Kanbanstudy
Targeting success

A Guide to the

KANBAN BODY OF KNOWLEDGE (KBOK™ GUIDE)

9. Enhance

The Practical Implementation Guide for Managing Workflows using Kanban

(Includes Examples from popular digital Kanban tools, facilitates integration with other Agile frameworks, and recommends ways to use AI for increased productivity.)

9 ENHANCE

This chapter includes the process related to enhancing or improving Kanban initiatives: Retrospect and Improve.

Enhance, as defined in *the Kanban Body of Knowledge (KBOK™)*, is applicable to the following:

- Kanban initiatives in *any* industry
- Products, services, or any other results to be delivered to Stakeholders
- Kanban Initiatives of any size or complexity

Kanban can be applied effectively to any initiative in any industry—from small initiatives or teams with as few as two team members to large, complex initiatives with up to several thousand members in several teams.

To facilitate the best application of the Kanban framework, this chapter identifies inputs, tools, and outputs for each process as either "mandatory" or "optional." Inputs, tools, and outputs denoted by asterisks (*) are mandatory, or considered critical to success, whereas those with no asterisks are optional.

It is recommended that the inexperienced Kanban practitioners and those individuals being introduced to the Kanban framework and processes focus primarily on the mandatory inputs, tools, and outputs; while experienced Kanban professionals, including Sponsors and relevant Stakeholders strive to attain a more thorough knowledge of the information in this entire chapter.

This chapter can be applied to a single Kanban initiative within the company or a specific department, or to all Kanban initiatives across the company or a specific department. It follows:

- The *Setup* chapter, where the Kanban function is established for the entire organization or a specific department.
- The *Plan* chapter, where the Kanban Team is formed, stakeholders are identified and optimized Kanban Workflows are created.
- The Execute chapter where the Kanban Team works to create Completed Work Items.

The outputs from this chapter will serve as valid inputs for the improving and enhancing all the processes and activities defined in *Setup* (Chapter 6), *Plan* (Chapter 7) and *Execute* (Chapter 8).

The Enhance phase can be conducted at the end of a specific Kanban initiative with the team that worked on it, to identify lessons learned and improvement opportunities. It can also be performed at regular intervals by the entire Kanban function of the organization or a specific department, to reflect on and fine-tune Kanban Policies and create Reusable Templates for broader use within the Kanban function.

In the *Enhance* phase, the objective of the Kanban Team is to review and reflect on what went well, what did not, and where improvements are needed. This involves examining how Task Groups and Tasks move through Workflows to identify bottlenecks, reviewing Kanban Metrics and KPIs, and refining Kanban Workflows. Insights from stakeholders help align Workflows with organizational goals and address service-level concerns. Quantitative data is used to implement improvements, monitor their impact, and ensure a steady flow, thereby enhancing overall team performance.

The goal of the Enhance phase is to Retrospect and Improve, review Workflows, identify bottlenecks, refine processes, and drive continuous improvement.

It is also important to realize that although all phases and processes are defined uniquely in the Kanban Body of Knowledge, they are not necessarily performed sequentially or separately. At times, it may be more appropriate to combine some phases and/or processes, depending on the specific needs of each initiative.

Figure 9-1 provides an overview of the Enhance phase process, which is as follows:

9.1 Retrospect and Improve—In this process, the Kanban Team reflects to identify successes, challenges, and areas for improvement. This includes analyzing Task Groups, Tasks, and Workflows to find bottlenecks, refining Kanban Workflows, and aligning them with organizational goals. Stakeholder insights and quantitative data are used to drive improvements, monitor impact, and ensure a steady flow.

Figure 9-1 shows all the inputs, tools, and outputs for processes in the Enhance phase.

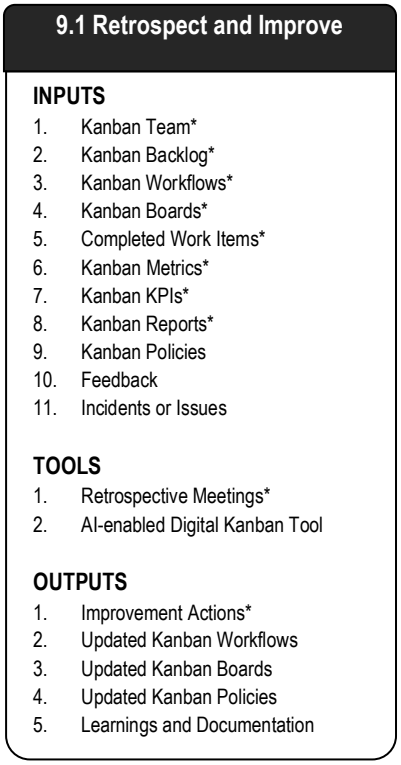

Figure 9-1: Overview of Review and Improve Phase Processes

Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

Figure 9-2 below shows the mandatory inputs, tools, and outputs for processes in Execute phase.

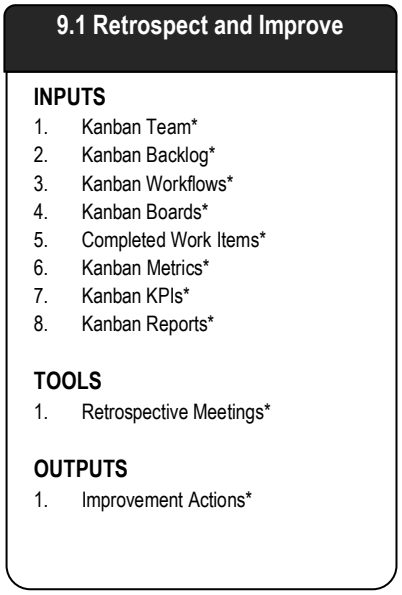

Figure 9-2: Overview of Enhance Phase Processes (Essentials)

Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

9.1 Retrospect and Improve

The objective of this process is to review and reflect as a team to identify lessons on what went well, what didn't work as expected, and where improvements are needed. This involves examining how Task Groups and Tasks move through the Workflows to understand the Workflows, cycle time, and the areas where the flow is slowing down or getting stuck.

It also includes refining the Kanban Workflows and gathering insights from stakeholders to ensure better support for team Workflows, aligning the Workflows with broader organizational goals, and addressing any service-level concerns. Additionally, it facilitates the use of quantitative data to implement improvements, monitor impact, and maintain a steady flow.

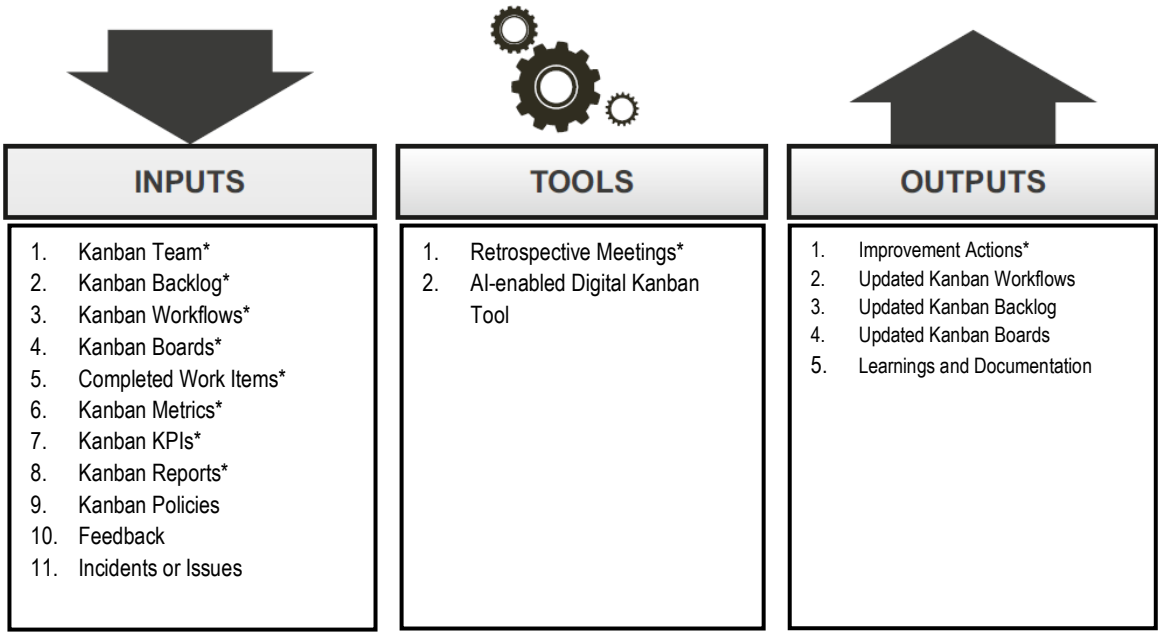

Figure 9-3: Retrospect and Improve—Inputs, Tools, and Outputs

Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

9.1.1 Inputs

9.1.1.1 Kanban Team*

The Kanban team provides key insights, feedback, and performance data as input to Retrospect and Improve, helping identify flow issues, improve processes, and foster continuous improvement in delivery outcomes.

