

The Model for Improvement and PDSA

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So Many Choices...

Where to Begin?

- Model For Improvement (MFI) and Plan-Do-Study-Act (PDSA)
- Baldrige
- ISO Quality Management Systems
- Lean
- Reliability Science
- Human Factors
- Situation-Background-Assessment-Recommendation (SBAR)
- Six Sigma

Three Fundamental Questions for Improvement

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in an improvement?

Model for Improvement

What are we trying to accomplish?

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What Are We Trying to Accomplish?

Developing an Aim

- State the aim clearly
- Use numerical goals
- State the time frame and site of the work

Example: “By the end of 2019, our NH will decrease the percentage of LS residents with facility acquired pressure ulcers by 25% through the application of the SKIN bundle

How Will We Know That a Change Is an Improvement?

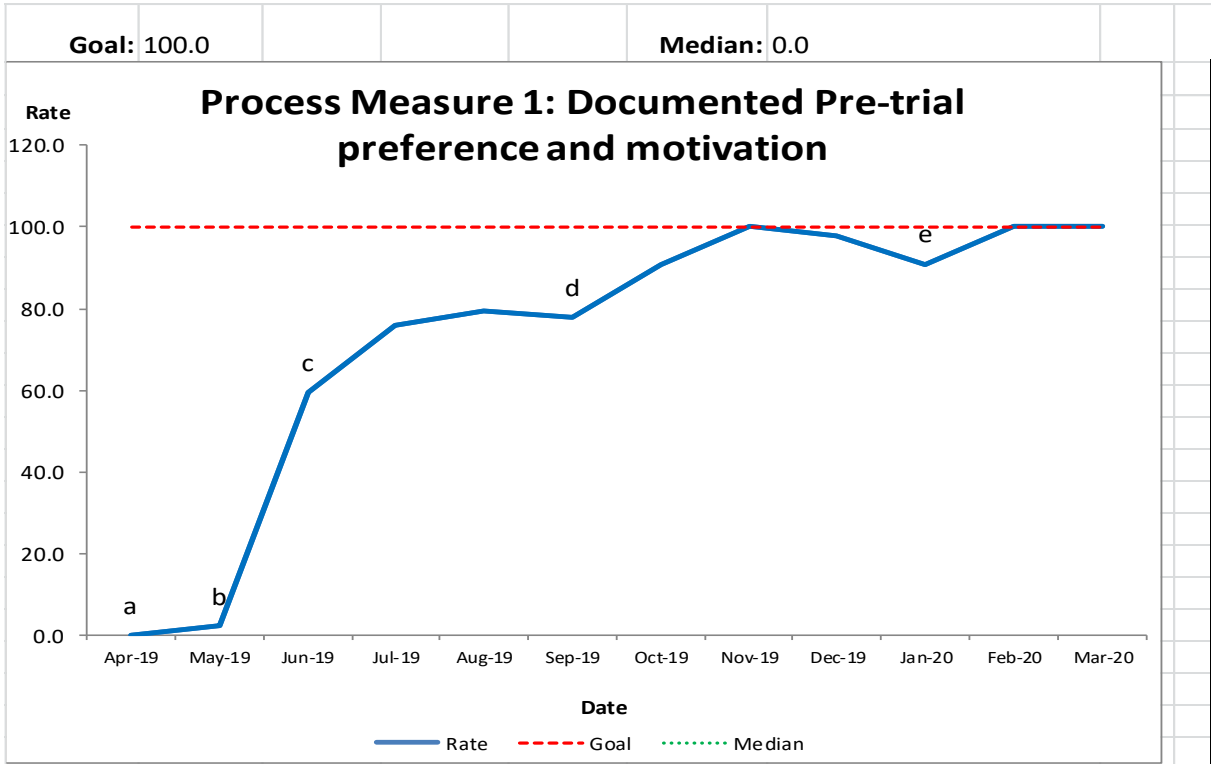
Measurement Basics

- Just enough!
- Qualitative vs. quantitative
- Should not take more time nor effort than the improvements or system
- Monthly measures should clarify your aim statement and make it realistic

