycle



Learning with the PDSA cycle: Plan



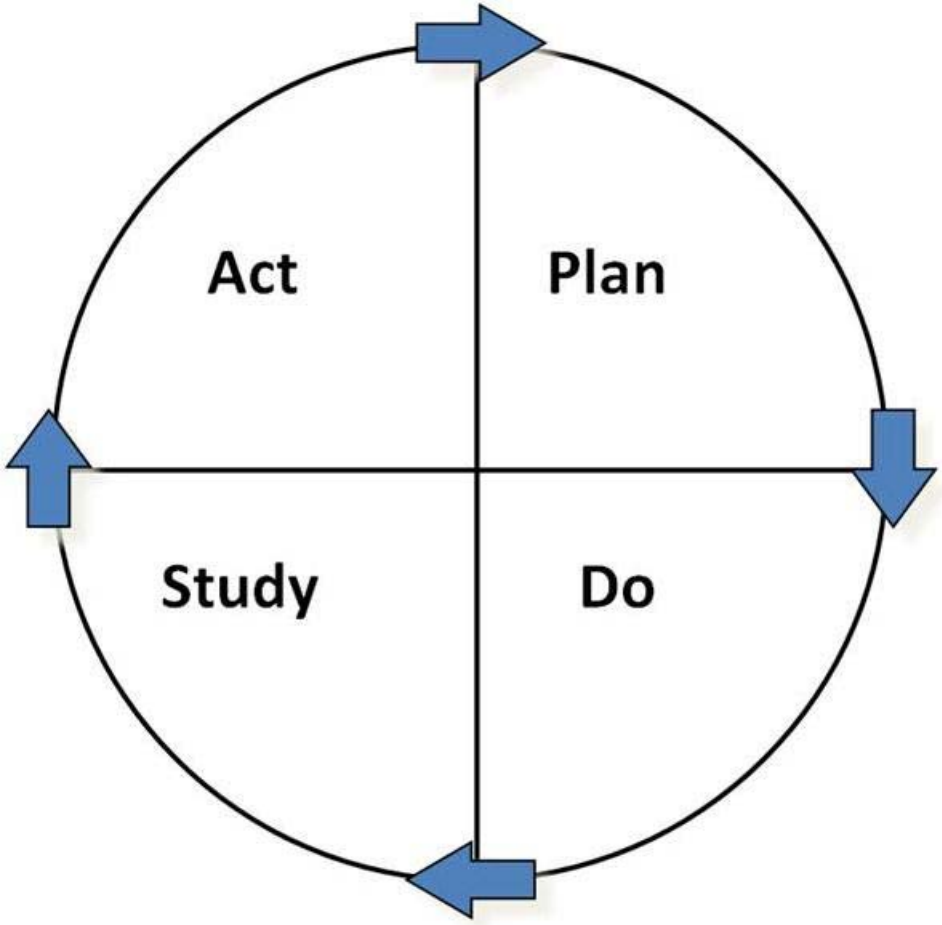
PLAN

Prediction If ____ Then____

Plan to carry out the test (who, what, when?)