For more information, see section 3.1.

9.1.1.2 Kanban Backlog*

In Agile practices, particularly in Kanban, retrospectives are key moments for the team to reflect on how to improve processes and Workflows. The Kanban backlog provides critical data and insights that help guide these discussions. By using the Kanban backlog during retrospectives, teams make data-informed decisions, identify process bottlenecks, and define concrete actions for continuous improvement.

How the Kanban Backlog Supports Retrospectives:

Kanban Backlog Element	Retrospective Input Value
Blocked or Delayed Items	Highlights Workflow issues or external dependencies causing delays. Sparks discussion on how to reduce or eliminate blockers.
Cycle Time & Lead Time	Helps assess how long work items take to complete. Patterns can indicate inefficiencies that the team can address.
Work in Progress (WIP)	Shows how much work is being handled simultaneously. Too much WIP may lead to context switching and slowdowns—ideal for improvement conversations.
Backlog Aging	Reveals items that remain untouched or stagnate. These can indicate misalignment in priorities or issues in planning.
Completed Work	Offers a review of what was done, how effectively, and whether it met quality standards or the Definition of Done.
Task Types and Distribution	Helps analyze the balance of different types of work (e.g., bugs vs. features), supporting discussions on workload balance or prioritization.

Table 9-1: How the Kanban Backlog Supports Retrospectives

For more information, see section 3.4.3.

9.1.1.3 Kanban Workflows*

In the Kanban method, the Workflow represents how work moves through various stages—from start to finish. During retrospectives, analyzing the Workflow helps the team identify inefficiencies, bottlenecks, handoff issues, and opportunities for continuous improvement.

By using Kanban Workflows as an input, retrospectives shift from vague discussions to data-driven, process-focused conversations—leading to measurable improvements over time.

How Kanban Workflows Inform the Retrospective

Workflow Element	Insight for Retrospective
Flow Efficiency	Analyze how smoothly workflows through the system. Low flow efficiency may reveal waiting times, rework, or poor task definitions.
WIP Limits	Evaluate whether WIP (Work in Progress) limits are being respected or if they're too high/low, causing overload or underutilization.
Blocked or Stalled Columns	Identify stages where work consistently stalls. These bottlenecks often become a focal point for improvement discussions.
Handoff Points	Pinpoint where work moves between people/teams. Frequent issues here may suggest communication or process clarity problems.
Queue States (Ready for...)	Check if items sit too long in queue states. This highlights inefficiencies or unclear ownership.
Feedback Loops	Review stages like QA or Review. Delays or rework in these steps can signal issues in quality or unclear requirements.
Cycle Time per Workflow Stage	Helps identify which stages take longer than expected, prompting discussion on reducing complexity or improving capacity.

Table 9-2: How Kanban Workflows Inform the Retrospective

Purpose of Kanban Workflows in Retrospectives

- Visualize where flow breaks down
- Target specific stages for improvement
- Refine policies, definitions, and WIP limits
- Adapt the Workflow to better reflect reality

Example Questions to Ask in Retrospective

- Which Workflow stages consistently slow us down?
- Are our WIP limits helping or hindering flow?
- Are handoffs between roles/teams smooth and timely?
- Should we split, merge, or rename columns to better match our real process?

For more information, see section 3.4.2.

9.1.1.4 Kanban Boards*

The Kanban Board is a visual representation of the team's Workflow and current state of work. During retrospectives, the board becomes a powerful input for reflection, enabling the team to spot trends, bottlenecks, and inefficiencies in real time.

How Kanban Boards Inform the Retrospective

Board Element	Insight for Retrospective Discussion
Current and Completed Work Items	Shows what was accomplished and helps assess if expectations were met. Highlights success stories or delivery issues.
Blocked Items	Clearly highlights tasks that were delayed due to issues—useful for identifying recurring blockers and finding solutions.
WIP (Work in Progress)	Reveals if the team is overburdened or multitasking too much—often a cause of reduced focus and efficiency.
Bottlenecks on the Board	Shows where work is piling up. These pile-ups can guide discussion around workload balance or process redesign.
Aging Work Items	Helps identify tasks that have been stuck too long in one column, signaling unclear ownership, dependencies, or task complexity.
Swimlanes or Work Types	Helps reflect on whether priorities were well balanced (e.g., features vs. bugs, support vs. innovation work).
Process Policies & WIP Limits	Makes it easy to see if team is following defined process rules (e.g., WIP limits, pull policies), sparking discussion when they're not.
Blocked/Flagged Indicators	Visual markers (flags, labels) make it easy to highlight what consistently causes delays or quality issues.

Table 9-3: How Kanban Boards Inform the Retrospective

In the Retrospective, the Team Might Ask:

- What patterns do we notice on the board (e.g. blockages, delays)?
- Are we respecting our WIP limits? Should they be adjusted?
- Are certain columns consistently overloaded?
- Are we delivering a healthy mix of work types?
- What can we change to make workflow more smoothly?

Using the Kanban board in retrospectives helps teams:

- Reflect based on real, visible data
- Pinpoint where in the process issues occur
- Make informed decisions about Workflow adjustments
- Visualize improvement opportunities collaboratively

For more information, see section 3.5.1.

9.1.1.5 Completed Work Items*

In the Kanban method, reviewing Completed Work Items during the retrospective process is a powerful way to gain insight into the team's performance, effectiveness, and areas for improvement. By analyzing what has been completed, teams can reflect on quality, speed, and alignment with goals. By integrating Completed Work Items into the retrospective process, the team gains a data-driven understanding of what went well and what needs attention. This reflection ensures the team continually improves its practices and makes better-informed decisions in future iterations.

How Completed Work Items Inform the Retrospective

Completed Work Item Element	Insight for Retrospective Discussion
Definition of Done (DoD) Compliance	If defined, reviewing if work meets the agreed-upon DoD helps identify whether quality standards were consistently met or if adjustments are needed.
Work Completion Time (Cycle Time)	By examining how long tasks took to complete, teams can assess if cycle time is consistent or if delays indicate underlying inefficiencies.
Task Type Completion (Bugs, Features, etc.)	Reflecting on whether there was a balanced completion of tasks (features, bugs, technical debt) helps identify if work is aligned with the team's priorities.
Rework or Redoing Items	Analyzing whether completed tasks needed to be revisited can help identify weaknesses in the process or unclear requirements.
Customer or Stakeholder Feedback	If completed items were customer-facing, discussing any received feedback can highlight areas of success or improvements.
Work Quality (Defects, Failures)	Reviewing defects or failed work items can spark discussions on how to improve quality control and defect prevention in the future.
Task Ownership and Accountability	Reviewing whether work was delivered as planned and if ownership was clear throughout the process (e.g., were there delays due to lack of ownership?).

Table 9-4: How Completed Work Items Inform the Retrospective

In the Retrospective, Teams Can Reflect On:

- Quality of Completed Work: Did the items meet the Quality requirements? Were there quality issues (bugs, rework)?
- Cycle Time Analysis: Were tasks completed on time, or did any take significantly longer than expected? What factors caused delays (lack of resources, unclear scope)?
- Task Prioritization: Were the tasks completed aligned with the team's highest priority? Did the backlog reflect customer or business needs accurately?
- Customer Feedback on Work: Was any customer or stakeholder feedback provided on completed work? What lessons can we learn from their response?
- Process Improvements: Did we face any challenges while completing these tasks that indicate we need to improve specific processes or policies?

- Capacity and Workload Management: Did we overcommit, undercommit, or fail to manage our capacity well? Did it affect the quality or speed of the delivery?

Outcome of Using Completed Work Items in Retrospectives

Reviewing Completed Work Items allows the team to:

- Identify trends in task completion, quality, and cycle time
- Spot recurring issues such as incomplete tasks, delays, or quality problems
- Celebrate successes and recognize areas of improvement
- Refine processes and Workflows based on real, completed work rather than just theoretical planning
- Improve task prioritization and balance the mix of work items (e.g., feature development vs. bug fixing)

Example Retrospective Questions Using Completed Work Items:

- Did any completed tasks require rework? What was the root cause (e.g., unclear requirements, lack of communication)?
- How well did we meet our estimated cycle time for completed tasks? Where did we exceed the expected time, and why?
- Did we complete a balanced mix of work items (e.g., features, bugs, maintenance)? Should we adjust our priorities?
- Were any customer-facing tasks successfully delivered? Did they meet expectations based on feedback?

Work Items in Kanban is described in Section 3.4.1.2.

9.1.1.6 Kanban Metrics*

In the Kanban methodology, metrics provide quantitative data that reveal the efficiency, effectiveness, and areas for improvement within the Workflow. Using Kanban Metrics as input for retrospectives enables the team to base discussions on real data, allowing for better decision-making and actionable improvements. By integrating Kanban Metrics into the retrospective process, the team gains a deeper, data-driven understanding of how well the system is performing. The metrics allow teams to identify specific areas for improvement, set measurable goals, and track progress over time, ultimately leading to smoother Workflows, higher quality, and better overall team performance.