Measurement Basics (cont'd)

- Integrate measurement into the daily routine
- Plot measures monthly
- Use a balanced set of five to seven measures to assure that the system is improved

Example: Annotated Run Chart



Annotations:

a	Inserviced all staff on interview technique
b	designated "interview specialists"
c	expanded "interview specialist" to cover all units and weekends
d	prompted voiding added as option in standing orders for admission
e	turnover in designated interview specialists



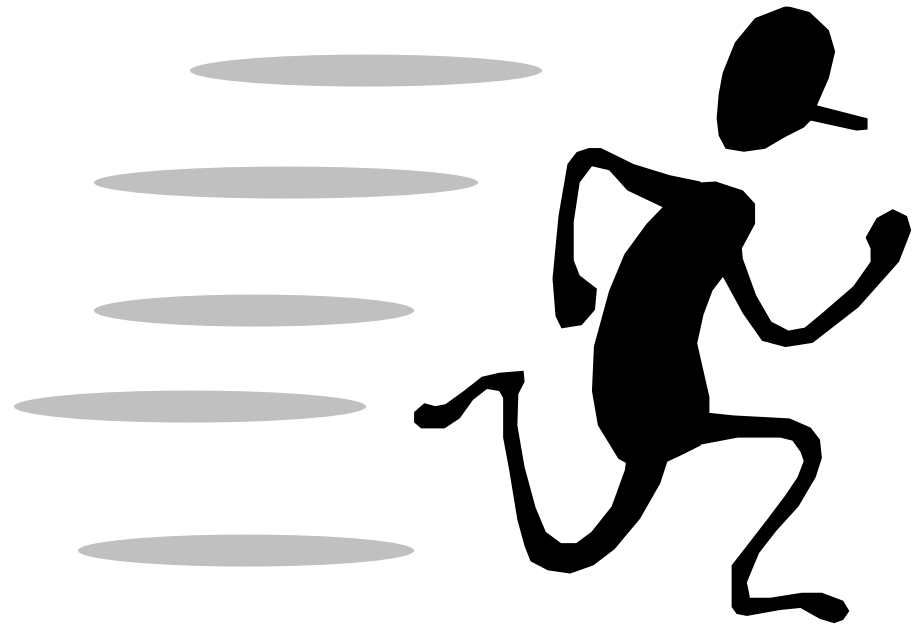
What Change Can We Make that Will Result in Improvement?

Change Ideas

- Everything goes!
- Think outside the box!
- Borrow from other disciplines, organizations, topics.
- Proven change packages (e.g., Vanderbilt, INTERACT, IHI's Campaigns, literature, etc.)

Accelerating
Improvement:

