Connecting Principles and Your Practice (Scrum vs Kanban)

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Scrum versus Kanban

Both Scrum and Kanban are agile methodologies for software management. However, there are many fundamental differences between them. First, in Kanban, there are no predefined roles and clear role boundaries that are present in Scrum framework such as Product Owner, Scrum Master and team members. Kanban team is encouraged to help any member that becomes overwhelmed with their work but typically, individuals work on their own item(s) and the team is not required to be cross-functional like Scrum. Third, Kanban allows continuous delivery of product or services with usually one or more items moving to the done column at a time. No specific deadline is forced upon the team (no timeboxing). Prioritization of requirements is not a must. To avoid team members picking more items than they can finish, Kanban can limit work on progress by limiting the maximum number of work items or items in progress per column. On the other hand, Scrum team determines, prioritizes requirements and defines "Definition of Done" before Sprint starts. Also, Scrum team delivers the product at the end of the Sprint cycle (usually 2-4 weeks). In other words, Scrum team pulls the entire batch of requirements in each Sprint cycle. The differences between the amount of work getting done and its frequency in Scrum and Kanban were demonstrated during the penny flipping exercise in class. Fourth, changes can be introduced during project's midstream in Kanban but Scrum discourages this interruption because it negatively affects the team dynamics. In many cases, the Sprint is canceled and new one is restarted. Last but not least, Kanban measures production time by measuring the time it takes to complete a full piece of project (cycle time) while Scrum's measure is based on velocity and evaluation is dependent upon previous Sprints.

According to Kanban class presentation, decision to use Scrum, Kanban or combination of both is based on the type of project, product, team dynamics/knowledge, workflow and organizations. Scrum works better in teams that prefer structure and clear role boundaries (both young and established teams) while Kanban might be more suitable for teams with experienced members who can manage themselves.

Underlying LeSS Principles

Kanban and Scrum relate LeSS Principles in many aspects. First, both Scrum and Kanban are queue management tools (LeSS: Queing theory). Their use of Product Backlog and Kanban board allows work transparency, LeSS' second principle. Third, despite the differences in when changes can be introduced, both methodologies allow and encourage changes early which embraces the principles of "whole-product focus", "system thinking" and "customer-centric" in LeSS. As the market changes and customers want new requirements, eliminate or change current ones, Scrum and Kanban can adapt and allow for change to happen. Fourth, LeSS' "lean thinking" and "lean production" advocate reducing and eliminate waste by having short production cycle and breaking work-to-be-done into small batches. This allows changes to be introduced gradually and incrementally instead of less frequent but big changes. Another thing in LeSS principles that is practiced in both Scrum and Kanban is the stop-and-fix culture which advocates finding solutions to the root cause instead of doing quick fixes that bring worse long-term delayed consequences. Overall, Scrum, Kanban and LeSS promote removing waste and decreasing complexity by reducing the amount of wait time, handoff and extra roles.

Last but not least, both Scrum and Kanban seek to continuously improve product delivery towards perfection by using their own evaluation metrics (i.e. Sprint review, velocity, Kanban's cycle time and work in progress). (Larman, Vodde, 2016).

References

Larman C., & Vodde B. (2016). LeSS Principles. Retrieved from https://less.works/less/principles/index.html.