*Version 2019-Spring-2.0*

Activity 2:

Kanban

We will learn about Kanban boards, Kanban cards, benefits of Kanban, and then try to differentiate between Scrum and Kanban methodologies.

## Content Learning Objectives

*After completing this activity, students should be able to:*

* Describe a Kanban board.
* List what constitutes a Kanban card.
* List the benefits of Kanban.
* Identify the differences between Scrum and Kanban Methodologies.

## Process Skill Goals

*During the activity, students should make progress toward:*

* Carefully reading a text for understanding. (Information Processing)

## Team Roles

*Record role assignments here.*

|  |  |
| --- | --- |
| Manager |  |
| Presenter |  |
| Recorder |  |
| Reflector |  |

# Model 1: Kanban

Find the answers to the questions below in [Kanban – A brief introduction | Atlassian](https://www.atlassian.com/agile/kanban).

## Questions (10 min)

1. What do you understand by Kanban?

**Expected Answer --- From first para of “What is Kanban?”**

**Can the question be reframed as:**

**What is Kanban? (Answer in 1 line from first para.)**

1. What is a Kanban board?
2. List the three-step workflow required in Kanban.
3. List the benefits of Kanban.

**Yes… only list them…. We can have additional following questions asking which benefit of Kanban does it represent:**

**Which benefit of Kanban is represented by following situations:**

* 1. **The product owner is free to reprioritize work in the backlog without disrupting the team, because any changes outside the current work items don't impact the team.**

**Expected Answer: Planning Flexibility**

* 1. **Teams employ basic best practices like code review and mentoring help to spread knowledge. Shared skills mean that team members can take on heterogeneous work.**

**Expected Answer: Shortened Time Cycles**

* 1. **A key tenant of kanban is to limit the amount of work in progress (WIP). A low limit encourages the team to pay special attention to issues in the review state, and to review others work before raising their own code reviews. This ultimately reduces the overall cycle time.**

**Expected Answer: Fewer Bottlenecks**

* 1. **Charts provide a visual mechanism for teams to ensure they're continuing to improve. Two common reports kanban teams use are control charts and cumulative flow diagrams.**

**Expected Answer: Visual Metrics**

* 1. **The faster a team can deliver innovation to market, the more competitive their product will be in the marketplace.**

**Expected Answer: Continuous Delivery**

1. Match the three-step workflows of Kanban with the lanes in Kanban **Game**.

**Expected Answer:**

**3-step workflow: To-Do: Prioritize**

**In Progress: Answer & Verify**

**Done: Measure**

1. Match the benefits of Kanban as listed in Step 4 for each of the following rounds of Kanban Game?
   1. **Round 1**

**Expected Answer: Planning Flexibility**

* 1. **Round 2**

**Expected Answer: Planning Flexibility**

**Fewer Bottlenecks**

**Visual Metrics**

**Continuous Delivery**

* 1. **Round 3**

**Expected Answer: Planning Flexibility**

**Shortened Time Cycles**

**Fewer Bottlenecks**

**Visual Metrics**

**Continuous Delivery**

# Model 2: Scrum vs. Kanban

Find the answers to the questions below in [Kanban – A brief introduction | Atlassian](https://www.atlassian.com/agile/kanban). For a deeper perspective, refer to [3 Differences Between Scrum and Kanban You Need to Know](https://www.cprime.com/2015/02/3-differences-between-scrum-and-kanban-you-need-to-know/).

## Questions (15 min)

1. List similarities between Kanban and Scrum?

**Expected Answer:**

* 1. **Prioritizing list of stories / work to be done. (Cadence / Scheduling)**
  2. **Iterative process with definitive points in the cycle (moving through each Sprint cycle with Scrum meetings / moving through lanes in Kanban.)**

1. List differences between Kanban and Scrum.

**Expected Answer:**

* 1. **Team Roles (Defined team roles in Scrum / No existing roles in Kanban).**
  2. **Release Methodology (At the end of each Sprint in Scrum / Continuous delivery at team’s discretion).**
  3. **Key Metrics (Velocity in Scrum / Cycle Time in Kanban)**
  4. **Change Philosophy (During Sprint forecast or Sprint Story Time in Scrum / Change can happen anytime in Kanban)**

1. With reference to Step1, which similar activities or rules did you perform in both Kanban and Scrum Games?

**Expected Answer:**

**Scrum Game:**

* 1. **Patricia Product Owner along-with Ben Business Owner prioritized PBI.**
  2. **Sprint had Definitive paths as per the layout/plan.**

**Kanban Game:**

* 1. **Person in Prioritize Lane prioritized the incoming cards.**
  2. **There were 4 defined lanes.**

1. With reference to Step2, which different activities or rules did you have or follow in both Kanban and Scrum Games?

**Expected Answer:**

**Scrum Game:**

* 1. **There were defined Team Roles of Patricia Product, Ben Business Owner, Scrum Master, Sara Security, Adam Admin, Danny Developer, Tim Tester, Rob Builder.**
  2. **At the end of each sprint, some user stories were delivered to Business Owner.**
  3. **No Metrics was measured (Velocity could have been measured).**
  4. **Change only at the start of Sprint.**

**Kanban Game:**

* 1. **No defined team roles.**
  2. **Continuous Delivery at the end of lanes.**
  3. **Both Cycle Time and Sales Log was measured and maintained.**
  4. **Change can be made to tasks in the Prioritize lane at anytime.**

1. Which artifacts / tools of Kanban can be used in Scrum?

**Expected Answer:**

**Kanban Board**

**Visual Metrics**

1. Which artifacts / tools of Kanban do you think were used in Scrum game, but with different terminology?

**Expected Answer:**

**Delivery Board**

1. How do you think both Kanban and Scrum can be blended together, with respect to Software Development Process?

**Expected Answer:**

**The Sprint Cycle can be implemented with Kanban principles. Each User Story can work on Kanban principles with the tasks required to deliver a User Story prioritized on the Task Board. The Task Board can be treated as denoting the lanes for tasks: to do, doing and done. Each Task moves through these lanes on Kanban principles with limited Work in Progress. This ensures Continuous Delivery of tasks and hence user stories.**