# Sprint Retrospective(I)

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# Introduction

- Scrum provides two inspect-and-adapt opportunities at the end of each sprint: the sprint review and the sprint retrospective.
- In sprint review, the team and stakeholders inspect the *product* itself.
- In sprint retrospective, the Scrum team examines the *process* used to build that product.

# Purpose of retrospective

- *Here is Edward Bear, coming downstairs now, bump, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there is another way, if only he could stop bumping for a moment and think of it.*
- Sprint retrospectives give the whole Scrum team an opportunity to stop bumping along for a moment and think.
- Inside the time-box of the retrospective, teams are free to examine what's happening, analyze the way they work, identify ways to improve, and make plans to implement these improvements.
- Anything that affects how the team creates the product is open to scrutiny and discussion, including processes, practices, communication, environment, artifacts, tools, and so on.

# Purpose of retrospective(Cnt'd)

- The sprint retrospective is one of the most important and least appreciated practices in the Scrum framework.
- It is important because it gives teams the chance to customize Scrum to their unique circumstances.
- It is underappreciated because some people have a misguided view that it takes time away from doing "real" design, build, and test work.

# Purpose of retrospective(Cnt’d)

- The sprint retrospective is a crucial contributor to the continuous improvement that Scrum offers.
- And while some organizations might wait to do a retrospective until the end of a large development effort, Scrum teams hold retrospectives each and every sprint, allowing teams to take advantage of insights and data before they are lost.

