Building Science Institute, Ltd. Co. Process 010-2023 Data Analysis Cycle

Step One: Plan
1. Define the program
    a. Problem statements
    b. Goals
    c. Scope
    d. Criteria Critical to Satisfaction
    e. Measurements
    f. Assessments
    g. Operational definitions
2. Define "how to"
    a. Collect data
        i. Activity
        ii. Process
    b. Analyze data
        i. Graphical
        ii. Statistical

Step Two: Prepare
1. Identify missing data
2. Identify sources of data & information
3. Observations of current situation

Step Three: Collect
1. Activity-based
2. Extraction
3. Humans

Step Four: Assess Quality
1. Data reliability
2. Data timeliness
3. Data validity
4. Data compliance/conformance
5. Data accuracy
6. Data completeness
7. Data consistency
8. Data integrity
9. Data pedigree
10. Data objectivity
11. Data uniqueness
12. Data credibility
13. Data trustworthiness
14. Data believability
15. Data reputation
16. Data accessibility
17. Data ease of operation

Step Five: Visualize & Analyze
1. Value maps
2. Value-added analysis
3. SIPOC
4. Process maps
5. Check sheets
6. Pareto charts
7. Histograms
8. Cause-and-effect diagrams
9. Run charts
10. Control charts
11. Kanban boards

Step Seven: Distribute to decision-makers
1. Clients
2. Stakeholders
3. Consumers