Plan for data collection

Learning with the PDSA cycle: Do



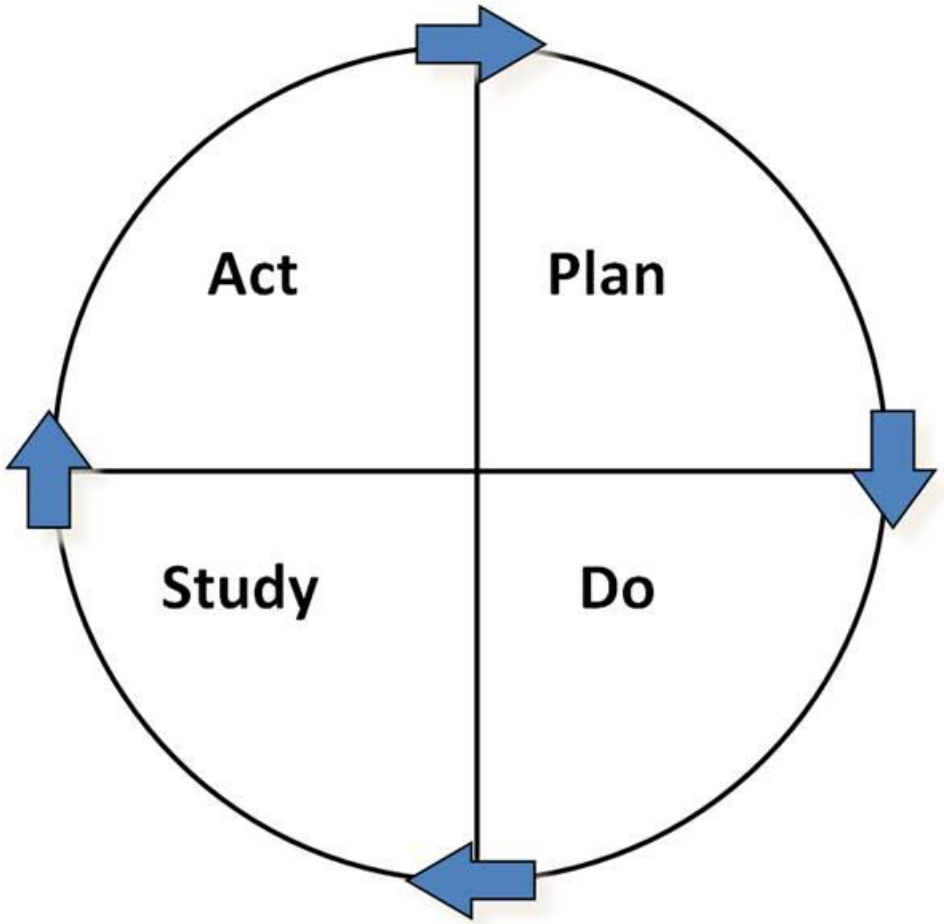
DO

Carry out the plan

Document observations – successes/unexpected issues

Begin analysis of data

Learning with the PDSA cycle: Study



STUDY