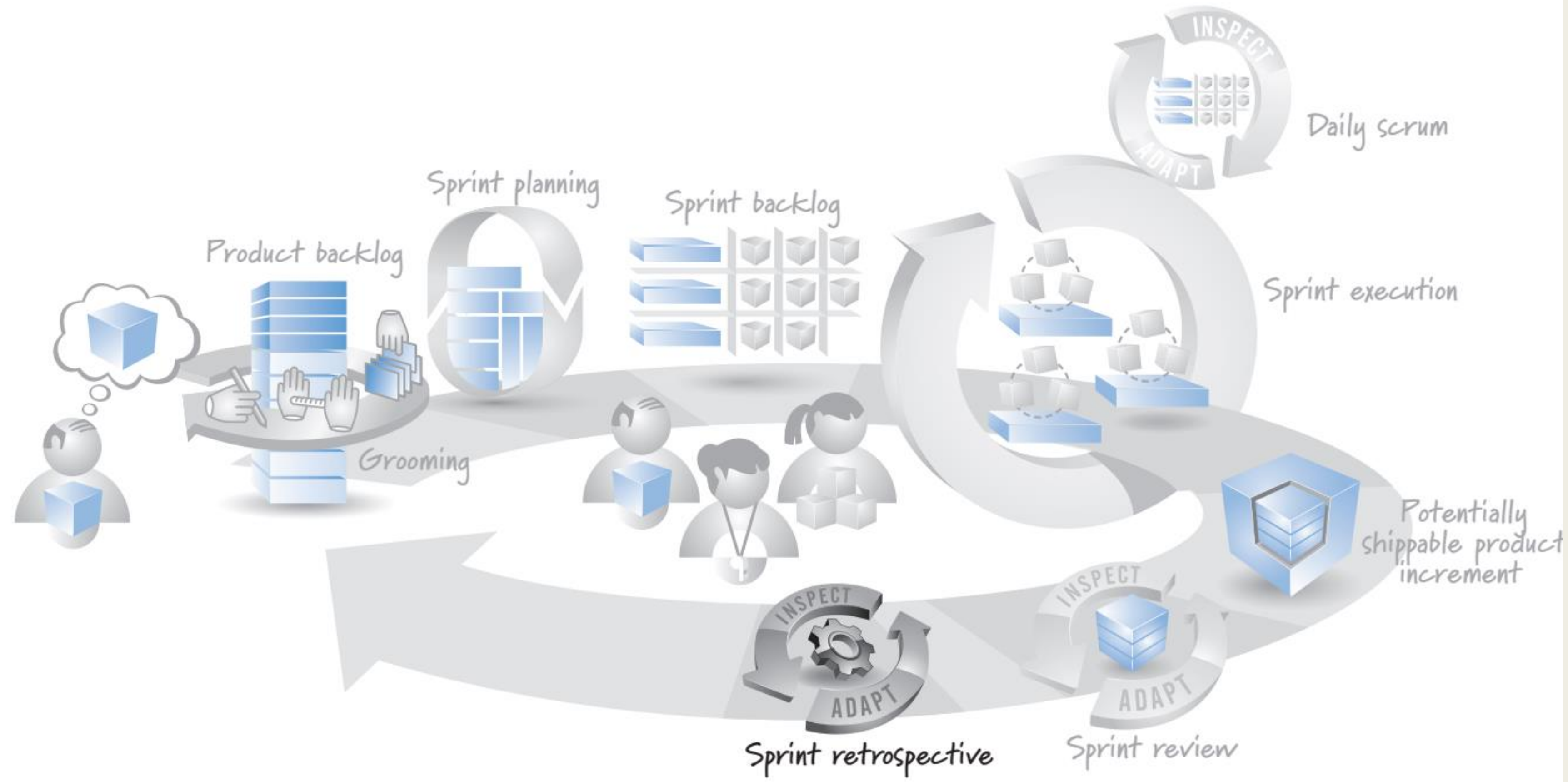


**FIGURE 22.2** When the sprint retrospective happens

# Purpose of retrospective(Cnt’d)

- Because a Scrum team meets at the end of each sprint to inspect and adapt its Scrum process, it can apply early and incremental learning throughout the development process and thereby significantly affect the outcome of the project.

# Retrospective with less ceremony

- A sprint retrospective can be as simple as the Scrum team members coming together to discuss questions such as
  - *What worked well this sprint that we want to continue doing?*
  - *What didn't work well this sprint that we should stop doing?*
  - *What should we start doing or improve?*
- Based on their discussions, team members determine a few actionable changes to make and then get on with the next sprint with an incrementally improved process.

# Participants

- Because the sprint retrospective is a time to reflect on the process, we need the full Scrum team to attend. This includes all members of the development team, the ScrumMaster, and the product owner.
- The development team includes everyone who is designing, building, and testing the product. Collectively, these team members have a rich and diverse set of perspectives that are essential for identifying process improvements from multiple points of view.
- The ScrumMaster attends, both because she is an integral part of the process and also because she is the process authority for the Scrum team. Being an authority doesn’t mean that the ScrumMaster should tell the team how to change its process. Instead, it means that she can point out where the team is not adhering to its own agreed-upon process and also be a valuable source of knowledge and ideas for the team.

# Participants(Cnt’d)

- Some argue that having the product owner at the retrospective might inhibit the team from being completely honest or revealing difficult issues. While this can be a risk in some organizations, the product owner is a critical part of the Scrum process and as such should be part of discussions about that process. If there is a lack of trust between the product owner and the development team, or there is a low level of safety so that speaking candidly isn’t comfortable, perhaps the product owner should not attend until the ScrumMaster can help coach those involved toward creating a safer, more trusting environment.
- Assuming trust and safety are reasonably in place, an effective product owner is critical to achieving the fast, flexible flow of business value and therefore should participate in the Scrum retrospective.

# Participants(Cnt'd)

- Stakeholders or managers who are not on a Scrum team, should attend a retrospective only if invited by the Scrum team.
- Although transparency is a core Scrum value, the reality is that many organizations have not yet achieved a level of safety to support non-Scrum team members regularly attending retrospectives.
- The team members must feel safe if they are to have an open and candid discussion without feeling inhibited by outsiders.
- If the team doesn't feel safe enough to reveal the real issues because outsiders are attending, the retrospective will lose its effectiveness.

