



Using the AQIP Quality Tools

Wednesday, January 20, 2010

12:00-1:00 p.m.

CTL (CM-1120)

Presenter: Steve Robinson

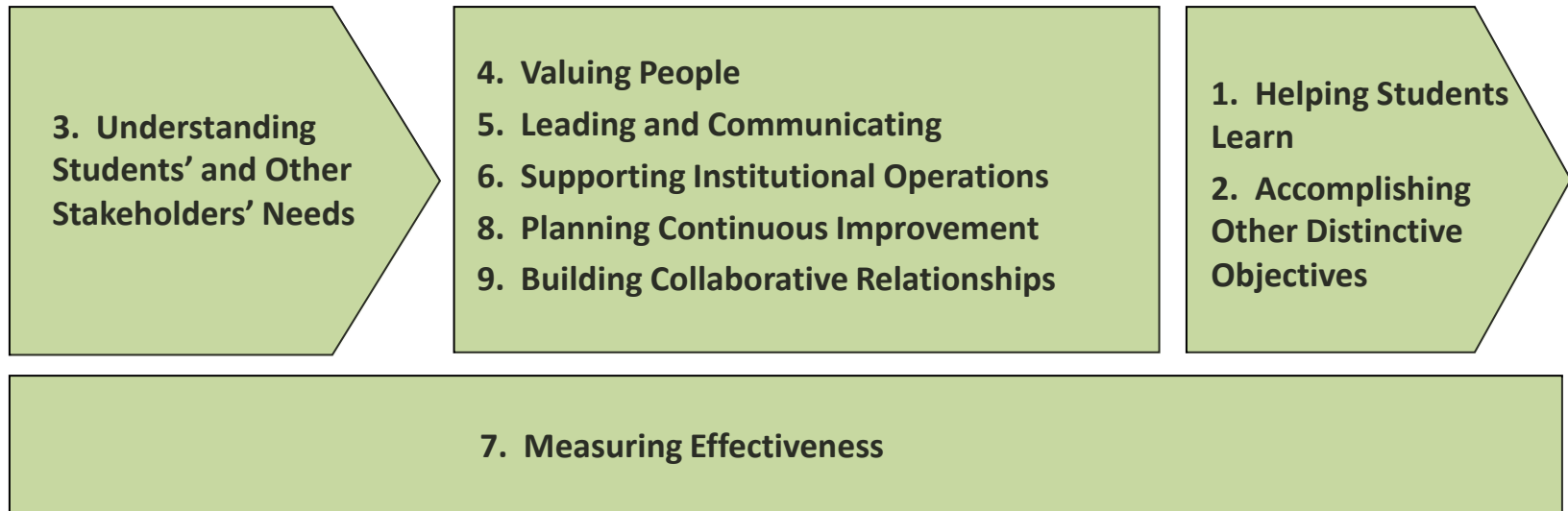
CTL Session Description

AQIP isn't just for accreditation! In this brief session, Steve Robinson will explain the 7-steps of continuous quality improvement and how they can be applied to nearly any project or problem-solving process. Steve will also review and explain several useful quality tools.

*“All models are wrong;
some models are useful.”*

—George Box

AQIP Quality Framework



1	2	3	4	5	6	7
Identify area for improvement	Define current situation	Analyze current situation	Develop an improvement theory	Implement best strategies	Monitor results	Adjust, standardize, or plan further

Stages in Quality Development

1. **Reacting Approaches**
2. **Systematic Approaches**
3. **Aligned Approaches**
4. **Integrated Approaches**

Source: Systems Portfolio Guide: A Resource For Creating Your Systems Portfolio
Academic Quality Improvement Program (AQIP)

Reacting Approaches

The organization sees its operations as activities rather than processes. Operations primarily respond to immediate needs or problems and don't concentrate much on anticipating future requirements, capacities, or changes. Goals are implicit and poorly defined. There are lots of "informal" procedures and processes. "Putting out fires" seems more important than preventing them.

