Thinking About Kaizen: A Systems View

Presented by
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Agenda

- Aim
- Quiz
- InSights
- Interchangeable Parts
- Better Thinking About Thinking
Aim

Introduce the potential energy of integrating the management theories and thinking of Dr. W. Edwards Deming, Dr. Genichi Taguchi, Dr. Edward de Bono, and many others...
Tank Engines and Rocket Engines
RS-68
Q1: Alligators

What is the leading use of alligator skin in the United States today?
Q2: Arnold Palmer

Describe how to make an Arnold Palmer (drink)
Q3: Pepsi Flavor Profile

Taste

Time
Q4: Automobile Tires

Who makes the best automobile tires in the world today?
Q5: Time Management

How much time is spent discussing parts which are good and arrive on time?
Q6: Satisfaction

How important is customer satisfaction?
Q7: The Last Straw
Did the last straw break the camel’s back?

Image: A drawing of a camel with a question written around it: "Which straw broke the camel's back?"
Q8: Grades

What letter grade is required for all parts purchased?

Maserati Gran Turismo

RS-68
Q9: Cutting Wood

Given a piece of wood that will be cut into 2 pieces....

how many lines will be drawn across the top face before the cut is made?
Q10: Addition

Under what conditions does one plus one equal 2?
NEW CUYAMA
Population 562
Ft. above sea level 2150
NEW CUYAMA

Population 562
Ft. above sea level 2150
Established 1951
NEW CUYAMA

Population  562
Ft. above sea level  2150
Established  1951

TOTAL  4663
## Trip Report

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Arnold Palmer
Arnold Palmer
Pepsi Flavor Profile

Time

Taste
Styles of Thinking

- Black & White
  - Absolutes
  - Good/Bad, Up/Down
  - Categories

- Shades of Gray
  - Continuum
  - Relative
  - Wholeness
Variation....
Variation....Exists
Automobile Tires

Who makes the best automobile tires in the world today?
InThinking & Enterprise Thinking

Increase individual awareness on thinking (InThinking)

Evolve the way we behave

Evolve the way we think together (Enterprise Thinking)

Evolve the way we run our organizations
Perception & Thinking

“How the world we perceive works depends on how we think. The world we perceive is a world we bring forth through our thinking.”

H. Thomas Johnson
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Time Management
Gear Wear Task Force

Problem: excess wear on splines
Management By Extremes
Management By Extremes

Zero

Infinity
Decisions

“If your boss gives you a question and only 5 minutes to answer it, there are only 3 possible answers – 0, 1, and infinity. You’ll have five minutes to decide which one it is.”

Professor R.E. Mayle
Present State

- Reducing Cost, Waste, Inventory, Variation, etc
- Talk about “Working Together”
- Striving for “Zero Defects”
- Striving for “Zero Waste”
- Striving for “Satisfaction”
- Continuous Improvement
- Using Metrics for Alignment*

*without a thinking transformation
Twin Day
(AKA Variation Reduction Day)
The Boeing Company - Vision 2016

- Core Competencies
  - Detailed Customer Knowledge
  - Large-Scale Systems Integration
  - Lean Enterprise

- Values
  - Leadership
  - Integrity
  - Quality
  - Customer Satisfaction
  - People Working Together
  - A Diverse and Involved Team
  - Good Corporate Citizenship
  - Enhancing Shareholder Value
Expectations

Value

Disappointment

Expectation
Expectation Dynamics

Value

Satisfaction

Disappointment

Expectation
Expectation Dynamics

Value

Delight

Satisfaction

Disappointment

Expectation
Assumptions

- A better way to operate an organization is to invest resources with the ability to manage customer delight, satisfaction, and disappointment.
- Better investment results from discovering opportunities to invest.
- The discovery of opportunities for investment is limited by how thinking is conditioned.
What is needed?

Thinking that promotes better discovery
Counting Straws
Grades

What letter grade is required for all parts purchased?