**PDSA Cycles
Paired with the Model
For Improvement**

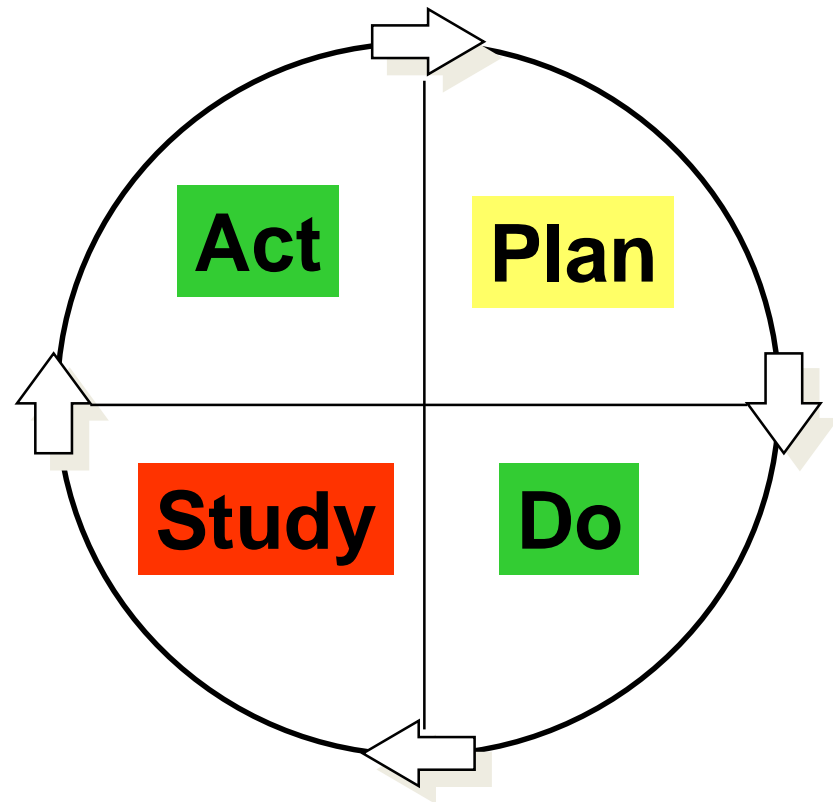


The PDSA Cycle

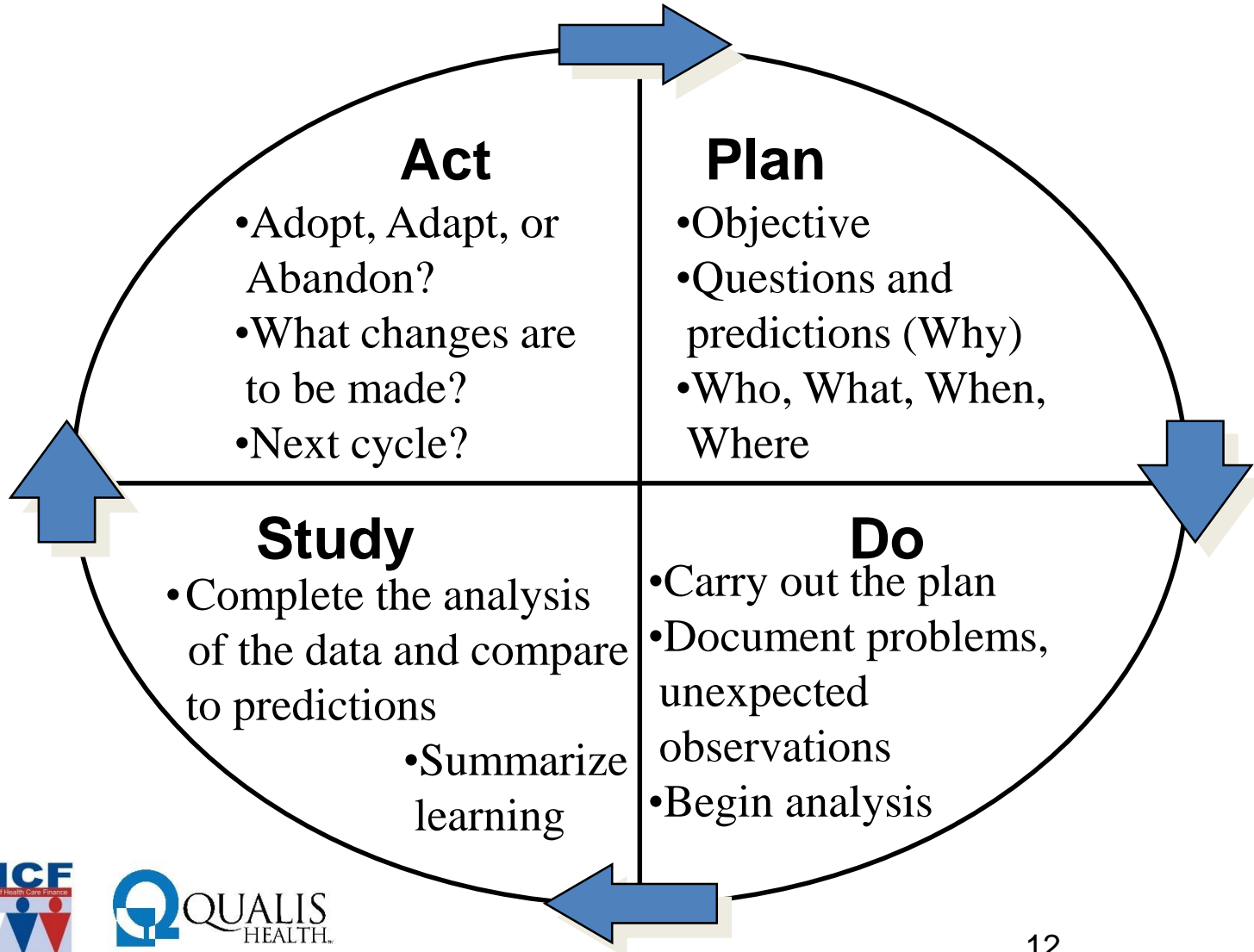
Four Steps: Plan, Do, Study, Act

Also known as:

- Shewhart Cycle
- Deming Cycle
- Learning and Improvement Cycle

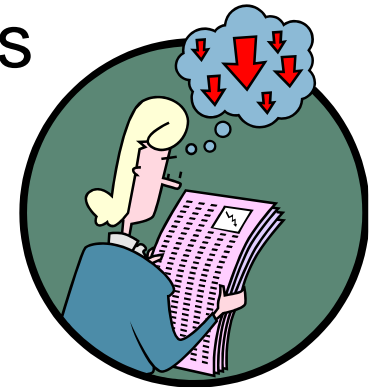


PDSA Cycle for Learning Improvement



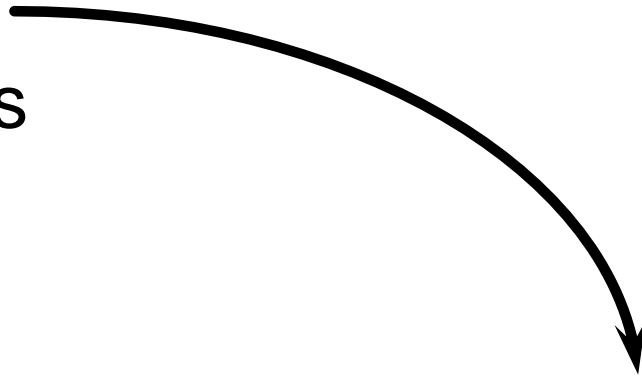
Testing on a Small Scale

- Pick the most likely helpers
- Use existing knowledge from co-workers