Key Kanban Metrics and How They Inform Retrospectives

Kanban Metric	Insight for Retrospective Discussion
Cycle Time	Cycle time measures the time it takes for an item to move from "In Progress" to "Done". High or inconsistent cycle times signal inefficiencies or bottlenecks that need to be addressed.
Lead Time	Lead time is the total time from when a request is made until it's completed. Retrospectives can focus on improving lead time by reducing unnecessary delays.

Kanban Metric	Insight for Retrospective Discussion
Work in Progress (WIP)	WIP limits show how many tasks are being worked on at a time. Excessive WIP can cause multitasking and delays. The retrospective can focus on adjusting WIP limits or improving focus.
Throughput	Throughput measures the number of items completed in a given period. Analyzing throughput helps the team assess whether their delivery pace aligns with goals and capacity.
Blocked Time	Blocked time measures how long tasks stay blocked or waiting on external dependencies. Retrospectives can use this data to identify frequent blockers and ways to minimize them.
Cumulative Flow Diagram (CFD)	The CFD visually shows the flow of work across different stages. It helps identify bottlenecks, areas of stagnation, and inefficiencies. Teams can discuss improving flow by reducing queues.
Flow Efficiency	Flow efficiency is the ratio of active work time to total cycle time, showing how much time is spent on value-adding activities versus waiting or idle time. Teams can discuss ways to reduce waiting time.
Queue Length	Queue length shows how much work is waiting to be processed at each stage. Long queues often signal bottlenecks and can be used in retrospectives to discuss potential solutions.
Little's Law	Little's Law relates WIP, cycle time, and throughput. It can help teams understand the relationship between how much work is in the system and how long it takes to complete tasks.
Work Item Aging	This metric shows how long items have been sitting in each stage, highlighting whether work items are getting stuck or neglected. Teams can focus on improving throughput for aged items.

Table 9-5: Key Kanban Metrics and How They Inform Retrospectives

In the Retrospective, Teams Can Reflect On:

- Cycle Time and Lead Time Trends: Are we meeting our cycle time and lead time goals? If not, which steps are causing delays, and how can we improve them?
- Work in Progress (WIP): Are we respecting our WIP limits? Should we adjust them to improve focus and flow? How do WIP limits impact bottlenecks and delays?
- Throughput: Are we delivering a consistent amount of work? What's the quality of completed tasks? How can we increase throughput while maintaining quality?
- Bottlenecks and Blocked Time: Where are tasks consistently getting blocked? What external factors or dependencies are slowing us down? How can we reduce blocked time?
- Flow Efficiency: Is our Workflow efficient? Are we spending too much time waiting for approval, review, or handoffs? How can we optimize the process to increase flow efficiency?

- Queue Length and Backlog: Are work items piling up in certain stages? Are we experiencing backlogs that impact delivery? How can we improve work distribution across stages?
- Improving the Cumulative Flow Diagram (CFD): Are there patterns of stagnation or bottlenecks visible in the CFD? What can we do to make the flow smoother?

Outcome of Using Kanban Metrics in Retrospectives

By using Kanban Metrics in retrospectives, teams can:

- Identify trends and patterns in Workflow performance (e.g., cycle time, throughput, or bottlenecks).
- Spot inefficiencies such as high WIP, excessive blocked time, or stalled queues that hinder progress.
- Make data-driven decisions about process improvements (e.g., adjusting WIP limits, changing Workflow stages).
- Visualize the impact of changes in future cycles by setting clear improvement goals and tracking them with metrics.

Example Retrospective Questions Using Kanban Metrics:

- Cycle Time: Why did some tasks take longer to complete than expected? Was it a complexity issue, a resource problem, or a Workflow bottleneck?
- Lead Time: Are we meeting our lead time targets for completing requests? Where are the delays happening in the process?
- Work in Progress (WIP): Are our WIP limits too high, leading to task switching and delays? Should we lower WIP limits to focus more on completing current tasks?
- Throughput: How many tasks are we completing in a given period? Are there external or internal factors affecting throughput?
- Bottlenecks (Blocked Time): Where are tasks getting stuck? Is there a dependency or process that consistently causes blocks? How can we address this?
- Flow Efficiency: Are we spending too much time waiting for approval or on other non-value-added activities? How can we improve the active time spent on work?
- Cumulative Flow Diagram (CFD): In the CFD, where do we see work piling up? What can we do to reduce congestion in certain Workflow stages?

Kanban Metrics are discusses in Section 4.1.

9.1.1.7 Kanban KPIs*

Kanban key performance indicators align more directly with business outcomes, team productivity, and process performance, rather than Kanban Metrics such as cycle time or throughput. These KPIs are used to assess overall system health and goal alignment and are critical during the Retrospect and Improve process to drive continuous improvement. By focusing on Kanban KPIs rather than just raw metrics, teams can have more meaningful retrospectives that align with business outcomes, quality, and customer satisfaction. These KPIs allow for data-driven discussions on improving performance and delivering better value to stakeholders, leading to sustained continuous improvement.

Key Kanban KPIs and Their Role in Retrospectives

Kanban KPI	Insight for Retrospective Discussion
Customer Satisfaction (CSAT)	Measures how happy customers are with the delivered work. Retrospectives can focus on whether the team is meeting customer expectations and how to improve.
Service Level Agreements (SLAs)	Tracks whether the team is meeting agreed-upon service levels or deadlines. Retrospectives can focus on improving delivery to meet SLAs more consistently.
On-time Delivery Rate	The percentage of work items delivered by the agreed-upon deadlines. The team can reflect on why deadlines were or were not met, and take action to improve delivery accuracy.
Quality (Defect Density)	Measures the number of defects found in completed work. The retrospective can analyze how quality can be improved in future work, whether through better testing, clearer requirements, or other means.
Team Capacity vs. Demand	Compares the team's capacity with the incoming work demand. Retrospectives can explore whether the team is consistently overloaded, underutilized, or if the work is well-balanced.
Work Item Prioritization Accuracy	Measures how well the team is able to prioritize the right work items based on business needs. If prioritization is off, retrospectives can focus on refining the backlog management process.
Value Delivered to Customers	Tracks the value (in terms of business objectives) delivered by Completed Work Items. The retrospective can focus on whether the team is delivering the right value to customers or if adjustments are needed.
Time to Market	Measures how quickly a work item or product feature reaches the customer. Retrospectives can focus on shortening this time by addressing bottlenecks or improving Workflows.
Flow Efficiency (Business Value)	A more business-focused version of flow efficiency that tracks how effectively the team's work generates business value per unit of time. Retrospectives can discuss reducing time spent on non-value-added activities.
Escaped Defects	The number of defects found in production after a feature is released. Retrospectives can examine the root causes of escaped defects and explore ways to improve quality assurance processes.

Table 9-6: Key Kanban KPIs and Their Role in Retrospectives

In the Retrospective, Teams Can Reflect On:

- Customer Satisfaction (CSAT): Are we meeting our customer satisfaction targets? What feedback did we receive from customers, and what can we improve based on that feedback?

- Service Level Agreements (SLAs): Are we consistently meeting our SLAs and deadlines? If not, what factors are causing delays, and how can we improve our forecasting and delivery timelines?
- On-time Delivery Rate: How often are we delivering work on time? If delays are occurring, is it due to inaccurate estimation, insufficient resources, or other factors that need addressing?
- Quality (Defect Density): Are we releasing high-quality work? How often are defects being found after delivery? What steps can we take to improve our quality assurance and testing processes?
- Team Capacity vs. Demand: Is our team capacity aligned with the incoming demand? Are we consistently overburdened, underutilized, or well-balanced? What adjustments can we make to better match capacity and demand?
- Work Item Prioritization Accuracy: Are we prioritizing the most valuable work? If we missed the mark on prioritization, how can we improve the process and ensure we're focusing on the highest-value tasks?
- Value Delivered to Customers: Are we delivering real value to customers with the work completed? Is there any misalignment between the work we're doing and the business goals or customer needs?
- Time to Market: How quickly are we getting features or products to market? If our time to market is slow, which process bottlenecks can we address to speed up delivery without compromising quality?
- Flow Efficiency (Business Value): Are we spending our time effectively? Are we delivering value at the same pace we are doing work? Where can we reduce wasted effort and improve flow?
- Escaped Defects: Are defects being caught before release, or are they escaping into production? What preventive measures can we implement to catch issues earlier in the process?

Outcome of Using Kanban KPIs in Retrospectives

By integrating Kanban KPIs into the retrospective process, teams can:

- Align work with business goals: Focus on delivering value rather than just completing tasks, ensuring that work contributes directly to customer satisfaction and business objectives.
- Improve capacity planning: Use KPIs like team capacity vs. demand and on-time delivery rate to ensure better resource allocation and prevent overburdening the team.
- Enhance quality: Track defect density and escaped defects to improve the team's quality assurance processes and reduce costly defects in production.
- Adjust priorities effectively: Use work item prioritization accuracy to ensure that the team is working on the right things, aligned with customer and business needs.
- Speed up delivery: Focus on reducing time to market by identifying bottlenecks in the process and finding ways to streamline the Workflow.
- Improve customer outcomes: Use customer satisfaction (CSAT) and value delivered to customers to ensure the team is delivering work that meets or exceeds customer expectations.