Maserati Gran Turismo

RS-68
Cause & Effect

- MPG
- Pulse
- Exam Grade
- Business Results
Parts or Parts Of?
Systems Perspective

“When we try to pick out anything by itself, we find it hitched to everything else in the universe”

John Muir
Water Logic
We all live downstream
Future State

- Resource & Relationship Management (Striving for Balance)
- Thinking & Learning Together - Then Working Together
- Managing Customers’ Expectations
- Continuous Investment
- Using Thinking for Alignment
  - InThinking and Enterprise Thinking
Edward de Bono on Quality

“The quality of our thinking will determine the quality of our future”
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Interchangeable Parts
Interchangeable Parts ??

Space Shuttle Main Engine
Interchangeable Parts ??
Sorting Circles

Connect the 2 of these 3 circles that are closest to being the same:
Sorting Circles, Part 2

Which 2 of these 3 circles are closest to having the same diameter?
Given a piece of wood that will be cut into 2 pieces....

how many lines will be drawn across the top face before the cut is made?
Cutting Wood
Cutting Wood
W. E. Deming on Quality

“A product or a service possesses quality if it helps somebody and enjoys a good and sustainable market”

“Zero defects is another way of saying ‘do it right the first time’”

Quality is defined as conformance to requirements.

Source: Let’s Talk Quality, Philip Crosby, 1989
Defects

Hole Diameter, inches

Frequency

LOWER SPEC LIMIT

UPPER SPEC LIMIT
“Quality is the minimum of loss imparted to the Society by a product after its shipment to a customer”

Source: Introduction to Quality Engineering, Genichi Taguchi, 1983
Decisions Decisions

Which 2 of these 3 circles are closest to having the same diameter?
Taguchi’s Quality Loss Function

“Loss to Society”

Lower Specification Limit  TARGET (desired value of parameter)  Upper Specification Limit
A Better View

“The Taguchi Loss Function is a better view of the world”

W. Edwards Deming

Source: Out of the Crisis, W. Edwards Deming, 1986
Better Thinking About Thinking
InThinking & Enterprise Thinking

Increase individual awareness on thinking (InThinking)

Evolve the way we behave

Evolve the way we think together (Enterprise Thinking)

Evolve the way we run our organizations
Investment Opportunities

Thinking

Technology
“The significant problems we face cannot be solved at the same level of thinking we were at when we created them.”

Albert Einstein
Transformation

Potential Energy

“Better Thinking”

Kinetic Energy

“Better Value”
Visioning

“it’s not what the vision is that is important...
it’s what the vision does...”

Robert Fritz

Source: The Fifth Discipline, Peter Senge, 1992
Counting Heads

Are two heads better than one?
Togetherness

- What does it mean to “work together”? 
- What does it mean to “learn together”? 
- What does it mean to “think together”? 
Together

“In or into contact or association”

“In or into harmony or coherence”

Merriam-Webster Dictionary
Team?
United We Stand
United We Eat?
Coffee farmers around the world were invited to send us their best beans for our annual coffee competition. Through precision and artistry, we blended and roasted the finest into something extraordinary.

Starbucks’ Special Reserve Blend 2004
Addition

“You think because you understand one you must understand two, because one and one makes two. But you must also understand and.”

Donella Meadows
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Imagine the Possibilities...

- when operating in an “Enterprise Thinking” environment
- if we could develop a broader appreciation of “continuous and connected learning”
- if we could develop a deeper appreciation of “working together,” “learning together,” and “thinking together”
Imagine the Possibilities...

- and the markets we could create
  - Working Together
  - Investing Together
  - Designing Together
  - Building Together
  - Learning Together
  - Thinking Together
  - Leading Together
What’s Next?

“The greatest discovery of my generation is that human beings can alter their lives by altering their attitudes of mind.”

William James
Courage To Imagine...

“The courage to imagine the otherwise is our greatest resource, adding color and suspense to our life.”

Daniel Boorstin
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Additional Information
In2:InThinking Network
www.in2in.org