

Kanban

Problem

How to manage a process workflow?

Difficulty

Some training required

- **Kanban** is a workflow management method to organize, manage, and improve processes.
- A **Kanban board** represents a workflow. Each column represents a task and each **Kanban card** represents a work item.
- A Kanban board is a real-time information repository and it identifies system bottlenecks
- Using WIP (work-in-progress) limits for tasks ensures only a manageable number of items are in progress at one time.
- Limiting WIP creates a “pull system.” This is like a grocery store whose shelves are only stocked as needed.

Existing process

Kanban Process

A workflow visualization and management scheme

1. Ensure the business process is clearly defined, published, and socialized.
2. Design an appropriate Kanban board.
3. Perform the six Kanban practices while executing the business process:
 - A. Visualize the workflow
 - B. Limit work in progress (WIP)
 - C. Measure and manage flow
 - D. Make process policies explicit
 - E. Implement feedback loops
 - F. Improve collaboratively
4. Repeat from step 2

The 4 Kanban principles

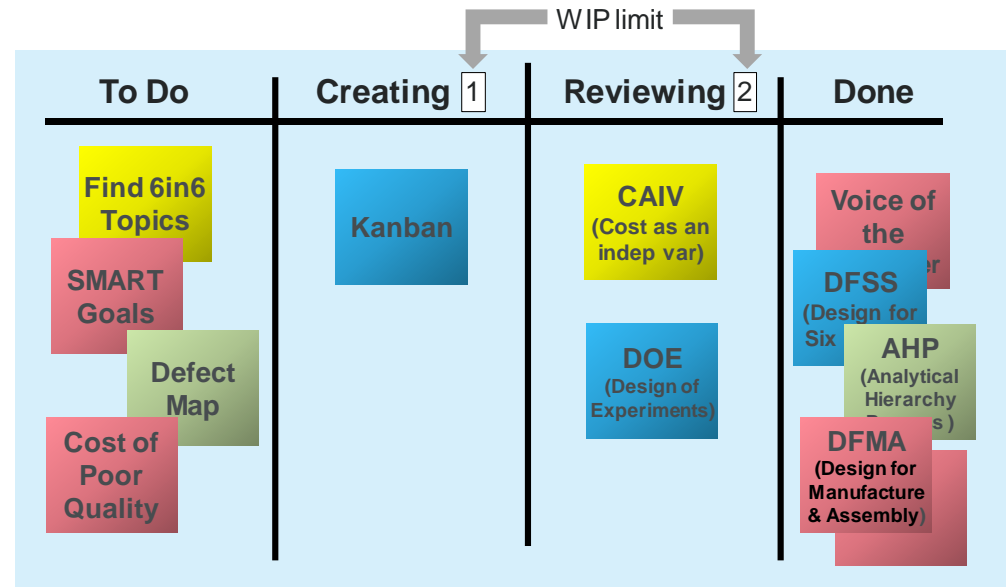
1. Start with what you do now
2. Agree to pursue incremental, evolutionary change
3. Respect the current process, roles, responsibilities, and titles
4. Encourage acts of leadership at all levels in your organization

Kanban – Example – Creating 6in6 Presentations

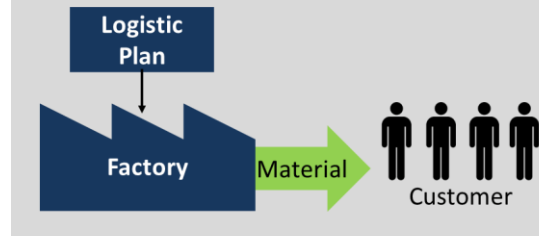
Tailored to 6in6 presentation creation, the Kanban board has 4 categories:

(A) To Do / finding 6in6 topics, (B) creating draft 6in6 presentations (only 1 at a time), (C) reviewing and editing (up to 2) draft presentations, and (D) done.

- The first and last columns can contain any number of items.
- The WIP limits prevent there from being too many 6in6 presentations in-process.

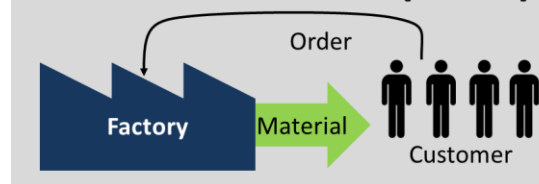


Logistic Plan (Push?)



A push system uses a logistics plan to determine how much product to deliver – which may not reflect reality. A pull system only delivers what is needed.

Information Flow (Pull?)



A Kanban card in a manufacturing environment, which represents a factory order, is at right.



<https://www.allaboutlean.com/push-pull/logistic-plan/>
<https://commons.wikimedia.org/wiki/File:080527-F-0000A-001.JPG>

Kanban – Notes

Slide 1

1. Kanban is a Japanese word meaning “visual sign,” “visual card,” or “signboard.”
2. Japanese engineer Taiichi Ohno developed Kanban in the 1940s.
3. The Kanban system creates a smooth, healthy flow. Instead of managing people, you manage the processes and get work through the system faster.
4. Kanban (method) is not Scrum (framework). For Kanban, value is released when ready. For Scrum, work occurs in sprints.
5. Benefits of a Kanban system
 - A. Ability to quickly respond to changes in the process or customer requirements
 - B. Ability to scale the system capacity
 - C. Improved delivery speed
 - D. Improved dependencies management
 - E. Improved predictability of work completion
 - F. Increased visibility of the flow
 - G. Increased work productivity
 - H. Reduction in inventory, handling, and storage.

Slide 2

1. The top example is for the creation of 6in6 presentations. Only 4 columns are needed since there are only 2 process steps.
2. The bottom left figure shows the difference between a push and a pull system.
3. The bottom right figure is Kanban card in a manufacturing environment. When the bag of parts is removed (to be consumed), the card is sent upstream to have another bag delivered.