PDCA with Lean and Safe
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Goal: Provide a summary of how lean tools and thinking combined with occupational safety can help make PDCA a reality in everyday life.

PDCA Background
- W. Edwards Deming popularized PDCA, which became known as the Deming Cycle. This cycle is the foundation for any management system.
  - **Plan** - Identify and analyze the problem
  - **Do** - Pilot / implement the planned change
  - **Check** – Analyze results and modify or plan for full implementation
  - **Act** – Introduce systemic changes and training
- **Deming’s 14 Points** from his 1982 book, “Out of the Crisis” are:
  1. "Create constancy of purpose towards improvement"
  2. "Adopt the new philosophy"
  3. "Cease dependence on inspection"
  4. "Move towards a single supplier for any one item."
  5. "Improve constantly and forever"
  6. "Institute training on the job"
  7. "Institute leadership"
  8. "Drive out fear"
  9. "Break down barriers between departments"
  10. "Eliminate slogans"
  11. "Eliminate management by objectives"
  12. "Remove barriers to pride of workmanship"
  13. "Institute education and self-improvement"
  14. "The transformation is everyone's job".

The Marriage of Deming and Safety
Safety combined with lean offers tactical tools / processes enabling implementation of Deming’s 14 Points and PDCA throughout all levels of any organization.
- Deming has been criticized for putting forward a set of goals without providing any tools for managers to use to reach those goals. His typical response to this question was, “You're the manager… you figure it out.”
- The marriage of safety and lean allows the practical application of safety fully integrated with continuous improvement efforts in daily work.

Benefits of Integrating Lean and Safety with PDCA
- An organization that safely produces quality services/products that are faster, better and less expensive to the customer
- A culture of teamwork that strives for continuous improvement by the identification and elimination of waste, including injury and illness
- Leadership creates an “I care” culture that improves overall performance
- Respect for employees leads to employees “wanting to” be safe rather than “having to” be safe.

Using Deming for Safety
- Deming’s 14 points and PDCA are built upon respect for employees and the recognition that the majority of issues are system related
- Deming’s approach requires active leadership which can more fully integrate safety into the day-to-day operation of the business
  - Safety becomes a strong value in the overall organization culture, not a safety culture
- Operational performance, quality and safety are all driven by the same tools and philosophies, e.g.
  - Getting to “zero defects” requires the same thinking and many of the same tools required for “zero injuries and illnesses”
- The philosophy of continuous improvement driven by root cause analysis of problems fits perfectly with safety

Deploying PDCA with Lean and Safety
Move from a “lean” to a “learn” ing culture by implementing structured processes for operational learning through the marriage of PDCA, lean and safety at the:
- Individual or micro level:
  - 5S, safety, knowledge folders, visual controls, standardized work and other kaizen (continuous improvement) tools
- Individual, mid-management or system level:
  - Value stream mapping, problem solving and one-page report writing
- Broader organizational level: Policy deployment / leading PDCA