Scrum Case Study report

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"When to use iterative development? You should use iterative development only on projects that you want to succeed." - Martin Fowler

My understanding of the Scrum and it various aspects

Scrum is a technique derived from complex adaptive systems theory and was influenced by best practices in Japanese industries like Toyota. The technique is so powerful especially because it can be adopted to any industry/domain. ***However, in every project the Scrum must be adapted to address specific needs and circumstances. This can be a large factor in the project becoming successful***

The Scrum process consist of EVENTS ROLES and ARTIFACTS that govern the process. These are aspects so well defined that they are applicable any industry you take or any research you are a part of. Scrum if used in the correct way will accelerate and boost your performance. The scrum events are all timeboxed so that every user knows what to do when to do and don't miss out on any opportunities to be TRANSPARENT, INSPECT AND ADAPT.

The scrum event start with the sprint planning where in we decide what can be delivered in the sprint and how that work will be achieved. Sprint planning is done in collaboration with the whole scrum team. We essentially answer 4 elemental questions the what, the how, the who, the inputs and the outputs.

The plan is set up and the scrum is taken for a period of 1 month or less during which there are daily scrums where the development team participates and decides what they want to do to get one step closer to their goal for the sprint. At the end of each sprint the Scrum team gathers along with the sake holders to review the items done in the sprint and get the stake holders view on the increment and also let them know if they need something. The final stage of the sprint is to have a retrospect where in the team focuses on what went well and what didn't and see what can be done to make the sprint smoother.

What this report is about?

We shall go over a few case studies first from the Scrum website itself understanding what we learnt in Scrum in class with examples and second various industries implementing scrum with

minute modifications and tweaks and how it made their projects a great success while still maintaining the integrity of the technique.

The case unfolds at the Wells and fields data team who were tasked to build a SAP AP ERP system to streamline the IT infrastructure. Without the critical elements of scrum the team was struggling to demonstrate progress even though the company was spending 50 million per month.

“No cause is lost if there is but one fool to fight for it” With this sprit the IT leader decided to try out scrum. The team was starting with the 3-5-3 fundamentals (3 roles, 5 events, 3 artifacts) and members were striving to obtain a Shu state – that is, they were adopting Scrum practices, but they weren’t yet going deep to understand the rationale behind the principles. Sadly both the scrum master and the Product owner and the team as a whole failed to achieve the set 70 acceptance criteria. In addition the team faced 3 major challenges.

- Distributed teams
- Limited subject matter experts
- Insufficient development members

The team was not following Scrum guideline as it was meant to be followed The team agreed to adopt key principles from the Scrum training, including respecting roles, participating actively in Scrum events, and making work and progress visible.

Success was inevitable, by Sprint 19 the data was at a state of 93% readiness – well above the corporate mandated 70% level. Prior to adopting Scrum, the team never delivered data above a 17% readiness level.

Drawing parallels from our scrum training.

Scrum is flexible and can be implemented to any type of organization but the flexibility does not mean that the pillars of scrum or any aspects of the 3-5-3 fundamentals can be neglected. They need to be respect and followed. The above case study is a prime example of what happens when members of the team are not fully committed to scrum. Hence it is always good to start and train the upper level management, since they have a better connect with the employees and can effectively communicate the importance of such a process. The scrum master too definitely plays a big role in propagating and teaching the principle of scrum but it is always better to have familiar faces convey its importance.

Geographically distributed teams are a key problem in most setting and yet again scrum provides an effective solution by ensuring common definition of Done, time boxing sprints, having reviews and retrospective and even daily scrums to have all members regardless of geography to be in sync with the whole team.

In this next case study we see that the Dutch railways are among the most heavily used in the world, providing transport for 1.2 million passengers daily. Dutch Railways built a new information system to provide travelers with more accurate travel information, requiring less manual intervention. For this they were asked to build a PUB (publish) system that centrally controls information displays and audio broadcast systems in all stations.

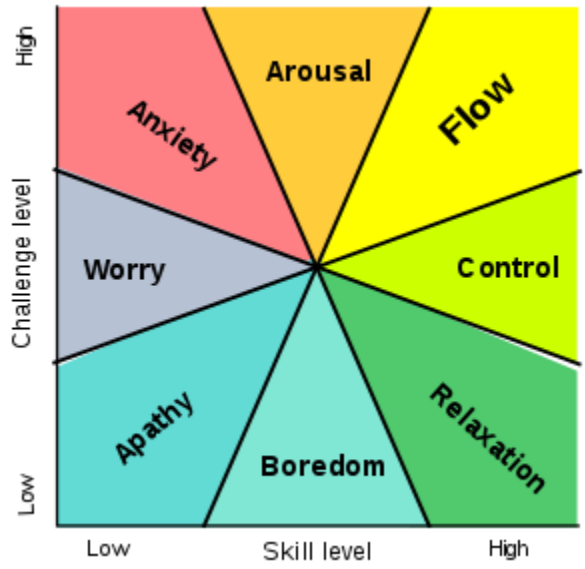
The first attempt to build the PUB system was executed using a traditional waterfall approach. After handling detailed requirement specifications to the IT teams, they expected a fully functional system to be ready by the dead line. After 3 years, the project was cancelled because the team failed to deliver a working system. The customer then engaged this company (name undisclosed) to build the PUB system from scratch. The company used an agile approach using Scrum, focusing on close cooperation with the customer, open communication and working in small increments. Some of the concerns that the team faced while adopting scrum was how scrum would scale up to distributed teams (geographically), various teams with different focus (solved by having a single backlog and a DOD to ensure that the goal of the sprint is intact and known to all). After implementing scrum the team noticed that as with most projects, the required functionality, time and budget shifted as the project progressed, making "on time, on budget" a vague measure of accomplishment.

The team also notes that it could not make the entire organization adopt scrum. As from my personal training and experience this can be one hard problem to tackle. As I have seen many teams in organizations in small cluster implement scrum, sometimes not so accurately and the organization as a whole isn't committed towards it. In such situations it becomes the scrum master role to collaborate with other scrum masters and propagate the importance of scrum by making success visible and propagating their stories

One of the key aspects of scrum is to maintain transparency. With out transparency scrum breaks down as team members no longer feel like exposing their vulnerability and hence tend to hide key information that might be crucial about the project. Transparency is not created in a day but rather cultivated over time. After all scrum is an empirical process and performance is not bound to be at its optimum at sprint 1 itself. In order to cultivate a ecosystem of transparent behavior I personally feel parts of the 5 signs of team dysfunction and the flow state diagram can be used to gauge or even predict a fall out in such principles.

5 Signs of Team dysfunctions

Flow state diagram.



Similar to what we did in out last class the flow state diagram and the 5 steps to dysfunction asks each team member to place a dot at which level they feel they are at. This tool when used appropriately can be used to predict team members functional state and be able to relate with his problems and pave way towards fixing them

To conclude Scrum was born to simplify the lives of teams in organizations to solve complex task at reasonable efficiency. It is my personal opinion that it can be considered as the tool that brings abound chaos and harmony in equilibrium and this fosters creativity, productivity and happiness.