



Value Analysis Workshops for Lean Improvement

Value Analysis

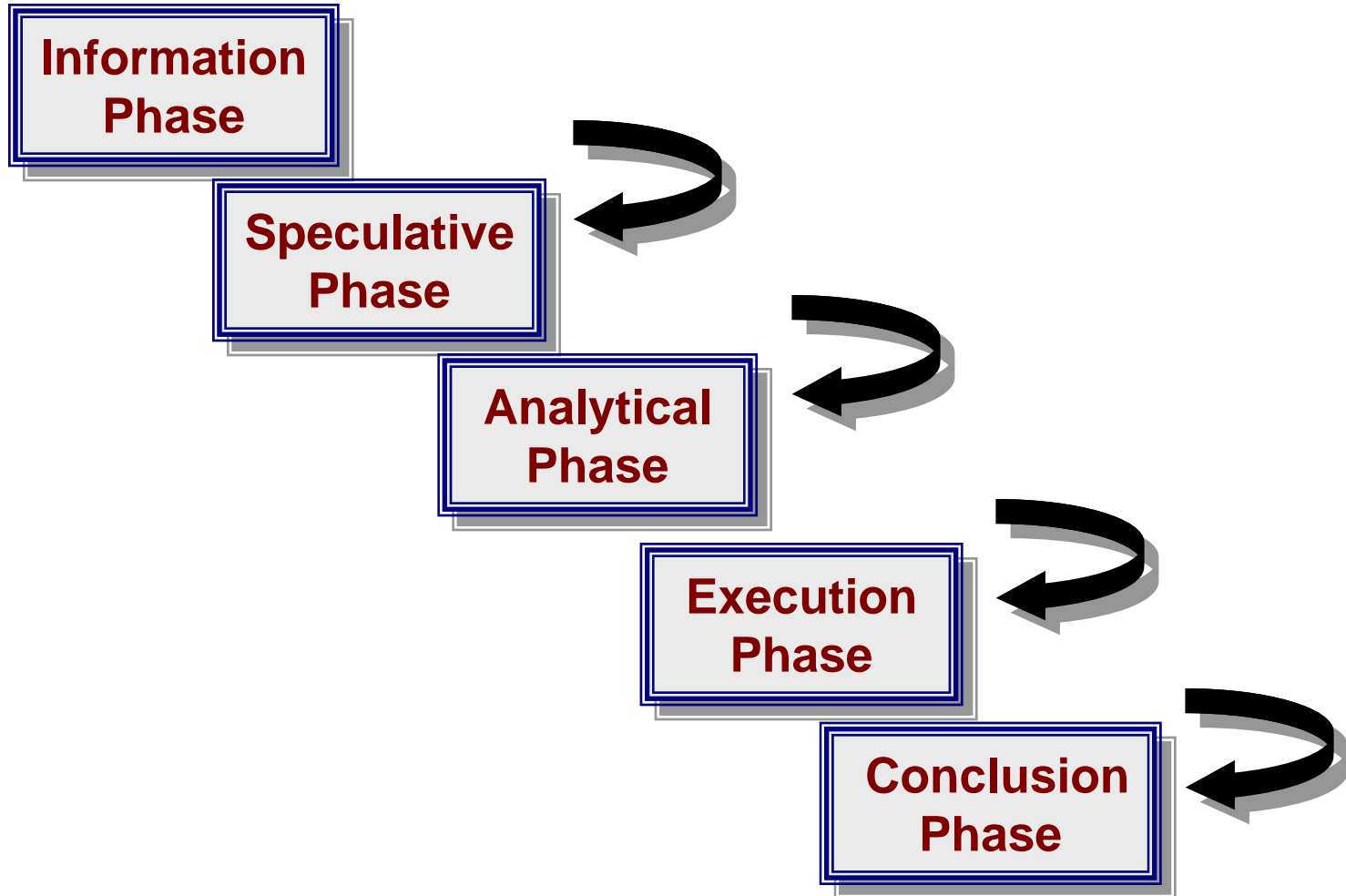
- What is value analysis?
 - *The organized and systematic study of every element of cost in a part, material, process, or service to make certain it fulfills its function for the customer at the lowest total cost. It employs techniques which identify the functionality the user wants from the part, material, process or service*
 - Value = Function/Cost
 - Function is what a part, material, process, or service does (noun and a verb)

Value Analysis

- What is value analysis?
 - VA is a continuous improvement technique—it is not product or service cheapening!!
 - *VA workshops* and the VA process are a combination of group problem solving, project management, process redesign, and continuous improvement efforts
 - Applies to manufacturing and non manufacturing organizations
 - Value analysis requires inter and intra organizational integration!!

