**Sprint Review and Retrospective**

Eusebius Ballentine

Southern New Hampshire University

Software Development Lifecycle

Professor Aline Yurik

February 23, 2022

**Demonstrate how the various roles on your Scrum-Agile Team specifically contributed to the success of the SNHU Travel project**.

The Scrum-Agile Team consists of the following roles with project-specific examples of what aspect of the project they were involved in:

**Product Owner**: The product owner played a large part in developing the user stories and worked closely with the testers and development team to iron out the details and maintain the product backlog so each part of the Scrum team is clear about the project status and what is being worked on during the current Sprint.

In the SNHU Travel Project, a focus group of SNHU Travel customers was held to further clarify any additional functionality that users would like the product to have. For example, users requested a top 5 or 10 destination feature, list customization based on travel history, and more requests and suggestions. This focus group added clarity and user specifications to the project, at which point the product owner was able to incorporate that into the user stories.

**Testers:** The testers were able to take the user stories and acceptance criteria outlined by the product owner, with the help of users and stakeholders, and figure out what actions would be essential for the functionality and the expected results that would fulfill the acceptance criteria.

For example, a user story was named “Travel Type” and its user story value statement read, “As an end user, I want to be able to choose the type of travel that I'm interested in so that I can be served the most relevant destinations based on the type of trip I would like to take”. One of the test case inputs was “To create a checklist filter sidebar for vacation package page”, with the expected result being “When filter icon is clicked, a checklist of vacation types will be displayed”.

**Development Team:** The development team got its cues from the collaboration between the product owner and the testers, receiving the specifications downstream from their work of creating the user stories and acceptance criteria, and then passing them through the testers’ work to verify that the inputs have the expected results. The development work will be passed back through the testers to determine if the expected results match the acceptance criteria.

During the SNHU Travel project, the development team had questions about the type of list that the top destinations would be in the UI. Would the list be a scroll pane type list or a slide show type list? These are 2 different object types that have different functionality and methods, knowing the proper list type to choose at the outset can save a lot of time and effort for the development team.

**Scrum Master:** The Scrum master played the leader role in many ways, and though it is essential that the team sees each other on an equal level, the Scrum master often acted as the coach or guide who ensured that agile principles were being followed and the Scrum-Agile framework was adhered to.

During the SNHU Travel project, the Scrum master had to deal with some team issues and interpersonal issues as the product owner wasn’t present at the daily scrum, though they had agreed to be and one of the development team members was consistently late. These issues are where the Scrum master can help to lead the team through challenging moments, using Scrum-Agile principles that encourage good communication and understanding between the members of the team. The Scrum master also understands the members of the team and their strengths and weaknesses and does their best to leverage those qualities for a positive outcome.

**Describe how a Scrum-agile approach to the SDLC helped each of the user stories come to completion**.

The Scrum-Agile framework provides a foundational protocol for bringing user stories to the point of completion. Firstly, the product owner must have a clear vision of the stakeholders needs in terms of product vision and ultimate functionality, then the user stories can be written. The user story value statement is spoken from the point of view of the end user and describes a particular functionality that they would like the program to be capable of and what that functionality would enable them to do. These components allow the product owner, and whoever else is involved, to break apart the statement into actions and desired functionality, and then to create acceptance criteria that will fulfill them. The acceptance criteria can then be pitched to the users and stakeholders to ensure that the targets are being met. In the case of the SNHU Travel project, one of the user stories was to create “profile favorites” that would help to inform the program what type of destinations to be included in addition to simply travel history. The acceptance criteria for the profile favorites were “Click on icon to go to profile page and view favorited items” and “Add heart icon to each destination on page to favorite an item”. Each criterion is a piece of the puzzle that composes the end desired functionality.

Once the user stories have been written and approved by stakeholders, the testers can begin the process of developing inputs and outputs that fulfill the acceptance criteria. For example, using the “profile favorites” user story example once again, an input or action was to “Favorite a travel package or destination” and the output or expected result was “Clicking on a travel package’s heart icon will turn it red”. This type of input to expected output verification is how the testing piece works, and when combined with the user story format, is a very powerful tool, that contributes to the adaptability of the Scrum-Agile framework.

**Describe how a Scrum-Agile approach supported project completion when the project was interrupted and changed direction**.