Systematic Approaches

The organization is at the beginning stages of conducting its operations by repeatable, consistent processes that it can evaluate and improve. It has begun to see the value of making explicit the goal of every activity, procedure, and process and of designing “proactive” processes that prevent rather than discover problems. There are early signs of closer coordination among organizational units, with effective processes being deployed across the organization. Strategy and quantitative goals are being defined. The walls between organizational “silos” are beginning to erode.

Aligned Approaches

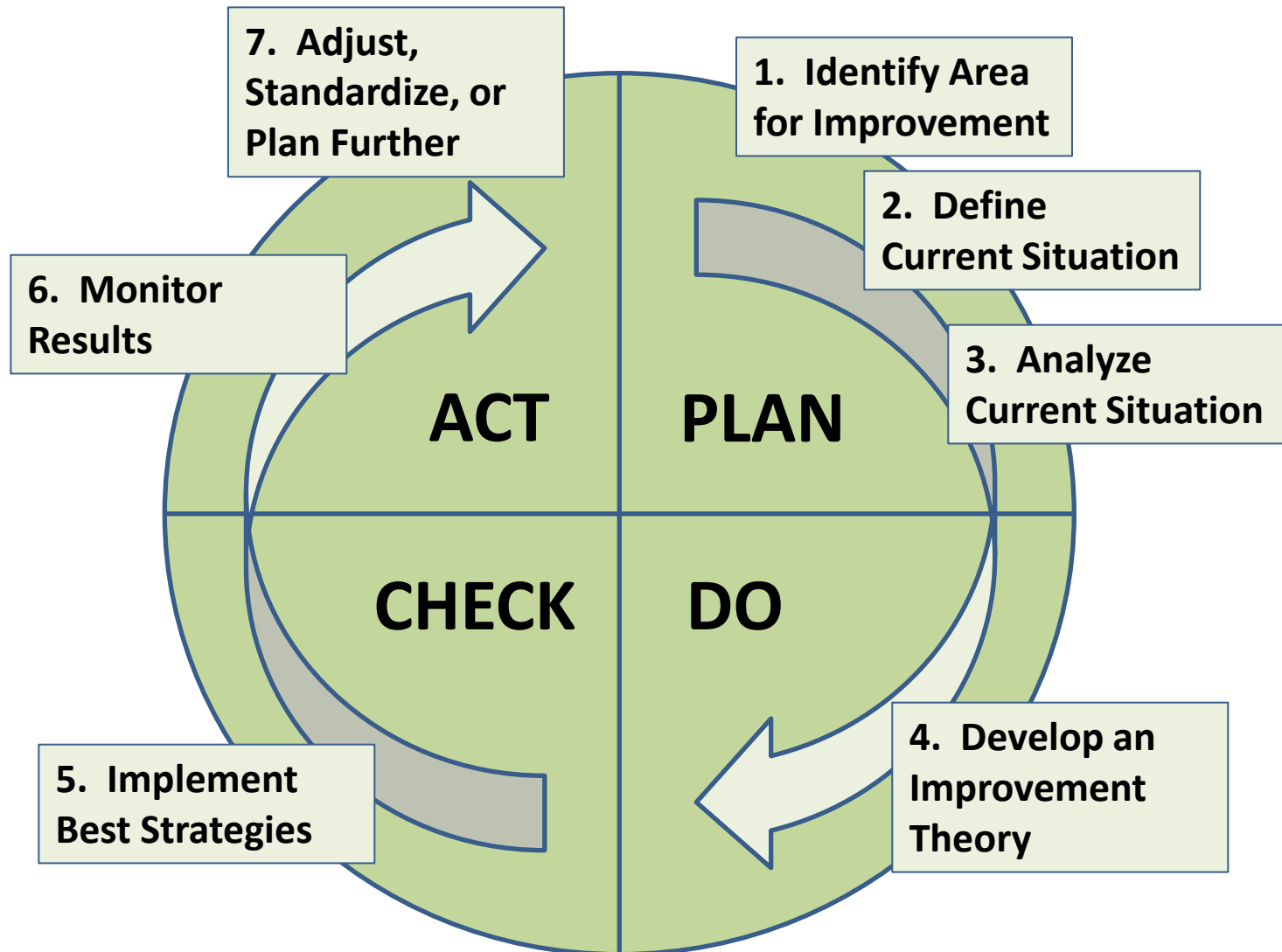
The organization groups and manages operations as processes that are repeatable and regularly evaluated for improvement. It strives to make sure that what is learned is shared among organizational units. Its processes address the organization's key goals and strategies. Coordination among units, divisions, and departments is a major emphasis. People see “the big picture” and relate what they do to organizational goals and strategies.