- Incorporate redundancy in the test
 - Side-by-side with the existing care system
 - Try the change two different ways
- “Cycle of 1” - Conduct the test in one wing, with one person, with one subject, etc.
- Develop a plan to simulate the change in some way



Decrease the Time Frame for a PDSA Test Cycle

- Years
- Quarters
- Months
- Weeks
- Days
- Hours
- Minutes



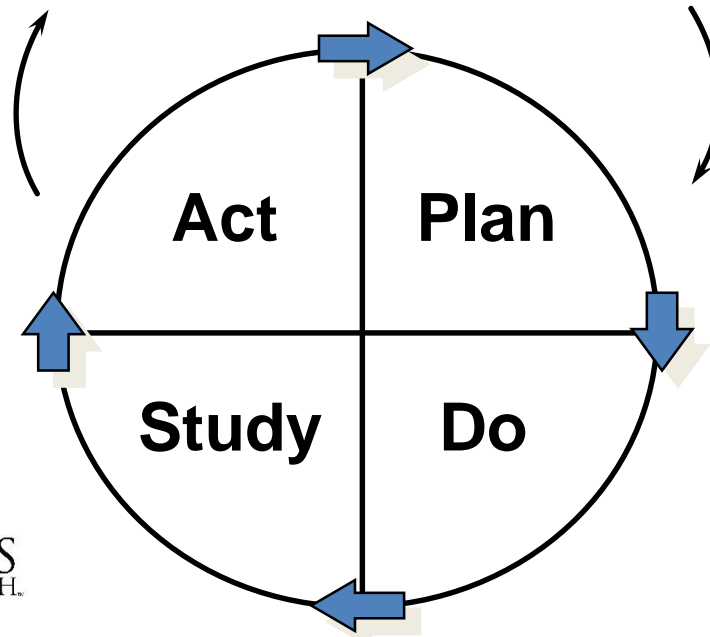
*Drop next down
two levels to plan
test cycle!*