Compare to prediction

What did you learn

What was unexpected

What about the data

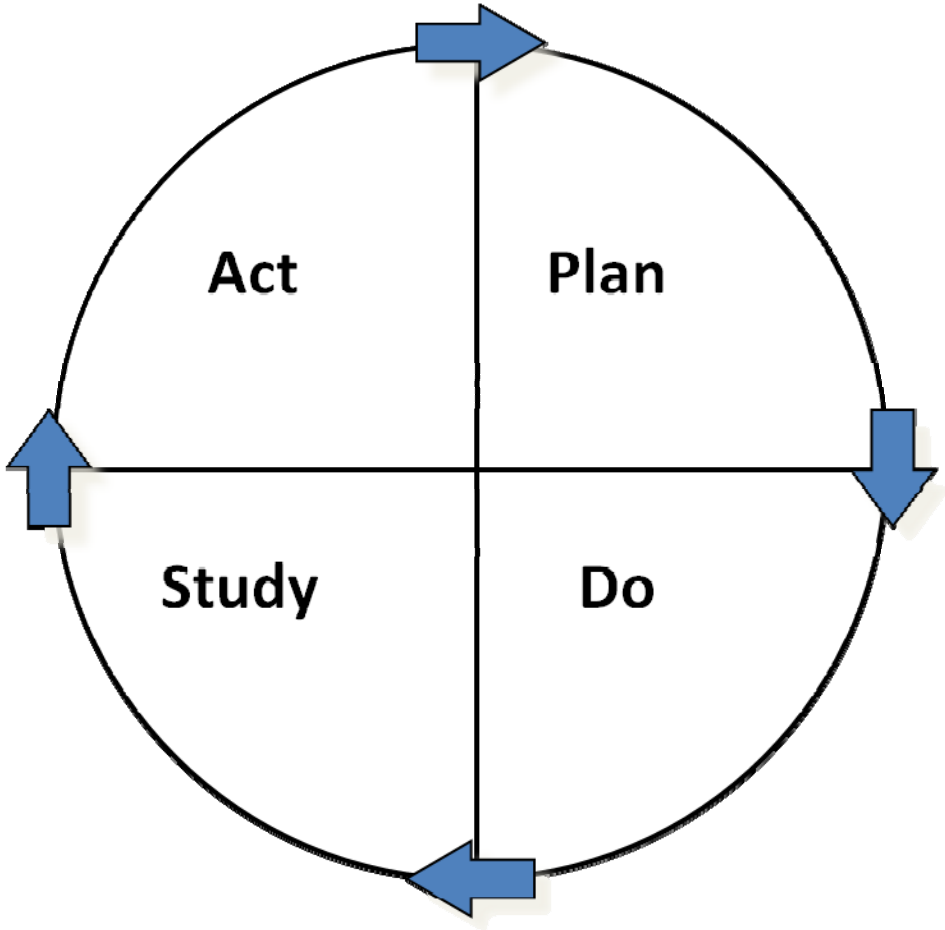
Learning with the PDSA cycle: Act

ACT

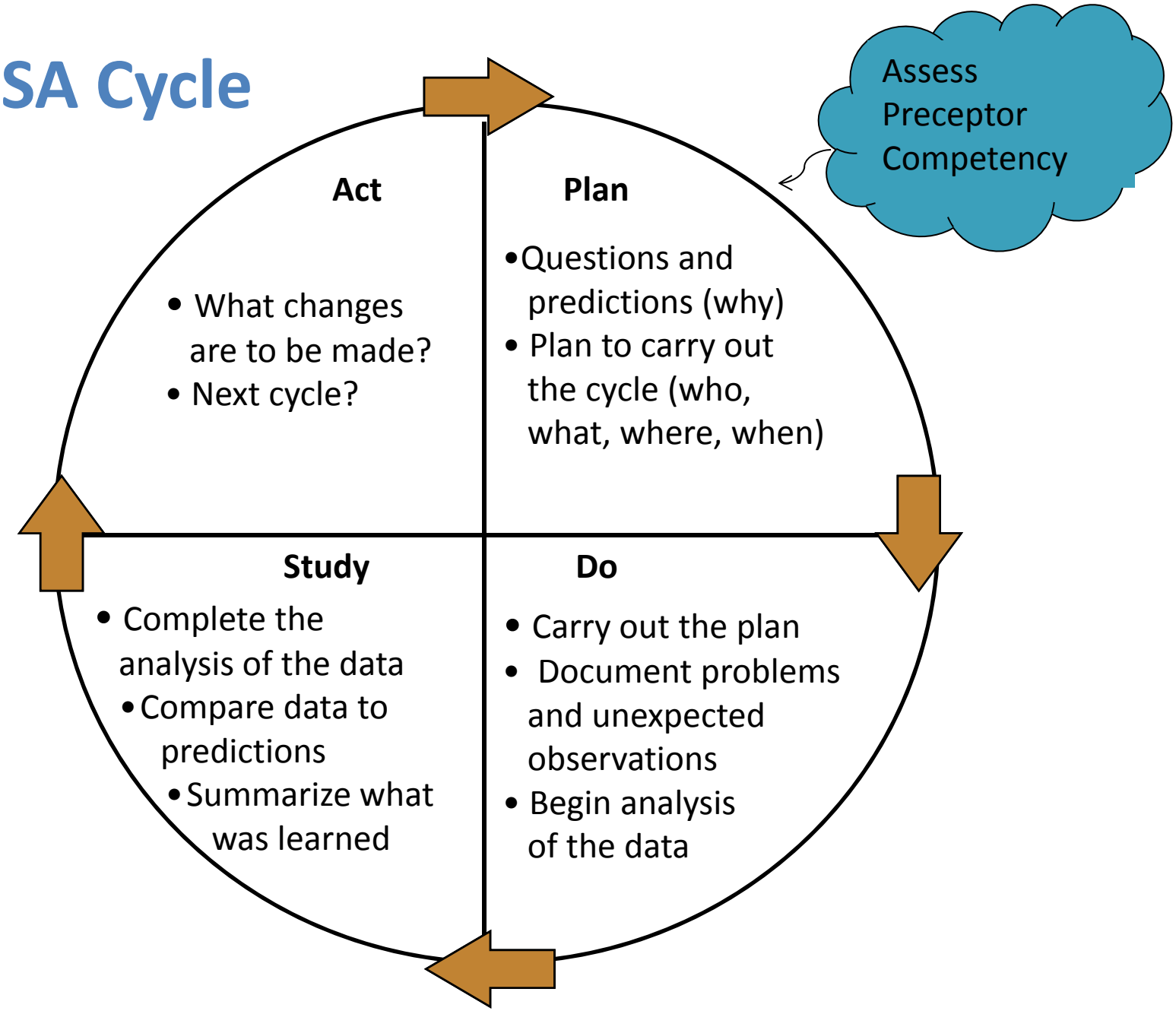
Select an action based on the results of the test:

