Case Study:

Chrysler

Industry: Automotive Production

- Company: Chrysler
- Situation: Chrysler was launching a new mid-size car line at the Sterling Heights, MI plant. Demand from dealers was high and the plant was having trouble keeping up with production requirements due to seemingly random quality problems that led to delays and uneven production.
- Role: Lead Consultant
- Analysis: An analysis of the quality problems was conducted to determine any patterns as well as the root sources of the problems. The consulting team spent several days working with the union workers in the assembly line.
- Findings: The analysis showed that although the quality problems seemed random, there was in fact a Pareto relationship with ~ 30% of the reported types of issues accounting for more than 80% of the total issues and production delays. Also, the analysis showed several categories of root causes – worker training, line speed too quick, minor design issues (which could be solved quickly in the current model year), and major design issues (which would be solved by the next model year).
- Solution and Result: A two-pronged strategy was employed using the Poka-Yoke (Error-Proofing) methodology:
  - The high percentage issues were assigned to a cross-functional team of assembly workers, maintenance, Chrysler plant and design engineering, and supplier engineering to triage and resolve.
  - A team of union assembly workers and consultants was established to identify potential quality issues starting at the end of the assembly line and working back upstream to the beginning. They worked with the line employees and plant

maintenance to solve the short-term issues uncovered and forwarded the longer-term problems on to the cross-functional team to address. Overall quality issues fell from over 400 per day to less that 200 within the first few months. The errors continued to reduce as the longer term issues were resolved.