Model for Improvement

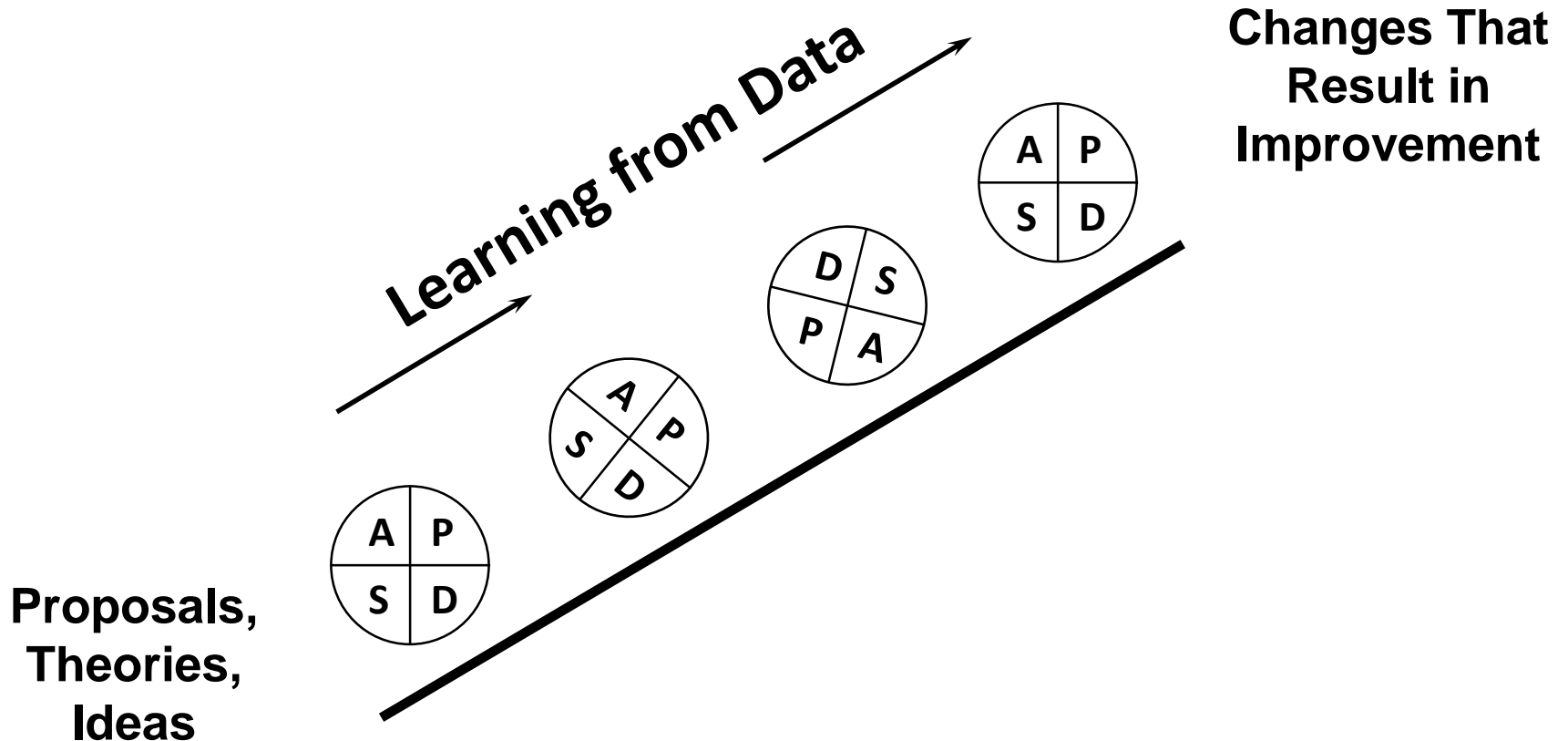
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Repeated Use of the PDSA Cycle

