

Business as Unusual

(Shift From Big Problems to Great Opportunities)

Presented by Bill Bellows

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**7th Annual Southern California Quality Conference
November 8, 2014**

Abstract

Before his death in 1993, W. Edwards Deming provided “a map of theory by which to understand the organizations that we work in.” He was well aware of the challenges that organizations face, in their “Business as Usual” mode of operation. He shared simple explanations to challenge us to envision “Business as Unusual.” “Sure,” he said, “*we have to solve problems. Certainly stamp out the fire. Stamp out the fire and get nowhere. Stamp out the fires puts us back to where we were in the first place.*” In practicing “Business as Usual,” resources are allocated to fire-fighting, attempting to lower Things...

Abstract

...Things Gone Wrong, such as medical errors in a hospital. Under such *contingent* circumstances (a problem has occurred), how much value is given to activities for *preventive* measures (a problem has not occurred), if not seeking *opportunities for investment*, wherein efforts to improve existing actions (those not considered current problems) will have a superior return elsewhere within the system?

Business as Unusual offers opportunities to both ***prevent problems*** and ***seek opportunities for investment***.

Agenda

- *Background*
- *Reflections*
- *Modes of Thinking*
- *Purposeful Resource Management*
- *Opportunities to Act*
- *Opportunities to Think*

Background

Resource Management Model

A
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t
i
v
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Proactive

Reactive



Resource Management

Proactive – applying effort while “good,”
“OK,” “well,” or “correct” is happening

Resource Management

Proactive – applying effort while “good,” “OK,” “well,” or “correct” is happening

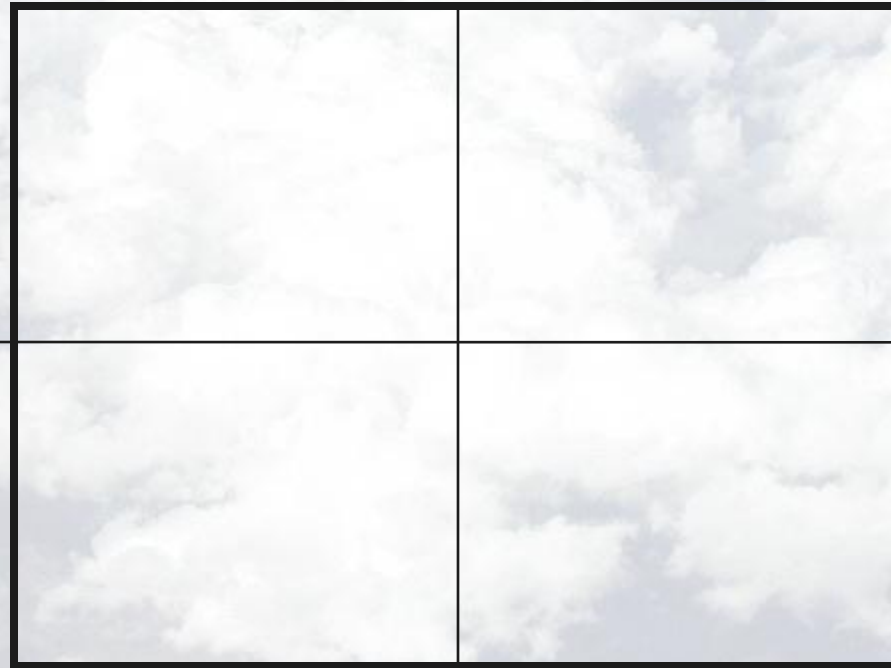
Reactive – applying effort after “bad,” “not OK,” “sick,” or “incorrect” happens

Resource Management Model

A
c
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y

Proactive

Reactive



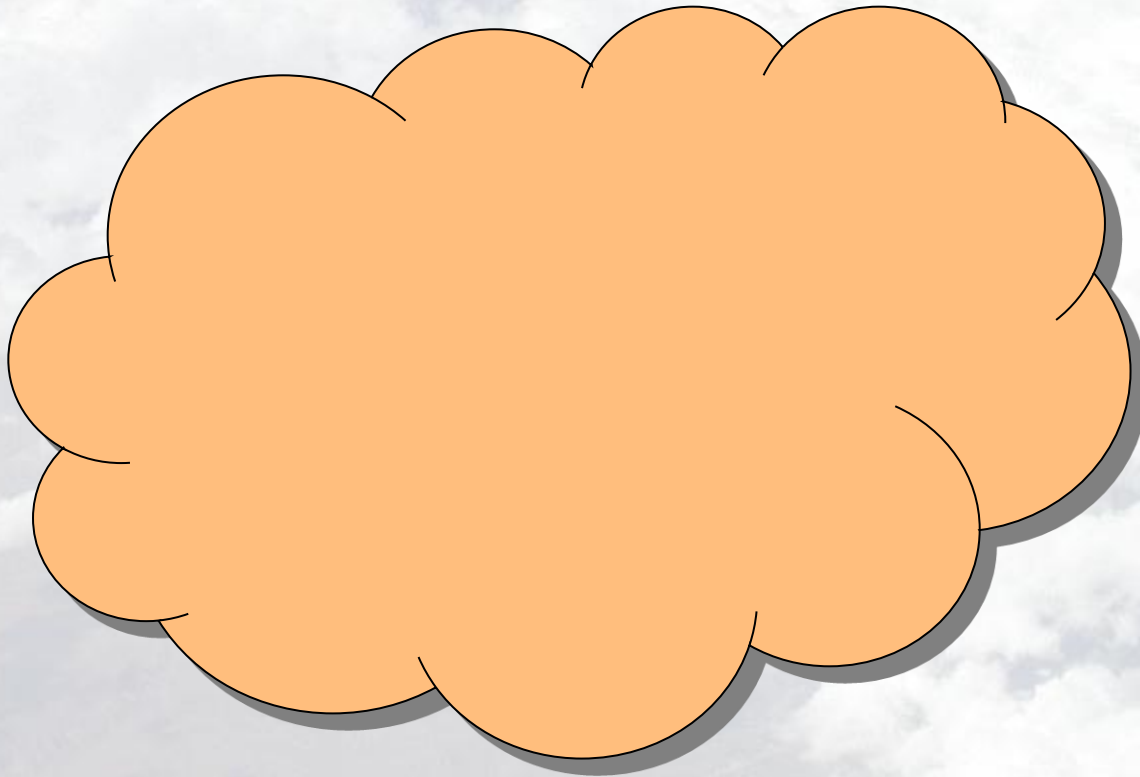
“Mine”

“Ours”

Ownership

Product or Service Innovation

As Conceived



Product or Service Innovation

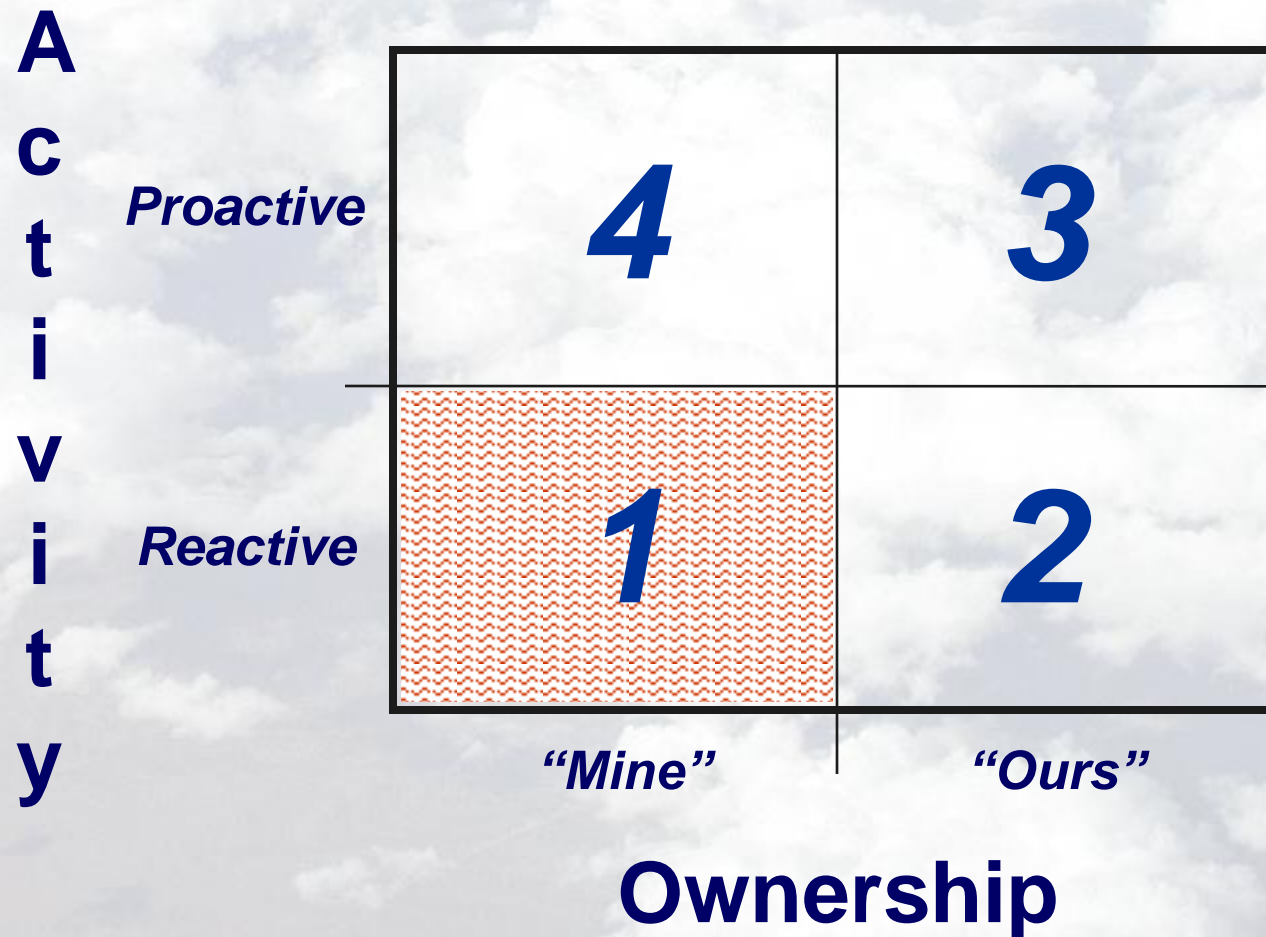
As Conceived



The top 5 uses:

1. Replacing the screwdriver
2. Pilot holes
3. Hole saw
4. Drywall installation
5. Concrete

Resource Management Model

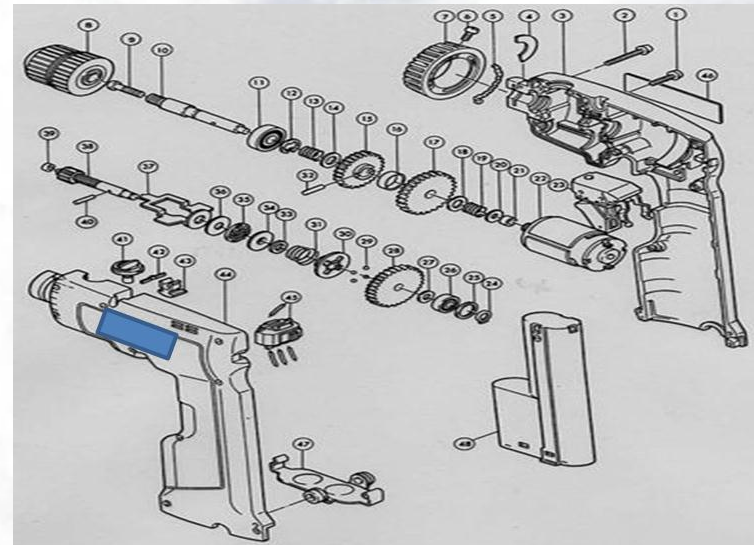


Product or Service Innovation

As Conceived



As Managed



Inspiration

In the late 1960's, Frank Pipp, an assembly plant manager for an American automobile company, instructed his team to purchase competitor's cars. His plan was to have the final assembly team disassemble these cars and learn first-hand how they assembled. At that time, if two connecting parts could be assembled in Pipp's plant without the use of a handy rubber mallet, then these parts were known as "snap fit".


