Sprint Review and Retrospective

Talan H. Hutto

Southern New Hampshire University

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Jason Richard

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## Applying Roles

The core roles in agile development consistently provide feedback and facilitate the continuous restructuring of priorities as new stories develop. Without their combined efforts, the agile framework would falter, potentially becoming a detriment to the entire company due to its fluid and dynamic nature. Below is a breakdown of each role and its contribution to the SNHU Travel project.

### Product Owner

The Product Owner serves as a crucial intermediary, maintaining a direct line of communication with both stakeholders and the development team. Their expertise allowed them to transform customer demands and recommendations into concise user stories that the development team could approach with clarity.

Furthermore, the Product Owner demonstrated their full utility when the project's direction shifted mid-sprint. The customer, having researched the next major travel trend, determined that detox and wellness-focused travel was essential for their success. This represented a slight departure from the original plan and initially caused panic among the development team, who feared they would have to discard their completed work. However, the Product Owner performed admirably, integrating the new requirements into the backlog. By doing so, they evaluated where this new story fit, which existing stories needed to be reprioritized, and which could be seamlessly integrated with the new direction.

The Product Owner's intimate knowledge of the project at all levels, coupled with their relationships with both stakeholders and the development team, enabled them to navigate changes and make difficult decisions. This approach kept stakeholders satisfied and allowed developers to focus on high-priority stories without unnecessary distractions.

### Scrum Master

The Scrum Master coaches the team on agile principles, removes impediments, applies the Scrum framework, and facilitates meetings. Much like a sports coach, they understand the project's nuances and challenges but observe from the sidelines. They analyze the team's performance, ensuring optimal efficiency for the task at hand, while also collaborating closely with the Product Owner to align project goals.

For the travel project, the Scrum Master ensured that the expected finish date remained unchanged despite the stakeholders' desire to alter the course. They then worked closely with the development team to facilitate a smooth transition to the new project goals without disrupting ongoing stories. Additionally, they assisted the development team with sprint reviews and retrospectives, thereby enhancing team efficiency.

### Development Team

The Development Team possesses the essential skills to complete the project, maintaining constant and robust communication to adapt and evolve as the project progresses. They are responsible for assisting the Scrum Master in determining deadlines, communicating roadblocks, and finding innovative ways to implement the stakeholders' vision.

When the SNHU Travel project's direction changed, the Development Team's primary concern was that their completed work would be scrapped. However, once the Scrum Master and Product Owner assured them that the backlog would be reviewed and changes implemented smoothly, the Development Team committed to analyzing their current progress and communicating what would be feasible for the future story.

Ultimately, the Development Team understands its capabilities and the scope of its work. Their main responsibility, however, is to communicate roadblocks and challenges—both for the project itself and within the team—so that the Scrum Master and Product Owner can effectively set deadlines and expectations.

### Stakeholders

Stakeholders hold an interest in the project's success due to their financial investment. They participate in high-level meetings that discuss the project's trajectory, setbacks, and overall performance. They also provide feedback and can propose new directions for the project when industry trends shift.

For instance, when data revealed detox and wellness vacations as the next major trend, stakeholders wanted to ensure the travel website accommodated this. While this might appear to be a last-minute change, it proved to be an excellent strategic direction for the team, increasing the likelihood of attracting new customers to their website. Ultimately, a stakeholder's main concern is financial return, making their input relevant to the current market and valuable to the team.

## Completing User Stories

Scrum brings focus to the agile methodology by incorporating key systems such as story development and the product backlog. The product backlog is a prioritized list of customer and end-user requests that will become features in the software. This list is delineated by story ID, priority, size, and a brief 1-2 sentence definition. A story elaborates on an item from this list, generating a "user story value statement" and acceptance criteria. This effectively allows the team to "zoom" in and out of each feature, analyzing it from a high level down to the specifics.

With the SNHU Travel project, it was straightforward to take a user request, develop it into a story, and then transform it into a robust story that could be broken down into sprints for the development team. Here is an example of a user story:

"As an end user, I want to click a link to view the top five destination lists, so that I can see the most popular locations for travel to educate myself on the best places to go."

From this, the development team created the following acceptance criteria to bring this request to life:

* Ability to click a link that takes the user to a page displaying top destinations.
* An ordered list of destinations from the most popular location to the fifth-most popular.
* Each destination on the list will have the following attributes shown:
  + Destination name
  + Destination short description (one sentence)
  + Destination picture
  + Text with an embedded link to take the user to the top-selling travel package for that location.

Once developed, this allowed the development team to focus on the specific details of the request and how it could be implemented into the software. Additionally, it helped the tester by providing criteria in advance, allowing them to develop test cases before the software was ready. Using this method creates a clear visual goal for the entire team to analyze and work on, even before the product is finished.

## Handling Interruptions

When the SNHU Travel project's direction changed, it offered an opportunity to practice agile project management in its truest form. The team had been working on their sprints for weeks and were nearing completion when the project suddenly shifted course, leading to a misalignment with the stakeholders. However, because the entire project was thoroughly documented down to each individual task, accommodating the changes was straightforward.

First, the Product Owner took the new requests and transformed them into stories, then reviewed the backlog to consolidate any stories that would become redundant. For instance, consider the user story:

"As an End user, I want to customize my user profile with specific interests so that I can be provided relevant travel suggestions based off of the things I like."

