WHAT

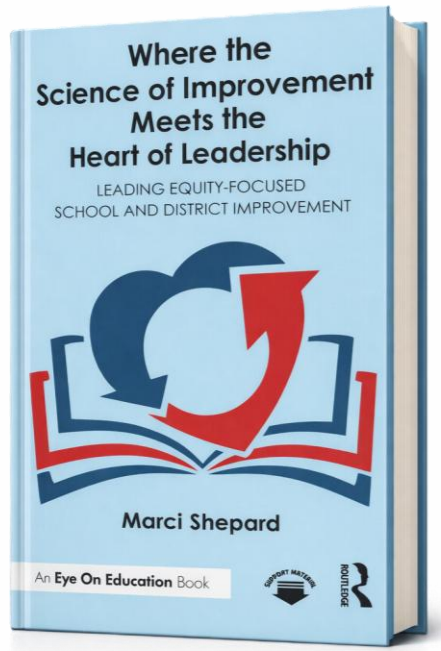
Theory, Principles, and Paradigm Shifts

Marci Shepard, PhD, EdD



Where the Science of Improvement Meets the Heart of Leadership

LEADING EQUITY-FOCUSED SCHOOL AND DISTRICT IMPROVEMENT

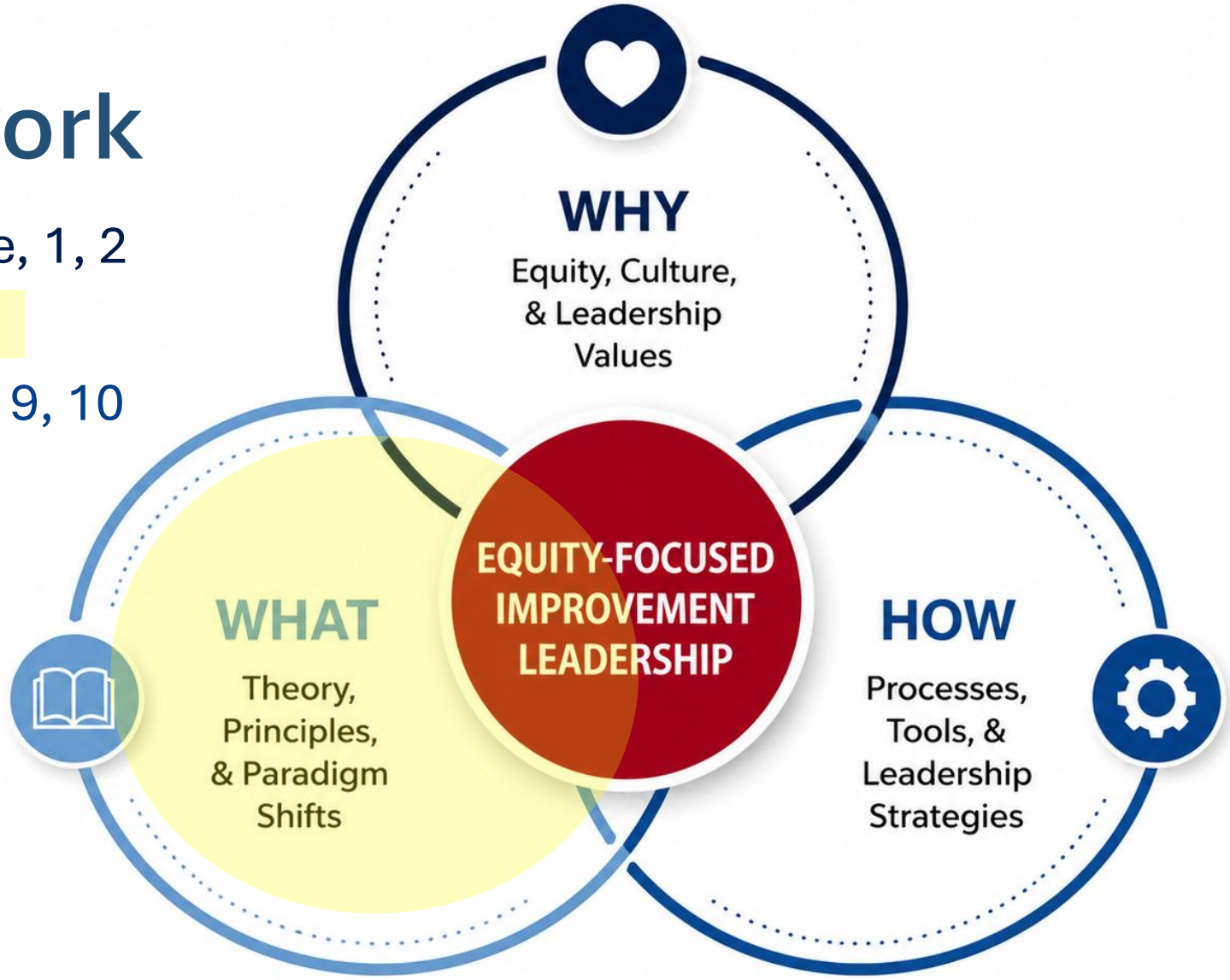


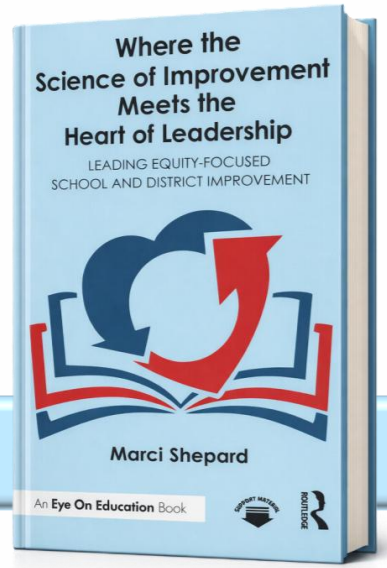
TransformEDLeadership.com

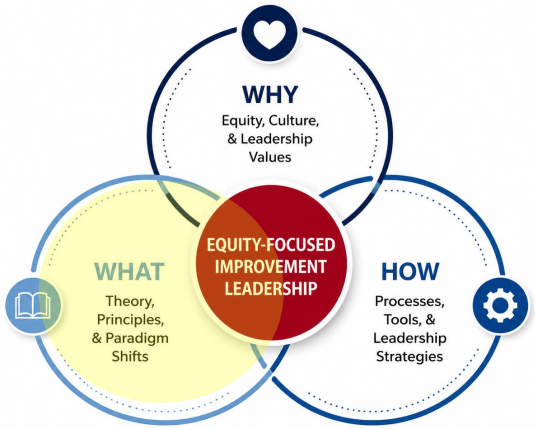
MarciShepard

Framework

- Why: Preface, 1, 2
- What: 3, 4, 5
- How: 6, 7, 8, 9, 10







Download at Routledge *Where the Science of Improvement Meets the Heart of Leadership* under Support Material.

The Instructional Design of Every Chapter

A consistent structure that moves learners from understanding to leadership.

1 PREPARE TO LEARN
Establishes the WHY

- Learning Target & Success Criteria
- Relevant NELP Standards
- Icebreaker
- Case Vignette

2 BUILD UNDERSTANDING
Develops the WHAT

- Research & Content
- Voices of Leaders

3 APPLY & EXTEND LEARNING
Practices the HOW

- Reflection Questions
- Try This Activities & Downloadable Improvement Tools
- Leadership-in-Action Story
- References