Integrated Approaches

Operations are characterized by processes that are repeatable and regularly evaluated for change and improvement in collaboration with other affected units. Efficiencies across units are sought and achieved through analysis, innovation, and sharing. Processes and measures track progress on key strategic and operational goals. Outsiders request permission to visit and study why the organization is so successful.

*Source: Systems Portfolio Guide: A Resource For Creating Your Systems Portfolio
Academic Quality Improvement Program (AQIP)*

PDCA Cycle (7-Step CQI Process)



PLAN

- 1. Identify Area for Improvement**
- 2. Define Current Situation**
- 3. Analyze Current Situation**

An organization achieves consensus on where improvement efforts should be directed—best if this is followed by a formal problem statement or project charter.

PLAN (continued)

2. Define Current Situation

3. Analyze Current Situation

*Notice that **DEFINITION** and **ANALYSIS** are separated here. Normally we seek to jump right into analysis (and therefore prescription); teams need to be disciplined to **DEFINE** without finger-pointing or blame before any real **ANALYSIS** can begin.*

DO

4. Develop an Improvement Theory

This is the real ACTIVE (doing) part of the process—stakeholders with various perspectives on the process use the information gathered in the previous steps to formulate a theory of what will make things better.

CHECK

5. Implement Best Strategies

This is where we usually stop. Notice that this implementation step is part of the CHECK cycle; this is not the ultimate solution, but a CHECK to see if the improvement theory is correct—does this action improve the process?

