Considerations for Agile and Adaptive Environments

By: Siobhan Scott

Introduction:

Project managers when working in agile and adaptive landscapes, are required to have the most understanding of these fast-paced spaces. The agile methodology is becoming the new standard for managing projects, and adapting to these new protocols requires you to consider the best practices in navigating this environment. We will explore the considerations you should take as a project manager when dealing with agile and adaptive environments.

Considerations and Solutions

As stated before, there are many considerations to take as a project manager in agile environments, to assure the success of all end goals. Here are some of the problems and considerations to take:

- Unexpected Change: One of the biggest problems listed by project managers when handling agile environments is unexpected change. Unexpected change can happen at any point in your short project timeline, so planning for these changes is something you should consider including in your foundational plan. “Frequent changes may impact project timelines, resource allocations, and team morale” (TheKnowledgeAcademy). The article continues to say that project managers are expected to establish effective management to process and handle these changes. Because agile environments are already set up for fast-paced projects, unexpected changes can be handled with proper execution.
- Collaborative Communications: Frequent and consistent communication is an important part when managing your project team. The communication done in agile environments is informal, but collaboration issues can occur for many reasons. Issues like time-zone differences, communication preferences, time commitments, and even technology difficulties can affect a project's planned time. “Inadequate communication can lead to misunderstandings, delays in decision-making, and reduced productivity” (TheKnowledgeAcademy). As project managers, you must create and promote an open communication environment for your team members. Encouraging communication can connect your team, which can solve these problems of miscommunication.

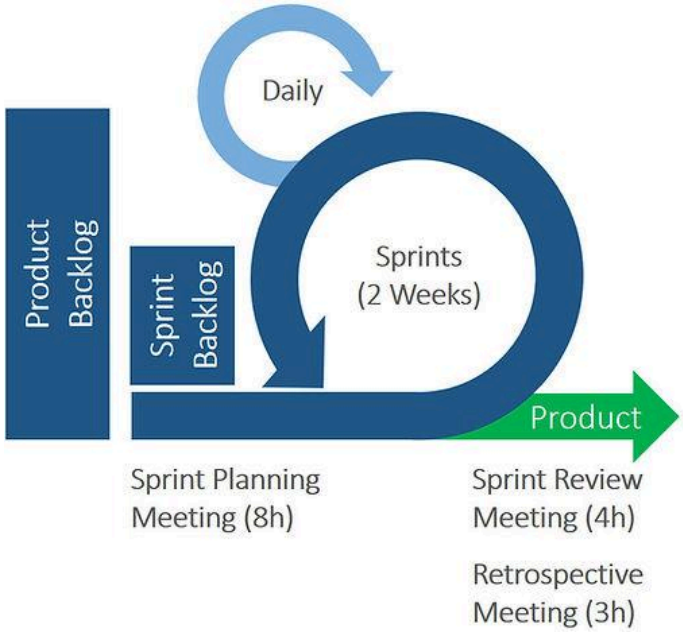
- Balancing Control: Agile project management has a big emphasis on fast-paced, flexibility, adaptability, and control. Finding the right balance between all of these components, your job, and your team are important frameworks for successful agile projects. “Project managers need to establish a framework that provides enough structure and control while allowing room for flexibility and innovation”(TheKnowledgeAcademy). Finding this balance between these components will solidify your beginning plan, and stay on track with project goals, unexpected changes, and innovation.
- Analyzing Your Team: When creating and managing your agile team, it is important to consider many factors when working together. Although everyone may understand the project goals, each person on your team has to be on the same page throughout the whole project:
- Clear Team Goals: Before any work is done, your team needs to understand the goals and the visions of the project. They need to have a shared understanding of the project, as well as an understanding of the agile environment and its purpose relating to your project

