IN SEARCH OF EXCELLENCE – COMPLIANCE AND CONTEXTUAL
(Insights for improving how we think, learn, and work together)

ASQ Houston Regional Quality Conference 2019
Houston, TX
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Agenda

✓ Contextual Awareness
✓ W. Edwards Deming
✓ 2 Questions
✓ 2 Modes of Thinking
✓ 2 Explanations
✓ Seeing Systems
California, USA
Los Angeles
New Cuyama
New Cuyama
New Cuyama
New Cuyama
New Cuyama

Population 562
Ft. above sea level 2150
Established 1951
Total 4663
1. The part of a text or statement that surrounds a particular word or passage and determines its meaning

2. The circumstances in which an event occurs; a setting

3. Latin *contextus*; a joining together
What is the leading use of alligator skin in the United States today?
Task Completion

Heat the part for 1 hour at 300 Celsius
Task Completion

Heat the part for 1 hour at 300 Celsius
Task Completion

Heat the part for 1 hour +/- 2 minutes at 300 +/- 5 Celsius
Task Completion

Heat the part for 1 hour +/- 2 minutes at 300 +/- 5 Celsius
Task Completion
Task Completion
Contextual Excellence
Contextual Awareness

Does one size fit all?
Contextual Awareness

Does one size fit all?

Should we always work to eliminate variation?
Contextual Awareness

Soft Pillow
Contextual Awareness

Soft Pillow  Firm Pillow
Contextual Awareness

Soft Pillow

Firm Pillow

Door Viewer
Contextual Awareness

Soft Pillow  Firm Pillow

Door Viewer
Contextual Awareness

Does one size fit all?

Should we always work to eliminate variation?

Should we always work to improve?
Any Color You Want…

“You can have any color you want, as long as it’s black.”
—Henry Ford
Any Color You Want…

Source=http://www.flickr.com/photos/boeingdreamscape/4585417030/ K63803
“The assembly lines of America's leading exporter [Boeing, 1998] were morasses of inefficiency. Airplanes were built more like customized houses, with airlines able to select from 109 shades of white paint…”

Source: Fortune magazine, 2000
Shades of Cheerios
12 Shades of Cheerios
12 Shades of Cheerios
Contextual Awareness

Does one size fit all?
Should we always work to eliminate variation?
Should we always work to improve?
Contextual Awareness

Does one size fit all?

Should we always work to eliminate variation?

Should we always work to improve?

*It depends*....
Contextual Awareness

Does one size fit all?
Should we always work to eliminate variation?
Should we always work to improve?

*It depends….on the context*
Contextual Awareness
Should we always work to eliminate waste?
Contextual Awareness

Should we always work to eliminate the fat?
Agenda

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✓ *W. Edwards Deming*
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✓ Seeing Systems
W. Edwards Deming
1900 - 1993
First Meeting with Dr. Deming (1990)
Production Viewed as a System

Receipt and test of materials

Production, assembly, inspection

Tests of processes, machines, methods, costs

Design and redesign

Distribution

Consumer research

Consumers

Suppliers of materials and equipment

A
B
C
D

Stage 0: Generation of ideas

Source: The New Economics, W. Edwards Deming
Dr. Deming on Working Together

“It would be better if everyone would work together as a system, with the aim for everybody to win.”

Source: The New Economics, W. Edwards Deming
“A product or service possesses quality if it helps someone and enjoys a sustainable market.”

Source: The New Economics, W. Edwards Deming
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Q#1 - Last in Class

What do you call the person who graduates last in his or her class in medical school?
Q#2 – Sorting Numbers

Which 2 of these 3 numbers are closest to being the same?

A  5.001  
B  5.999  
C  6.001
Q#2 – Sorting Numbers

Which 2 of these 3 numbers are closest to being the same?

A  5.001
B  5.999
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A 5.001
B 5.999
C 6.001
Q#2 – Sorting Numbers

Which 2 of these 3 numbers are closest to being the same?

A  5.001
B  5.999
C  6.001

End with .001
Q#2 – Sorting Numbers

Which 2 of these 3 numbers are closest to being the same?

A  5.001
B  5.999
C  6.001
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✓ Contextual Awareness
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✓ 2 Questions
✓ **2 Modes of Thinking**
✓ 2 Explanations
✓ Seeing Systems
2 Modes of Thinking

- Category
- Continuum

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2 Modes of Thinking

- Category
  - Absolutes

- Continuum
  - Relative

Left | Right
2 Modes of Thinking

- **Category**
  - Absolutes
  - Discrete

- **Continuum**
  - Relative
  - Wholeness

Left | Right
2 Modes of Thinking

- Category
  - Absolutes
  - Discrete
  - Good vs. Bad, Smart vs. Dumb

- Continuum
  - Relative
  - Wholeness
  - Better/Faster/Cheaper/Smarter/etc.

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2 Modes of Thinking

- **Category**
  - Absolutes
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  - Good vs. Bad, Smart vs. Dumb

- **Continuum**
  - Relative
  - Wholeness
  - Better/Faster/Cheaper/Smarter/etc.
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Q#1 - Last in Class

What do you call the person who graduates last in his or her class in medical school?

Doctor – Category Thinking
Selecting a Surgeon

Which mode of thinking are we using when we seek a recommendation for a heart surgeon?
Selecting a Surgeon

Which mode of thinking are we using when we seek a recommendation for a heart surgeon?
Counting

Which mode of thinking are we using when we count sheep, customers, or the number of goals scored by Lionel Messi against Real Madrid?
Which mode of thinking are we using when we count sheep, category thinking, number of goals scored by Lionel Messi against Real Madrid?
Implications of Counting

➢ The process of counting ignores the differences between items in a given category
Implications of Counting

- The process of counting ignores the differences between items in a given category
- This is the logic of *Interchangeable Parts*
Implications of Counting

➢ The process of counting ignores the differences between items in a given category
➢ This is the logic of *Interchangeable Parts*
➢ All items within a category are considered to be perfectly *interchangeable*
Interchangeable Parts

Space Shuttle Main Engines
Q#2 – Sorting Numbers

Which 2 of these 3 numbers are closest to being the same?

