

Research Findings: Scrum Methodology

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1. Background

We are required to use a development methodology. I will be researching scrum methodology.

2. Objectives

Research the topic of scrum development methodology and its advantages and disadvantages.

3. Approach

Internet research.

4. Findings

- 4.1. Scrum is an agile framework that has iterative and incremental stages during development. Scrum allows you to tackle adaptive problems during development while still producing a high level of output. Scrum is able to address clients that change their mind often during the project by using an empirical approach which maximises the response time to new requirements and efficiency of work output in a scrum team. Sprints are used during development which are time boxed events that are 1 month or less in which a team accomplishes something as part of an incremental stage in development. When a sprint is considered "Done" this means that a sprint outputs a usable and or potentially releasable product. Because of these shorter bursts in development, the scrum team is expected to communicate on a daily basis to identify past work, impediments and future work during development.
- 4.2. Scrum Roles — The 3 main roles in scrum are as follows:
 - 4.2.1. Product Owner: Owns the product and has the vision for the product which he communicates to the scrum development team continuously, answering questions that the team may have during the projects development
 - 4.2.2. Scrum Master: Ensures the team is kept up to date with the principles of scrum and addresses any impediments the team may be facing. Scrum masters manage team events making sure they are encouraged to be creative and productive. The scrum master also communicates with the product owner to maintain the product backlog and ensure the project is well defined. This helps the Scrum team and client remain up to date with each other so the success in development is visible to the product owner.
 - 4.2.3. Scrum Team: Considered as "self managing", responsible of organising to complete a potentially shippable releasable increment. Scrum teams consist of members who specialise in a certain area of focus but develop as one as they are accountable for the output of the whole team.
- 4.3. Advantages:
 - 4.3.1. With the shorter sprint times it is easier to address with changes to the development plan.
 - 4.3.2. Issues are identified in advance in daily meetings and thus can be addressed faster.

- 4.3.3. Daily Meetings provide more transparency and a team is able to measure team performance easier.
- 4.3.4. It is easier to deliver a quality product in a smaller amount of time
- 4.3.5. More iterations to present to the client means the client is more involved and able to give more feedback consistently

4.4. Disadvantages:

- 4.4.1. Agile scrum is one of the leading causes of scope creep when there is no defined end date as the stakeholders will be encouraged to demand for more functionality over time.
- 4.4.2. It is highly recommended that experience team members use this approach as novices will be at high risk of not completing in time
- 4.4.3. If team members leave the project it can have huge consequences on the projects development
- 4.4.4. If tasks are not defined accurately during early stages of development it can spread over several sprints and cause future problems.

5. Further Investigation

- 5.1. None.

6. Recommendations

- 6.1. Through my findings I believe that Scrum methodology with a few tweaks is the best option to choose for the project as our client is not sure of the functionality of the product and as having worked with scrum in other projects we have some experience to carry out the components of scrum well. Also as a small team scrum seems to work in our favour.

7. References

- Leo Adell. (2013) Benefits & Pitfalls of using Scrum software development methodology. Retrieved from <http://blog.belatrixsf.com/benefits-pitfalls-of-using-scrum-software-development-methodology/>
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