# Prework

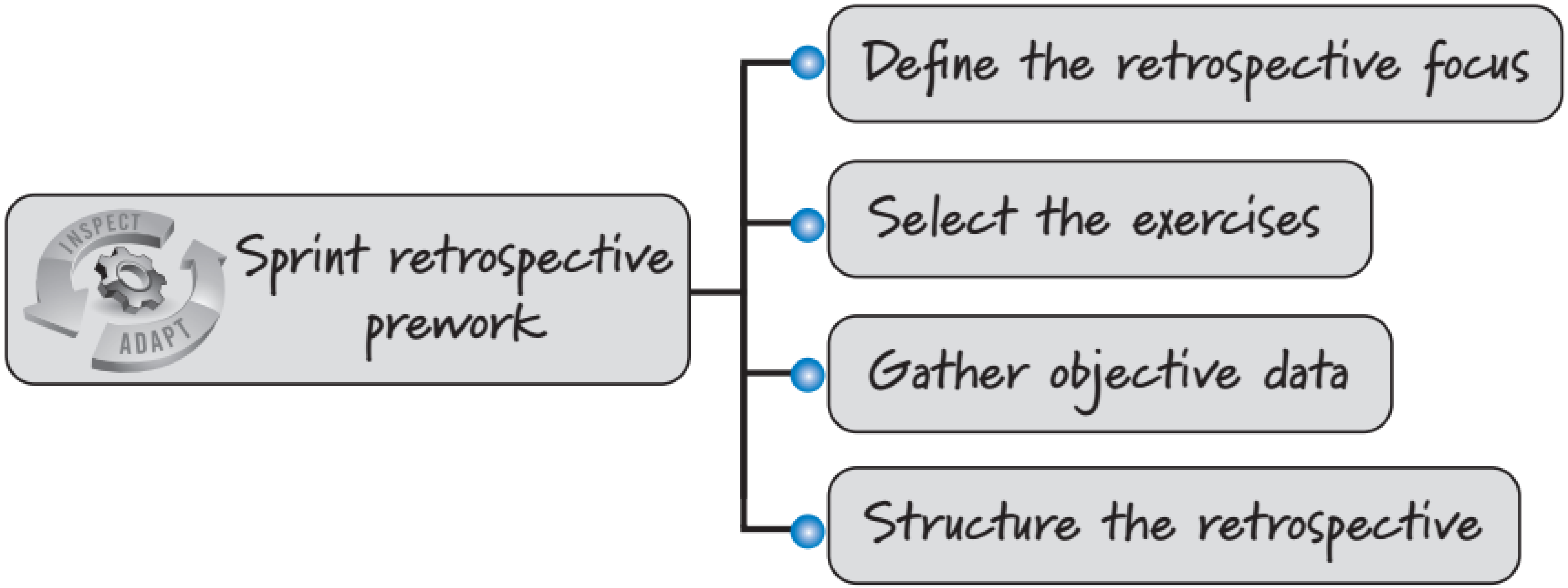


**FIGURE 22.3** Sprint retrospective prework

# Define the Retrospective Focus

- Each sprint retrospective should have a well-defined focus.
- The default focus is to review all relevant aspects of the process the Scrum team used during the current sprint. However, there are times when a team might select a different retrospective focus based on what is currently important to the team and where it is energetic about seeing improvement.
- For example:  Focus on how to improve our skills with test-driven development.
- Establishing and communicating the focus before the start of the retrospective allow the Scrum team to determine if any non-Scrum team members should be invited.
- In addition, knowing the focus before the start of the retrospective allows the team to select appropriate retrospective exercises and gives people time to gather and prepare any data needed to ensure a smooth performance.

# Define the Retrospective Focus(Cnt’d)

- Having the ability to define a specific focus can help long-lived, high-performance Scrum teams continue to extract measurable value from sprint retrospectives.

There is always room for growth;

it just might require a more focused retrospective to uncover it.

# Select the Exercises

- we can determine which exercises might help participants to engage, think, explore, and decide together.
- The participants don’t have to decide exactly which exercises to use during prework.
- In fact, it might actually be better to select some exercises in a just-in-time fashion during the retrospective based on what the participants think would work best.
- At the same time, some exercises, especially those that require data or supplies, are best determined during the prework.
- Be prepared but stay flexible.

# Gather Objective Data

- Because a sprint retrospective is performed in a focused, short period of time (many teams establish a timebox), any legwork to collect needed data should be done before the retrospective begins.
- We know both the focus and the exercise options for the upcoming retrospective, so we should have a good idea of what, if any, objective data should be gathered.
- Objective data is hard data (not opinions), such as what events happened and when, or counts of the number of PBIs that were started but not finished, or the feature burnup chart for the sprint illustrating the flow of completed work.
- At this point we are not organizing or analyzing any data; we are just collecting it so that it is available during the retrospective.