Inspiration

In Pipp's experience, snap-fit was a rare occurrence. To his amazement, one competitor's car was discovered to be 100% "snap fit", for which his division GM replied, "The customer will never notice."

Slowly, but surely, customers have noticed the assembly and performance results that Pipp's team found in 1969, when they first examined a Toyota pickup truck.

Replication

Fast forward to 2014, when the financial advantages of 100% snap-fit hardware have been demonstrated and replicated within Aerojet Rocketdyne for over 18 years. We do so with an emphasis on “better thinking about thinking,” which shifts attention from a traditional focus on parts to the gap between the parts and, thereby, how parts integrate.



“Little progress can be made by merely attempting to repress what is evil; our great hope lies in developing what is good.”

Calvin Coolidge

Resource Management

“An ounce of prevention is worth a pound of cure”

Ben Franklin

“A stitch in time saves nine”

Francis Baily

“Every dollar we invest in high-quality early education can save more than \$7 later on”

Barack Obama

Perception & Thinking



*“What we see depends on what we
thought before we looked.”*

Myron Tribus

Philip Crosby on Quality

- “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

Imagine....No Problems

Beginning on Monday morning, all incoming material as well as all tasks completed internally, meet requirements and arrive on time, on budget...

What changes would begin to appear, within hours, days, weeks, and years?

Imagine....Replies

➤ 1

➤ 2

➤ 3

➤ 4

➤ 5

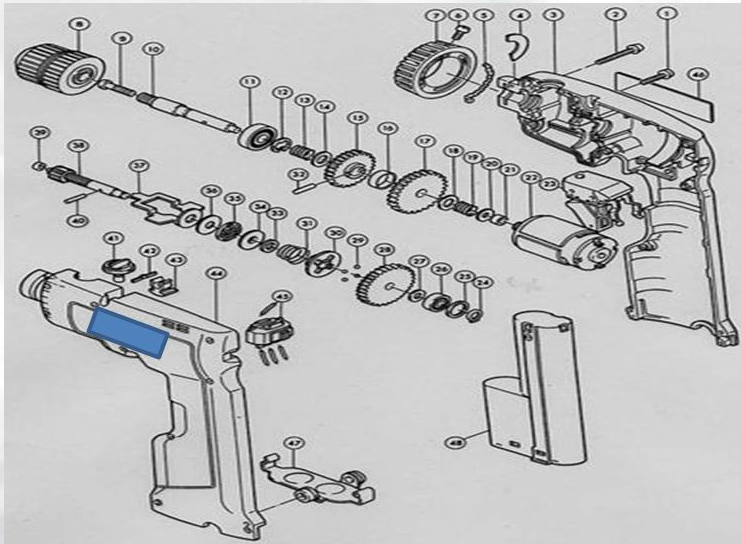
➤ 6

➤ 7

➤ 8

Actions & Interactions

Actions - Parts



Interactions - Gaps



Actions & Interactions

“A system is never the sum of its parts. It is the product of the interactions of its parts.....the art of managing interactions is very different indeed than the management of actions, and history requires this transition for effective management.”

Russ Ackoff

W. Edwards Deming on Quality

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

Genichi Taguchi on Quality

“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

Time Management

How much time is spent discussing parts, tasks, activities, program milestones, etc. which are good and completed on time?

How much time is spent studying for the final exam, questions from weekly quizzes and the mid-term which were correct?

Time Management



Satisfaction

How important is customer satisfaction?

Expectation Management

Value



Buying Watermelons and Briquettes

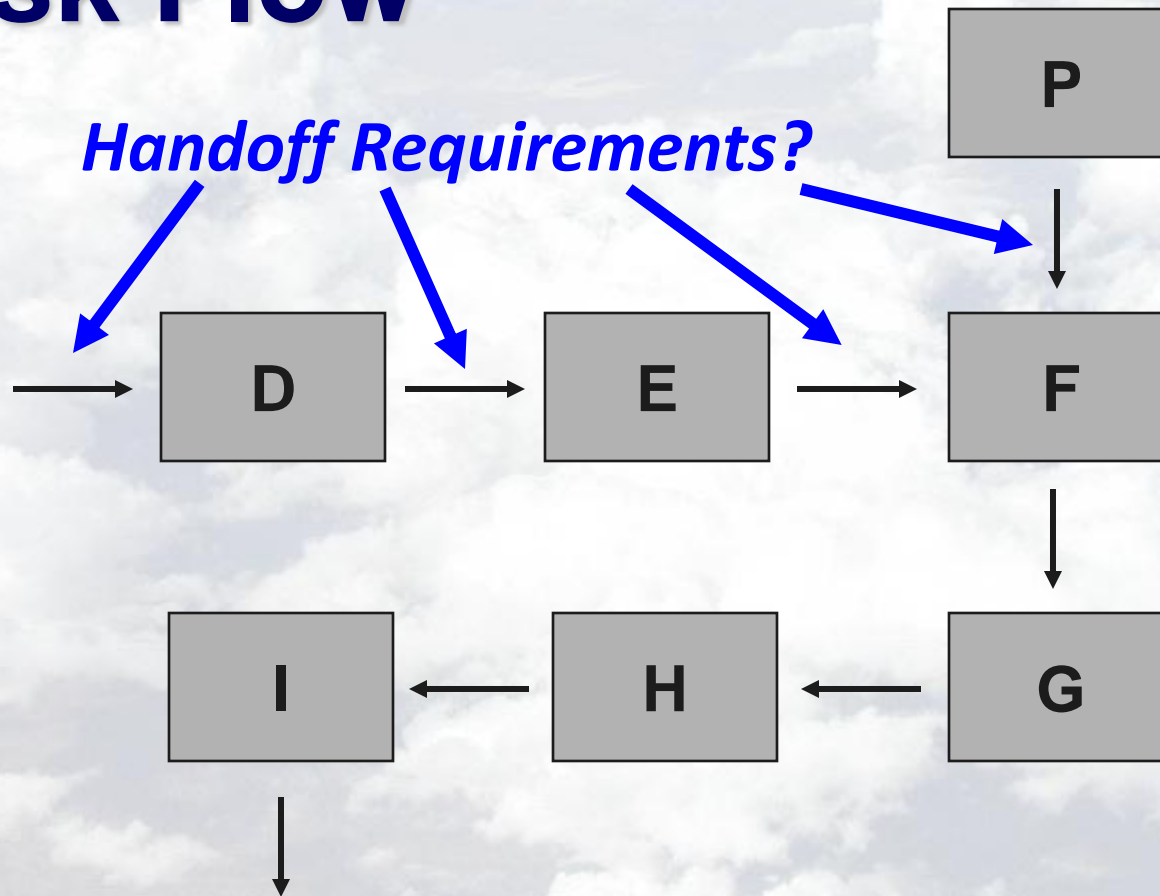


Grades

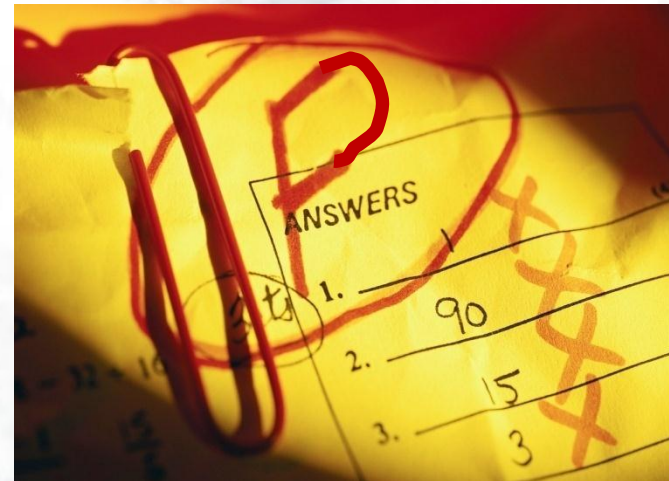
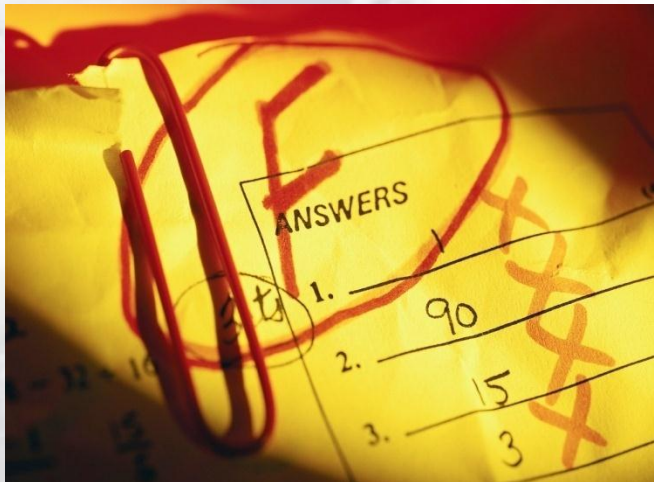
What letter grade is required for all purchased parts and services, as well as tasks completed internally?



