

# Red Pen / Blue Pen Exercise

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# In2InThinking

- **Dr. Bill Bellows, Pratt & Whitney Rocketdyne**
- [www.in2in.org](http://www.in2in.org), “In2:InThinking Network” sponsors an annual 6-day Forum and a monthly newsletter
- **Pratt & Whitney Rocketdyne also sponsors a monthly toll-free (for U.S.) “Ongoing Discussion” conference call**

## About The In2:InThinking Network

The In2:InThinking Network was formed in 2001 by a group of students of the work of W. Edwards Deming and related theorists. The aim of our network is to make thinking about 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.

# Background

**In the late 1960's, Frank Pipp, an assembly plant manager at Ford, instructed the plant to purchase a competitor's cars. His plan was to have the final assembly team disassemble these cars and learn first hand how well they were made. At that time frame in Ford, if two connecting parts could be assembled without the use of a handy rubber mallet, then these parts were known as "snap fit". The remaining parts might well require hammers to assemble. To Frank Pipp's amazement, one of the purchased cars was 100% "snap fit". Pipp did not believe the results and instructed the team to repeat the assembly operation. They did and found again that the Toyota pickup truck was 100% snap fit. The time frame was the late 1960s.**

# The Companies

Imagine that you have just returned from visiting two companies – the Red Pen Company and the Blue Pen Company.

For starters, their description

***“The Red Pen Company is the place I go to every week to buy one red pen. They only make red pens and it is the only place to buy them. Likewise, the Blue Pen Company is the sole source for blue pens and I buy one there every week as well. Both pens cost \$1.”***

# Exercise Description

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**We have spent a week at the Red Pen factory, and the Blue Pen factory.**

**The first day was a holiday, and you were able to view the factories with no operations, no people present. Describe the physical facilities of each factory.**

**During the rest of the visit, the factories were in normal production. Describe the people at each factory.**

# The Pens

**The cap and body of the blue pen are easy to separate and the red pen cap and body can only be assembled with a hammer and disassembled with pliers. The term I use for the easy-to-separate blue pen body and cap is that they are “snap fit”. By comparison, the red pen body and cap are a struggle to separate.**

# Observation Form

<b>Blue Pen Company</b>	<b>Red Pen Company</b>
<i>Physical</i>	
<i>People</i>	

# Discussion

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**The most important figures that one needs for management are unknown or unknowable (Lloyd S Nelson)**

**You have been able to visualize the differences between two factories, one a good place to work, one a bad place to work**

**Divergent groups given this task give surprisingly similar answers**



Blue Pen Company

Red Pen Company

physical

blue materials.  
no barriers.  
social space in common area.  
production line has a natural sequence.  
research department.  
customer service window.  
modern facility.

not as structured/organized  
poor house keeping  
facade is a fortress - impression of physical barrier  
hammer/plier checkout station - only certain people have access to it  
blue pens in use  
comic strips  
signs of cynicism/sarcasm

people

better engineers.  
willing to admit what they don't know.  
eagerly seek opportunities to exchange information.  
acknowledge visitors.  
not as much ego or attitude:  
no fingerpointing.  
QA workers testing snapfit.  
cross-training:  
managers worked assembly line 2x a year.

QA workers to make sure that pens can be uncapped w/pliers  
tough/strong people  
no mission statement  
no mechanism to collect bad/good situations/data: result: bad morale.  
subsidiary pliers company.  
people not happy/friendly. disgruntled.  
"it's just a job. not enough pliers."  
no pride in their work. hallway conversation: who's leaving? we're about to be taken over. blue pen co is hiring;  
us (workers) vs. them (mgmt)  
us (mgmt) vs. them (workers)

# Red/Blue Measures?

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**Could we convert our observation table to numerical scores? Redness <-> Blueness?**

**Could we infer morale, happiness, attitude from certain measurements? Surveys? Interviews?**

**Could we measure the physical conditions?**

**THINK**