# Structure the Retrospective

- Like sprint reviews, retrospectives happen at the end of each sprint, often immediately following the sprint review, and generally should recur at the same place, day, and time each sprint.
- However, unlike for sprint reviews, you might occasionally need to vary the place, date, or time of a particular retrospective to better serve its focus, any non–Scrum team participants, or specific exercises you are planning to run.
- The exact length of the retrospective is influenced by factors such as how many people are on the team, how new the team is, whether any team members are located remotely, and so on.
- It's difficult to hold a meaningful sprint retrospective in less than 60 minutes. As a rule, about 1.5 hours for the sprint retrospective when using two-week sprints, and proportionally more when using longer sprints.

# Who is retrospective head?

- Although the ScrumMaster will often act as and can be quite effective as the facilitator for the sprint retrospective, any capable team member can fulfill the role of retrospective facilitator.
- There are also times when bringing in a skilled, neutral, outside facilitator might be the best solution to help team members either get started doing retrospectives or to assist them through a particularly difficult or sensitive retrospective where a closely aligned, internal facilitator may be far less successful.

# Approach

- Inputs: agreed-upon focus for the retrospective and any exercises and materials that the team might decide to use during the retrospective. In addition, most retrospectives require at least some precollected, objective data. And one piece of input every attendee will bring without fail is her own subjective data regarding the current sprint. Another retrospective input is a backlog of insights produced in previous retrospectives.
- Outputs: a set of concrete improvement actions that the team has agreed to perform in the next sprint. The outputs might also include a backlog of insights collected during the current retrospective that the team will not address in the upcoming sprint but might choose to address in the future. Team members should also expect improved camaraderie as an output from a retrospective.