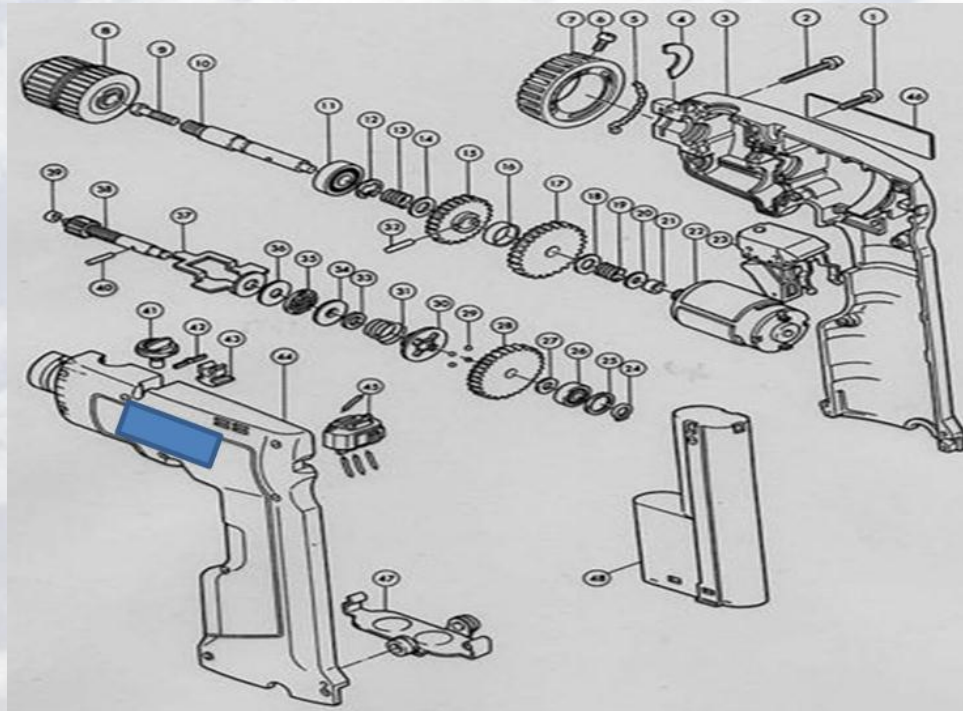
Task Flow



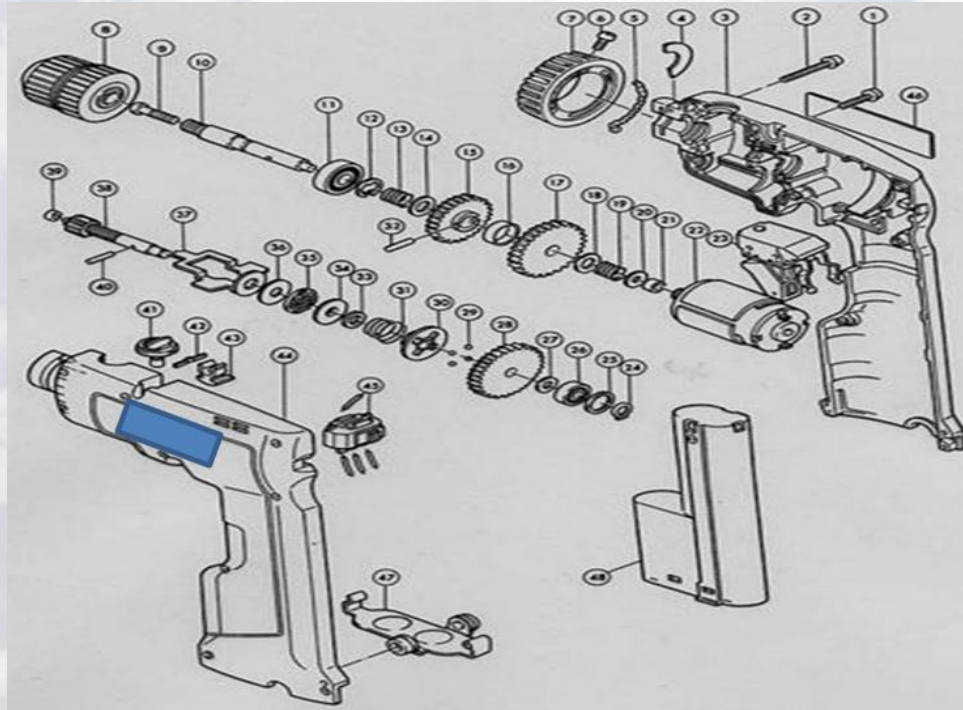
Task Grades



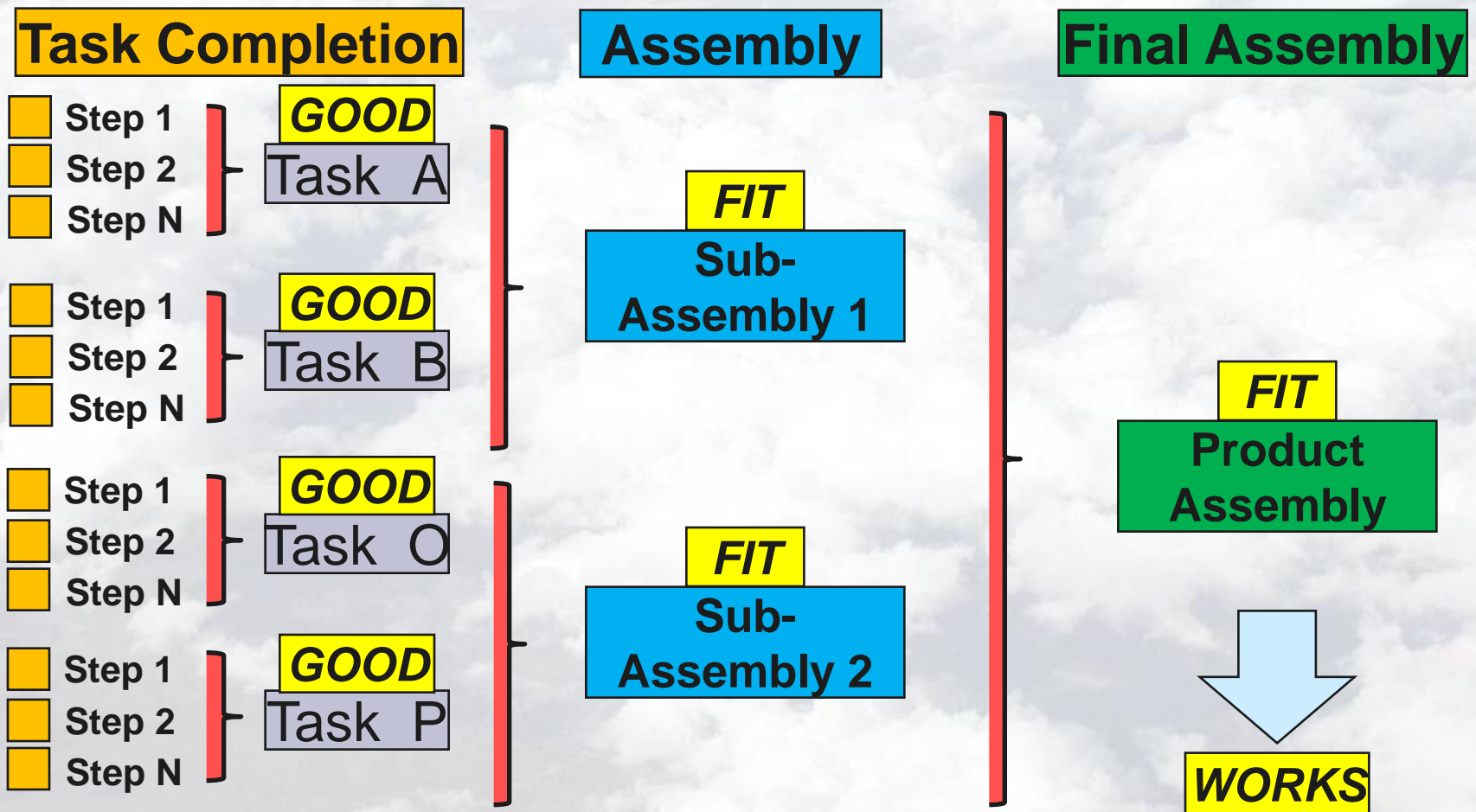
Task Management



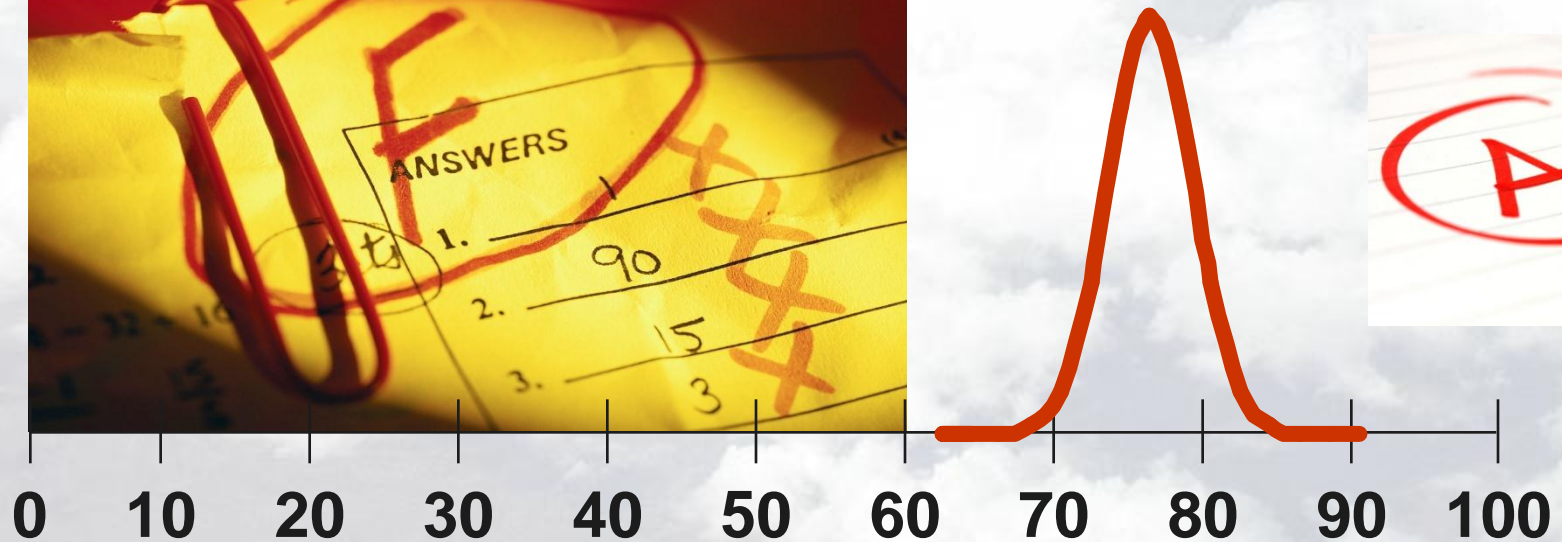
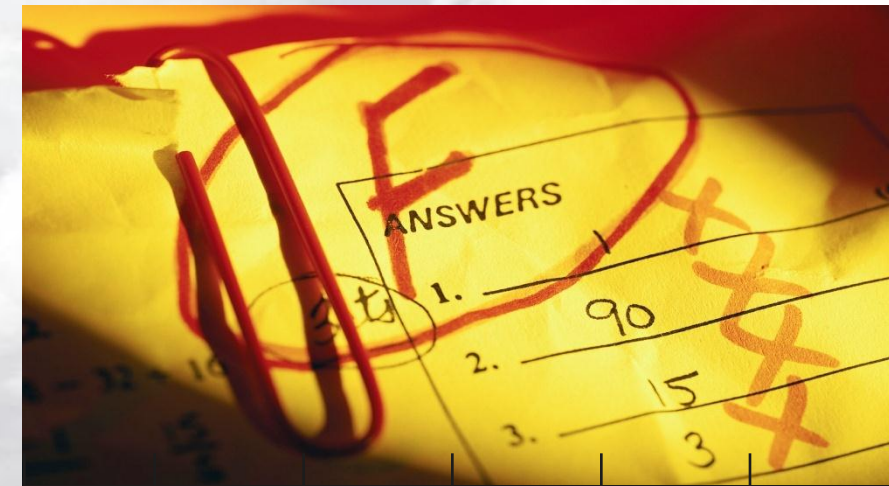
Macro System Model



Macro System Model



Task Grades



Interactions, not Actions

One inspiration for challenging the mental model of “good parts” is the 1983 discovery by Ford Motor Company of a dramatic difference in warranty claims between automatic transmissions designed by Ford and produced in two locations, one in Batavia, Ohio, the other by Mazda in Japan.

