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Using Visual Six Sigma:

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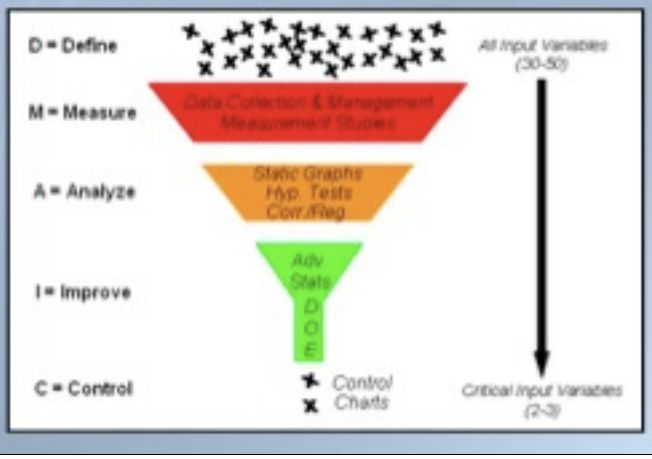
Six Sigma

Primary Goals:

- Focus on problems with the biggest business impact.
- Base decisions on data.
- Systematise the management of variation.

DMAIC: Unified, Structured Approach



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Traditional Green/Black Belt Analysis Techniques

Category	Technique
Data Management	Query Quality Checks Data Cleansing Merge/Split Transformation
Basic Statistics	Descriptive Statistics Distribution Fitting
Static Graphs	Histogram Stem & Leaf Run Chart Pareto Scatterplot 3d Scatter Plot Box plot Individual Value Multi-vari Matrix plot Bar Chart Pie Chart Time-series plot

Category	Technique
Measurement Studies	Linearity and Bias Gauge R&R Process Capability
Hypothesis Testing	Compare Means/Medians Compare Counts
Correlation & Regression	Correlation Matrix Simple Regression Simple Logistic Regression
Advanced Statistics	Multi-Way ANOVA Multiple Regression Generalized Linear Modeling
DOE	Screening RSM Taguchi
Control Charts	Run Chart Xbar/R/S I/MR MA, EWMA, Cusum C, U, P, NP

Green Belt training is typically two weeks **Black Belt training is typically four weeks**

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Some Typical Problems

- "Too much time is spent worrying about the correct application of the method rather than focusing on what the data is telling us."
- "Our guys run a mile rather than use statistics."
- "Our managers glaze over when stats methods and results are presented."
- "Training overhead is huge and we forget how to use most of what we are taught."
- "Prescribed problem solving approaches curb creativity."
- "We need to manage data diversity and problem context."

Some Typical Consequences

Data analysis is not as efficient and effective as it could be, leading to:

- Higher project costs.
- Longer project cycles.
- Frequent push back.

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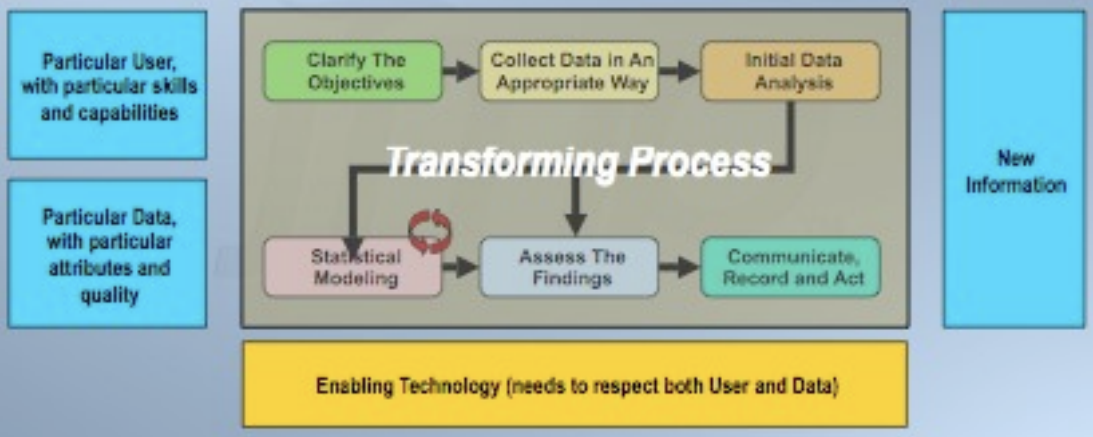
Data Analysis in General

Primary Goal: Allow the user to get the most new information from their data, most quickly and easily.



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Visual Six Sigma

Re-engineers Process of Data Analysis by using:

- Dynamic visualization to literally "see" sources of variation.
- Data mining to identify key drivers and models for complex/multivariate problems.
- Confirmation with statistical tests only if needed.

Visual Six Sigma is intuitive and readily understood and embraced at all levels.

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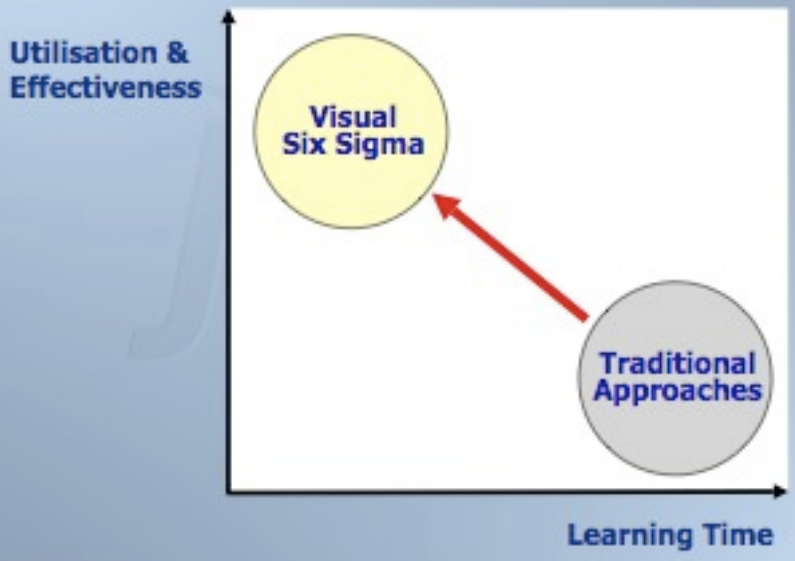
Benefits of Visual Six Sigma



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Summary of Visual Six Sigma

- Intuitive
- Readily Understood
- Embraced at all levels.