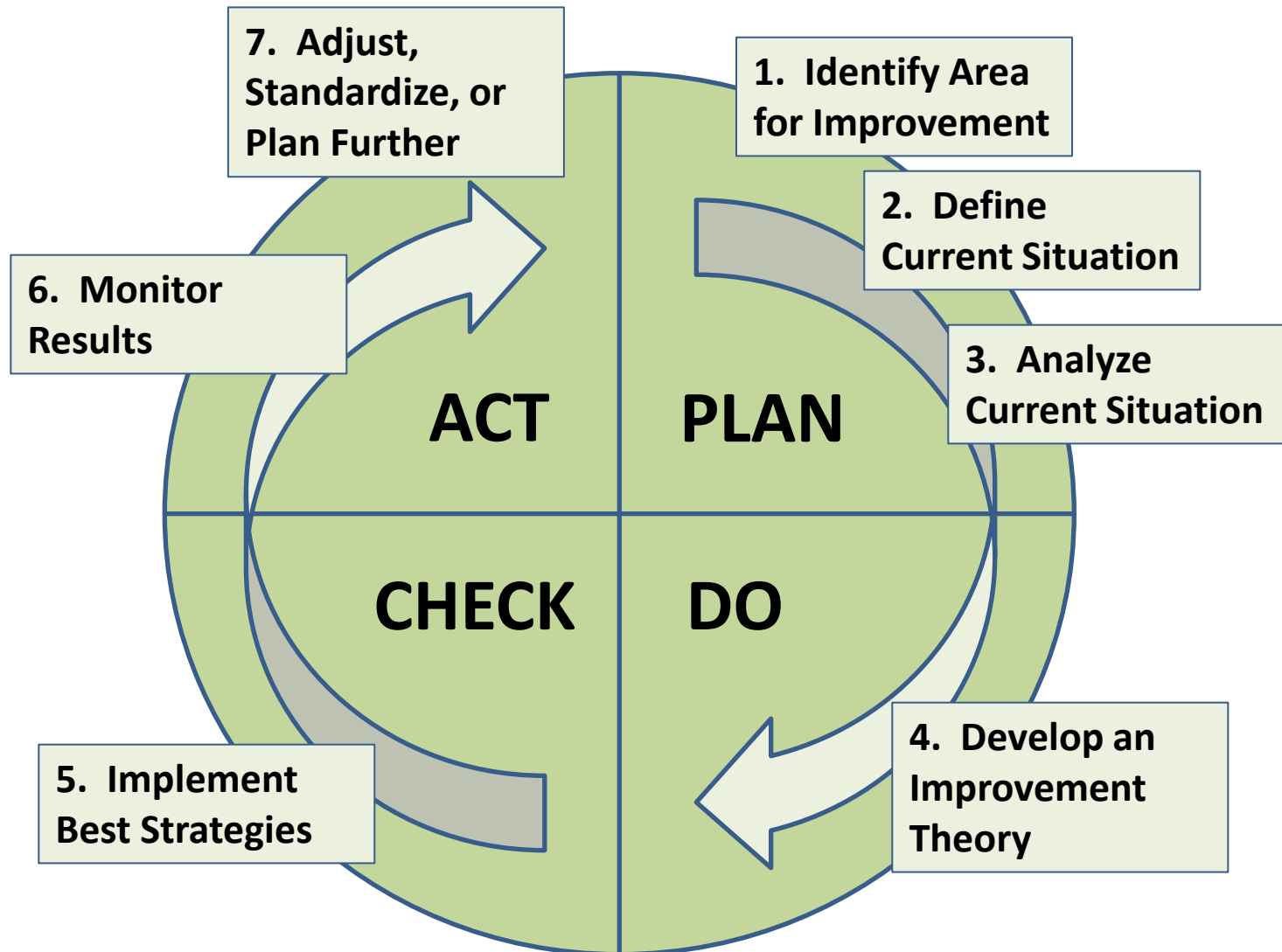
ACT

6. Monitor Results

7. Adjust, Standardize, or Plan Further

Often overlooked! If the implementation of best strategies makes the process better, we often move on and look for the next problem. It's important to monitor the process improvement over time and continue to adjust, innovate, or document it.

PDCA Cycle (7-Step CQI Process)



7 Classic Quality Tools

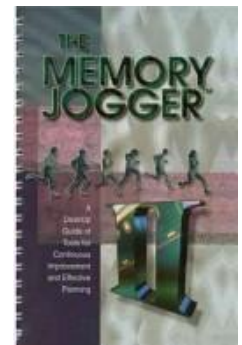
1. **Fishbone Chart.** Identifies multiple causes for an effect or problem; sorts ideas into useful categories.
2. **Check Sheet.** A form for collecting and analyzing data; generic tool that can be adapted for a variety of purposes.
3. **Control Chart.** Graphs used to study changes in a process over time.
4. **Histogram.** Graph used for showing frequency distribution, or how often each value in a data set occurs.
5. **Pareto Chart.** Displays on a bar graph which factors are more significant.
6. **Scatter Diagram.** Graphs pairs of numerical data, one variable on each axis, to look for a relationship.
7. **Flowchart.** Separates data gathered from a variety of sources so that patterns can be identified.

4 Immediately Useful Tools

1. **Affinity Mapping:** Helps groups identify themes in large data sets and discover overlapping or synergistic ideas.
2. **Fishbone Diagram:** Helps identify causes and effects and sorts ideas into useful categories.
3. **Process Flow:** Helps describe the current state of a process and identify relationships (excellent for Step 2).
4. **Pareto Chart:** Focuses on identifying, describing and prioritizing problems or root causes.

excerpts from:

Brassard, Michael. *Memory Jogger II Desktop Guide*.
Goal/QPC, 2003.





QUESTIONS/DISCUSSION