Interactions, not Actions

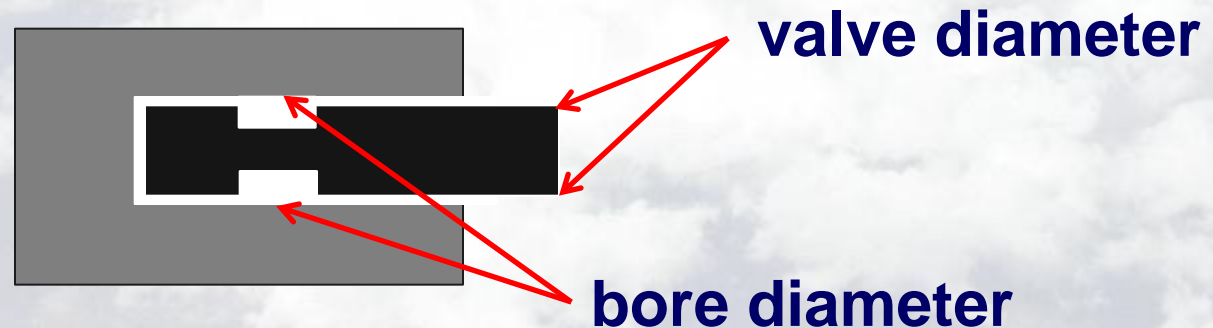
Much to the surprise of Ford's corporate warranty office, the number of complaints associated with the erratic shifting of the transmissions produced in Batavia were a factor of 3 greater than the complaints against the transmissions produced by Mazda.

Interactions, not Actions



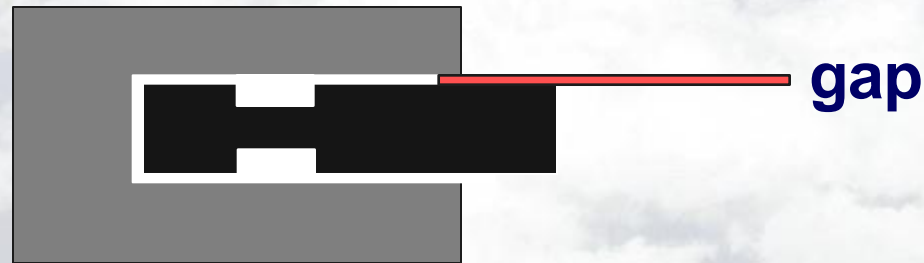
Interactions, not Actions

Upon close examination, Ford realized that their manufacturing focus was on the **valve diameter** and the **bore diameter**, *taken separately*



Interactions, not Actions

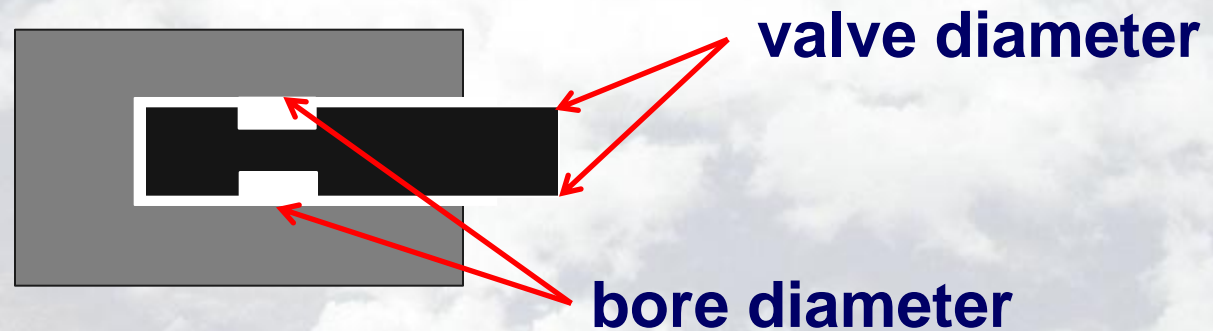
Meanwhile, Ford learned that Mazda's manufacturing focus was to actively manage the **gap** between the outer diameter of the valves within the transmission and



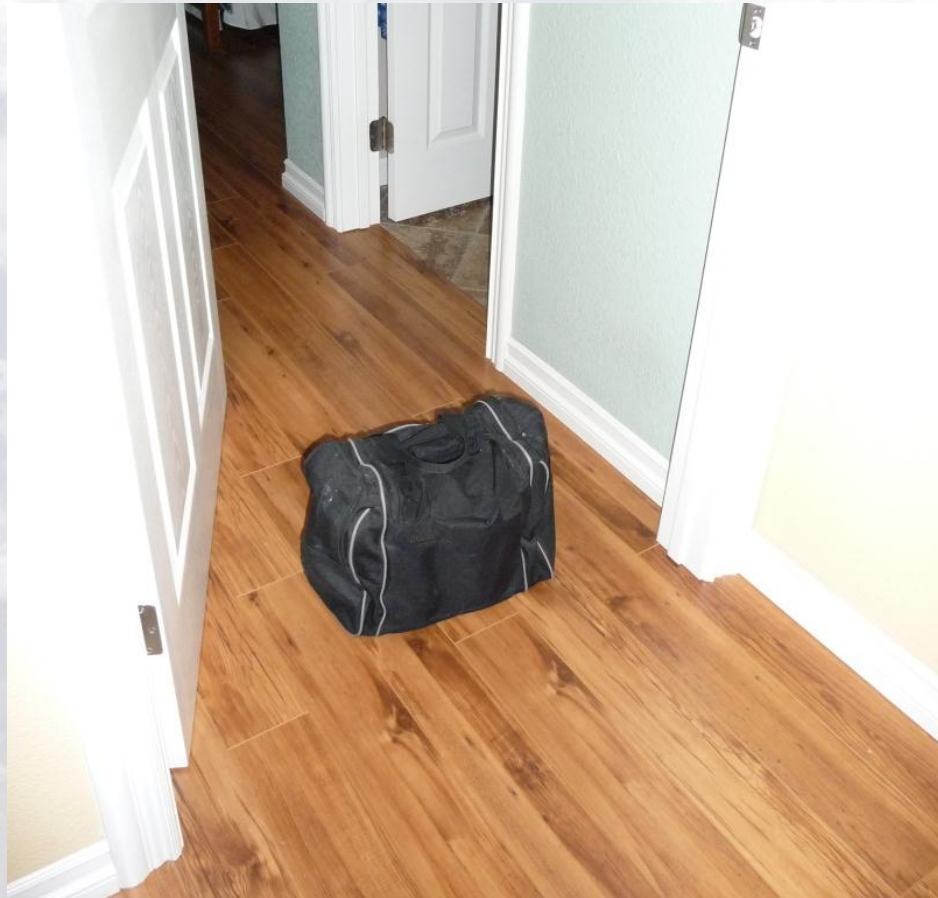
the corresponding diameter of the valve bore.

Interactions, not Actions

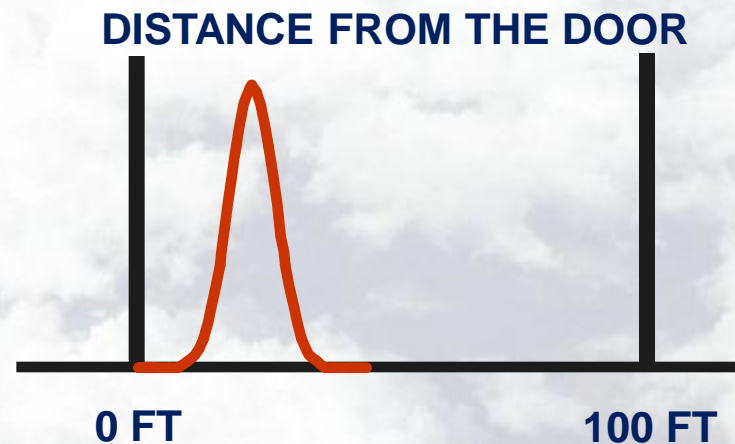
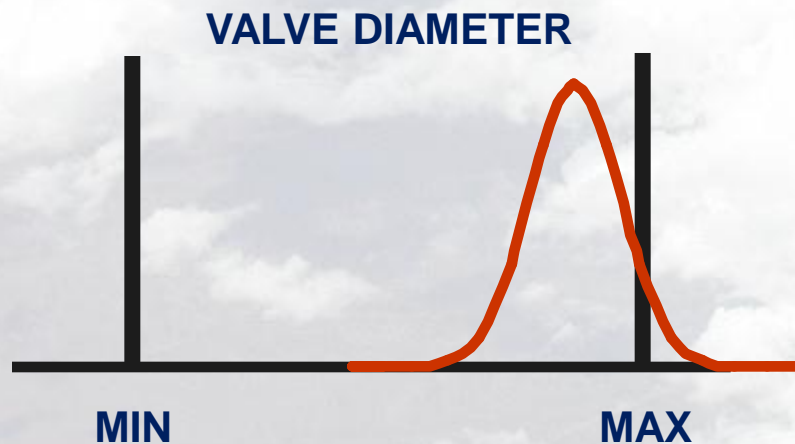
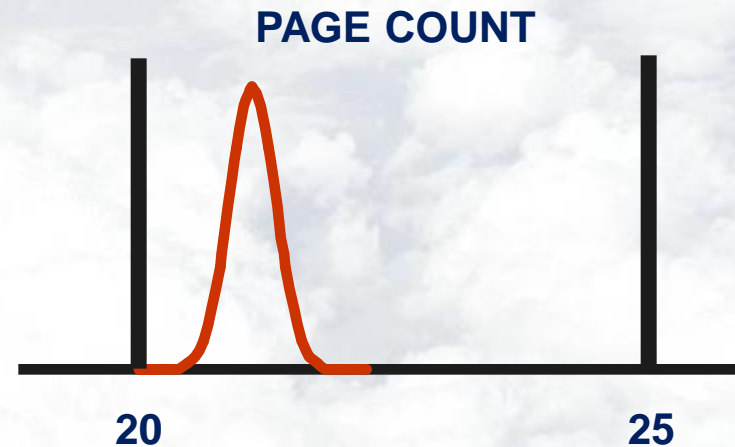
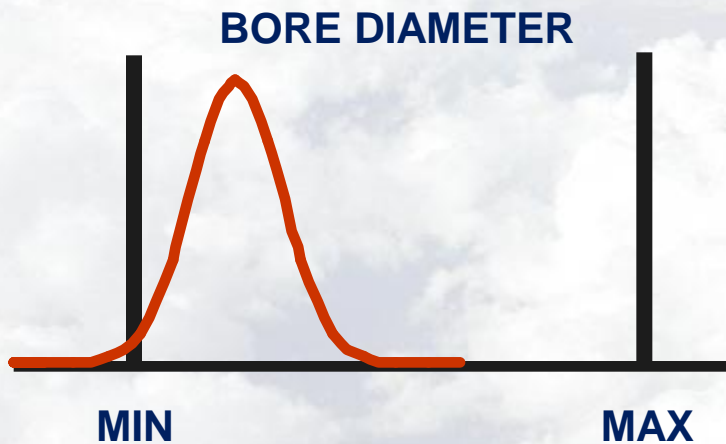
In doing so, Mazda's efforts realized the existence of an ideal gap, resulting from ideal ("target") values for both the bore and valve diameters, with an awareness that variation in gap size matters.