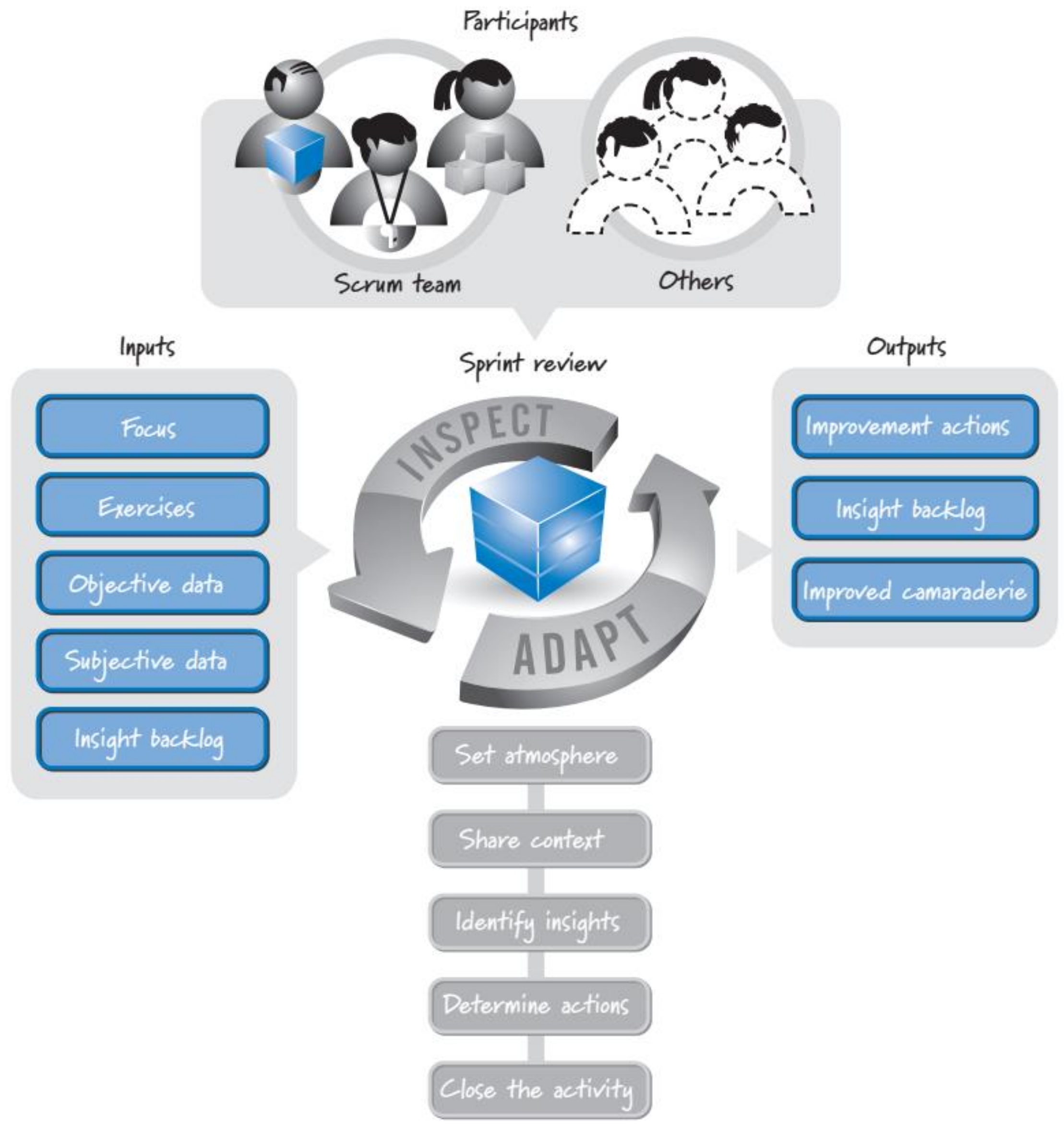


**FIGURE 22.4** Sprint retrospective activity

# Activities

- While many retrospective approaches exist, most seek to answer the following questions:
  - *What worked well this sprint that we want to continue doing?*
  - *What didn't work well this sprint that we should stop doing?*
  - *What should we start doing or improve?*
- An approach: set the atmosphere for the retrospective, create a shared context among the participants, identify insights that can lead to improvements, determine concrete improvement actions to take during the next sprint, and close the retrospective.

# Set the Atmosphere

- During a retrospective, people are being asked to analyze the behavior and performance of their team and to make specific recommendations for how the team can improve itself.
- Putting the team (and by extension oneself) under a microscope can be an uncomfortable experience.
- So, a good way to start the retrospective is to establish an atmosphere that makes people feel comfortable participating.
- It is helpful for the ground rules to make clear that the focus is on the organizational system and process, not the individuals, thus making it safe to explore what went wrong.
- There will be times when problems are people problems; the retrospective is not the place to solve them. The retrospective is about improving the Scrum team's process, not about assigning blame or reprimanding individual behavior.

# Set the Atmosphere(Cnt’d)

- When setting the atmosphere, ensure that the ground rules reinforce the concept of a blame-free environment.
- It is also important to establish a precedent of active participation. We won’t have a very effective retrospective if people assume a passive role. So, when setting the atmosphere, it’s a good idea to get people talking just to prime the pump of participation.
- Some teams do something as simple as ask each participant to express in a few words her current feelings or energy level. It’s not critical what question people are asked to answer, but that they are asked to say something to get in the mood of talking.

# Share Context

- A group of people can all experience the same event and yet interpret it quite differently.
- To successfully inspect the current sprint, it is important to get everyone on the same page so that they have a shared context.
- To establish a shared context the participants must align their diverse individual perspectives into a shared team perspective.
- If individual perspectives are allowed to dominate, the retrospective could degrade into a session of opinion debate rather than a session focused on actionable outcomes based on a shared context.

