

Quality America, Inc.

Pyzdek's Guide to SPC Volume 1

Training Materials Topic Overview

1. Statistical Process Control (16 slides)
 - a) TQM.
 - b) Quality Systems.
 - c) Keys to Success.
2. Working in Groups (24 slides)
 - a) The Effective Group.
 - b) Four C's of Group Effectiveness.
 - c) Productive Behavior.
 - d) Four Stages in Group Development.
 - e) Group Task & Maintenance Roles.
3. Data Collection (8 slides)
 - a) Types of Data Analysis.
 - b) Sources & Types of Data.
 - c) Data Collection Tools.
4. Problem Solving Techniques (9 slides)
 - a) Left Side vs. Right Side of the Brain.
 - b) Problem Solving & Brainstorming.
5. Flowcharts (3 slides)
6. Cause & Effect Diagrams (4 slides)
7. Basic SPC Concepts (17 slides)
 - a) SPC Definition & Purpose.
 - b) SPC vs. Classical Statistics.
 - c) Distributions and Control.

- d) Inspection vs. Process Control.
 - e) American vs. Taguchi View of Loss.
8. Pareto Analysis (12 slides)
- a) Principles of Graphical Integrity.
 - b) Structure of Pareto Diagram.
 - c) Patterns and Types of Data.
9. Histograms (9 slides)
- a) Structure.
 - b) Uses.
10. Scatter Diagrams (10 slides)
- a) Structure.
 - b) Interpreting & Tips.
11. Run Charts (7 slides)
- a) Description.
 - b) Run Tests.
 - c) Pointers.
12. Average and Range Charts (18 slides)
- a) Purpose of Control Charts.
 - b) Why Use the Average?
 - c) Administrative Considerations & Subgrouping.
 - d) Worksheets.
 - e) Run Tests.
 - f) Interpretation.
13. Control Chart for Standard Deviation (6 slides)
- a) Sigma Chart vs. Range Chart.
 - b) Worksheets.
 - c) Run Tests.

14. X Control Charts for Individual Values (10 slides)

- a) Why Use Instead of Averages?
- b) Statistical Considerations.
- c) Calculations.
- d) Sampling Considerations.

15. Control Charts for Problem Counts: Np Control Charts (9 slides)

- a) Attribute vs. Variables Data.
- b) Subgrouping.
- c) Equations.
- d) Worksheets.
- e) Run Tests.

16. P Control Charts (5 slides)

- a) Equations.
- b) Sample Size and Control Limits.
- c) Worksheets.

17. Control Chart for Occurrences: C Control Charts (9 slides)

- a) Administrative Considerations & Subgrouping.
- b) Equations.
- c) Worksheets.
- d) Run Tests.

18. u Control Charts (4 slides)

- a) Equations.
- b) Worksheets.