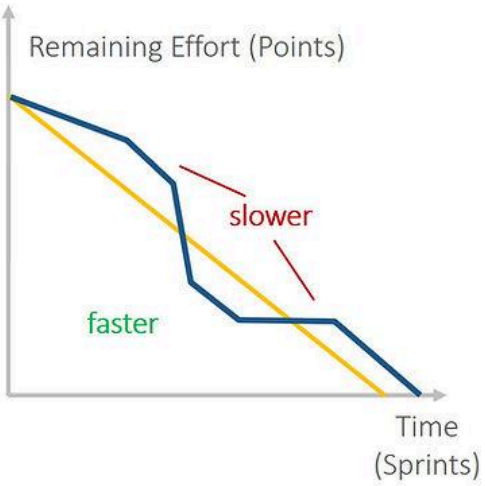
- Analysis of Individual Skills: Mapping out your team's skills/strengths is something you should consider for your agile team. Understanding everyone's skills can make it easier to plan who is responsible for what, as well as who can assist in different categories in case of unexpected problems.
- Role Flexibility: In the analysis of your team's skills, you will discover some overlap of skills. This is a good thing for your agile environment because having team members who can address different skills across the board, can be effective for the control and flexibility of the project
- Work Distribution: Mapping out your team members' skills can also be helpful with work distribution. If a team member has more skills than another, think to assign them the best role for their skill, instead of overloading them with work. Having a balanced workload between your team can encourage members to help out when things slip through the cracks.

Scrum Project Management

While there is a list of considerations to take when in agile environments, different frameworks have been created, such as Scrum Management, to provide a foundational structure to make it easier to work in your adaptive environment. The sprint phase is an important component of SCRUM, seeing as this is the time you define project goals, exchange information, and even assign roles to team members to ensure the best outcome for your project. It is described as the "best of both worlds because it combines collaboration and structure" (SCRUM). Here are some of the main components of why you should consider Scrum to be used in your agile environment.

- Teamwork: Scrum has a main focus on collaboration between its different roles, which will build your communication and trust in your environment. The first role is the scrum master, who is the person that keeps the group on track. This can involve meetings, planning, or even individual help on the team. The Product Owner has a job to give the Scrum team their product goals. They have a more external role as they can communicate with stakeholders as well as keep the team on track. The development team is the people responsible for developing the product. They have a job of also helping in planning, as well as creating and testing the product. With these three roles, communication, transparency, and trust should be consistent for all goals.





- Flexibility: Scrum is built to be flexible, which is perfect for the unexpected changes we previously talked about. "...scrum allows teams to respond quickly to changes in customer feedback, market conditions, or other variables"(SCRUM).
- Empirisicm: When defined within the framework of SCRUM, empiricism means measuring the progress by results and not by the product goals. Epirisicm allows the team to check their progress more often, and plan to adapt their end goals.