Example Retrospective Questions Using Kanban KPIs:

- Customer Satisfaction (CSAT): How did our recent work impact customer satisfaction? Are we meeting or exceeding customer expectations? What can we do differently next time?
- Service Level Agreements (SLAs): Did we meet our service level agreements this cycle? If not, what caused the delays, and how can we improve our delivery timelines?
- On-time Delivery Rate: How accurate were our delivery predictions? If we missed deadlines, what contributed to the delay, and how can we improve our forecasting process?
- Defect Density/Quality: Were there any defects in our completed work? How can we improve our quality control measures to reduce defects before delivery?

- Team Capacity vs. Demand: Did we feel overloaded or underutilized? Are our WIP limits and resource allocation aligned with the amount of work in the backlog?
- Work Item Prioritization: Were the highest priority items completed first? Did we focus on the most valuable tasks, or did we get distracted by lower-priority work?
- Value Delivered: Are we delivering work that provides tangible value to customers? How can we improve our prioritization and ensure we're addressing customer needs more effectively?

9.1.1.8 Kanban Reports*

In the context of Kanban, the Retrospect and Improve process is a vital element of continuous improvement. During retrospectives, teams reflect on their Workflows, identify opportunities for improvement, and propose actionable changes to optimize performance. A key input to this process is the use of Kanban reports, which provide detailed, data-driven insights into the team's Workflow, performance, and overall system health.

Kanban reports serve as a tool to measure and visualize critical aspects of the Kanban system, providing a foundation for objective discussions during retrospectives. These reports help teams identify inefficiencies, bottlenecks, or other issues within their Workflow, allowing them to make informed decisions about how to improve.

For more information, see section 4.2.

9.1.1.9 Kanban Policies

In the Kanban framework, Kanban policies define the rules, guidelines, and practices that govern how work is managed and flows through the system. These policies help ensure the system operates efficiently and consistently, while also enabling continuous improvement. When conducting retrospectives, Kanban policies are an essential input because they shape the Workflow and directly impact performance. During retrospectives, teams can assess whether the existing policies are helping or hindering their ability to deliver value and improve over time. Work item type policies, WIP limits, priority policies, definition of done (DoD) policies, SLAs, and other operational guidelines are reviewed to ensure they support the team's goals, minimize bottlenecks, and enhance Workflow performance.

By integrating Kanban policies into the retrospective process, teams gain the opportunity to optimize their Workflows continuously, adapt to changing needs, and drive incremental improvements that align with organizational objectives. Retrospectives focused on Kanban policies promote data-driven decision-making and collaborative problem-solving, enabling teams to maintain a lean, efficient, and high-performing system.

Purpose of Kanban Policies in the Retrospective Process

The purpose of using Kanban policies as input during retrospectives is to:

- Assess Policy Effectiveness: Determine if existing policies are supporting the goals of the team or if they need adjustments.
- Identify Bottlenecks: Sometimes policies create unintended bottlenecks or inefficiencies in the Workflow. Retrospectives allow the team to spot these issues.
- Promote Continuous Improvement: Kanban emphasizes continuous evolution, and policies should be reviewed regularly to ensure they remain relevant and effective.

- Drive Alignment: Reviewing policies ensures that the team's approach aligns with business goals, customer needs, and overall organizational objectives.
- Ensure Adaptability: Policies should be adaptable to changes in team capacity, workload, or external constraints. Retrospectives provide the opportunity to fine-tune these policies.

Types of Kanban Policies and Their Role in Retrospectives

Below are several types of Kanban policies that are often reviewed during retrospectives and how they influence the retrospective discussion.

1. Work Item Type Policies

- Definition: Work item type policies categorize work items into different types, such as features, bugs, technical debt, etc. Each type may have different Workflows or priorities.
- Retrospective Insight: The team may evaluate whether the current categorization of work item types is clear and helpful, or if it is leading to confusion or delays. For example, are bugs being prioritized over features appropriately? Or are certain types of work receiving insufficient attention?
- Actionable Outcome: The retrospective may suggest adjusting the prioritization rules, introducing new work item types, or changing how items are categorized to better reflect business needs.

2. Work In Progress (WIP) Limits

- Definition: WIP limits are policies that restrict the number of work items allowed in each stage of the Kanban board at any given time.
- Retrospective Insight: WIP limits play a key role in managing flow. In retrospectives, teams can review whether the WIP limits are appropriately set. Too many items in progress can lead to overload, while too few can result in underutilization. Reviewing WIP limits helps in finding the right balance.
- Actionable Outcome: The retrospective may result in adjusting WIP limits in different stages of the Kanban board, depending on team capacity or Workflow constraints.

3. Priority Policies

- Definition: Priority policies define how work items are ordered and prioritized in the system. This could involve explicit prioritization (e.g., by customer need or business value) or implicit prioritization (based on a set order of arrival or severity).
- Retrospective Insight: The team may evaluate whether the current prioritization rules are leading to the timely delivery of the most important work or if there are delays in addressing high-priority items. Are lower-priority tasks cluttering the board and delaying the completion of more critical tasks?
- Actionable Outcome: Changes to prioritization policies could be proposed, such as introducing more flexibility to reprioritize tasks or using a different method to identify priority items.

4. Definition of Done (DoD) Policies

- Definition: The Definition of Done (DoD) outlines the criteria that a work item must meet to be considered complete. This may include testing, documentation, deployment, and more.
- Retrospective Insight: In retrospectives, the team can assess whether the Definition of Done is clear, consistently followed, and appropriate for all types of work. If work items are being marked as complete too soon or without sufficient quality checks, it could lead to rework or defects.
- Actionable Outcome: If the team feels the DoD is too lax or too strict, the retrospective might suggest revisions, such as clarifying quality standards or adjusting when a task can be considered complete.

5. Service Level Agreements (SLAs)

- Definition: SLAs define the expected turnaround time or delivery time for work items or specific types of work (e.g., how long a bug fix should take or when a feature should be delivered).
- Retrospective Insight: Reviewing SLAs during retrospectives can reveal whether the team is meeting expectations. If SLAs are not being met, it may indicate problems in the Workflow, capacity planning, or prioritization.
- Actionable Outcome: If SLAs are being violated, the retrospective might suggest adjustments in workload distribution, resources, or Workflow policies to improve the team's ability to meet these targets.

6. Pull Policies

- Definition: Pull policies define how work is pulled into the system and who is responsible for pulling it. This could be based on team availability, priority, or other criteria.
- Retrospective Insight: Retrospectives provide a space to evaluate whether the current pull policies are effective. For example, are team members waiting for work to be pulled into the next stage? Are there misalignments in who is pulling the work or how work is handed off?
- Actionable Outcome: The retrospective might result in policy changes, such as adjusting how work is pulled based on team capacity, or improving collaboration across stages to prevent idle time.

7. Explicit Policies for Handling Blockers

- Definition: These policies define how to handle blocked work items and the escalation process for resolving blockers.
- Retrospective Insight: The retrospective allows teams to reflect on whether blockers are being effectively managed. Are blockers being identified and escalated quickly? Are they resolved promptly, or do they linger for extended periods, affecting flow?
- Actionable Outcome: The team may decide to introduce a more structured approach for addressing blockers, such as creating a more visible tracking system for blocked items or adjusting escalation procedures.

8. Risk Management Policies

- Definition: Risk management policies describe how to assess and mitigate risks in the Workflow. This could include managing dependencies, handling urgent requests, or addressing uncertainty in work.
- Retrospective Insight: In retrospectives, teams can review whether risks are being managed effectively, especially in uncertain or complex tasks. Are potential risks identified early, and are appropriate mitigation strategies in place?
- Actionable Outcome: The retrospective may lead to improvements in risk assessment, such as creating buffers in the system to handle unknowns or adjusting Workflows to better manage dependencies.

Benefits of Reviewing Kanban Policies in Retrospectives

- Identify Inefficiencies: Policies that are too rigid, unclear, or misaligned can create inefficiencies in the Workflow. Retrospectives provide the opportunity to identify and revise such policies.
- Adapt to Changing Contexts: As team needs, external factors, or business goals evolve, Kanban policies may need to adapt. Retrospectives allow teams to assess whether existing policies are still relevant and provide a forum for proposing adjustments.

- Optimize Flow: Policies such as WIP limits, pull policies, and priority rules directly affect how workflows through the system. Adjusting these policies in response to retrospective insights can lead to smoother, faster, and more predictable delivery.
- Improve Quality: Policies like the Definition of Done (DoD) and SLAs ensure that work meets a certain standard of quality. During retrospectives, teams can refine these policies to enhance quality and reduce defects or rework.
- Increase Transparency: Policies related to blockers, risk management, and escalation make issues visible and provide a structured way to handle challenges. Reviewing these policies ensures the team has a clear process for managing problems when they arise.

