



Course Contents



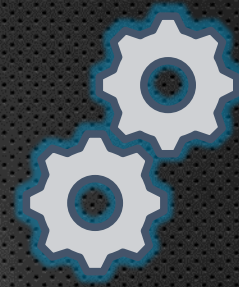
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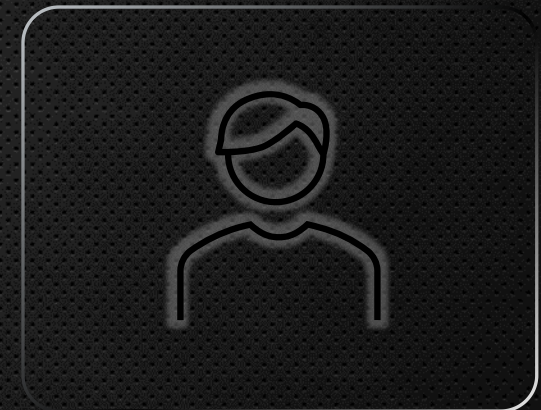
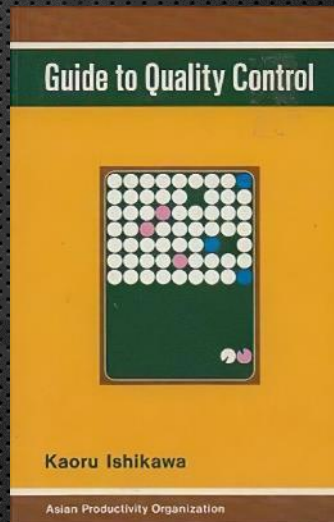


The **7** Basic Quality Tools

- Kaoru Ishikawa, a Tokyo engineering professor, pioneered the 7 quality tools and "Quality Circles" in Japan's 1960s quality movement.
- Statistical quality control was too complex for most workers, so companies adopted simpler methods that anyone could learn and apply.

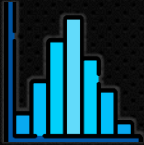








- The 7 Tools are called basic quality tools because they can be easily learned by anyone even without any formal training in statistics.





The 7 Basic Quality Tools

							
	Histogram	CE Diagram	Check Sheets	Pareto Diagram	Graphs	Control Charts	Scatter Diagrams
Definition	A type of bar chart that visualizes the distribution of numerical data.	A tool that is used for identifying the various factors (causes) leading to an issue (effect).	A systematic way to collect, record and present quantitative and qualitative data.	The Pareto chart is a combination of a bar graph and a line graph.	Graphical representation of data	The control chart is a type of run chart used to observe and study process variation	a chart that helps you identify how two variables are related.
Benefits	- Interpret a large amount of data - Provides insights into process performance and variation	- helps discover the root cause of the problem allowing you to find the correct solution effectively.	- Easy to use - To check the shape of the probability distribution of a process	to understand the relative importance of various problems or causes of problems.	Understand trends, relative importance, etc.	To determine whether a process is stable. - recognize abnormal changes in a process.	To validate the relationship between causes and effects.
Example	Assessing the distribution of product weights in a manufacturing process.	Analyzing the factors contributing to product defects in a manufacturing process.	Recording customer complaints or inquiries by type to identify common issues.	Identifying the major causes of delays in project management.	Line charts Pie Charts	Monitoring the average response time of a customer support team.	Exploring the relationship between advertising expenditure and sales revenue.

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