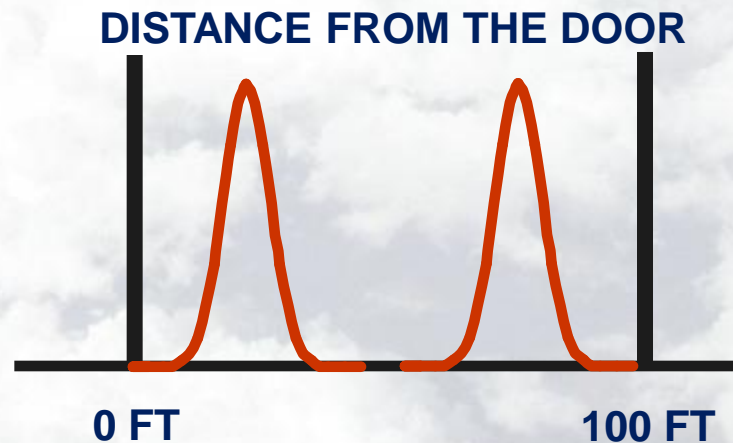
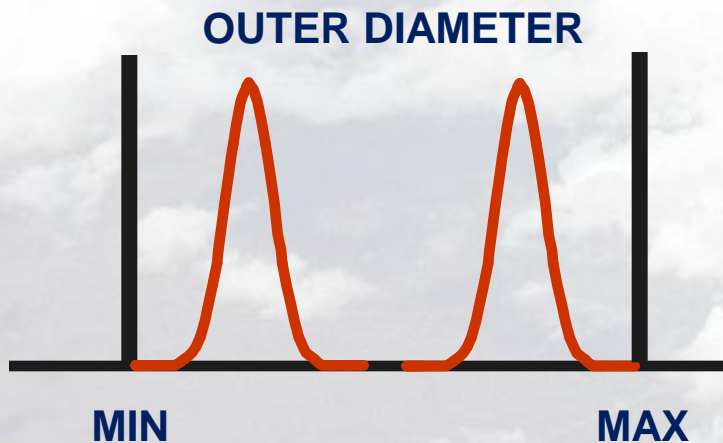
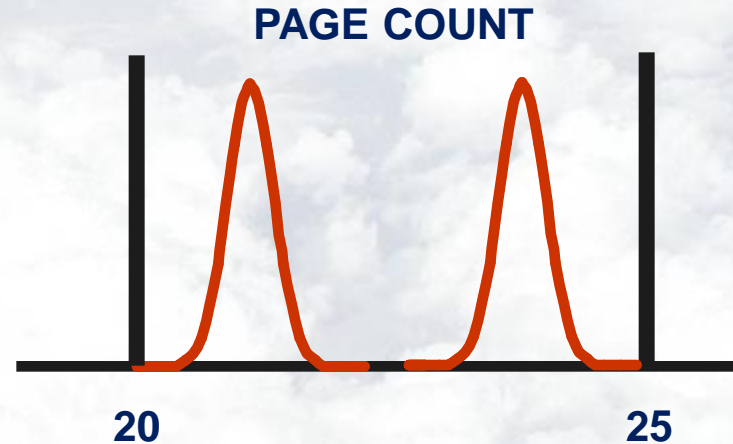
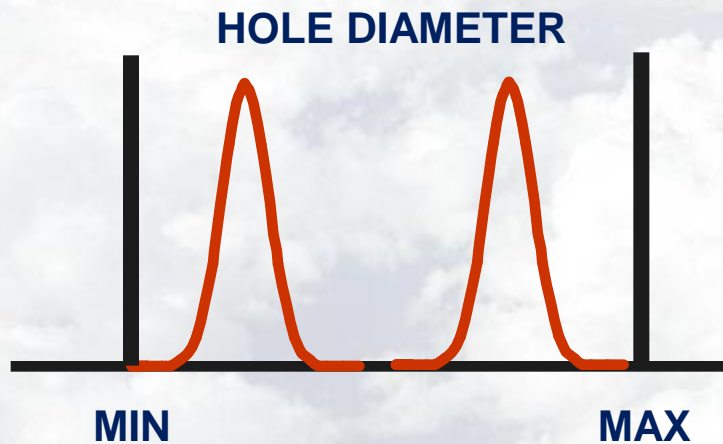
On Bowling Balls



Examples of Action Management

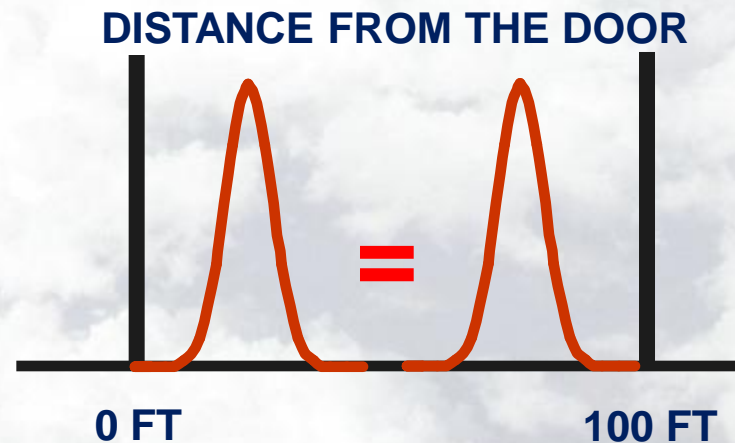
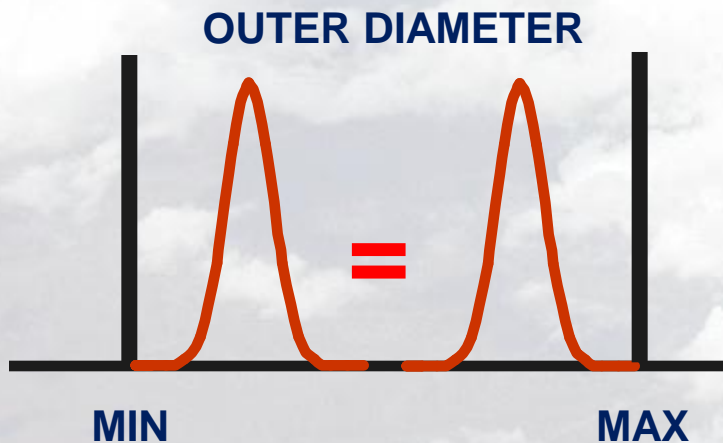
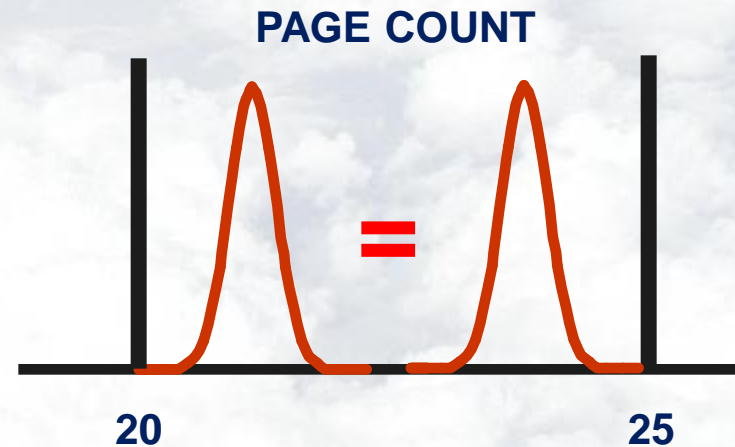
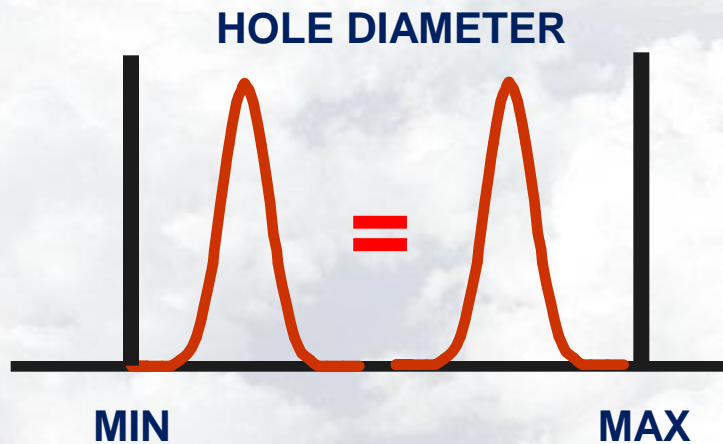


Macro System Model Action Management

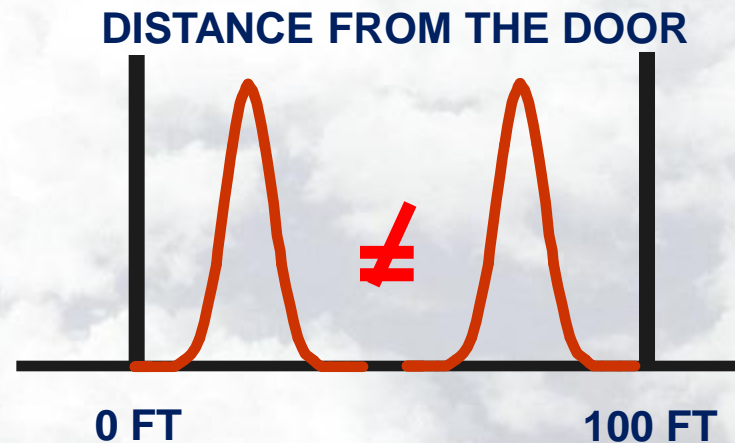
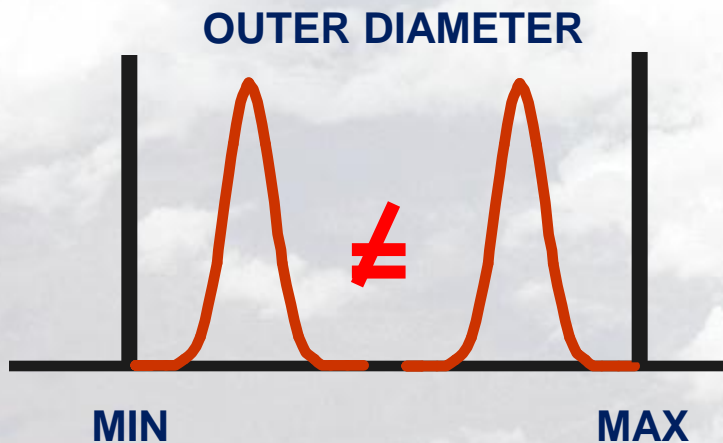
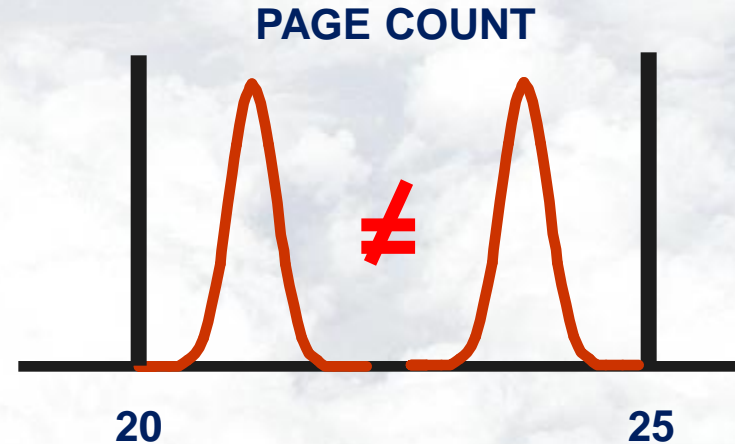
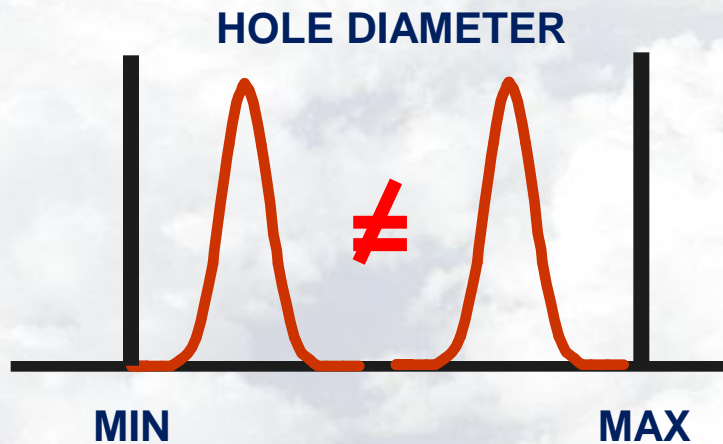