Kanban Policies are described in Section 7.2.5.6.

9.1.1.10 Feedback

In the Kanban framework, feedback is an essential input during the Retrospect and Improve process. Retrospectives are designed to reflect on past performance, evaluate what worked well, identify areas for improvement, and develop actionable steps for continuous improvement. Feedback serves as a critical element in this process, providing valuable insights into the effectiveness of the current Workflow, team dynamics, and overall system performance.

Feedback can come from various sources—team members, stakeholders, customers, or even automated systems—and it is essential for identifying bottlenecks, inefficiencies, and areas where adjustments are needed. When used effectively, feedback ensures that the retrospective process is data-driven, fostering a culture of continuous improvement. During retrospectives, teams analyze feedback to identify inefficiencies, bottlenecks, or misalignments with business goals. Ultimately, feedback is a powerful tool that drives data-driven decision-making, collaborative problem-solving, and incremental improvements, ensuring that the Kanban system remains adaptive, efficient, and aligned with organizational and customer objectives.

Purpose of Feedback in the Retrospective Process

Feedback serves several key purposes during the retrospective process:

- Identify Issues Early: Feedback helps highlight issues before they become significant problems, allowing teams to address them proactively.
- Foster Transparency: Feedback fosters a culture of openness, encouraging team members to voice concerns, share observations, and propose solutions.
- Build Trust: Encouraging regular and constructive feedback strengthens trust within the team, leading to better collaboration and problem-solving.
- Drive Continuous Improvement: By reviewing feedback, teams can pinpoint areas for improvement and make incremental changes to improve the Workflow.
- Align the Team: Feedback helps align the team's efforts and ensures everyone is on the same page regarding what's working well and what needs to change.

Types of Feedback in Kanban and Their Role in Retrospectives

In Kanban, feedback can be categorized into several types, each contributing uniquely to the retrospective discussion:

1. Team Member Feedback

- Definition: Feedback from team members is often direct, informal, and based on individual observations and experiences during the work cycle. It could be related to Workflow processes, communication, or the handling of work items.
- Retrospective Insight: Team members may offer insights on aspects like workload distribution, collaboration, and Workflow handoffs. Feedback can also highlight team dynamics, such as how communication flows between different roles or stages of the Kanban process.
- Actionable Outcome: Team member feedback might lead to changes in team collaboration practices, adjustments in task assignments, or improvements in how handoffs are managed between team members or departments.

2. Stakeholder Feedback

- Definition: Stakeholder feedback refers to the opinions and suggestions provided by external parties who are impacted by the work completed by the team. Stakeholders may include product owners, customers, business analysts, or department heads.
- Retrospective Insight: Stakeholders provide valuable insights into whether the team is meeting customer expectations, business needs, and quality standards. Feedback from stakeholders often highlights areas where the team's output may be misaligned with business goals or customer satisfaction.
- Actionable Outcome: Stakeholder feedback might prompt a team to adjust its prioritization policies, improve communication with stakeholders, or refine the Definition of Done (DoD) to better meet customer needs.

3. Customer Feedback

- Definition: Customer feedback focuses on how well the team's deliverables align with customer requirements and satisfaction. It often comes in the form of direct customer surveys, support tickets, usage analytics, or customer reviews.
- Retrospective Insight: This type of feedback provides a perspective on the value delivered and whether the work completed addresses customer pain points. Negative feedback from customers may reveal unmet needs or missed expectations, while positive feedback can confirm successful practices.
- Actionable Outcome: Customer feedback can drive process improvements in areas such as feature development, bug resolution, and customer support processes. It may lead to refinements in user stories, the backlog prioritization process, or testing practices to better meet customer needs.

4. Automated System Feedback

- Definition: In Kanban, automated feedback comes from tools, metrics, and reports that track and visualize the Workflow. This includes Cumulative Flow Diagrams (CFDs), Lead Time and Cycle Time reports, Throughput data, and other system-generated metrics.
- Retrospective Insight: This feedback provides objective, data-driven insights into how well the system is performing. It helps teams understand flow efficiency, identify bottlenecks, and evaluate the predictability of delivery.

- Actionable Outcome: System feedback may lead to improvements in the Kanban board setup, WIP limits, or task prioritization. It could also highlight the need for process adjustments to reduce cycle time or increase throughput.

5. Peer Reviews and Feedback

- Definition: Peer reviews provide feedback on individual work or team processes. In a Kanban system, this feedback may involve reviewing work items at various stages, such as during the "Ready for Review" or "In Progress" stages.
- Retrospective Insight: Peer feedback helps identify areas for improvement in quality, such as code quality, design, or documentation. It also helps improve the process of handing off work items between team members.
- Actionable Outcome: Peer feedback can lead to improvements in team collaboration, quality standards, or the Definition of Done. Teams may also implement more frequent or structured reviews to catch issues earlier in the process.

6. Feedback from the Workflow (Work Item Aging, Blocked Items)

- Definition: This feedback comes from Work Item Aging reports and Blocked Items reports, which show how long work items have been sitting idle or blocked at any stage of the Workflow.
- Retrospective Insight: This type of feedback helps teams understand whether there are any recurring issues that are causing delays or slowdowns in the process. For example, items that are consistently blocked or aging too long in a stage may point to issues with resource allocation or clarity in requirements.
- Actionable Outcome: Teams might adjust WIP limits, clarify Workflow policies, or make resource allocation changes to reduce blocking and improve the flow of work.

Benefits of Using Feedback in Retrospectives

- Objective Reflection: Feedback provides concrete data that allows teams to reflect on their processes, customer satisfaction, and team performance in an objective manner.
- Holistic Perspective: Feedback from multiple sources—team members, stakeholders, customers, and automated systems—provides a comprehensive view of the Workflow. This enables the team to make well-rounded improvements.
- Continuous Alignment with Goals: Regularly gathering and acting on feedback ensures that the team's work stays aligned with organizational goals, customer needs, and stakeholder expectations.
- Building a Culture of Openness: Feedback encourages open communication within the team and with external stakeholders. It fosters trust and a sense of ownership, making the retrospective process more collaborative and effective.
- Actionable Insights: Feedback translates into actionable insights. It helps pinpoint specific areas where the team can make changes to improve Workflow efficiency, product quality, and customer satisfaction.

9.1.1.11 Incidents or Issues

In the Kanban framework, incidents or issues are disruptions that affect the flow of work and overall system performance. These can be anything from unexpected blockers, unplanned work, delays, customer complaints, technical failures, or resource shortages.

The Retrospect and Improve process is an opportunity for the team to reflect on these incidents or issues, understand their root causes, and determine how to prevent or mitigate them in the future.

Incidents and issues are critical inputs to the retrospective process because they directly impact the efficiency and predictability of the Kanban system. By reviewing incidents and issues, teams can uncover systemic problems, improve process stability, and continuously improve their Workflow to minimize disruptions going forward.

During retrospectives, teams analyze the root causes of these incidents, evaluate their impact on the Workflow, and take actionable steps to prevent future occurrences. By addressing incidents in a transparent, data-driven manner, teams can improve risk management, optimize processes, and enhance collaboration. Ultimately, reflecting on incidents during retrospectives leads to more resilient Workflows, improved customer satisfaction, and continuous improvement within the Kanban system.

Purpose of Incidents and Issues in the Retrospective Process

The primary purpose of incorporating incidents and issues as inputs during retrospectives is to:

- Analyze and Address Root Causes: Incidents often have underlying causes that need to be understood and resolved. Retrospectives provide the time and space to investigate these issues in-depth.
- Prevent Future Disruptions: By reflecting on past incidents and issues, the team can identify patterns or systemic issues and put strategies in place to avoid similar problems in the future.
- Increase Transparency: Discussing incidents openly during retrospectives fosters a culture of transparency where problems are not hidden but instead are dealt with collaboratively and constructively.
- Improve Risk Management: Retrospectives allow teams to learn from incidents and develop proactive measures or policies to manage future risks and uncertainties.
- Promote Continuous Improvement: Evaluating issues helps the team take action on areas of weakness, making the Workflow more resilient over time.

Types of Incidents and Issues and Their Role in Retrospectives

There are several types of incidents or issues that can occur in a Kanban system, and each has a specific role in retrospective discussions. Understanding these incidents can help the team improve their Workflow and make necessary adjustments.

1. Work Blockers and Delays

- Definition: Blockers refer to any issue that halts the progress of work items, causing them to remain stagnant in the Workflow. This could be due to external dependencies, waiting for approvals, missing information, or technical roadblocks.
- Retrospective Insight: Work blockers are one of the most common incidents in Kanban systems. The retrospective allows the team to reflect on the causes of these blockers, such as bottlenecks in certain stages, unclear handoffs, or insufficient capacity in specific areas.
- Actionable Outcome: The team can identify whether the blockers were due to unclear WIP limits, dependency issues, lack of resources, or miscommunication. Based on this analysis, they can refine processes or adjust resource allocation to reduce future blockers.

