Taiichi Ohno's Chalk Circle in the Office

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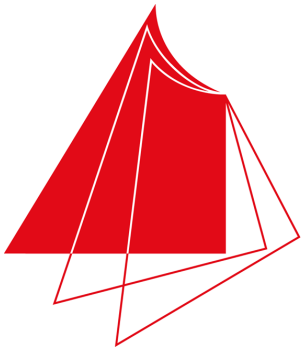

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Taiichi Ohno – Father of the Toyota Production System

- Toyota Production System developed in large parts by Taiichi Ohno between 1950 and 1970
- Toyota Production System one of the best in the world
- Toyota Production System is Archetype of Lean Production

Taiichi Ohno (1912-1990)

The Value of Observation

- Lean Improvements need a good and solid understanding of the situation
- Only part of this is based on data
- Often, the larger part is understanding the process and especially its difficulties
- Toyota Philosophy *Genchi Genbutsu* (現地: actual place; 現物: actual article or object)

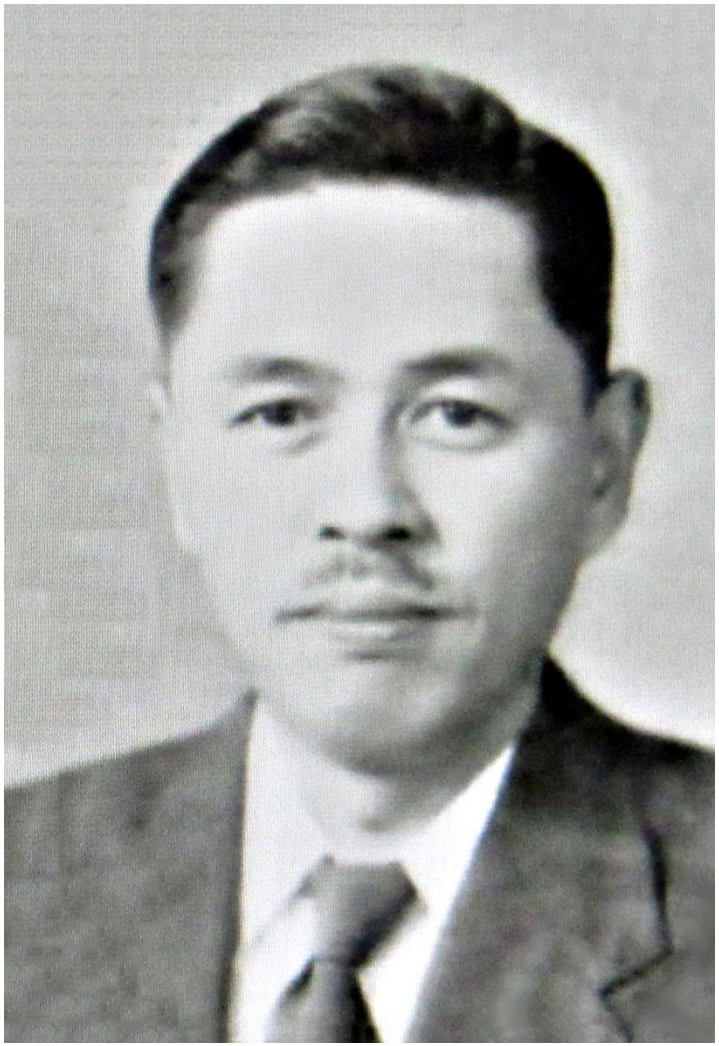
The Human Mind Observing

<1 min	Walk through shop floor	You remember lots of green machines …
15-30 min	Observe a few cycles	You think you understand the process, but you merely remember the sequence of steps. You do not yet have any understanding of the variations and difficulties. Solutions based on this observation may make things worse.
4-8 hours	Observe a shift	You start to understand the variations and start to see some of the problems that can happen. It is the beginning of a big picture.
2-5+ days	Observe multiple days	You begin to understand patterns and how minute changes in the process affect the outcome. Usually only possible for operators.

People often seriously underestimate the time needed for a good observation.

Taiichi Ohno's Chalk Circle

- Ohno's idea was to force a person to observe for a longer period of time
- Drawing a circle on the ground
- Putting an engineer inside
- Telling him not to leave the circle
- Finally telling him „Watch!"