- Adopt
- Adapt
- Abandon

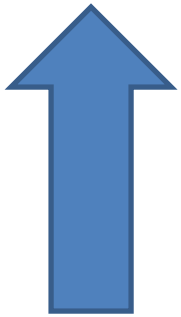
If appropriate, plan next test



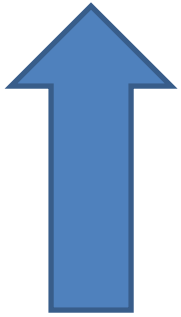
The PDSA Cycle



Testing Accomplishes

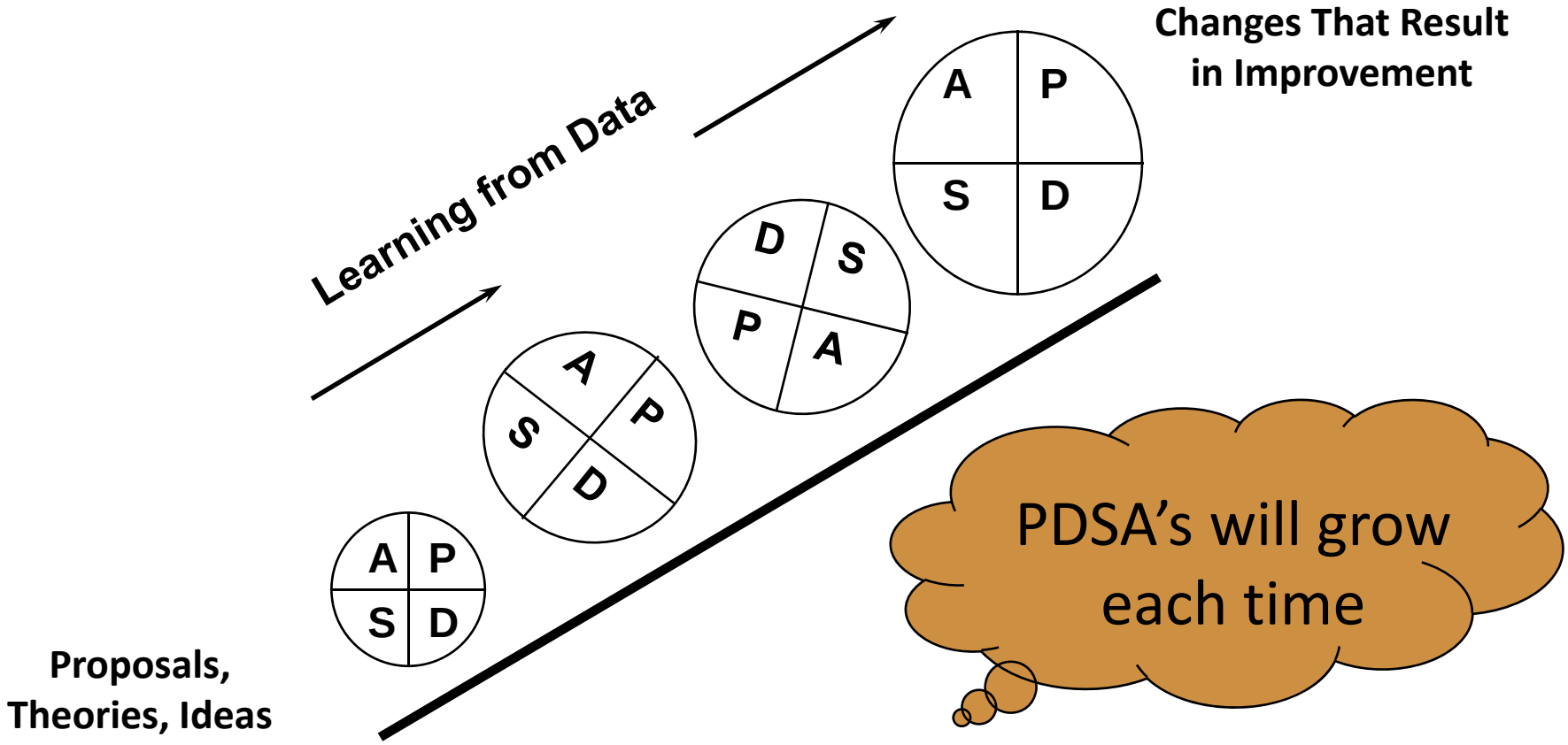


Belief that the idea is a good idea – people are better off because of it

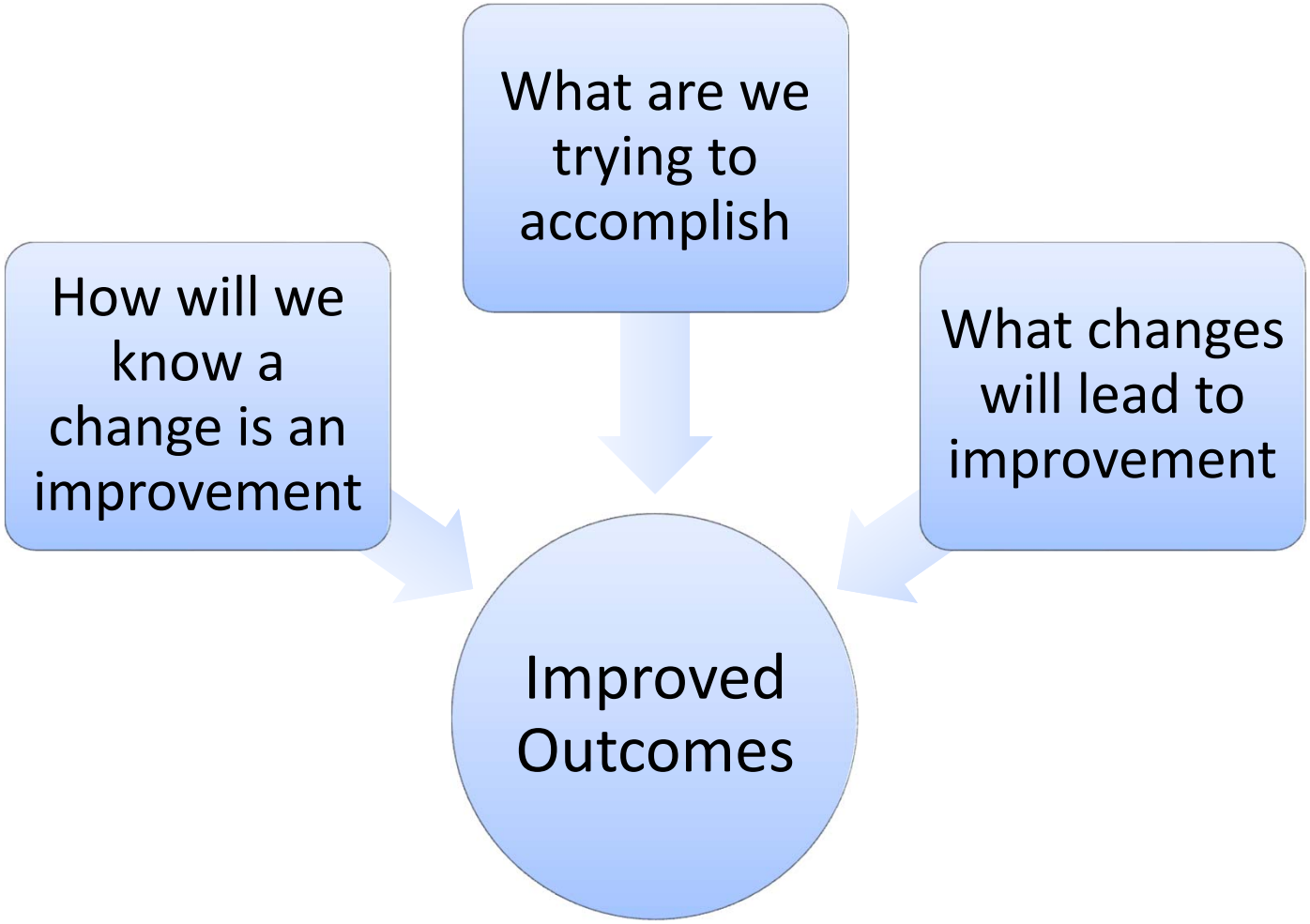


Improved process to make sure everyone experiences the new idea
(once we know it works)

Use of the PDSA Cycle



Simple yet balanced



Next Steps

Strategies for applying RCQI

½ day Workshop to Project Officers

June 23rd


ANY
questions?

Please go to…

https://lms.learning.hhs.gov/Saba/Web/Main/goto/GuestCourseDetailURL?otId=cours0000000000478334&callerPage=/learning/offeringTemplateDetails.xml

to answer a few survey questions and receive credit for this course!