2. Unplanned Work or Scope Creep

- Definition: Unplanned work or scope creep refers to tasks or requests that arise unexpectedly during a cycle and need to be addressed immediately, disrupting the planned Workflow.
- Retrospective Insight: Unplanned work disrupts the flow and can create inefficiencies by pulling resources away from planned work. In retrospectives, the team can evaluate how frequently unplanned work is introduced and whether it is properly prioritized.
- Actionable Outcome: The retrospective may lead to discussions on improving backlog refinement, enhancing prioritization practices, or introducing clearer guidelines on how to handle unplanned work to minimize disruption.

3. Quality Issues and Defects

- Definition: Quality issues or defects occur when work items do not meet the expected standards, either during testing, peer reviews, or customer feedback.
- Retrospective Insight: Defects often reveal gaps in the team's Definition of Done (DoD), testing procedures, or communication. In the retrospective, teams can reflect on how defects were handled, whether they were caught early, and what caused them to slip through.
- Actionable Outcome: Based on feedback, the team may decide to improve the DoD, enhance test coverage, or adjust the process for quality assurance to catch defects earlier and prevent them from impacting customer satisfaction.

4. External Dependencies

- Definition: External dependencies occur when the team relies on external parties, tools, or systems to complete a work item. Delays or failures from external sources can cause work to stall.
- Retrospective Insight: External dependencies are a common cause of delays in Kanban systems. The team can review how external factors influenced the flow of work and whether there are any recurring dependencies that caused issues.
- Actionable Outcome: Teams can propose strategies to better manage dependencies, such as increasing communication with external teams, introducing buffer time for dependencies, or revisiting the Workflow design to reduce reliance on external factors.

5. Capacity Issues and Resource Shortages

- Definition: Capacity issues occur when the team does not have enough resources (e.g., time, personnel, or expertise) to meet the demands of the Workflow, resulting in delays or incomplete work.
- Retrospective Insight: In retrospectives, teams can assess whether there was a misalignment between the workload and the capacity of the team. If there was a shortage of resources, the retrospective might examine whether tasks were under-estimated or if team members were overloaded.
- Actionable Outcome: The team can adjust WIP limits, task allocation, or resource planning to ensure that capacity is aligned with demand. They may also identify training opportunities to better equip team members to handle complex tasks.

6. Workflow and Process Inefficiencies

- Definition: Inefficiencies in Workflow refer to any steps, handoffs, or stages that slow down the process, resulting in waste or delays. This could include redundant meetings, unnecessary waiting periods, or manual tasks that could be automated.

- Retrospective Insight: Workflow inefficiencies can often be revealed through lead time, cycle time, or flow efficiency metrics. In retrospectives, the team can look at the stages where work is bottlenecked or where delays are introduced, evaluating whether certain steps can be streamlined or eliminated.
- Actionable Outcome: Teams can identify opportunities for process automation, reduced handoffs, or more efficient task routing. They may also propose changes to WIP limits or process policies to optimize flow.

7. Missed Deadlines and Delivery Delays

- Definition: Deadlines may be missed due to various reasons, including scope changes, resource limitations, or unplanned work. Delivery delays can harm customer relationships and business goals.
- Retrospective Insight: Missed deadlines are a symptom of larger issues within the system. Teams can analyze the causes, such as inaccurate estimates, frequent changes to priorities, or insufficient capacity to meet deadlines.
- Actionable Outcome: The retrospective may result in adjusting forecasting or estimation techniques, improving communication with stakeholders, or refining capacity planning to ensure that deadlines are met in the future.

8. Customer Complaints or Negative Feedback

- Definition: Customer complaints or negative feedback often arise when expectations are not met, whether in terms of quality, timeliness, or features.
- Retrospective Insight: In retrospectives, the team can review any complaints or negative feedback received and identify the root causes. Did the team misunderstand customer needs? Was the issue related to the quality of work, or was there a breakdown in communication?
- Actionable Outcome: The team may revise their requirements gathering process, implement better testing practices, or improve stakeholder communication to ensure that future work aligns more closely with customer expectations.

Benefits of Reviewing Incidents and Issues in Retrospectives

- Root Cause Analysis: By reflecting on incidents, the team can dig deeper into the root causes and take action to prevent similar problems in the future.
- Improved Risk Management: Discussing incidents regularly helps the team improve their ability to identify risks early, allowing for proactive risk mitigation strategies.
- Optimized Workflow: Analyzing incidents helps uncover inefficiencies, such as bottlenecks, unplanned work, or process delays, which can be optimized to improve overall system performance.
- Better Team Collaboration: Discussing issues openly fosters a culture of transparency and collaboration. It enables the team to work together to find solutions, rather than hiding problems or assigning blame.
- Customer-Centric Adjustments: Customer complaints and feedback, when discussed, can be used to make improvements that directly impact customer satisfaction, ensuring the team is focused on delivering value.

9.1.2 Tools

9.1.2.1 Retrospective Meetings*

In the Kanban framework, the Retrospective Meeting is an essential tool in the Retrospect and Improve process. It provides a structured opportunity for teams to reflect on their past performance, evaluate the effectiveness of their Workflows, identify areas for improvement, and agree on actionable changes. The retrospective meeting is not just a meeting but a key part of the continuous improvement loop, where insights and feedback are used to fine-tune the system and team processes.

Unlike traditional Agile retrospectives, which may be held at regular intervals (e.g., at the end of every sprint), Kanban retrospectives are often more flexible and happen at a cadence that suits the team's needs—whether that's regularly scheduled or triggered by specific incidents, bottlenecks, or performance issues.

By using data-driven insights from Kanban metrics, Kanban KPIs, Reports, Kanban Backlog, Kanban Workflows and Kanban Boards, teams can assess the effectiveness of their Workflows and pinpoint root causes of problems, such as bottlenecks, quality issues, or resource shortages. The retrospective meeting is not just a forum for discussing problems but a space for generating actionable solutions, fostering transparency, and aligning the team on continuous improvement. Whether using techniques like Start/Stop/Continue, 5 Whys, or Sailboat retrospectives, these meetings create a culture of collaboration and learning, ensuring that the team remains agile, focused on delivering value, and always improving.

Purpose of Retrospective Meetings in Kanban

The purpose of the retrospective meeting in Kanban is to:

- Promote Continuous Improvement: Retrospectives provide a dedicated space for teams to review and adjust their processes regularly. The goal is to ensure that the Kanban system evolves to be more efficient, productive, and aligned with team and organizational goals.
- Reflect on Performance: Teams use retrospectives to reflect on past cycles, incidents, work items, or Workflows. This reflection helps identify areas that worked well and areas that need attention, ensuring that the team learns from both successes and failures.
- Foster Team Collaboration and Transparency: Retrospective meetings create an open environment for team members to voice their opinions, share feedback, and collaborate on solutions to problems. This enhances team communication and trust.
- Drive Actionable Outcomes: The retrospective process encourages teams to make data-driven, actionable decisions that can directly improve Workflow efficiency, quality, and team dynamics.
- Identify Systemic Issues: While retrospectives focus on immediate issues or incidents, they also help identify larger, systemic issues in the Workflow, policies, or work culture that may be contributing to bottlenecks or inefficiencies.

Structure of Retrospective Meetings in Kanban

A typical retrospective meeting in Kanban may follow a general structure, but the format can vary depending on the team's specific needs and the nature of the process improvements required. Here is a general framework for how a Kanban retrospective meeting might be structured:

1. Set the Stage

- Duration: Typically lasts 60–90 minutes depending on the size of the team and complexity of the discussion.

- Objective: Create an environment where the team feels safe to share feedback. Set the tone by clarifying the purpose of the retrospective—improving processes, not assigning blame.
- Icebreaker (Optional): Engage team members with a light, non-work-related activity to help them relax ad focus on the meeting.

2. Review the Current State of the Kanban System

- Visualize Workflow: Use the Kanban board to review the current state of work in progress, lead time, cycle time, bottlenecks, or blocked work items.
- Analyze Metrics and KPIs: Discuss Kanban metrics (e.g., throughput, lead time, cycle time), KPIs, and Kanban reports to gain insights into how well the system is performing. This provides objective data on how the Workflow is functioning.

3. Identify and Analyze Incidents and Issues

Issues are ongoing or systemic problems that impact the flow or quality of work but may not cause immediate failure. Examples include a recurring blocker in code review, unclear requirements that slow development, and chronic bottlenecks.

Incidents are sudden, unexpected events that require urgent resolution to restore service, flow, or system stability. Examples include a production outage, a critical bug in a live environment, a hardware failure, or an urgent security vulnerability.