A  5.001
B  5.999
C  6.001
Q#2 – Sorting Numbers

Which 2 of these 3 numbers are closest to being the same?

A  5.001
B  5.999
C  6.001
Q#2 – Sorting Numbers

Which 2 of these 3 numbers are closest to being the same?

A  5.001
B  5.999
C  6.001

B & C – Continuum Thinking
Q#2 – Sorting Numbers

Which 2 of these 3 numbers are closest to being the same?

0 A B C

diameter
Q#2 – Sorting Numbers

Given a lower requirement (minimum) of 5.000 and an upper requirement (maximum) of 6.000, which 2 of these 3 numbers (5.001, 5.999, 6.001) are closest to being the same?
Q#2 – Sorting Numbers

Given a lower requirement (minimum) of 5.000 and an upper requirement (maximum) of 6.000, which 2 of these 3 numbers (5.001, 5.999, 6.001) are closest to being the same?

minimum = 5.000           maximum = 6.000

0 \hspace{1cm} A \hspace{1cm} B \hspace{1cm} C

diameter
Given a lower requirement (minimum) of 5.000 and an upper requirement (maximum) of 6.000, which 2 of these 3 numbers (5.001, 5.999, 6.001) are closest to being the same?
Q#2 – Sorting Numbers

Is it likely that “Part C” will be measured again?

minimum = 5.000  maximum = 6.000

diameter
Q#2 – Sorting Numbers

Is it likely that “Part C” will be measured again?

Is it likely that “Parts A or B” will be measured again?

minimum = 5.000  maximum = 6.000
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Integration Model

Task Completion

- Step 1
- Step 2
- Step N
  - Task A
    - Step 1
    - Step 2
    - Step N
  - Task B
    - Step 1
    - Step 2
    - Step N
  - Task O
    - Step 1
    - Step 2
    - Step N
  - Task P
    - Step 1
    - Step 2
    - Step N
Integration Model

Task Completion

1\textsuperscript{st} Integration

- Step 1
  - Step 2
  - Step N
  - GOOD
  - Task A

- Step 1
  - Step 2
  - Step N
  - GOOD
  - Task B

- Step 1
  - Step 2
  - Step N
  - GOOD
  - Task O

- Step 1
  - Step 2
  - Step N
  - GOOD
  - Task P
Integration Model

Task Completion

1st Integration

Sub-Component 1

- **GOOD** Task A
- **GOOD** Task B
- **GOOD** Task O
- **GOOD** Task P
Integration Model

Task Completion

- Step 1
- Step 2
- Step N

GOOD
Task A

GOOD
Task B

GOOD
Task P

1st Integration

FIT

Sub-Component 1

FIT

Sub-Component 2

Task  
B

Task  
O
Integration Model

Task Completion

- Step 1
- Step 2
- Step N

- Step 1
- Step 2
- Step N

- Step 1
- Step 2
- Step N

- Task A
- GOOD

- Task B
- GOOD

- Task O
- GOOD

- Task P
- GOOD

1st Integration

Sub-Component 1

- FIT

Sub-Component 2

- FIT
Integration Model

Task Completion
- Step 1
- Step 2
- Step N

1st Integration
- Sub-Component 1
  - GOOD
    - Task A
- Sub-Component 2
  - GOOD
    - Task B
  - GOOD
    - Task O
  - GOOD
    - Task P

Final Integration
- FIT
- FIT
Integration Model

Task Completion:
- Step 1
- Step 2
- Step N
  - GOOD Task A
  - GOOD Task B
  - GOOD Task O
  - GOOD Task P

1\textsuperscript{st} Integration:
- FIT Sub-Component 1
- FIT Sub-Component 2

Final Integration:
- FIT Product Integration
Integration Model

Task Completion
- Step 1
- Step 2
- Step N

GOOD
- Task A
- Task B
- Task P

1st Integration
- FIT

Sub-Component 1
- FIT

Sub-Component 2
- FIT

Final Integration
- WORKS

What’s missing?
Integration Model

- Task Completion
  - Step 1
  - Step 2
  - Step N
  - Task A
  - Degrees of GOOD

- 1st Integration
  - Sub-Component 1
    - Degrees of FIT
    - Task B
    - Task O

- Final Integration
  - Product Integration
  - Degrees of WORKS

- Final Integration
  - Degrees of FIT
  - Sub-Component 2
    - Degrees of FIT
    - Task P
Integration Model

- Task Completion
  - Step 1
  - Step 2
  - Step N
  - Task A
    - Degrees of GOOD
  - Task B
  - Task P

- 1st Integration
  - Sub-Component
    - Degrees of FIT
  - Degrees of FIT
  - Sub-Component 2

- Final Integration
  - Degrees of WORKS

Contextual Excellence
Imagine the Possibilities…

- when operating with awareness of Compliance and Contextual Excellence
Imagine the Possibilities…

- when operating with awareness of Compliance and Contextual Excellence

- if organizations could develop a broader appreciation of “continual and connected learning”
Imagine the Possibilities…

➢ when operating with awareness of Compliance and Contextual Excellence

➢ if organizations could develop a broader appreciation of “continual and connected learning”

➢ if organizations could develop a deeper appreciation of “thinking together,” “learning together,” and “working together”
Imagine the Possibilities…

✓ and the organizations which could be created

Working Together
Investing Together
Designing Together
Building Together
Learning Together
Thinking Together
Leading Together
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