This story was designed to provide recommendations based on a user's interests. Consequently, it provided much of the foundational structure for offering detox and wellness recommendations. The team simply needed to create an additional page specifically focused on these types of vacations, which could be derived from the core elements of the "Customized Profile with User Interests" story. By reviewing the backlog, the teams seamlessly integrated this new goal in a meaningful and constructive way, minimizing redundant workload.

## Communication

During the case study, it was essential for everyone to first identify themselves and their roles. This is a foundational step in fostering trust among teammates by establishing expectations. Here is an example:

"I will be assuming the Scrum Master position. Since the team is transitioning from Waterfall to Agile, it will be essential for me to help mediate and implement modern communication practices. I will set up communication channels between all teams, and between myself and the stakeholders. With this, I aim to help tackle any obstacles we encounter, such as project changes, new implementations, and challenges in meeting deadlines."

This clarified my role and what the team could expect from me moving forward, prompting the following question from a team member:

"Hey Talan, I really appreciate how clearly you outlined your responsibilities as a Scrum Master, especially your emphasis on creating strong communication channels and shielding the team from outside disruptions. That kind of support is crucial during a major transition like this. Your point about facilitating daily stand-ups and guiding teams through Scrum practices really reflects how central your role is to build trust and ensure consistency.

One thing I’d love to hear more about is your idea of implementing a 'robust feedback loop.' Could you clarify what tools or specific methods you envision using to track feedback and questions across teams?"

This was a relevant and insightful question, as feedback loops impact the entire team. My reply was:

"I believe Jira would work well with our needs. As a developer, your job is fast-paced, time-consuming, and extremely instrumental in the organization’s success. We want you to be able to receive immediate updates on project changes, and we want updates on delays or new implementations from you as they occur. Jira will allow us to have an open communication channel for each story the team is currently working on. This will enable us to maintain 'active' communication rather than relying solely on daily stand-ups for updates.

And for the robust feedback loop, Jira will also assist us here. Since each story can be commented on with updates, concerns, and suggestions, it naturally creates a feedback loop. With this system, each team can contribute according to their role, fostering a more agile environment."

In this short conversation, the team gained an understanding of Jira's key role in their success. It also allowed the team to consider diversifying communication beyond solely relying on the standard Scrum practice of "daily stand-up." While not eliminated, daily stand-ups can sometimes be too limited to cover all relevant points, thus supporting the need for constant communication through tools like Jira.

Next, it is important that each team member feels heard and that their value to the organization is recognized. This can be achieved by asking questions about their role, fostering a better understanding, and ultimately giving them more opportunities to express themselves. Here is one example of how this can be done:

"Hello, and welcome to the team!

What you said about testing being an active part of the development team instead of a separate checkpoint is spot on! Your testing needs to be as agile as any other process, allowing you to develop new tests based on the ever-changing landscape of the project.

What information do you need from each team to accurately set up your ATDD to be accurate upon the developers’ release for testing?

At which stage of the development cycle for the software do you need updates?"

Here, the Scrum Master demonstrated an active interest in the team member's input by asking relevant questions about their job. Similarly, the questions targeted collaboration between their two roles, beginning to bridge any potential gaps in their workplace interactions. This resulted in the testing engineer being able to develop testing cases before the product was released, creating a seamless transition from development to testing, and then to refinement.

## Organizational Tools

In this project, the main tools derived from the Scrum-Agile approach were collaboration, time-boxing, and value-based prioritization. The team would collectively review each user story to determine its priority and size. Subsequently, each story would be further broken down into sprints and assigned to individual team members for completion within the allotted timeframe.

These methods paved the way for tools such as Jira, which can track sprints and stories in real time. Each member can comment and offer updates whenever a change occurs. For instance, the test engineer could test the latest software release and comment their findings on a new thread within that story. The developer could then review these findings, implement changes, and ask the tester to re-test the latest release. Having all of this occur within a sprint "pod" within Jira keeps the information relevant and the story on track for completion.

## Evaluating Agile Process

Pros

1. Clear communication at all levels of the organization.
2. Each role is broken down into core responsibilities, providing clear boundaries for assigning work.
3. Scrum methodologies effectively organized and prioritized each user requirement into stories.
4. Since each story had its requirements clearly laid out, it was easy for the tester to create test cases for the software.

Cons

1. The project's direction can change at any time, which has the potential to disrupt the team.
2. A rigidly defined end goal was not established, allowing room for ambiguity and changes to be implemented. This could potentially threaten the timeline and push back the due date.
3. Each team member is assigned a maximum workload, meaning last-minute adjustments to requirements can lead to fatigue and strain.

### What is the Right Approach?

Overall, I believe the Scrum-Agile approach worked well for the demands of the SNHU Travel project. In most software development environments, defining a rigid plan is challenging due to the high level of competition. If a competitor releases a compelling new feature, it is crucial to implement it sooner rather than later to remain relevant to the client base. Because of this, the agile approach is invaluable to software development.

In the SNHU Travel project, the trajectory changed with the detox and wellness implementation. However, with the tools in use (product backlog, stories, and sprints), the team was quickly able to deallocate lower-priority stories and implement this new request. In a more rigid waterfall structure, this change would likely have been put on the back burner as a potential future implementation and might never have made it into the development cycle.

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