

Tony Miller - Session 2

**Barrier – Not seeing the
Invisible**

Lloyd Nelson

**“The most important factors
(in management)
are unmeasured and unmeasurable.”**

W. Edwards Deming

“He who would run his company on visible figures alone will in time have neither company nor figures”.

Variation

Variation is one of the invisible factors.

Variation is similar to germs in medicine
150 years ago.

- Even today we find that randomness and variation are difficult concepts to grasp.
- Perhaps we resist these concepts because they imply something is beyond our understanding and control.

W Edwards Deming

- Deming devised a thought experiment based on a Funnel.
- The aim was to test our understanding of randomness and variation.
- The Quincunx is a 2-dimensional representation of the Funnel Experiment.

Your task as the owner of this process is to minimise variation in the results.

W Edwards Deming

To help us out, Deming proposed 4 possible 'rules' to follow:

1. Aim at target and make no adjustments – let randomness have its way.
2. Sense where the last attempt landed and move the funnel – relative to its last position - to compensate.
3. Sense where the last attempt landed and move the funnel – relative to the target – to compensate.
4. Move the funnel to aim at the place where the last attempt landed.

W Edwards Deming

Lets try them out with the Quincunx:

1. Aim at target and make no adjustments – let randomness have its way.
2. Sense where the last attempt landed and move the funnel – relative to its last position - to compensate.
3. Sense where the last attempt landed and move the funnel – relative to the centre – to compensate.
4. Move the funnel to aim at the place where the last attempt landed.

W Edwards Deming

Results of trying to control the process:

1. Aim at target and make no adjustments – let randomness have its way.
2. Sense where the last attempt landed and move the funnel – relative to its last position - to compensate.
3. Sense where the last attempt landed and move the funnel – relative to the centre – to compensate.
4. Move the funnel to aim at the place where the last attempt landed.

W Edwards Deming

1. An untidy spread of values.
2. Double the spread of rule 1.
3. Wild Oscillations.
4. Steady move off stage left – or stage right.

Performance

Rule 1 – best in the circumstances.

Rule 2 – spread of hits doubles.

Rule 3/4 – Unstable outcomes. Hits tend to move steadily away from target.

Performance

Central Question:

When should managers intervene ?

Can knowledge of variation help us ?

Performance

Rule 1 – best in the circumstances.

But Rule 1 is do nothing !

Does this mean managers should stop intervening?