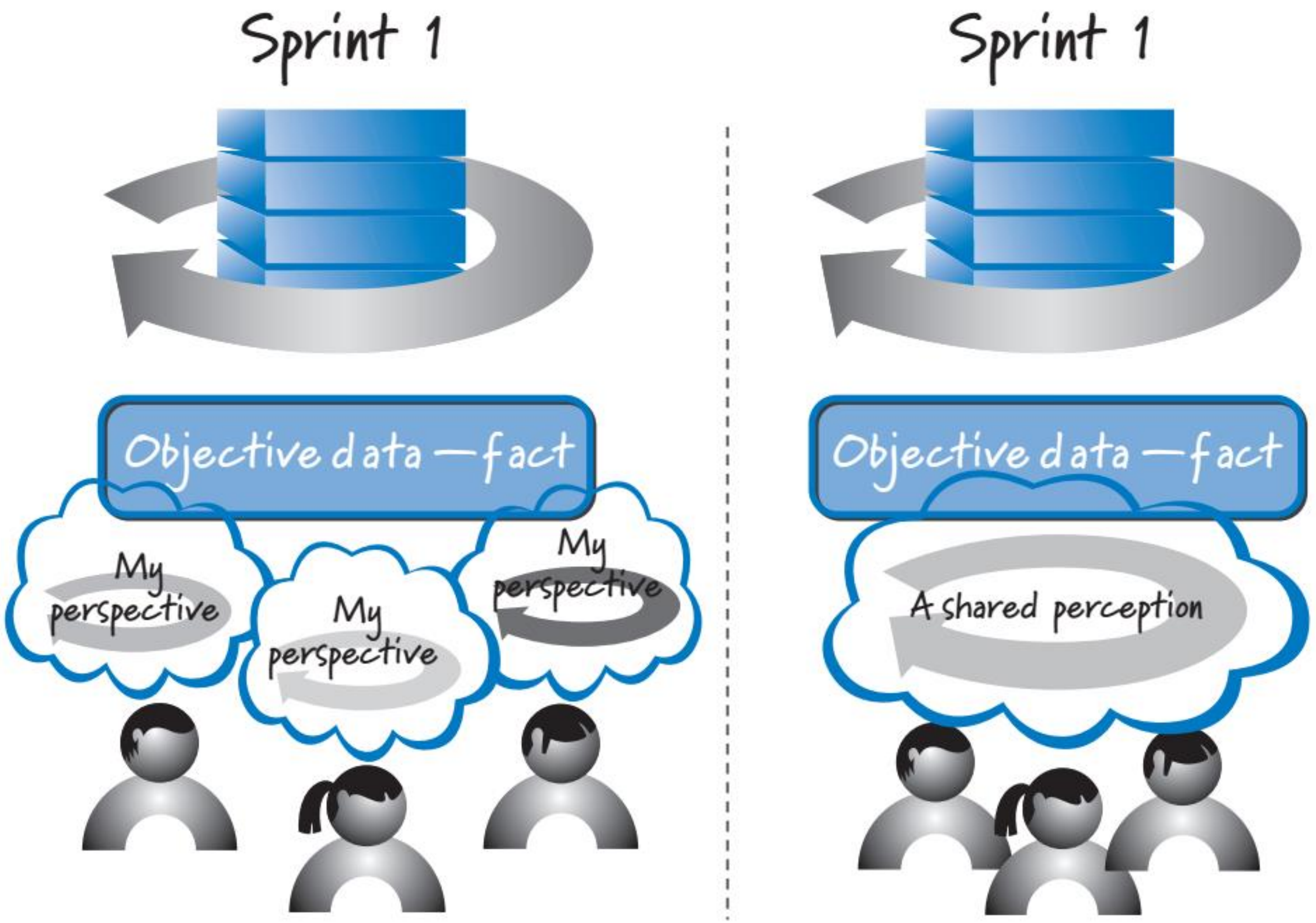


FIGURE 22.5 Aligning perspectives to create a shared context

# Share Context(Cnt’d)

- When establishing a shared context, therefore, it’s imperative that you first ground the retrospective in an objective, big-picture view of the sprint.
- After getting everyone in a talking mood, share objective data, such as committed PBIs, PBIs completed, number of defects, and so on.
- While most of the objective data is typically gathered during the prework, some objective data can also be left for the participants to collect collaboratively during the retrospective. Doing this can help energize the team around the importance of that data.
- Whether done as part of the prework or as a group, gathering objective data is crucial for establishing a common foundation built on facts rather than opinions.
- Just because we are grounded in objective data doesn’t mean subjective data is irrelevant, however. Each person brings to the retrospective subjective data reflecting her interpretation of the sprint.

