Continuous Improvement Toolkit

Attribute Analysis

Managing Risk

PDPC

FMEA RAID Logs

Fault Tree Analysis

Risk Assessment* Decision Tree

Traffic Light Assessment

Deciding & Selecting

Pros and Cons

Importance-Urgency Mapping

Break-even Analysis

Cost -Benefit Analysis

Force Field Analysis

Voting

SWOT

Pugh Matrix

QFD Matrix Diagram

TPN Analysis

Kano Analysis

Prioritization Matrix

Critical-to Tree Paired Comparison

Planning & Project Management*

RACI Matrix Stakeholders Analysis

PEST PERT/CPM Activity Diagram

Roadmaps Project Charter Gantt Chart

PDCA Control Planning

Gap Analysis

Hoshin Kanri Kaizen

How-How Diagram

Tree Diagram** Standard work

Identifying & Implementing Solutions***

Lean Measures KPIs

OEE Capability Indices

MSA RTY Descriptive Statistics

Cost of Quality

Reliability Analysis Graphical Analysis

Cause & Effect Matrix Pareto Analysis

Simulation TPM

Confidence Intervals

Mistake Proofing

Probability Distributions ANOVA

Understanding Cause & Effect

Pull Systems JIT Ergonomics

Hypothesis Testing

Design of Experiments

Work Balancing Automation

Understanding Performance

Run Charts

Scatter Plot Correlation

Regression

Bottleneck Analysis Visual Management

Control Charts

5 Whys Chi-Square Test

Multi-Vari Charts Flow 5S

Benchmarking Sampling

Relations Mapping*

Value Analysis

Fishbone Diagram

Wastes Analysis SMED

Focus groups Interviews

Brainstorming TRIZ***

Analogy SCAMPER***

Time Value Map Process Redesign

Photography Check Sheets

Nominal Group Technique

Mind Mapping*

IDEF0 Value Stream Mapping SIPOC

Measles Charts Surveys

Affinity Diagram

Attribute Analysis

Flow Process Chart Process Mapping

Data Collection

Critical Incident Technique Lateral Thinking Visioning Flowcharting Service Blueprints

Observations

Creating Ideas**

Designing & Analyzing Processes

Continuous Improvement Toolkit . www.citoolkit.com

- Attribute Analysis

- ❑ The process of breaking down a problem, idea, or thing into attributes or component parts.
- ❑ Thinking about the attributes rather than the thing itself.
- ❑ Then simply asks: **How the attributes can be varied?**
- ❑ A simple formula that can lead to amazing inventions.

- Attribute Analysis

❑ **Breakdown tree** can be used to help in decomposition and investigation of attributes.

Example - Making improvements to a chair:
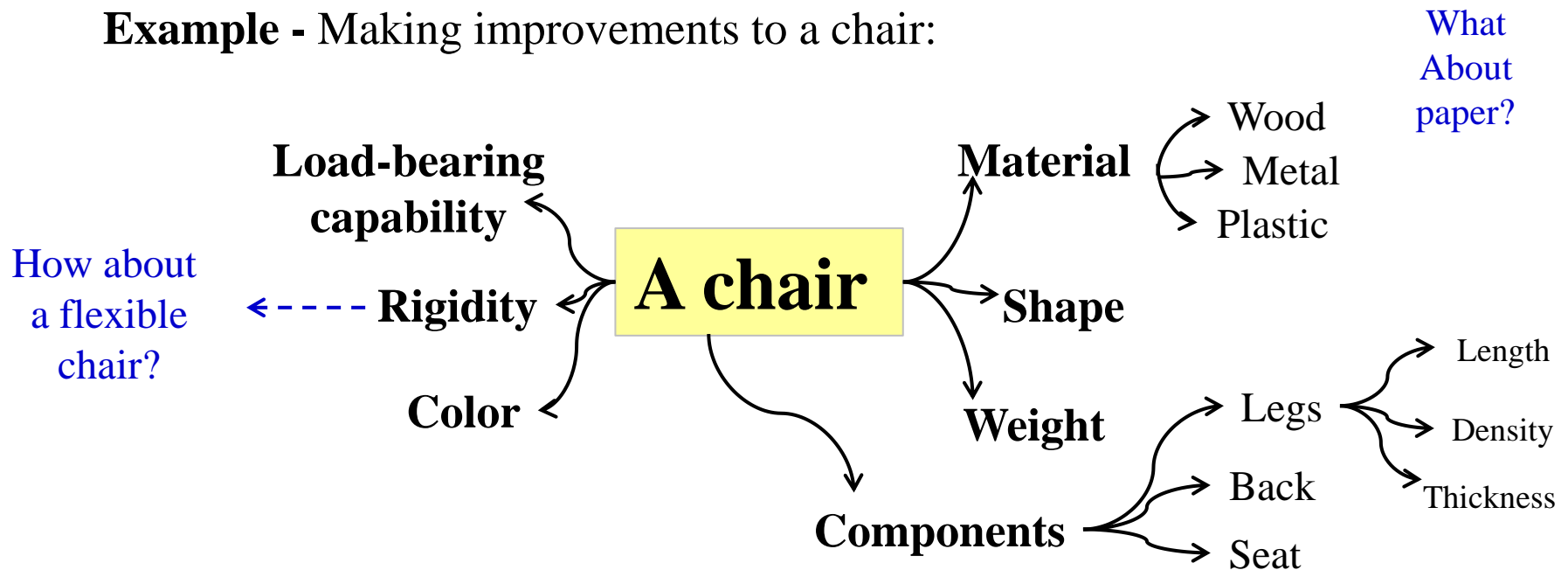
- Attribute Analysis

❑ **Next, focus on each specific attribute. Ask:**

- Why does it has to be this way?

- What can I substitute?

- What can be combined?

- What can I eliminate?

- Can I add to it?

- Can I modify it in some fashion?

- Can I put it to some other use?

- Can the parts be rearranged?

- What is the reverse of this?
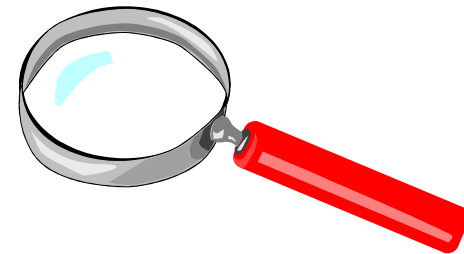
- Attribute Analysis

❑ Used also in **Services Industries**:

- Service processes have cost and lead times.
- Deliveries have timescales and reliability.
- Customers have satisfaction and loyalty.
- Education has learning outcomes, research and community contribution.
- Healthcare …
- Governmental agencies …