Macro System Model

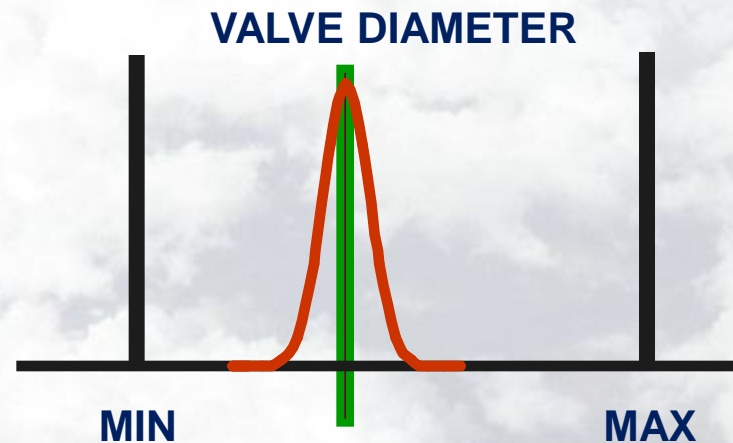
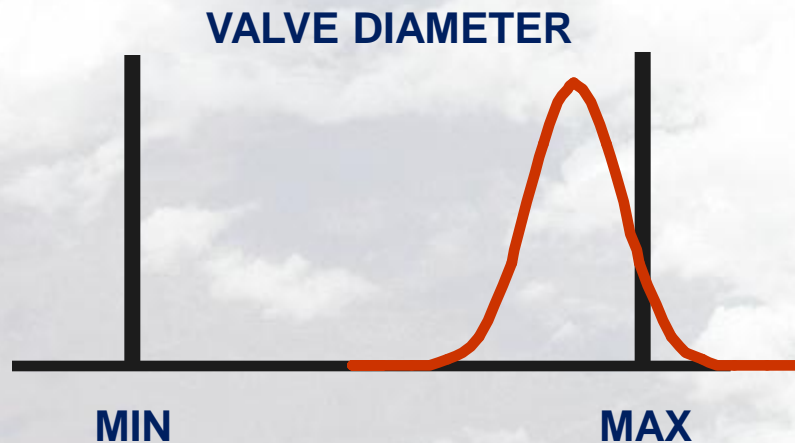
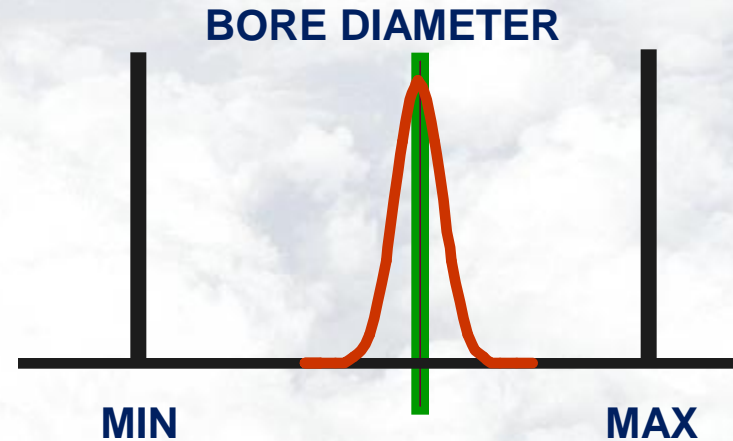
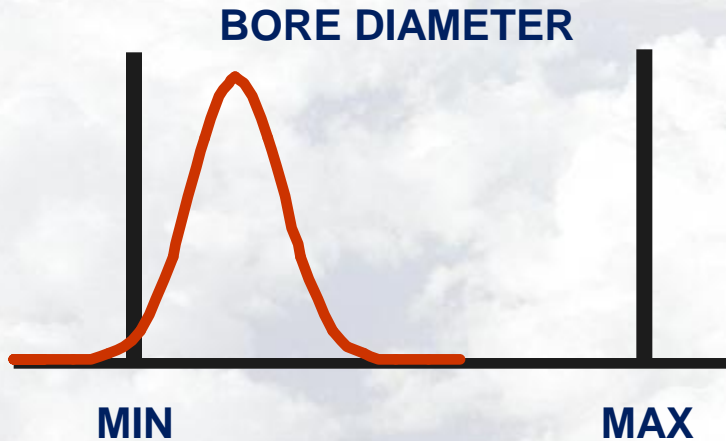
Action Management