# Share Context(Cnt'd)

- If subjective data is not exposed and discussed, participants might just assume that everyone else experienced the sprint in a similar way.
- This misalignment will make it difficult for people to understand one another's comments and suggestions.
- There are a number of exercises that the participants can use to develop a shared context of both objective and subjective data.
- Two of the most common exercises are an <u>event timeline</u> and an <u>emotions seismograph</u>.

# Event Timeline

- Creating an event timeline is a simple yet powerful way to generate a shared artifact that visually represents the flow of events during a sprint.
- A common approach is to draw a timeline on a wall or whiteboard and have the participants put cards (or sticky notes) on the timeline representing meaningful events that occurred during the sprint.
- The event cards are placed on the timeline in chronological order. This temporal view of events provides excellent visibility into the flow of activities during the sprint and also provides a context for quickly identifying missing or forgotten events.
- To help visually categorize events, many teams use a variety of colored cards. Some do this to represent different event types (for example, green is a technical event, yellow is an organizational event, red is a personal event). Other teams use colors to represent feelings or energy levels (for example, green is a positive event, yellow is a neutral event, and pink or red is a negative event).

# Event timeline

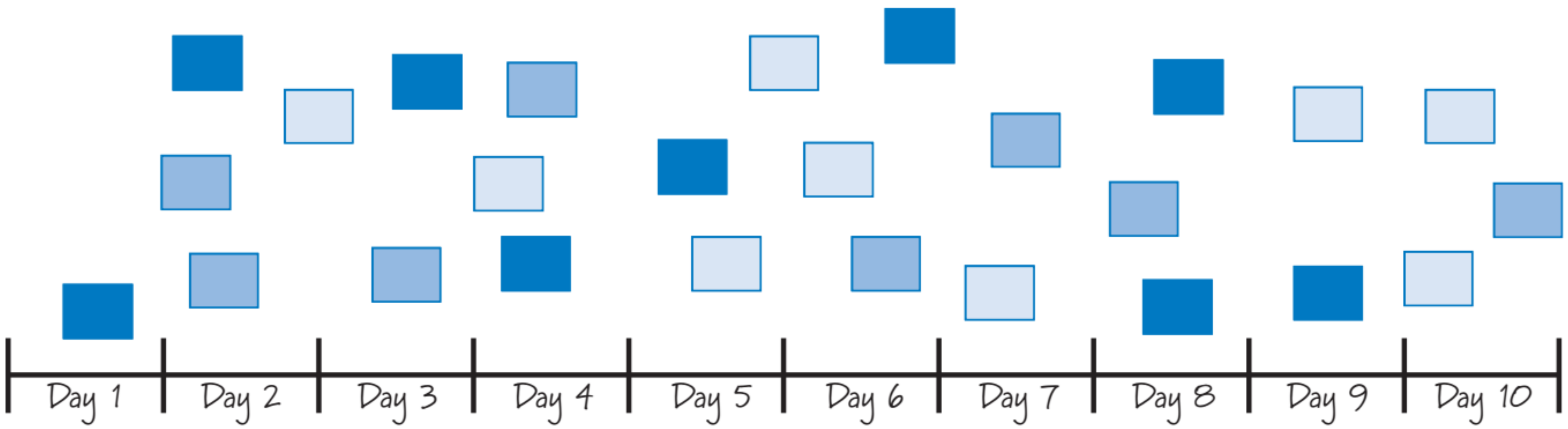


FIGURE 22.6 Sprint event timeline

# Emotions Seismograph

- Many teams create an emotions seismograph as a complement to their event timeline.
- This is a graphical representation of the emotional ups and downs of the participants over the course of the sprint.
- Creating an emotions seismograph helps expand the shared context beyond the objective data (what happened) to include some subjective data (how the team felt about it).

