Insightful Quality: Beyond Continuous Incremental Improvement
Agenda (AKA Takeaways)

Why is continuous incremental improvement not enough?

What is insight? (and why should I care?)

How do I becoming an insightful individual?

What are characteristics of an insightful organization?

What do you mean by insightful use of existing quality tools?

Questions and answers.
Quality Should Not Be a Silo

- Strategic Planning
- Quality
- Engineering
- R & D
- Marketing
- Operations
Quality Should Not Be a Silo
Innovation: The Lifeblood of an Organization

• IBM Survey
  “74% of respondents say innovation is more important than reducing costs.”

• American Society for Quality
  “Innovation is increasingly the lifeblood of an organization.”
Thomas Friedman in 2011:

In 2004:

Twitter was a sound.
The cloud was in the sky.
4G was a parking place.
LinkedIn was a prison.
Applications were what you sent to college.
Skype was a typo.
Four years later (2015) we might add:

In 2011:

BuzzFeed was a beekeeper’s supply.

Sling TV was a novel way to wall-mount a flat screen.

Vox was part of a Latin phrase.

MU-MIMO could be a new Pokemon
Why Is Continuous Incremental Improvement Not Sufficient?

Joel Barker’s question:

What is it that is impossible to do today, that if it were possible, would fundamentally change the way we do business?

Source: Barker (1990)
Garvin’s 5 Approaches to Defining Quality

- Transcendent
- Product-based
- User-based
- Manufacturing-based
- Value-based

Which is the approach that ultimately matters the most?
Plato on Insight

Objects of Awareness

The Good Itself
Patterns of Operation
Concrete Things
Images

Forms of Awareness

Insight
Understanding
Perceptual Belief
Imaging
What is Insight?

We define insight as the ability to see reality clearly enough to come up with new ideas that are worth testing.
Examples of Insightful Individuals?

Albert Einstein
Walt Disney
Elon Musk
Twyla Tharp
Leonardo da Vinci
Plato
W. Edwards Deming
Walter Shewhart
Steve Jobs
Warren Buffet
Dr. Michael DeBakey
Mark Zuckerberg
Archimedes
Genichi Taguchi
Six Activities that Develop Insightful Individuals

- Associating with leaders in the field of interest
- Acquiring the necessary expertise
- Having a passionate motivation to “see deeply” into a subject
- Seeking out diverse experiences—including those seemingly unrelated to anything you are currently doing
- Being willing to test your ideas (and let them fail)
- Letting information linger in memory, in your conscious and sub-conscious mind so that new, fruitful, unexpected connections can be made.
Examples of Insightful Organizations?
Characteristics of Insightful Organizations

• Insightful leadership
• Courageous leadership
• Shared vision
• Tolerance for risk
• Trust
• Encourages personal developmental activities
• Encourages & provides opportunities for diverse interactions
Characteristics of Insightful Organizations

- Sees failure as opportunity to learn
- Excellent intra-organizational communication
- Open to ideas from all sources – no “not invented here” syndrome
- Systems thinking
- Agile
- Does not judge ideas too quickly
- Strong customer orientation & understanding of customer needs
### Characteristics of Insightful Organizations

#### Simple Assessment Checklist

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Examples of Once-Insightful Organizations
Insightful Use of Existing Quality Tools: Some Examples

• Voice of the Customer

• Design of Experiments

• Benchmarking
Insightful Use of Voice of the Customer

Customer Requirements

Design Requirements

Target Values
“If we were to go back in time (120) years and ask a farmer what he’d like if he could have anything, he’d probably tell us he wanted a horse that was twice as strong and ate half as many oats. He would not tell us he wanted a tractor. Technology changes things so fast that many people aren’t sure what the best solutions to their problems might be.”

Source: Quigley (2000)
Insightful Use of Voice of the Customer

“If innovation means the ability of a company to anticipate consumer needs—expressed or unexpressed, known or unknown—and bring products and services to the marketplace that excite customers, then clearly innovation is the fuel of growth in today’s changing world and more so tomorrow.”

Source: Krzykowski (2011)
Insightful Use of Design of Experiments

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Insightful Use of Design of Experiments

• Incorporating creativity in (DOE) testing better defines problems by creating complete lists of variables.

• A culture that’s open to new ideas and that allows time for teams to brainstorm leads to unique and useful test observations resulting in motivated employees and faster project completion and product development.

• DOE can be a structured approach to creativity where failure can be viewed as a success. Unique ideas and large-step improvements have happened through the use of DOE.

Source: Parendo (2015)
Insightful Use of Benchmarking

Who do you look up to?
Benchmarking is more than a scorecard. Comparing an outcome measure to some industry or national average is unlikely to lead to insightful innovations.
Insightful Use of Benchmarking

Benchmarking is an improvement process in which an organization measures its strategies, operations, or internal process performance against that of best-in-class organizations within or outside its industry, determines how those organizations achieve their performance levels, and uses that information to improve its own performance.

Source: Sower, Duffy, & Kohers (2008)
Insightful Use of Benchmarking

“Not invented here” is a seriously flawed attitude.

The successful learn from others
The mediocre learn from their own experiences
Failures learn from no one*

*Source: Tuominen (2000)
Insightful Use of Benchmarking

Examples of Insightful Use of Benchmarking:

• Nationwide Children’s Hospital → Commercial aviation industry

• Great Ormond Street Hospital → Ferrari Formula 1 Racing Team

Sower, 2007; Sower, Duffy, & Kohers 2008
Conclusion

- Employ an insightful approach to quality.
  - Insightful organization
  - Insightful individuals

- Do a great job of continuous incremental improvement.

- Achieve long-term success!
Conclusion

Best in Class

Us

Everybody Else
Sources – Readable Version in Handouts

Questions, Answers, & Discussion

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