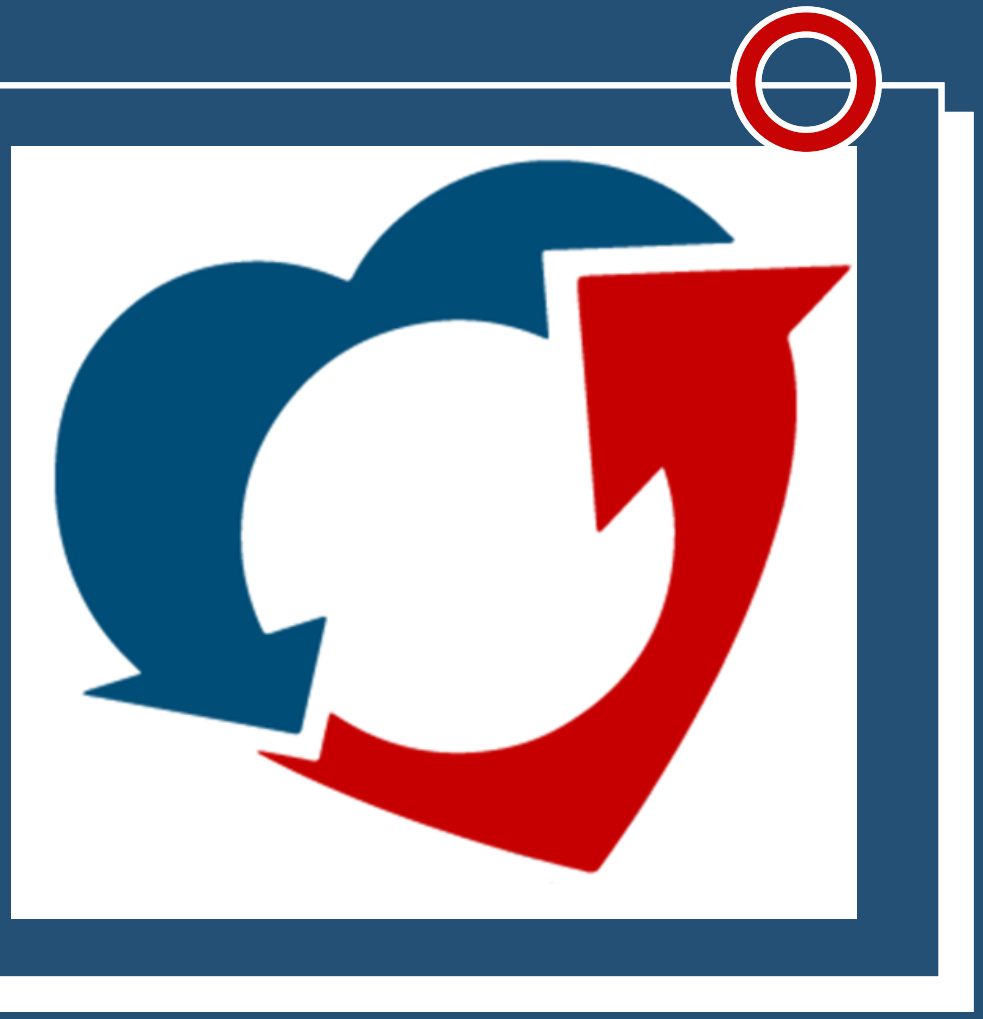


FROM **WHY** → TO **HOW**

Preparing leaders who **understand improvement**

Preparing leaders who **can lead improvement**

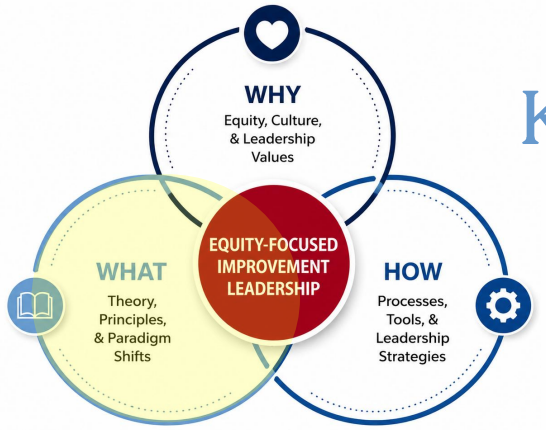
Marci Shepard



Chapter 3

Theory Behind Improvement Science

Marci Shepard

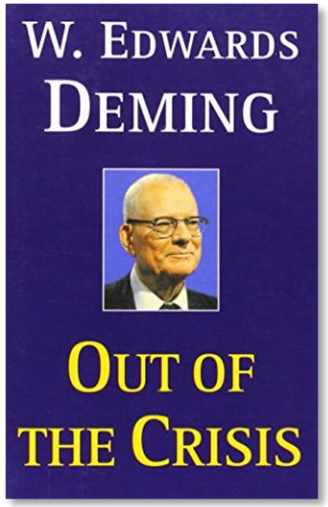


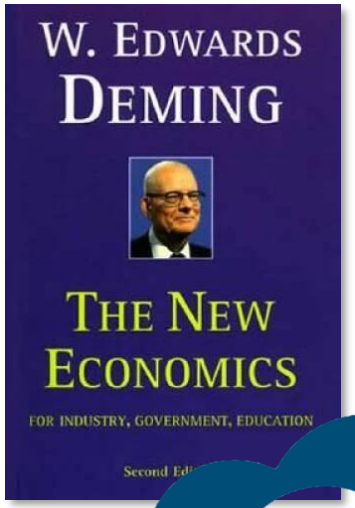
Knowledge Base for Improvement Leadership

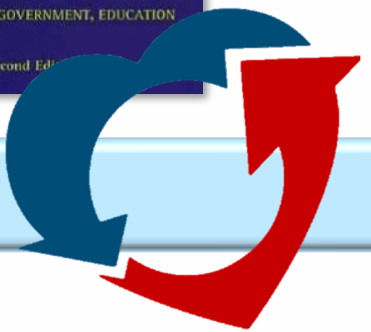
CHAPTER 3

Improvement Theory

1. Deming's System of Profound Knowledge
   - Appreciation for a System
   - Knowledge of Variation
   - Theory of Knowledge
   - Psychology of Change
2. Deming's Plan-Do-Study-Act (PDSA)
3. Deming's 14 Points for the Transformation of Management
4. Deming's Seven Deadly Diseases of Management