# Emotions seismograph

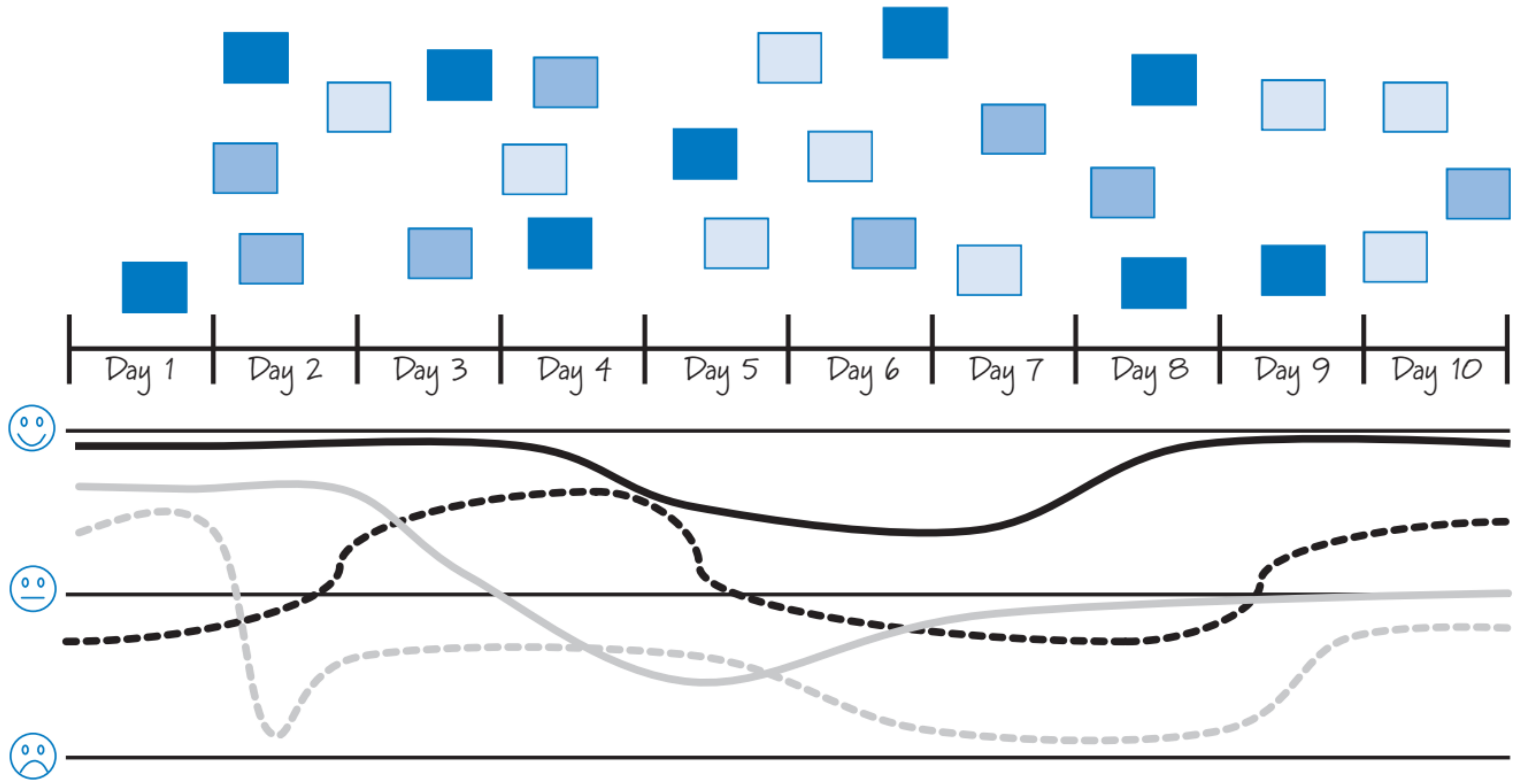


FIGURE 22.7 Emotions seismograph

# Emotion seismograph

- To create the seismograph each participant is invited to draw a curve showing how she felt or what her energy level was like over the course of the sprint.
- It is frequently convenient to draw the seismograph directly under the event timeline so that the two sets of data can be visually correlated. Later, the participants can mine this data for interesting insights for process improvement.

# Reference

1- K. S. Rubin, “Essential Scrum, A Practical guide to the most popular agile process,” 2013.