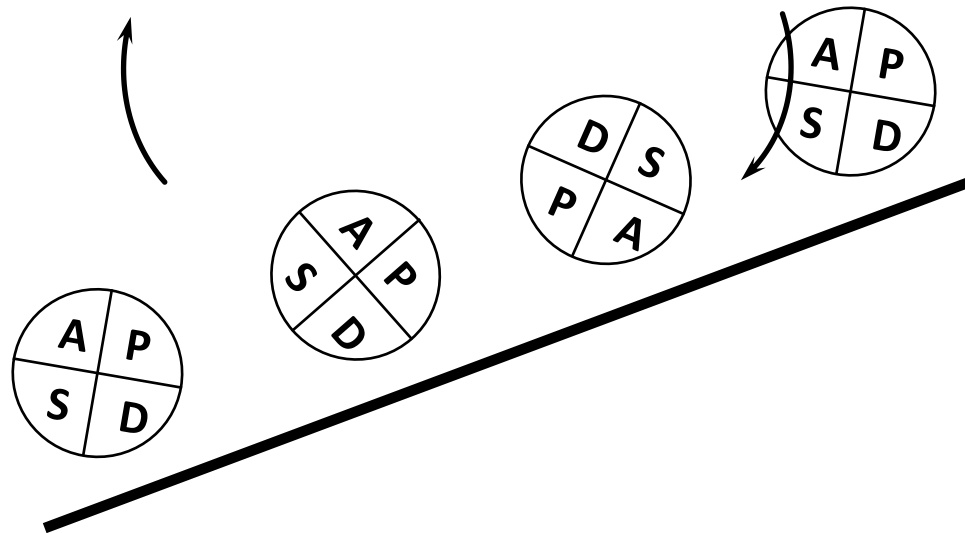


Model for Improvement

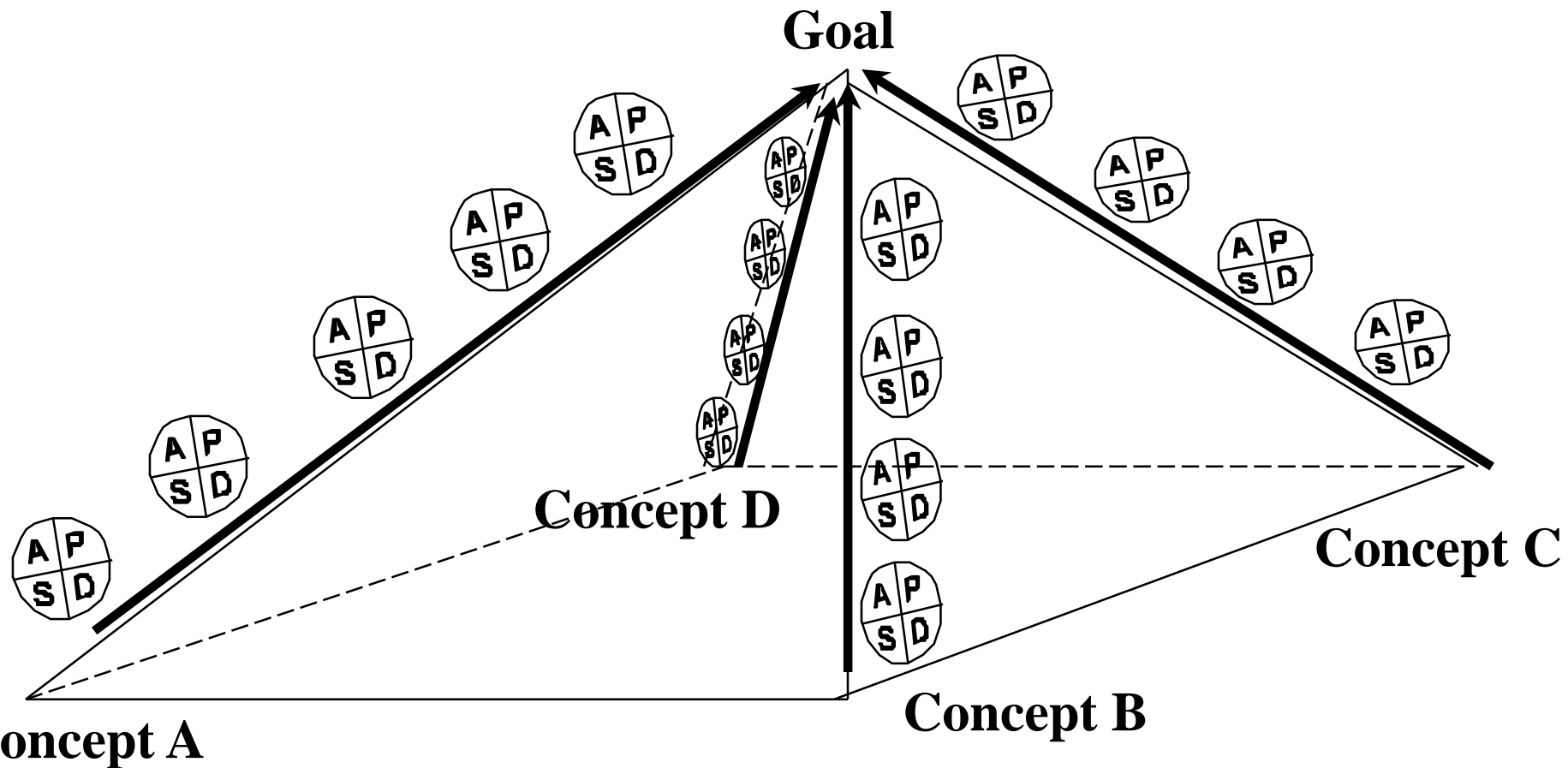
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Aligning all the Pieces to Reach the Goal



Change Concepts, Theories, Ideas

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Do you always need to test? It depends.....

Current Situation		Resistant	Indifferent	Ready
Low Confidence <i>That change idea will lead to improvement</i>	Large <i>Cost of failure</i>	Very, very Small Test	Very, very Small Test	Very, very Small Test
	Small <i>Cost of failure</i>	Very Small Test	Very Small Test	Small Test
High Confidence <i>That change idea will lead to improvement</i>	Large <i>Cost of failure</i>	Very Small Test	Small Test	Large Test
	Small <i>Cost of failure</i>	Small Test	Large Test	Implement

Games for Teaching Quality Improvement to Staff

Airplane game

Tabletop football game

Tennis ball game

Nut-and-bolt game



Worksheets

- Project planning
- PDSA planning
- Run charts
- Others



References

- *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance.* G. Langley, K. Nolan, T. Nolan, C. Norman, L. Provost. Jossey-Bass Publishers., San Francisco, 1996.
- “Eleven Worthy Aims for Clinical Leadership of Health System Reform,” Don M. Berwick, *JAMA*, September 14, 1994, Vol. 272, #10, p. 797-802.
- “The Foundation of Improvement.” Langley, G. J., Nolan, K. M., Nolan, T. W., 1994. *Quality Progress*, ASQC, June, 1994, pp. 81-86.
- “A Primer on Leading the Improvement of Systems,” Don M. Berwick, *BMJ*, 312: pp 619-622, 1996.

References (cont.)

- *Quality Improvement Through Planned Experimentation. 2nd Edition* R. Moen, T. Nolan, L. Provost, McGraw-Hill, NY, 1998.
- “Accelerating the Pace of Improvement - An Interview with Thomas Nolan,” *Journal of Quality Improvement*, Volume 23, No. 4, The Joint Commission, April, 1997.
- “Understanding Variation”, *Quality Progress*, Vol. 13, No. 5, T. W. Nolan and L. P. Provost, May, 1990.

Questions and Answers



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