The Scrum-Agile framework is designed to be adaptive to uncertainty and this attribute is achieved primarily by enhanced communication tactics, but also by each role within a Scrum team, and the function that it serves. The product owner can field any requests and changes that may come about from stakeholder feedback and immediately begin to incorporate them into the user stories and then the product backlog. The changes identified in the sprint review or retrospective can be incorporated into the next sprint via the subsequent sprint planning meeting and the changes will then be incorporated into the project at the user story level.

During the SNHU Travel Project, there were several changes that were made, one of them was that the focus would be shifted to a top ten list of destinations, this came from the user focus group meeting that was held by the product owner. With Agile development, it isn’t required for all user focus groups to be held prior to the start of development, these types of meetings can be held throughout with focuses on different aspects of the product and different functionality that is being tested and implemented.

**Demonstrate your ability to communicate effectively with your team by providing samples of your communication**.

Effective communication is at the heart of the Agile development methodology and the Scrum framework takes it a step further with the Scrum master role. Although the Scrum master helps to ensure that good communication is generally being employed, each Sprint, and even each meeting within each Sprint, is an opportunity for communication to flow freely between teams and their members.

During the SNHU Travel project, we could see valuable communication happening at each stage, not just at Sprint planning meetings and Sprint retrospective meetings, but simple individual communications like emails between the testers and the product owner looking for clarification within each user story. Essentially, the communications like this between teams helps on a much lower level as the details of the project are outlined and ultimately built. Should a list be on the same page or be listed separately? Should the items be listed in ascending or descending order? These are the questions that are answered in real time with Agile as opposed to the Waterfall methodology where they are pre-planned and later executed by the development team.

**Evaluate the organizational tools and Scrum-agile principles that helped your team be successful**.

In addition to the foundational events of Scrum-Agile, such as product vision meetings, Sprint planning meetings, Sprint retrospective meetings, Daily Scrums, and others, there are many opportunities for creating opportunities for communication. A good example of this was the user focus group meeting where actual customers of SNHU Travel were brought in to provide feedback and explain how they would like the new application to work. This process could even be repeated several times, bringing in new customers each time to better understand the customer base and their desired user experience.

The Daily Scrum meetings are at the heart of Scrum and is the daily nexus of activity that brings an opportunity for clarity and communication that would otherwise only happen person to person or at larger Sprint meetings. Without this daily opportunity for communication to occur, there is a very real likelihood that issues that arose during the project would not have been dealt with in time, and the progress of the project would have been hindered and slowed, thus jeopardizing Sprint timeframes and putting stress on interpersonal relationships, ultimately creating discord among team members, which could affect the project outcome negatively.

In addition to the Daily Scrum meetings, creating post meeting opportunities for further discussion is important. Early in the SNHU Travel project, when a development team member was late and other team members took issue, the Scrum master created a list of sidebar topics that could be talked about after the Daily Scrum was over. These opportunities go a long way towards building good relationships and team morale.

**Assess the effectiveness of the Scrum-agile approach for the SNHU Travel project**.

* Describe the pros and cons that the Scrum-agile approach presented during the project.

An advantage of using Scrum-agile for the SNHU Travel project is the adaptability of the methodology to uncertainty. When there are users and stakeholders who are different entities, that can create challenges when fielding functionality requests. If the software was being built for in-house use specifically, that would be a more straightforward process, but when you’re building software for the public that you hope will use it, there are a lot more unknowns and challenges.

Another advantage is that pushing regular working products provides great opportunities for users and stakeholders to trial the product, give feedback, and incrementally work towards a product that actualizes the product vision. The product vision also has the flexibility to change over time and Agile supports that uncertainty.

A con of using Scrum-agile is that it is often more expensive as there is a cost to the flexibility that it provides. Agile projects can be difficult to plan, because the team is planning at a very high level and the majority of the planning happens in real time, which can be difficult for many people, especially if team members aren’t experienced in Agile development. Additionally, a project can easily be derailed by the uncertainty within an agile project and preventing this requires a very high level of skill and experience, meanwhile any weak link in the teams’ skill and experience level can create huge problems during project development threatening its viability.

**Determine whether or not a Scrum-agile approach was the best approach for the SNHU Travel development project**.

Scrum-agile was the better option for the SNHU Travel project because the software was being built for a large customer base and giving users and stakeholders an opportunity to trial working products at the end of each sprint would be very beneficial in this circumstance. It doesn’t appear that it would have been extremely difficult for this project to be implemented using the Waterfall methodology and most likely would have been cheaper, but if you’re looking for customer satisfaction, and the customer base is out-of-house, then the iteration method that produces working products regularly that can be trailed and will produce valuable feedback, then Scrum-agile is a good choice.