**Project Practice Guide**

The project practice guide identifies and describes the recommended practices for each of the following areas:

**Collaboration & Communication**

SCRUM

Sprint review/ retrospective

Daily stand-up

Showcase

Agile methodology emphasises the importance of adaptability due to the dynamic and competitive nature of the modern software development, and in such an environment it is crucial that teams and team members keep communicating throughout the duration of the project to successfully collaborate the divided workload.

For our case study there is a team of 3 members, with a potential to grow into 18, and it would benefit them to follow certain practices that have been proven to improve communication and collaboration.

http://agilemodeling.com/essays/communication.htm

The diagram above show that the most effective communication is face- to- face that are enhanced by a medium like a white board.

While communicating they should strive to utilise communication techniques that are applicable to their situation (e.g. if members are missing face to face conversation with notes may be more efficient), change your approach throughout the project to fit the situation.

Controlling the factors that may affect communication may also be a good practice.

Physical proximity

When people are closer together they have a greater chance for communicating

Temporal proximity

Whether people are working at the same time can also interrupt the workflow

Amicability

People’s willingness to hear and accept that thoughts given by another person

A widely used practice for collaboration include “daily scrums” where each team member report their progress and plan what they will be working on until their scrum the next day. It improves information sharing as well as awareness of what other team members are working on, how their work may clash with yours, etc.

<http://innovation-regulation2.telecom-paristech.fr/wp-content/uploads/2007/05/DEDM13_Can-Agile-Collaboration-Practices-Enhance-Knowledge-Creation-Between-Cross-Functional-Teams.pdf>. Can Agile Collaboration Practices Enhance Knowledge Creation Between Cross-Functional Teams? (2012).

Identify and justify the tools needed to support the recommended processes and practices

Data storage (Github, bitbucket) - A shared storage for all the files, used for version control and collaborating work

Project management software (Wrike, Trello) - Project management software used to show progress of the project and show at which stage team members are

Voice over internet protocol (Skype, Google) - Video conferences for when the team cannot meet physically

White board - For standup meeting used as a medium for members

**Requirements Engineering**

Requirements for an existing system are not often sufficient for redevelopment projects

Documentation of project with ‘high level traceability’ matrix to identify high priority user requirements

**Project Planning and Tracking**

**Managing Change**

Managing Change within a software development team refers to approaches used by the team to change the use of resources, possible requirements of the product or any changes to the process of developing.

The approaches that could be used to help manage changes are establishing a solid governance body, defining a sprint, holding daily stand-up meetings, having an end of sprint retrospective and constant communication within the team, as stated by Span (2015).

Establishing a governance body:

As most changes arise in many different forms, they need to be efficiently dealt with and easily tracked. Having a solid governing body will give individual members of a team assigned roles according to their strengths in a particular area at the start of the development process. This will force all changes related to a role to be forwarded to the corresponding team member(s), whom will deal with the change, and make any necessary changes. The change would be recorded by the team member(s), so if the change needed to be tracked in the future, a record will exist that will track who and what was changed.

Holding retrospectives: ​

In Scrum holding retrospectives regularly is a way for the development team to reflect on what went well and what did not before moving ahead in a project. During these retrospectives is a chance for the team to review changes that were made, and decide on if the appropriate action was done, and what possible effects it could have in the future that they can predict and somehow prevent.

Communication:

Daily/Frequent and effective communication among members of the team or with stakeholders increases chances of successful change efforts. Through communications team members are constantly alerted to upcoming or possible changes. These changes would be addressed and dealt with by the team to keep all members aware what is changing within the project. Also any changes to requirements that stakeholders may have can also be communicated to the development team, so that the finished product will meet the expectations of the stakeholders.

**Managing Change Tools**

Managing Change within a software development team refers to approaches used by the team to change the use of resources, possible requirements of the product or any changes to the process of developing.

The possible tools that can be used in accordance to the Managing Change Practices stated in the Project Practice Guide, are using and establishing sprints, holding daily-stand up meetings and using a product backlog.

\**Establishing Sprints: \**

Retrospectives are used in sprints, which are established early on in Scrum which allow the team to make incremental progress, whilst tracking, thus “maximizing the development team’s efforts to manage changes effectively long term” (Span, 2015). By establishing sprints, the team will able to foresee any changes that could potentially occur and possibly try and prevent the changes or plan ahead to face the change more effectively. As sprints are in fixed lengths the use of retrospective practice would be very effective, handling all issues and any changes as stated in the Project practice guide.

Daily stand-up meetings

As stated in the project practice guide about communication being a great part in managing changes, a tool available in Scrum is having daily stand-up meetings before commencing work daily. Meetings will typically be 15 mins in length and each member would be required to attend to share what they did after the previous meeting and what they expect to do before the next meeting. By using daily meetings, changes within the project would be able to be commenced with everyone’s knowledge. As meetings are held before work is commenced, addressing the status of a change would possibly produce any help or tips which will greatly benefit the work on the change for the day.

Product Backlog

A product backlog is a log of development work to be done in the form of requirements for the project which also contains story points and priority points which change often. By changing the product backlog according to a change, the backlog helps changes to be carried out and and planned out more effectively. As “Scrum’s ability to respond to change has been one of its strongest assets in this environment and the backlog’s ability to evolve will make it a valuable addition to the team’s process” (Dulock & Long, 2015).

**Reference**

Dulock, M. & Long, H (2015). Digital collections are a sprint, Not a Marathon: Adapting Scrum Project Management Techniques to Library Digital Initiatives. Information technology and Libraries, Vol 34, No 4.

<http://dx.doi.org.ezproxy.aut.ac.nz/10.6017/ital.v34i4.5869>

**Quality Assurance**

Links are provided to resources that support the practice and that enable future teams to upskill

**Project Tool Guide**

Identify and justify the tools needed to support the recommended processes and practices.