Benefits of the Chalk Circle

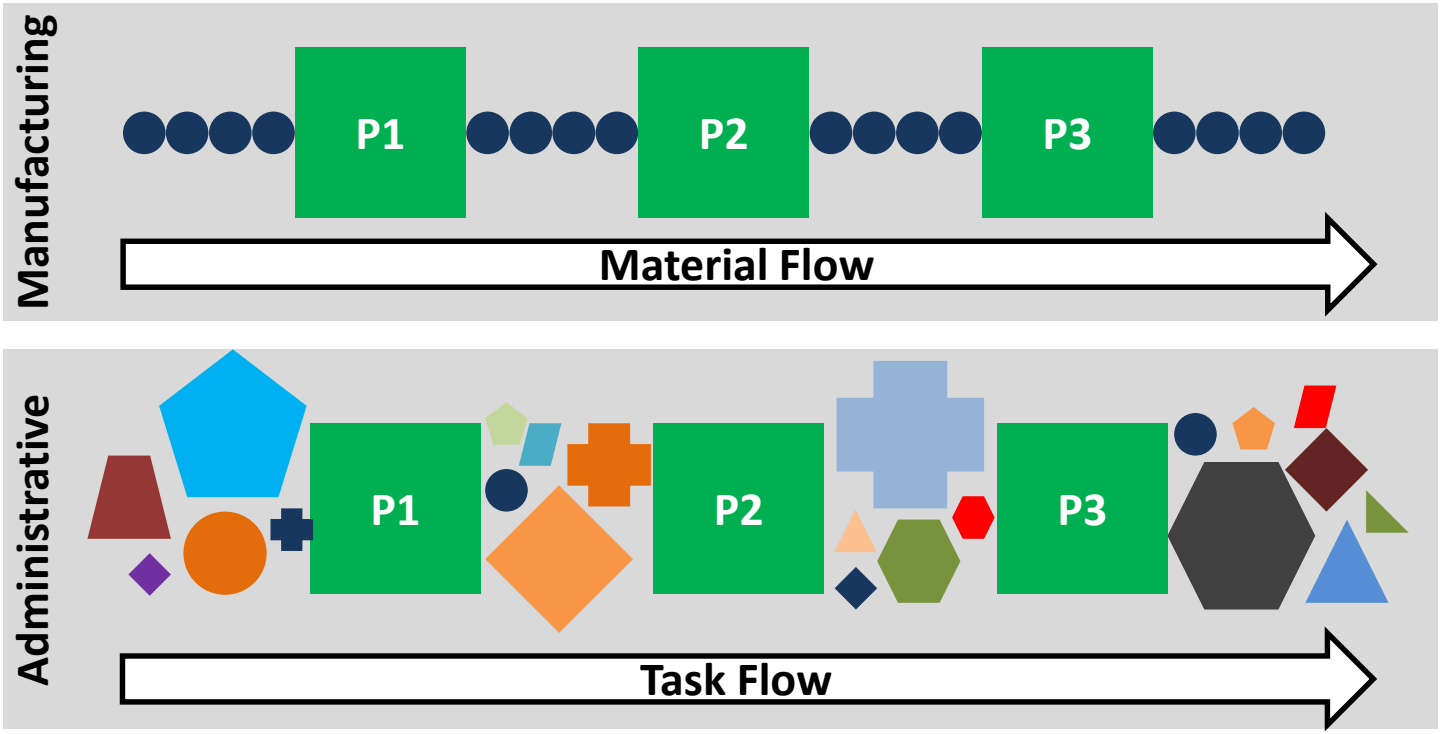
- Ohno came back every few hours and asked the engineer what he has seen
- Great teaching tool:
  - Value of observation
  - Independent thinking
  - Coach will also learn from coachee‘s observations
- Can also be done on your own (no chalk circle needed)

Administrative Observation Problems

- Difficult to observe work
- Value of typing on computer or filling out forms hard to observe
- Hard to detect problems and mistakes