Thinking Differently About Leadership

CHAPTER 3

Leaders operate in systems with…

Habits

Fear

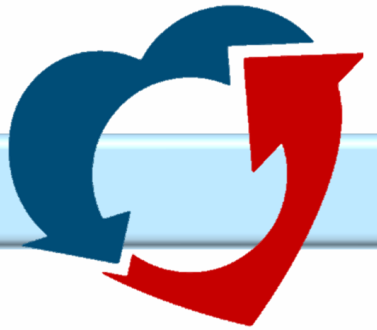
Barriers

Silos

Competing interests

Compliance

Before leaders can transform organizations, they must first transform the way they think about leadership and systems.



CHAPTER 3

Leading for System Improvement

Illustrate how Deming's four theories influence one another in units and leadership.

(Note: Show a system, not 4 boxes or a list. Consider using an illustration or boxes/arrows/ interactions)



- Which of Deming's ideas feels most absent in units today?
- Which component would most improve your current improvement culture?

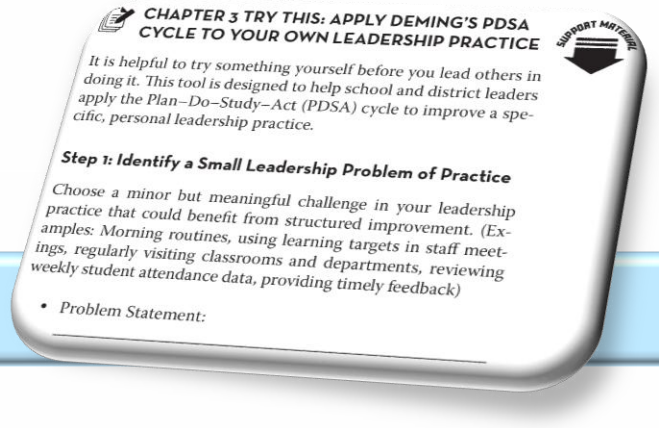
From Theory to Practice

CHAPTER 3

Chapter 3 Try This: Apply Deming's PDSA Cycle to Your Own Leadership Practice

Share with a partner:

What leadership practice did you choose, and what are you hoping to learn?


CHAPTER 3 TRY THIS: APPLY DEMING'S PDSA CYCLE TO YOUR OWN LEADERSHIP PRACTICE

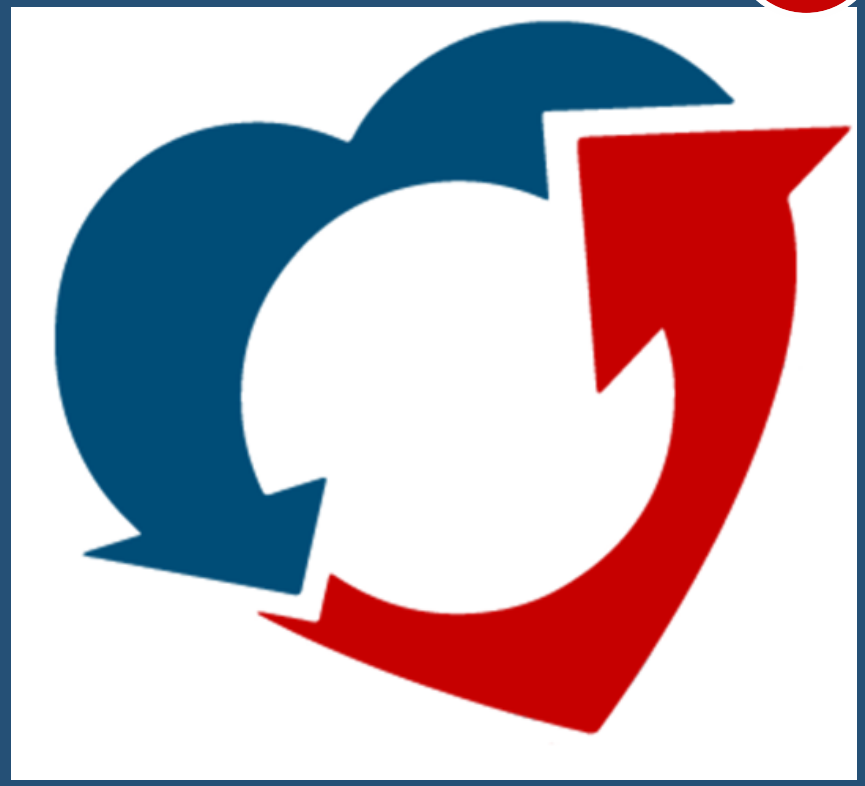
SUPPORT MATERIAL

It is helpful to try something yourself before you lead others in doing it. This tool is designed to help school and district leaders apply the Plan–Do–Study–Act (PDSA) cycle to improve a specific, personal leadership practice.