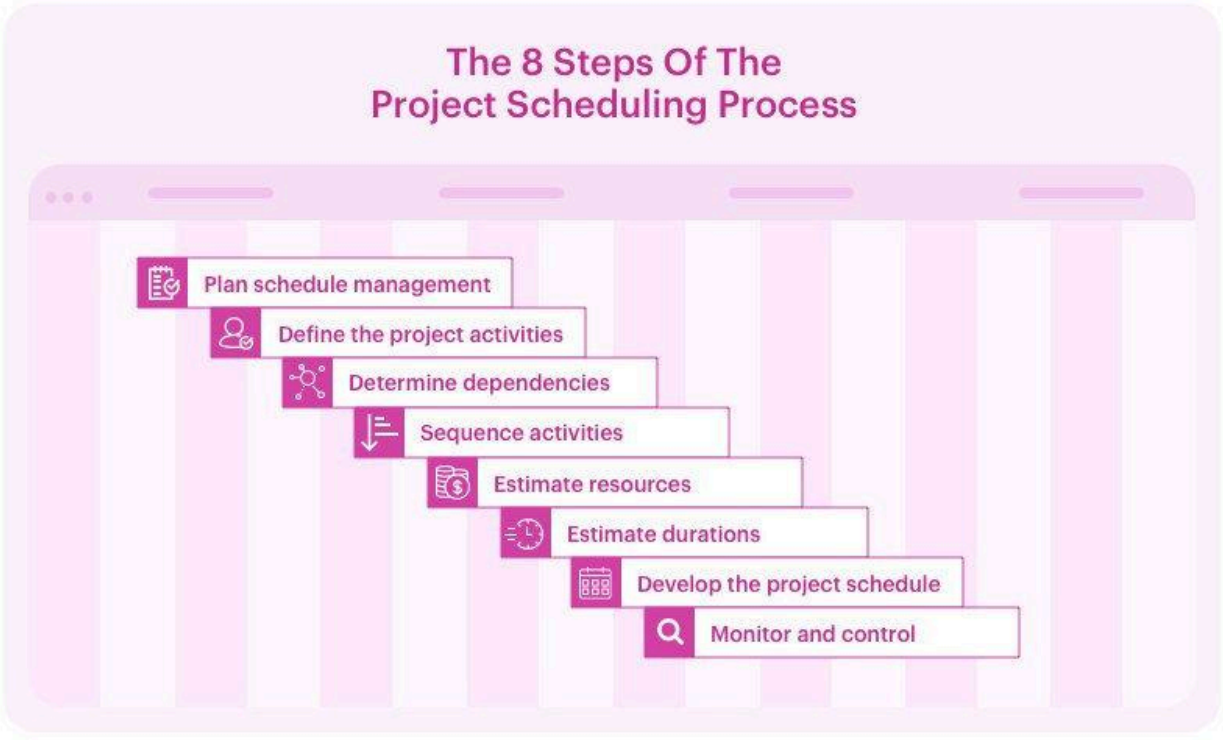
Project Schedule Management

The Information Technology Project Management book, written by Kathy Schwalbe, gives a story that serves as a great example of a common potential situation that can happen in your agile environment. The project manager and her team had a deadline for a project, and there were consequences for not finishing the project on time. The development of the schedule between the project manager and the team was the easier part, compared to trying to keep the team on track which seems harder. Personal issues of the team and conflicts with schedules were two of the team's biggest problems. Various small deadlines within the project would not be met or be difficult for her team to achieve. An unexpected change occurred when one of the team members quit, which put more pressure on the project manager to find another permanent member for the role.

This is not an unfamiliar situation when in agile environments, and meeting deadlines is the top goal in your environment. The formal definition of Project Schedule Management is "it involves

the processes required to ensure timely completion of a project" (Schwalbe). Project schedule management is a tool that can be utilized to make sure the project goals, team goals, and deadlines are all successfully met. Here are the six components of Project Schedule Management:

- Plan Schedule Management: The first step is planning the project schedule, and how the management will work for the whole project. You will be given a start and end date for the project, and could also be given smaller dates in between the deadline which is what you base your time planning on.
- Define Activities: Defining the project work will be done in the plan schedule phase as well as the defining activities phase. You will review the foundational plan first made and define each activity listed in detail. Milestones in the project are also defined here which are needed for assessing scheduling goals.
- Sequence Activities: This phase will initiate the start of your defined activities. In this phase, you will also evaluate dependencies such as how many activities can you do at once, or what activity needs to be completed first before continuing. One technique that can help with this is network diagrams, which are defined as "a schematic display of the logical relationships among project activities and their sequencing" (Schwalbe). You will also collaborate with stakeholders about the defined activities and their dependencies.



- Estimate Activity Durations: The duration of an activity includes the amount of time worked on the project plus an added time in between. This phase is for estimating the time it will take for these activities, so don't forget to consider adding extra time for unexpected changes. Project team members should get the most say when estimating time for their particular tasks in their roles. You can utilize a skill called the three-point estimate, which is "an optimistic, a most likely, and a pessimistic estimate" (Schwalbe). Your optimistic time should be your best-case scenario, the most likely should be a close estimate of the actual time, and the pessimistic estimate is created for the worst-case scenario.
- Develop Schedule: This phase will use all of the planning information created so far and will develop the start and end dates of both the project and activities. Gnatt charts can be utilized, which provide a foundational framework for the listed project activities and the start and end dates for each(Schwalbe). Milestones and durations can also be added to Gantt charts.
- Control Schedule: This is the last phase of project schedule management, which is to hold all of your scheduled planning together. The main goals of schedule control are managing the schedule status, adapting to any changed schedule factors, and managing any changes as they happen (Schwalbe).

Conclusion

As a project manager, you have many responsibilities within the agile/adaptive environment. It is important to consider all of these requirements to ensure all your project and team goals are successful. The basic considerations we focused on like unexpected changes, teamwork, and even controlling the project can be dealt with through the included methods like SCRUM or Project schedule management. Evaluating these considerations is vital for seeing the success of your project, and creating a framework for future projects.'

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