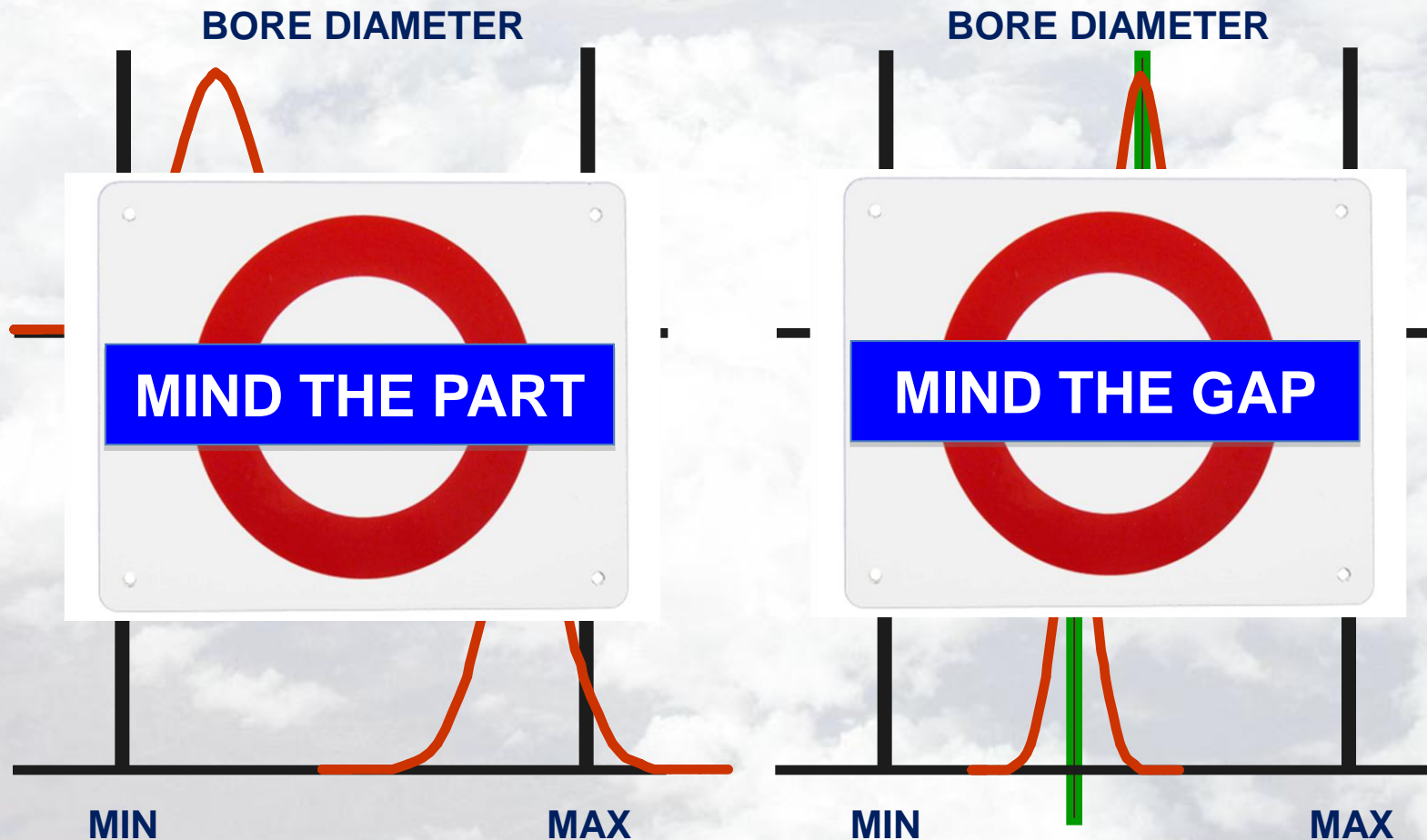
Micro System Model Action Management



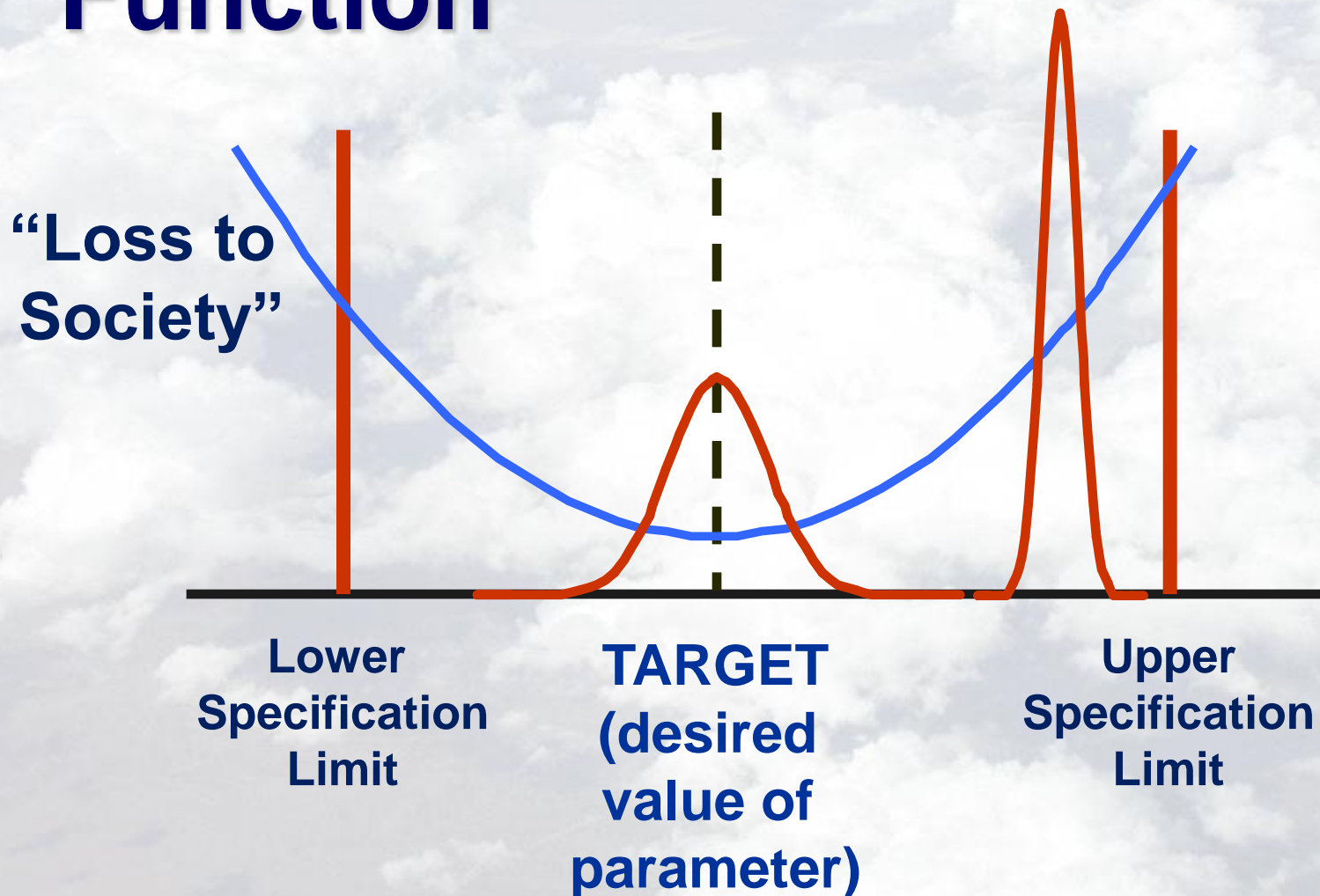
Resource Management Contrast



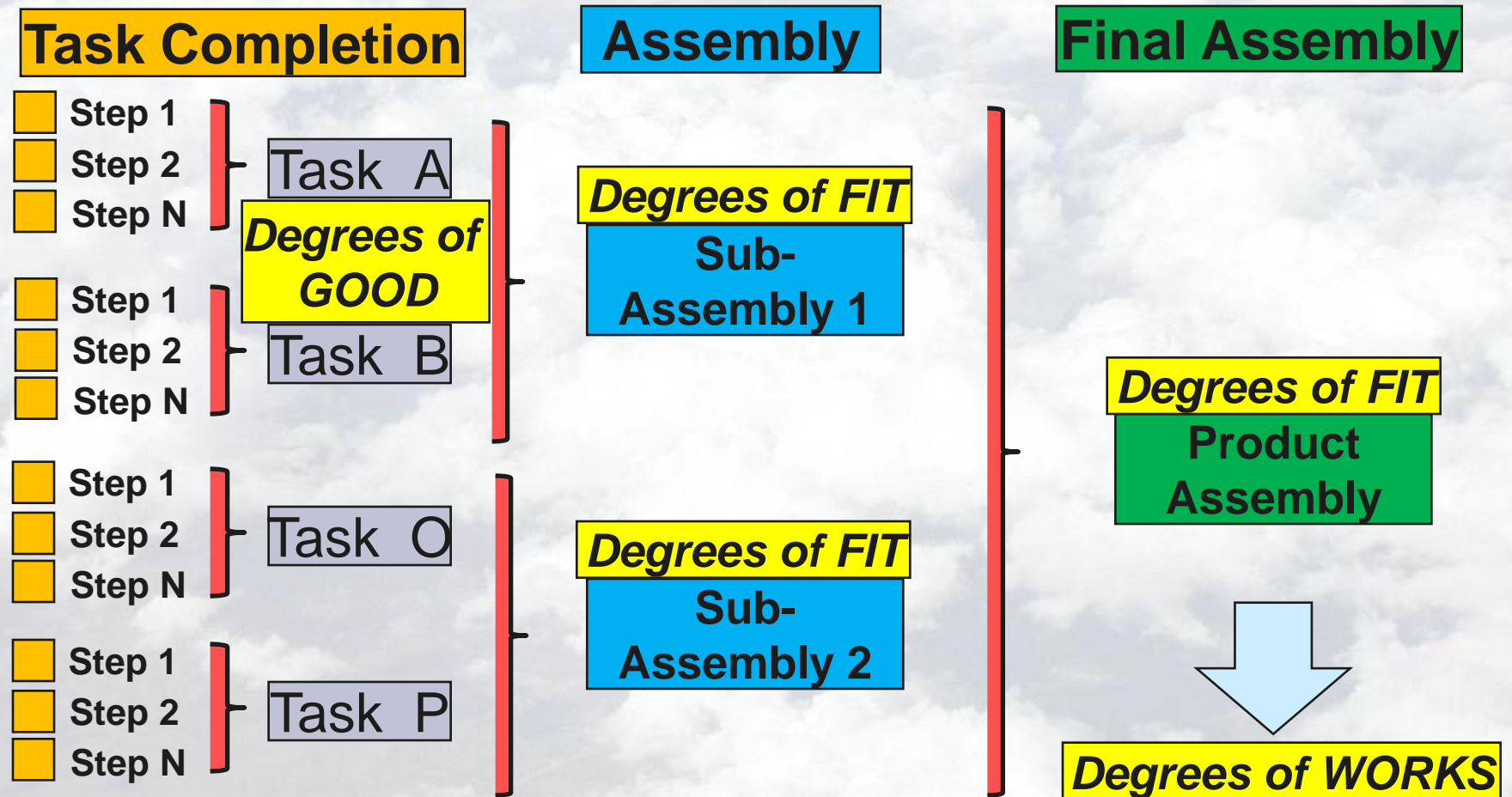
Resource Management Contrast



Taguchi's Quality Loss Function



Micro System Model



Modes of Thinking

Modes of Thinking

➤ Categories

- Absolutes
- Discrete
- Good vs. Bad, Smart vs. Dumb
- How many students at UCLA? How many faculty?



➤ Continuum

- Relative
- Wholeness
- Better/Faster/Cheaper/Smarter/etc.
- Students are different, faculty are different



Modes of Thinking

➤ Categories

- Absolutes
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➤ Continuum

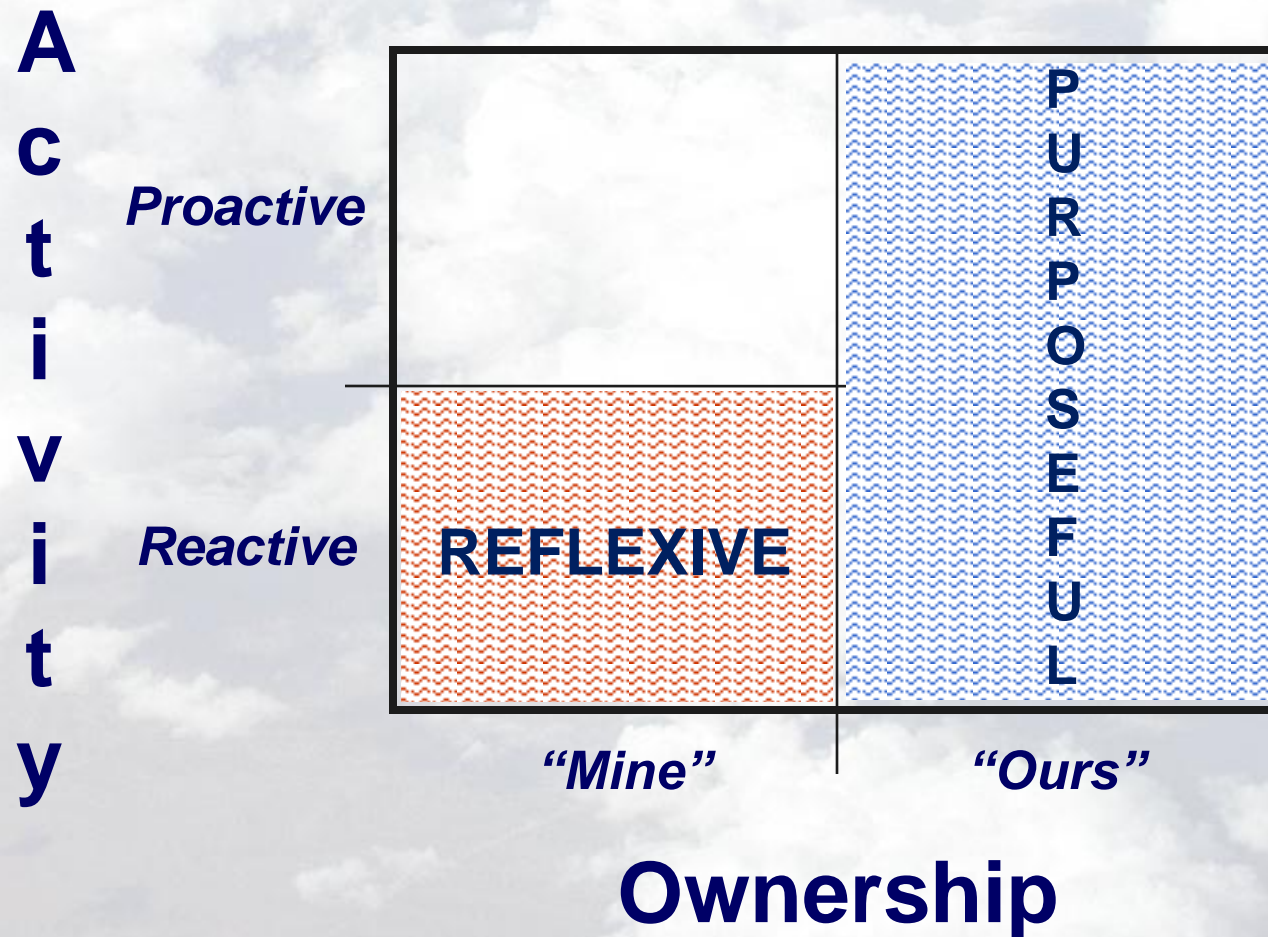
- Relative
- Wholeness
- Better/Faster/Cheaper/Smarter/etc.
- Students are different, faculty are different





Purposeful Resource Management

Resource Management Model



New Meaning

The first step. The first step is transformation of the individual. This transformation is discontinuous. It comes from understanding of the system of profound knowledge. The individual, transformed, will perceive new meaning to his life, to events, to numbers, to interactions between people.