Step 1: Identify a Small Leadership Problem of Practice

Choose a minor but meaningful challenge in your leadership practice that could benefit from structured improvement. (Examples: Morning routines, using learning targets in staff meetings, regularly visiting classrooms and departments, reviewing weekly student attendance data, providing timely feedback)

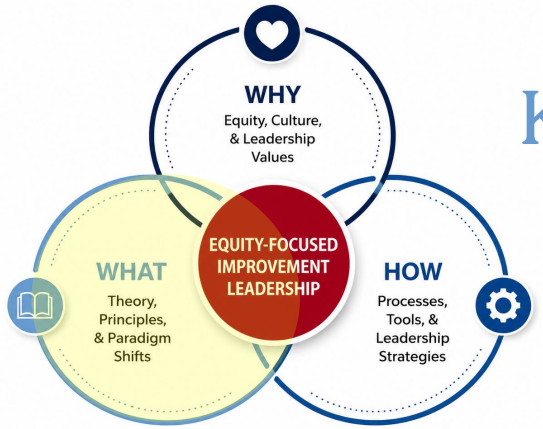
- *Problem Statement:* _____



Chapter 4

Principles of Improvement

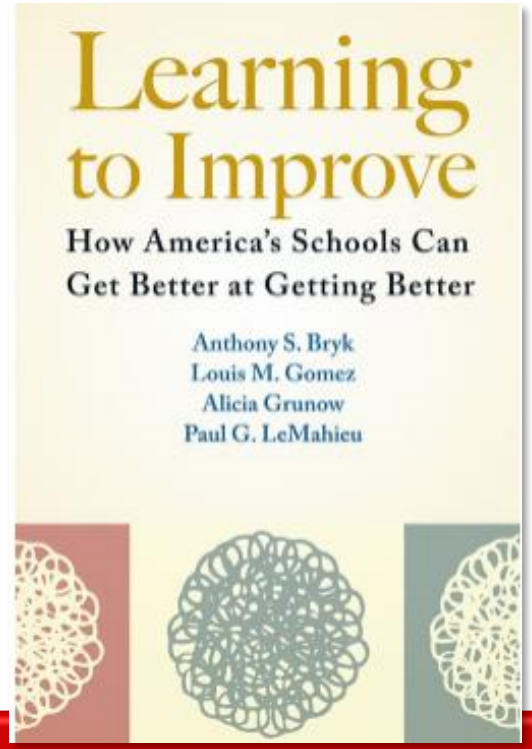
Marci Shepard



Knowledge Base for Improvement Leadership

CHAPTER 4

Improvement Principles





Appreciation for a System

Understand interrelationships and interdependencies.

Knowledge about Variation

Understand and use variation.

Theory of Knowledge

Build knowledge through prediction, testing, and learning.

Psychology

Understand people, motivation, and change.

The 6 Principles and Deming's System of Profound Knowledge



Adapted from Deming (1994) and Carnegie Foundation for the Advancement of Teaching (2018).

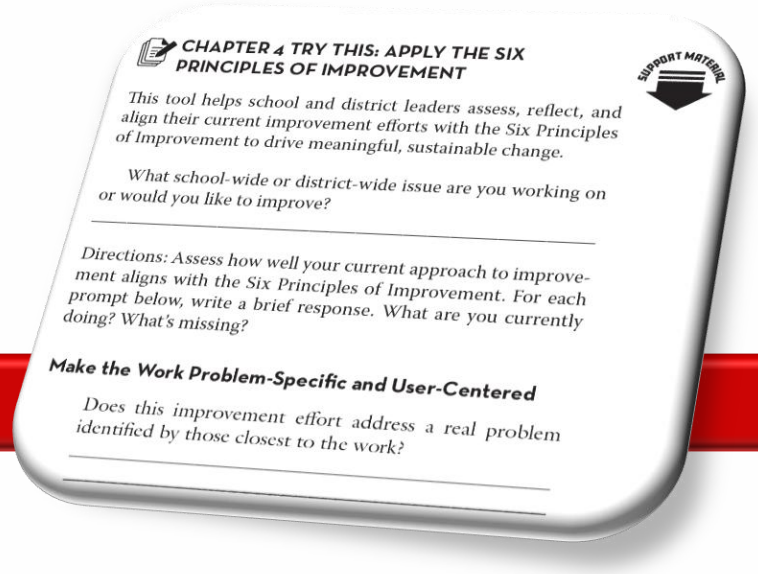
Learn About the 6 Principles of Improvement