Some ways to identify Incidents and Issues:

- Recent Blockers and Delays: Review any incidents, blockers, or delays that occurred during the previous cycle. Discuss why they happened, their impact, and how they were resolved (or not).
- Customer Feedback: Incorporate any feedback from stakeholders, customers, or end-users to highlight areas where work may not have met expectations or created dissatisfaction.
- Work Quality and Bottlenecks: Look for issues related to the quality of deliverables or specific stages in the Workflow where work consistently gets delayed (e.g., overburdened stages, missing resources).

How Issues and Incidents affect Kanban Flow

- Interrupt the normal delivery of planned work.
- Increase cycle time for regular tasks.
- Skew flow metrics like throughput, aging charts, and cumulative flow diagrams.
- Force context-switching, leading to loss of team focus.
- Cause accumulation of unplanned work, reducing predictability.

In Kanban, the goal is not to eliminate issues/incidents entirely (which is unrealistic) but to visualize, manage, and learn from them.

How to Manage Issues and Incidents in Kanban

Practice	Description
Visualize Them Explicitly	Use distinct cards, colors, swimlanes, or tags (e.g., red cards for incidents) to show unplanned work

Practice	Description
Introduce an "Expedite" Lane or Class of Service	Urgent items like incidents can bypass WIP limits temporarily but are tracked separately
Track Root Causes	After resolution, perform root cause analysis (e.g., "5 Whys") to prevent recurrence
Measure the Impact	Analyze the volume and frequency of unplanned work to spot systemic weaknesses
Limit Expedite Use	Ensure expedited handling is exceptional, not routine, to maintain system stability
Review During Retrospectives	Regularly discuss issues/incidents and what they reveal about Workflow health

Table 9-7: Managing Issues and Incidents in Kanban

Important Principles to Manage Incidents and Issues:

- Flow Disruption Must Be Visible: Hiding incidents causes misleading flow metrics.
- Learning over Blaming: Focus on system fixes, not individual blame.
- Balance Speed and Stability: Resolving incidents quickly is important, but addressing root causes is even more critical.

Example of managing Issues and Incidents in Kanban:

A Kanban board might have:

- A normal swimlane for regular work.
- A critical incidents swimlane for urgent, high-priority interruptions.
- Expedite cards jump the queue but are visually marked so their impact is visible.
- Teams might set policies such as: "If more than 5% of our flow consists of incidents in a month, we trigger a process improvement retrospective."

4. Use Kanban Retrospective Techniques and Formats

Kanban teams can use various techniques or formats to make retrospectives more engaging and productive. These methods can be adjusted to the specific challenges the team is facing at the time.

4.1. Start, Stop, Continue

Overview

This technique helps the team assess what they should start doing, stop doing, and continue doing. It is simple and straightforward, making it one of the most commonly used retrospective formats.

How It Works

- Start: Discuss actions, behaviors, or practices that the team should begin doing. This could be new practices, habits, or strategies that could improve the Workflow.
- Stop: Identify things that are hindering progress and should be stopped. This might include ineffective processes, unnecessary meetings, or behaviors that are reducing team efficiency.
- Continue: Recognize the practices that are working well and should be continued. These could be aspects like communication, collaboration, or specific process steps that contribute to the team's success.

When to Use

- At the end of a cycle or a specific period, where the team can reflect on what worked and what didn't.
- When you want to keep the retrospective simple and focused on actionable improvements.

Benefits

- Clear and actionable: It encourages specific actions, making it easy to understand what to do next.
- Team ownership: Everyone in the team has a voice in shaping the direction forward.

4.2. 5 Whys

Overview

The 5 Whys technique is a simple, yet powerful tool for root cause analysis. It involves asking "why" repeatedly (typically five times) to identify the underlying cause of an issue. It's used to dig deeper into problems and find solutions that address the root cause, rather than treating the symptoms.

How It Works

- When a problem or incident is identified (e.g., a bottleneck in the Workflow), the team starts by asking "Why did this happen?"
- The answer to the first "why" becomes the basis for asking the next "why," and this process continues until the team has uncovered the root cause.
- Typically, this process is repeated 5 times, but sometimes it may require fewer or more questions to identify the core issue.

When to Use

- When dealing with recurring issues, bottlenecks, or incidents that are impacting the flow of work.
- If there's a need to go deeper and explore the root causes of problems that can be addressed systemically.

Benefits

- Uncovers root causes: Helps identify the underlying reasons for problems, allowing the team to address systemic issues.
- Improves decision-making: By addressing the real causes, teams can make decisions that lead to lasting improvements, rather than just treating the symptoms.

4.3. 4Ls (Liked, Learned, Lacked, Longed for)

Overview

The 4Ls technique encourages team members to reflect on four key areas: what they liked, what they learned, what they lacked, and what they longed for during the last work cycle. This retrospective format is valuable for balancing both positive and constructive feedback.

How It Works

- Liked: Team members share things they appreciated or enjoyed during the cycle.
- Learned: Discuss what new things the team learned, both about the work and the process.
- Lacked: Reflect on what was missing in the Workflow, whether it's information, resources, or skills.
- Longed For: Identify what team members wished could have been different or what they felt was lacking.

When to Use

- To ensure a more balanced perspective, where positive feedback and lessons learned are both acknowledged.
- When you want a broad reflection on the overall experience, from both a team and process perspective.

Benefits

- Balanced feedback: Encourages both positive reinforcement and constructive criticism.
- Holistic reflection: Helps identify areas for improvement across people, processes, and resources.

4.4. Fishbone Diagram (Ishikawa Diagram)

Overview

The Fishbone Diagram, also known as the Ishikawa Diagram, is a visual tool used to identify the potential causes of problems. The diagram is shaped like a fishbone, with the "head" representing the problem and the "bones" representing categories of potential causes.

How It Works

- The team writes the problem or issue at the "head" of the fishbone.
- The team then brainstorms potential categories of causes, such as people, processes, tools, and environment.
- For each category, team members identify specific causes and sub-causes contributing to the problem.
- After completing the diagram, the team can analyze the causes and prioritize them for resolution.

When to Use

- When you need to identify multiple potential causes of a problem or bottleneck, especially if the issue is complex or multifaceted.
- Ideal for root cause analysis, particularly when problems aren't immediately obvious.

Benefits

- Comprehensive: Helps the team consider all possible causes of an issue.
- Visual clarity: The diagram provides a clear, visual way to organize causes and spot patterns.
- Collaborative: Encourages the team to engage in a deeper discussion of issues.

4.5. Sailboat Retrospective

Overview

The Sailboat Retrospective is a metaphorical technique that uses the image of a sailboat to reflect on the team's performance. The sailboat represents the team's progress toward their goals, the wind represents things that are helping the team move forward, and the anchors represent obstacles holding the team back.

How It Works

- Wind: Discuss the things that are helping the team move forward, such as effective practices, tools, or team collaboration.
- Anchors: Identify the obstacles that are preventing the team from moving faster, such as bottlenecks, lack of resources, or poor communication.
- Rocks (Optional): Sometimes, the "rocks" represent major risks or potential failures that could disrupt the team's progress.

When to Use

- When the team needs to reflect on both positive and negative factors affecting their Workflow and progress.
- Ideal for a more visual or metaphorical approach to reflection.

Benefits

- Clear metaphor: The sailboat image is an easy way to structure the conversation and ensure the team focuses on both helpful and hindering factors.
- Creative: Encourages out-of-the-box thinking and can make the retrospective more engaging.

4.6. Dot Voting

Overview

Dot voting (also known as multi-voting) is a technique for prioritizing issues or ideas. Team members are given a set of dots or stickers to vote on the most important topics or areas for improvement.

How It Works

- Team members are presented with a list of topics, issues, or potential improvements.
- Each team member is given a set of dots (usually 3-5) and votes for the most important items by placing dots on them.
- The items with the most votes are prioritized for discussion and improvement.

When to Use

- When there are multiple potential topics to address, and the team needs to prioritize them.

- Useful when there are more improvement opportunities than time to address them.

Benefits

- Quick prioritization: Helps the team focus on the most important issues quickly.
- Democratic: Each team member has an equal say in what's prioritized, which can lead to better team alignment.

4.7. Lean Coffee

Overview

Lean Coffee is a structured, yet agenda-less meeting format where the team creates the agenda at the beginning of the meeting, votes on the topics to discuss, and discusses them in time-boxed intervals. It allows the team to address the most pressing issues in a focused way.

How It Works

- Team members suggest topics they want to discuss.
- The group votes on which topics are most important.
- The team discusses each topic in 5-10 minute blocks, then votes on whether to continue or move on to the next topic.
- Discussions continue until all topics are covered or time runs out.

When to Use

- When the team wants a flexible yet structured format for discussing multiple issues.
- Ideal for retrospectives where team members have various topics they want to discuss, but time is limited.

Benefits

- Flexibility: Allows the team to focus on the most pressing issues.
- Time-efficient: Ensures that only the most important topics are discussed in depth.

Democratic: Gives all team members the opportunity to influence the agenda.