Value Analysis

Value Analysis Workshop Steps



Value Analysis

- **Information Phase**

- Primary focus: Identify existing parts, materials, processes, or services to study
 - Large total dollars/high unit cost (20/80 rule)
 - Known problems
 - Complex in design or scope

Value Analysis

- **Information Phase** (continued)
 - Primary focus: Identify existing parts, materials, processes, or services to study
 - Outdated design
 - No longer competitive/does not satisfy customer needs
 - Overly customized
 - Involves many operations
 - Excessive movement or handling
 - Long lead times

Value Analysis

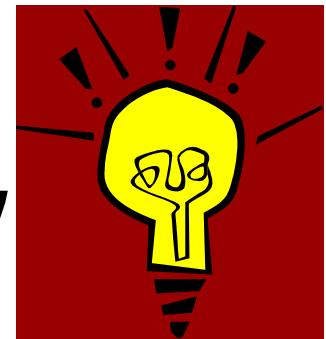
- **Information Phase** (continued)
 - Put together the right VA group
 - Gather data
 - Establish preliminary improvement targets
 - Identify the function of the part, material, process, or service under study
 - Primary function
 - Any secondary functions

Value Analysis

■ Speculative Phase

- “What if” thinking in a search for what will meet our requirements
- Brainstorming / wide open thinking are critical
- Ask the right questions for determining value in a product or service—

Eureka!!



Value Analysis

- **Speculative Phase** (continued)
 - Questions for determining value in a part, material, process, or service--
 - *Does its use contribute value to our customers (internal or external)?*
 - *Is its cost proportionate to its usefulness?*
 - *Does it need all its features, parts, packaging, or steps?*
 - *Is there anything better available for the intended use?*

Value Analysis

- **Speculative Phase** (continued)
 - Questions for determining value in a part, material, process, or service--
 - *Can it be produced by a lower total cost method?*
 - *Can a standard application be found that accomplishes the function at a lower total cost?*
 - *Do material, labor, overhead, and reasonable profit equal its cost?*

Value Analysis

- **Speculative Phase** (continued)
 - Questions for determining value in a part, material, process, or service--
 - *Can another dependable supplier provide it for less?*
 - *Is anyone buying it for less?*
 - *What affect will any changes have on our customers?*
 - *Does it have other functionality to the customer?*

Value Analysis

■ Analytic Phase

- Perform cost/benefit analysis on each idea
- Assess affect on internal and external customers
- Assess the reality of any changes
- Review improvement targets

Value Analysis

■ Execution Phase

- VA group/team approach should foster buy-in
- Develop implementation plan
 - Break down changes across functional areas
- Execute changes
- Note time of changes to assess effect

Value Analysis

■ Conclusion Phase

- Verify the success of changes
- Document and report savings!!!
- Put all files back in order
- Disband or assume a new VA challenge
 - Standing VA workshops versus ad hoc efforts
- Transfer learning throughout the organization

Value Analysis

- Who is responsible for what?
 - ***Management***
 - Defines value analysis goals
 - Ensures business-wide cooperation
 - Establishes priorities
 - Develops ROI targets
 - Coordinates with other programs
 - Provides resource support

Value Analysis

- Who is responsible for what?
 - ***Purchasing***
 - Searches for new materials, technologies, and suppliers
 - Projects market trends
 - Provides cost data and comparisons
 - Outlines company VA goals to suppliers
 - Secures supplier involvement
 - Trains suppliers in VA techniques
 - Coordinates the process

Value Analysis

- Who is responsible for what?

- ***Suppliers***

- Reviews customer specifications, including cost, quality, and lead-time requirements
 - Submits ideas on materials, components, and processes
 - Provides information on changing technical developments
 - Works with buyer to identify cost drivers
 - Perform VA

Value Analysis

- Who is responsible for what?
 - **Marketing**
 - Studies the effects of changes on customers and sales
 - Secures customer involvement
 - Identifies customer requirements
 - Contributes competitive market data
 - Defines optimum price range

Value Analysis

- Who is responsible for what?
 - ***Design Engineering***
 - Defines function
 - Sets quality and engineering standards
 - Reviews alternate specifications, material, and processes
 - Checks the effect of changes on other parts, systems, or processes

Value Analysis

- Who is responsible for what?
 - ***Operations***
 - Provides data on cost and productivity
 - Defines equipment needs
 - Analyzes proposed changes from an operations standpoint
 - ***Industrial Engineering***
 - Performs studies
 - Evaluates material handling and flow, layout, and processes

Value Analysis

- Who is responsible for what?
 - ***Other***
 - Quality control
 - Maintenance
 - Traffic/transportation
 - Cost accounting
 - External customers

Value Analysis

- *Motivating suppliers to participate*
 - Propose to share cost savings
 - Invite suppliers to VA meetings
 - Include VA sheets with requests for proposals or quotes
 - Make supplies part of the team
 - Conduct supplier VA sessions

Value Analysis

- *Keeping VA alive—*
 - Track hard results
 - Recognize and reward VA efforts across the organization
 - Lobby displays
 - Publicity and reports
 - Offer VA training to suppliers
 - Make VA a routine part of the lean process

Summary

- Value analysis is a powerful approach for improving parts, materials, processes, or services
- VA is an underutilized but powerful lean tool
- The VA process requires involvement of internal and external participants
- VA is a systematic process
- Track and report benefits and gains closely