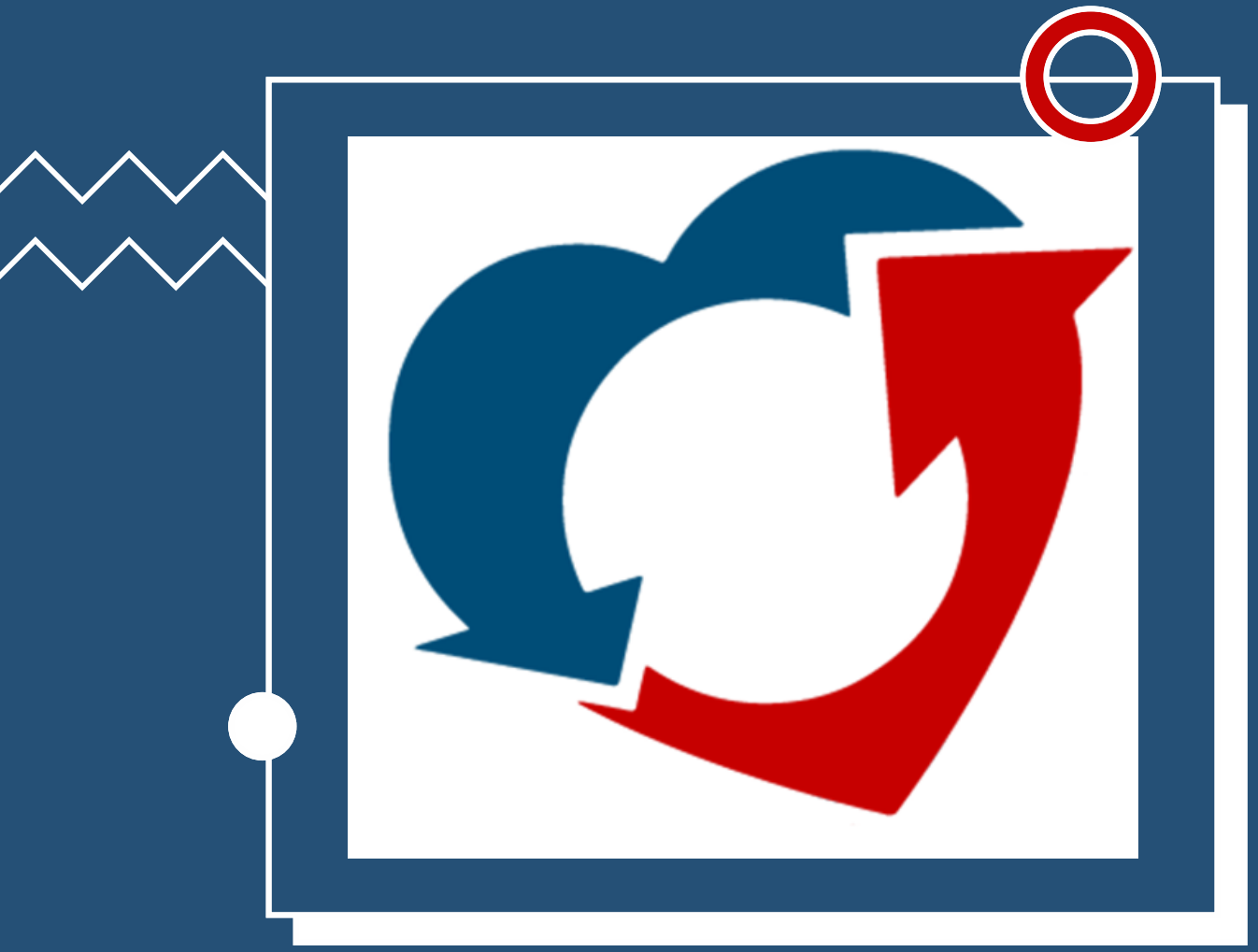
CHAPTER 4

- Count off 1–6 and join others with your number.
- Review your assigned principle. Identify key ideas and why this principle matters for leading improvement.
  1. Make the Work Problem-Specific and User-Centered
  2. Focus on Variation in Performance
  3. See the System That Produces the Current Outcomes
  4. Use Disciplined Inquiry to Drive Improvement
  5. Measure Improvement Using Practical, Real-Time Metrics
  6. Accelerate Learning Through Networked Improvement Communities (NICs)
- Each group will share about their assigned principle.