- Root Cause Analysis: Identify the underlying causes of issues discussed in the previous step. Use techniques like 5 Whys or Fishbone diagrams to analyze the root causes of bottlenecks or incidents.
- Collaborative Solution Finding: Brainstorm potential solutions or improvements. This could involve adjusting WIP limits, revising work policies, improving communication practices, or optimizing resource allocation.
- Prioritize Actions: Once solutions are identified, the team should prioritize them based on their potential impact, feasibility, and urgency. This ensures that the team tackles the most pressing issues first.

5. Commit to Actionable Changes

- Action Plan: Define specific, actionable changes that will be implemented in the next work cycle. This could include adjustments to WIP limits, policy updates, tool improvements, or Workflow optimizations.

- Assign Responsibilities: Assign responsibility for implementing changes to specific team members or groups, ensuring there's ownership and accountability for each action item.
- Define Success Metrics: Agree on how the effectiveness of the changes will be measured in the next retrospective. This could involve tracking specific metrics (e.g., lead time, cycle time, work item aging) to determine whether the changes resulted in improvements.

6. Close the Meeting

- Review the Meeting Outcomes: Summarize the main takeaways from the retrospective. Make sure everyone is clear about what changes will be implemented and how success will be measured.
- Feedback on Retrospective: Ask team members to give feedback on the retrospective itself. What went well? What could be improved? This ensures that the retrospective process continues to evolve as well.
- End on a Positive Note: Highlight successes, improvements, or even small wins to end the meeting on an optimistic, motivating note.

Benefits of Retrospective Meetings in Kanban

- Continuous Improvement: Retrospectives provide a formal, structured opportunity to reflect on the process and make incremental improvements. This leads to the gradual optimization of Workflows, team dynamics, and processes over time.
- Increased Transparency: Regular retrospectives encourage openness and transparency within the team. Team members can discuss challenges, incidents, and successes without fear of judgment, fostering trust and collaboration.
- Data-Driven Decisions: By using metrics, Kanban boards, and reports, retrospectives help teams make data-driven decisions, ensuring that changes are based on concrete insights rather than opinions or assumptions.
- Identifying Systemic Issues: Retrospectives help teams uncover recurring problems and systemic issues in the Workflow, such as bottlenecks or miscommunication. This allows the team to address root causes rather than symptoms, leading to lasting improvements.
- Team Alignment and Motivation: Retrospectives provide an opportunity for the team to align on goals, objectives, and priorities. By celebrating successes and acknowledging areas for improvement, retrospectives help keep the team motivated and focused on their shared mission.

9.1.2.2 AI-enabled Digital Kanban Tool

An AI-enabled Digital Kanban Tool enhances Kanban retrospectives by offering real-time, data-driven insights into team performance and Workflow efficiency. It automatically analyzes lead times, cycle times, bottlenecks, and blockers, helping teams identify root causes of inefficiencies. AI can detect patterns, highlight anomalies, and even assess team sentiment through comments and feedback. With visual dashboards and predictive analytics, retrospectives become more focused, objective, and actionable.

AI-driven suggestions for process improvements support continuous, incremental change, perfectly aligning with Kanban's principles. This approach empowers teams to evolve their Workflows intelligently and sustainably, fostering a culture of ongoing learning and optimization.

9.1.3 Outputs

9.1.3.1 Improvement Actions*

In Kanban, the Retrospect and Improve process is a critical feedback loop focused on evolving the way workflows through the system. Unlike Scrum, where retrospectives happen at the end of each sprint, Kanban retrospectives are typically scheduled periodically or triggered by data-driven events (such as a significant rise in lead time or a recurring blocker). The key output of a Kanban retrospective is Improvement Actions — concrete, actionable changes aimed at optimizing flow, improving quality, and enhancing team collaboration. These actions are small, incremental, and guided by real system behavior rather than assumptions.

Some Types of Improvement Actions:

Category	Description	Examples
Flow Efficiency Improvements	Changes aimed at making work move faster and smoother through the system	Adjust WIP limits, split large work items into smaller ones, redefine work item types
Bottleneck and Blocker Resolution	Actions to remove recurring blockers or persistent bottlenecks	Create clearer acceptance criteria, improve cross-team dependencies management
Policy Adjustments	Updates to explicit process agreements ("how we work")	Update Definition of Done (DoD), refine pull policies, adjust Service Level Expectations (SLEs)
Visual Management Enhancements	Making the Kanban board or other visual tools more effective	Add new columns or swimlanes, color-code work item types, display flow metrics on the board
Team Collaboration Improvements	Actions that enhance communication and cooperation	Schedule regular stand-ups for blockers, introduce pairing or peer reviews
Risk Reduction and Quality Improvements	Changes that reduce the risk of delays or quality failures	Add quality checks earlier in the flow, implement technical debt tracking
Learning and Capability Building	Developing skills that support continuous improvement	Set up training for better estimation, bring in flow experts for workshops

Table 9-8: Types of Improvement Actions

Characteristics of Good Improvement Actions: Improvement actions in Kanban should be:

- Small and evolutionary (not big disruptive changes)
- Testable (you can measure their impact on the flow)
- Visible (tracked openly, often added to the Kanban board itself)
- Aligned with business goals (customer value, predictability, sustainability)

How to Manage Improvement Actions

- Track actions as Kanban cards in a dedicated swimlane ("Improvement Actions" lane)
- Apply WIP limits to improvement work too (to avoid overwhelming the team)
- Review progress regularly (in future retrospectives or flow reviews)
- Measure impact using flow metrics (e.g., lead time before and after)

Example of Improvement Actions during Retrospect and Improve Process:

Suppose during a retrospective, the team notices that review stages are causing major delays.

Improvement actions could be:

- Introduce clearer criteria for "Ready for Review"
- Set WIP limits for reviewers
- Add an automation to notify reviewers when items are ready
- Schedule weekly peer review sessions

9.1.3.2 Updated Kanban Workflows

After the Retrospect and Improve process in Kanban, Workflows are updated to reflect agreed improvement actions. Changes may include adjusting WIP limits, refining process policies, redefining Workflow stages, or enhancing visualization. These updates aim to optimize flow, reduce bottlenecks, and support continuous, evolutionary improvement aligned with Kanban principles.

9.1.3.3 Updated Kanban Backlog

After the Retrospect and Improve process in Kanban, the backlog is updated to include new improvement actions identified during the session. These actions may address Workflow inefficiencies, recurring blockers, quality issues, or team collaboration enhancements. Improvement items are typically added as distinct work items in the backlog or on the board, prioritized alongside regular work. This ensures that continuous improvement remains visible, actionable, and integrated into the team's day-to-day operations, supporting sustainable Workflow evolution.

9.1.3.4 Updated Kanban Boards

After the Retrospect and Improve process in Kanban, the Kanban boards are updated to incorporate changes designed to improve the flow of work. This might include adjusting Work-in-Progress (WIP) limits, redefining Workflow stages, or adding new swimlanes to address specific issues or improvements. New visualizations, such as metrics or charts, may be introduced to track progress on identified bottlenecks or blockers. Additionally, improvement actions or process adjustments agreed upon during the retrospective are added as visible work items or cards on the board. These updates ensure that the Kanban board remains aligned with continuous improvement and team goals.

9.1.3.5 Learnings and Documentation

After the Retrospect and Improve process in Kanban, key learnings and improvement actions are documented to ensure continuous progress. This documentation includes identified bottlenecks, blockers, or inefficiencies, along with the corresponding action items. The team also records any new process policies, Workflow changes, or tools introduced. This helps create a knowledge base for future retrospectives and ensures that lessons learned are captured, making them accessible for review and improvement. The documentation serves as a reference for tracking the effectiveness of implemented changes over time.

The Practical Implementation Guide for Managing Workflows using Kanban

The Kanban Body of Knowledge (*KBOK™ Guide*) offers guidelines for successfully implementing Kanban, a widely used Agile methodology for managing business workflows. Originally developed in manufacturing, Kanban is now applied across various industries and sectors, including software development, healthcare, education, human resource management, retail, sales and marketing, finance, and more. It works for organizations of all sizes, from small businesses to large enterprises.

The *KBOK™ Guide* is built on insights from thousands of workflows across industries, with significant input from the global Kanban community and the VMEdu® Global Authorized Training Partner Network, comprising over 2,000 companies in more than 50 countries. Its development was a collaborative effort involving experts and practitioners from diverse fields.

The *KBOK™ Guide* is a comprehensive yet easily accessible framework for managing workflows with Kanban. It includes practical examples of Kanban implementation using popular IT tools, helping readers apply the methodology in their organizations. The guide also covers how Kanban integrates with other Agile frameworks such as Scrum, DevOps, OKRs, and Lean. Recommendations about how Artificial Intelligence can be used to increase productivity in Kanban workflows are also included in the *KBOK™ Guide*.

The *KBOK™ Guide* serves as a resource for both experienced Kanban practitioners and professionals new to workflow management. It's also suitable for those with no prior Kanban experience. The widespread adoption of the *KBOK™ Guide* framework standardizes how Kanban is applied to workflows globally and significantly helps organizations improve their overall productivity and return on investment.

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