Source: The New Economics, W. Edwards Deming, 1993

Transformation

The outside view. The layout of profound knowledge appears here in four parts, all related to each other:

- *Appreciation for a system*
- *Knowledge about variation*
- *Theory of knowledge*
- *Psychology*

Source: The New Economics, W. Edwards Deming, 1993

Opportunities to Act

Opportunities to Act

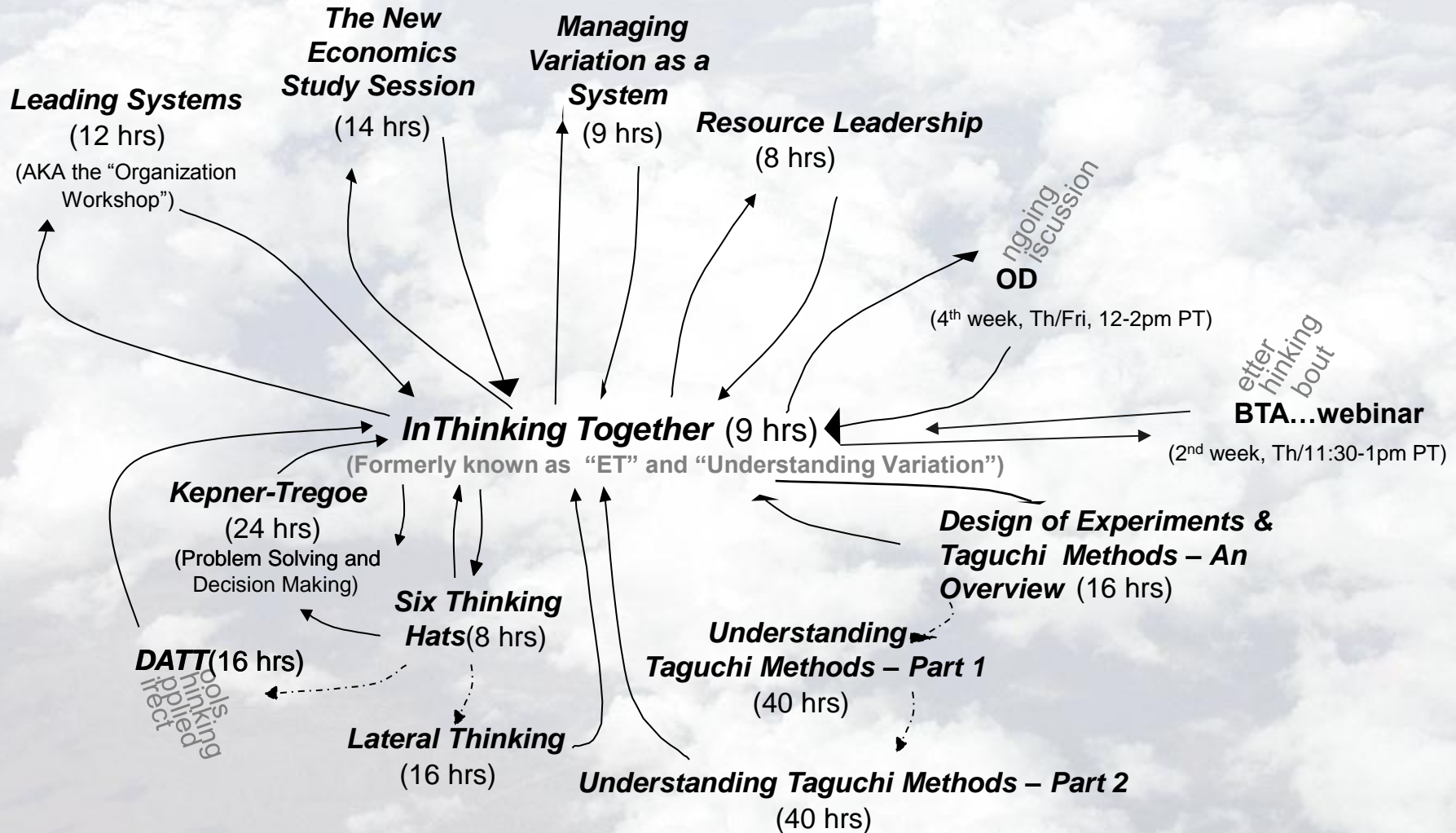
(differences that make a difference)

- Category Thinking vs. Continuum Thinking
- Macro Systems vs. Micro Systems
- Attention to “Good” elements
- Manage interactions, not actions

Opportunities to Think

An InThinking Roadmap

AKA The Hotel California



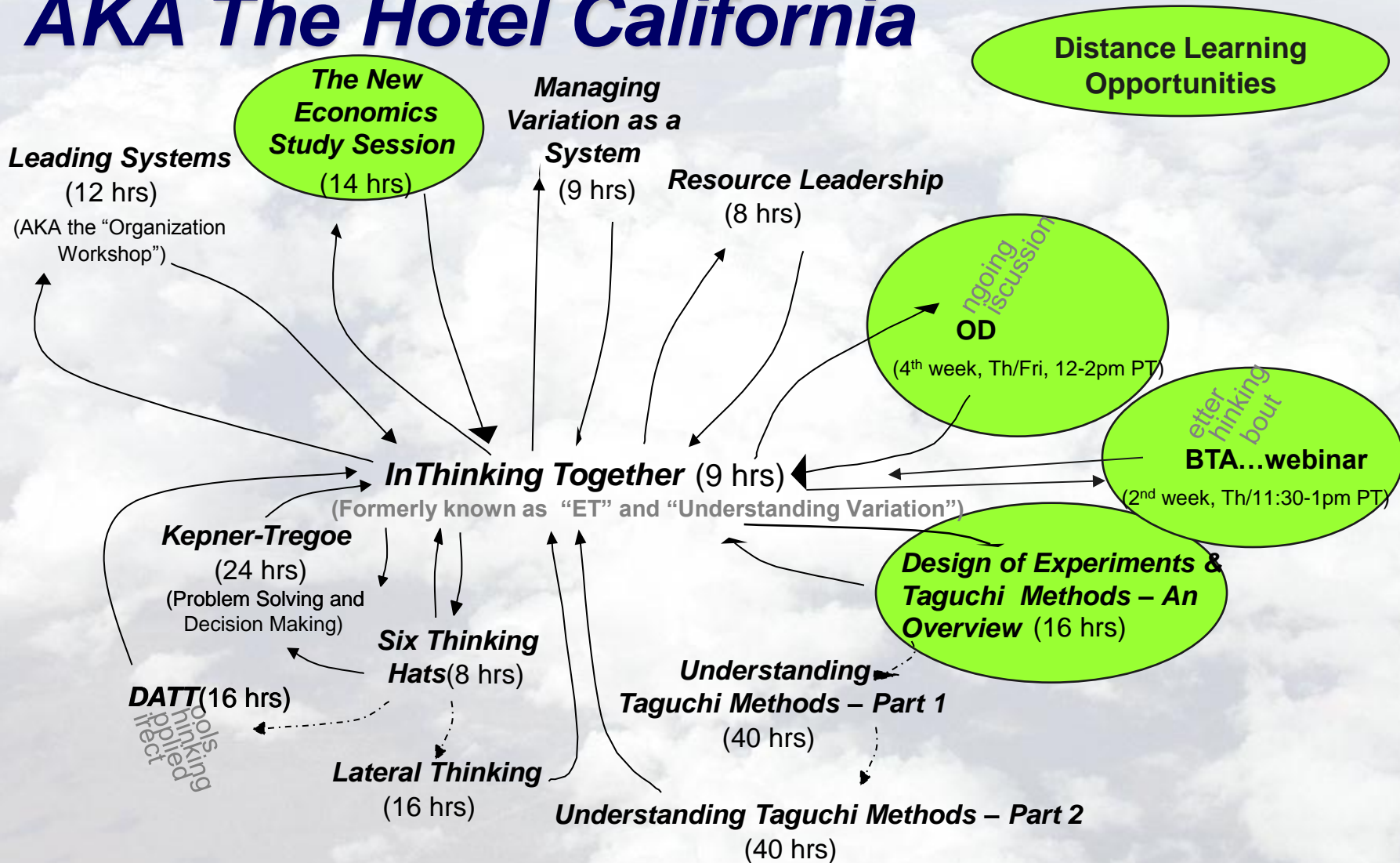
Prerequisites →

An InThinking Roadmap



TARGET AUDIENCES: Members of management, individual contributors, suppliers, and customers who are providing leadership in InThinking activities. Family members, "members of the community" and students are welcome to attend. "Members of the community" are citizens who are involved full or part time, or in a volunteer capacity, in community related work. Examples include hospital employees, teachers, religious leaders, scouting leaders, and youth sports volunteers.

An InThinking Roadmap

AKA The Hotel California



Monthly Announcements



April 2014

Better Thinking About...Web Announcement

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- [Additional Reading](#)

Aim and Stats

Good afternoon from the Los Angeles campus of [Aerojet](#) located in Canoga Park, California, on the western end of Fernando Valley.

In our third session of 2014, Elaine Johnson, from Lake C Oregon, will present on Thursday, April 10th, from 11: new focus area, "Better Thinking About How Literature Sp Business."



Elaine's aim for this presentation is to show that literature business succeed. Literature lets business leaders enter multitude of characters to penetrate their thinking, experie



March 2014

Ongoing Discussion Announcement

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Aim and Stats

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Aerojet Rocketdyne's InThinking Network welcomes Julie Goodfellow, from Abergavenny, Wales and Hugh McAllister, from Henderson, Nevada, to lead our third Ongoing Discussion conference call of 2014 on March 27th and 28th and also our 171st session since we began in January 2000). As for a topic, Julie and Hugh have selected "From My Seat in the Stadium Continued...", in their first time with us as Thought Leaders.

(Please note: daylight saving time is in force in the USA)



Hugh has been a friend and thinking partner since 2008, when he worked in Los Angeles and joined the team for the In2:InThinking Network's

In2:InThinking Network 2015 Forum


Break the Mold: Aspire, Inspire, Achieve

June 10-14, 2015 in Los Angeles, California

The In2:InThinking Network was formed in 2001 by a group of students of the work of W. Edwards Deming and related theorists, including Russell Ackoff, Edward de Bono, Tom Johnson, Peter Senge, and Genichi Taguchi. The aim of our network is to make thinking about sub-systems, variation, knowledge, and psychology, and their interaction – which comprises Deming's System of Profound Knowledge - more conscious. We believe that such thinking about thinking, which we call “InThinking,” will allow people to better perceive relationships and interdependencies in human endeavors, and consequently act to make those endeavors more valuable, more satisfying, and more joyful. The aim of our 5-day In2:IN 2014 Forum is to continue to elevate the consciousness of individual and collective thinking. Join us in learning, connecting, and improving how we can *work, learn, and think* together. Registration fee: \$400, with a \$50 discount for registering on or before May 7th.



Learn more about our 2015 Forum at our website at www.in2in.org



“Getting less of what you don’t want doesn’t get you what you want.”

Russ Ackoff

Business as Unusual

(Shift From Big Problems to Great Opportunities)

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