Chapter 4 Try This: Apply the Six Principles of Improvement

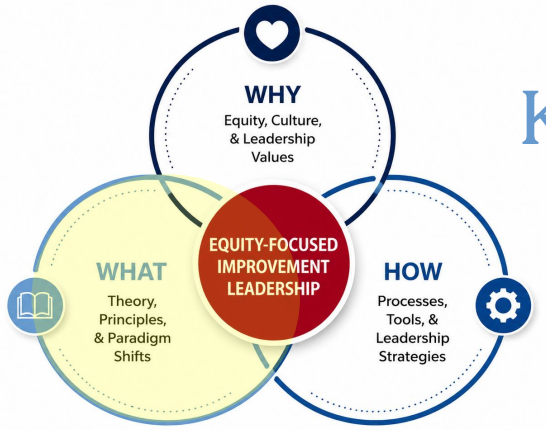
In your numbered group, share insights from your *Chapter 4 Try This*.





Chapter 5

Six Paradigm Shifts for Leading Continuous School System Improvement



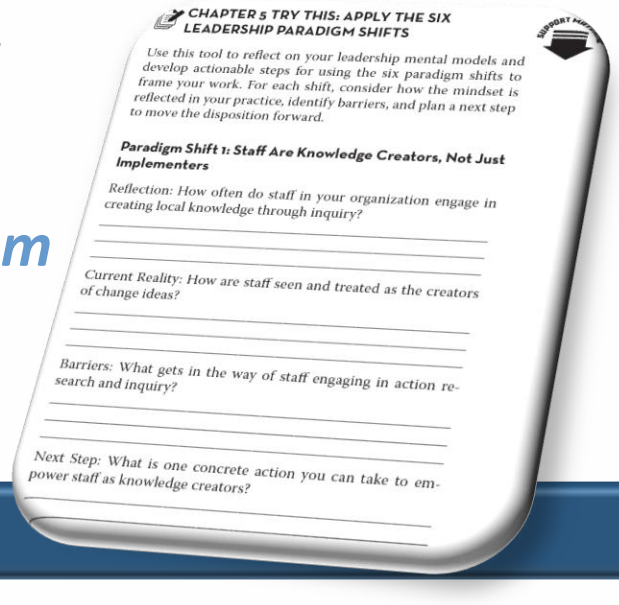
Knowledge Base for Improvement Leadership

CHAPTER 5

Improvement Leadership

A review of literature revealed key themes that bring together the heart and science of improvement leadership. The research is synthesized into six paradigm shifts that move leaders from traditional approaches toward equity-focused improvement leadership.

Using your ***Chapter 5 Try This: Apply the Six Leadership Paradigm Shifts,*** stand on the side of the room that matches where your unit currently is.


CHAPTER 5 TRY THIS: APPLY THE SIX LEADERSHIP PARADIGM SHIFTS

Use this tool to reflect on your leadership mental models and develop actionable steps for using the six paradigm shifts to frame your work. For each shift, consider how the mindset is reflected in your practice, identify barriers, and plan a next step to move the disposition forward.

Paradigm Shift 1: Staff Are Knowledge Creators, Not Just Implementers

Reflection: How often do staff in your organization engage in creating local knowledge through inquiry?

Current Reality: How are staff seen and treated as the creators of change ideas?

Barriers: What gets in the way of staff engaging in action research and inquiry?

Next Step: What is one concrete action you can take to empower staff as knowledge creators?

Paradigm Shift 1
Staff are Knowledge Creators, Not Just Implementers

CHAPTER 5

Reflect: How often do staff in your organization engage in creating local knowledge through inquiry?

Diagnose the Current Reality: How are staff currently viewed and treated in improvement work?

Choose a side and discuss with your group…

- **Knowledge Creator Side:**
  How do staff currently engage in inquiry and learning? What would deepen or expand their role as knowledge creators?
- **Implementer Side:**
  What gets in the way of staff engaging in inquiry, action research, or testing change ideas? What leadership moves could shift this?

Paradigm Shift 2
Improvement is a Team Effort, Not an Individual Act

CHAPTER 5

Reflect: Does collaboration in your school or district extend beyond surface-level cooperation into true team-driven learning?