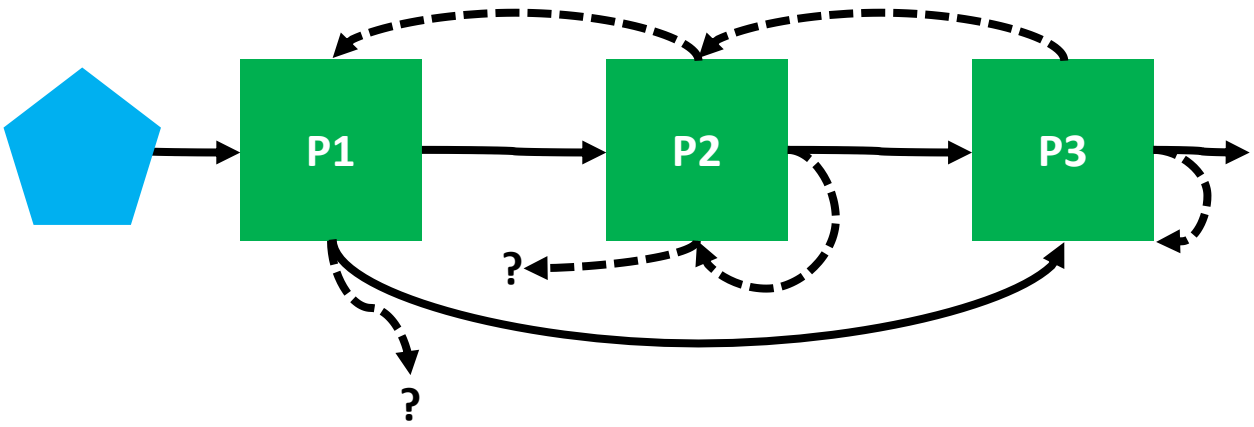
Administrative Observation Problems

- Not very standardized work content
- Often, every task is different from the next one



Administrative Observation Problems

- Work flow highly irregular, branching, and with loops
- Often two or more people working on the same task



Standard Work in Administration

- Difficult to create standard work procedures
- Difficult to enforce or verify standard work procedures

Contextual Inquiry/interview

- Observe Worker doing his/her work
- Occasionally ask questions
- Combine observations with statements from worker

Make sure not to disturb the worker too much with questions! Possible to do questions after the observation.

Contextual Inquiry

Advantages

- Access deep knowledge of worker doing the task for months and years
- Faster and better understanding
- Shows respect and value for the worker

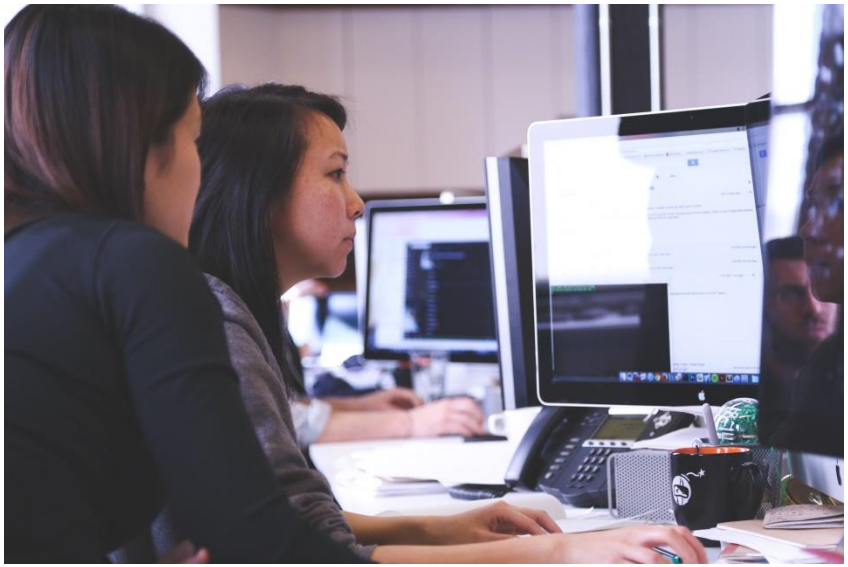
Disadvantages

- Often biased statements by worker
- Worker can hide information
- Observer influenced by worker opinion
- May neglect independent thinking of observer

Still time consuming, expect multiple hours for good observation of one process

Do it Yourself

- Have your workers train you in the process of interest
  - If possible not during „rush hour“
  - If possible starting with easier problems



Do It Yourself

Advantages

- Deep knowledge of the process
- Low risk of overlooking details
- Less risk to „be in the dark“

Disadvantages

- Very time consuming, often only possible for one or two processes
- May slow down normal operations
- Errors may cause problems later on
- Little or no data of „normal speed“

Recommended for managers to keep the feet on the ground

Summary

- Administrative observations more difficult due to lack of repeatability
- Two possible approaches
  - Contextual Inquiry – Ask Questions
  - Do it Yourself - Have your workers train you in the process
- Still significant time needed to understand process – but usually this time is necessary for good improvements!

Lean is often neither quick nor easy!