Diagnose the Current Reality: How do teams currently engage in joint problem-solving and sharing?

Choose a side and discuss with your group…

- **Team Effort Side:**
  What conditions or mindsets could deepen team-driven improvement?
- **Individual Act Side:**
  What conditions or mindsets prevent deep team-based learning and collaboration? What leadership moves could strengthen teamwork?

Paradigm Shift 3
Failure is a Learning Opportunity, Not a Setback

CHAPTER 5

Reflect: Is failure seen as a necessary part of learning, or something to be avoided?

Diagnose the Current Reality: How does your system respond when improvement efforts do not go as planned?

Choose a side and discuss with your group…

- **Learning Opportunity Side:**
  How is failure currently used as a source of learning? What leadership moves help normalize experimentation and risk-taking?
- **Setback Side:**
  What cultural or structural factors make staff hesitant to experiment or take risks? What leadership moves could reduce fear of failure?

Paradigm Shift 4

Knowledge Must Be Shared to Accelerate System Learning, Not Just Individual Learning

CHAPTER 5

Reflect: How does learning get shared across teams, schools, or departments in your system?

Diagnose the Current Reality: What structures exist for staff to share insights, successful practices, and lessons learned?

Choose a side and discuss with your group…

- **Shared Learning Side:**
  How is learning currently shared across the system? What structures or routines could strengthen system-wide learning?
- **Individual Learning Side:**
  What limits knowledge-sharing across teams, schools, or departments? What leadership moves could remove those barriers?

Paradigm Shift 5
Meaningful Data Should Drive **Learning**, Not Just Accountability

CHAPTER 5

Reflect: Do staff view data primarily as a tool for learning or for compliance?

Diagnose the Current Reality: What types of data are most valued, and how are they currently used in decision-making?

Choose a side and discuss with your group…

- **Learning-Driven Data Side:**
  How is data currently selected and used to support improvement at the most local levels? What leadership moves could strengthen meaningful, local data use?
- **Accountability-Driven Data Side:**
  What makes it difficult for staff to access or act on data in timely and useful ways? What leadership moves could reposition data for learning?

Paradigm Shift 6
Improvement is Shaped by Culture, Not Just Strategy

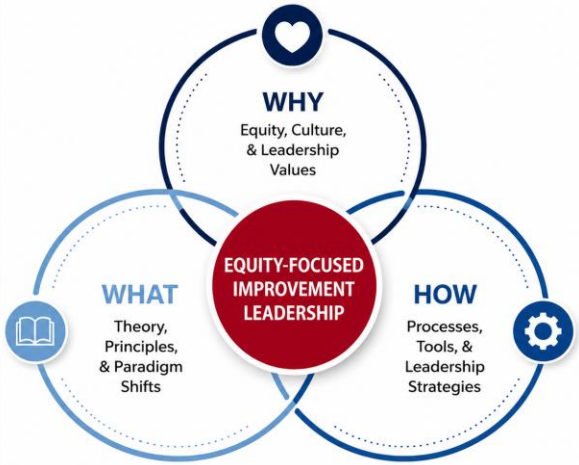
CHAPTER 5

Reflect: Does your workplace culture encourage trust, collaboration, and open communication?

Diagnose the Current Reality: How would you describe the current improvement culture in your school or district?

Choose a side and discuss with your group…

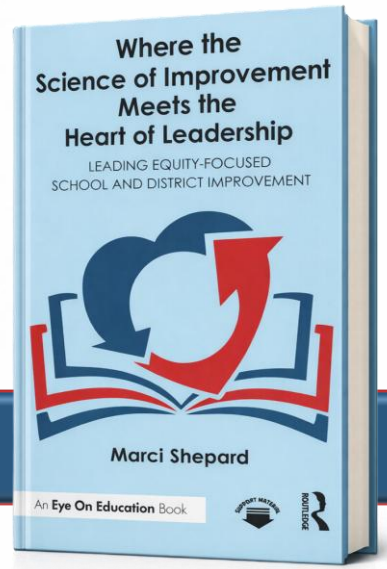
- **Includes Culture Side:**
  How does your current culture support improvement? What leadership moves could further strengthen trust, joy, and shared purpose?
- **Focuses on Strategy Side:**
  What challenges get in the way of creating a positive improvement culture? What leadership moves could address those challenges?



FEEDBACK?

QUESTIONS?

COMMENTS?



"Leaders shape culture. Culture fuels improvement. Equity ensures it matters."

Marci Shepard