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Section 1

3. Read the paper Scrum Metrics for Hyperproductive Teams: How They Fly like Fighter Aircraft by Scott Downey and Jeff Sutherland. Provide a summary of this paper and present a critical analysis of its contents. Address the question; under which circumstances the productivity of the development team should and should not be considered as a primary marker of success?

The purpose of this paper is show that there is an untapped kind of productivity that can be achieved by teams willingly and for their benefit of the company and the stakeholders. Scott Downey and Jeff Sutherland are two pioneers of SCRUM. They set out in this paper how to create Hyper-Productive teams.

Within the paper there is a lot of factual data and personal experiences in top IT companies. The main points are: Leadership, Energy and Metrics.

Focus on the team’s backlog, yesterday’s work, todays work and impediments. It motivates for the team to see estimated story points. Calculated short meetings and better team bonding also increases team knowledge.

The authors say that items need to be Done and that a project should start by taking on the largest item the team can finish with 80% certainty.

Next: Metrics, which should be recorded and assessed regularly without obstruction to the team. Shareholders should be included with simple updates.

This paper is a fluid logical approach to explaining how successful Scrum is when applied correctly by a SM.

It begins by stating that Scrum teams should use lightweight tools for finding data not spend too much time data-sourcing as this will slow productivity.

The writers state that “Productivity is the primary marker of success.” (Downey and Sutherland, 2013, p. 1).

They have prime data on Scrum from Sutherland’s experiences and Caper Jones’ research, and use it to discuss improvements under Scrum.

“An average 35% improvement in velocity at Yahoo” [1.2] (Downey and Sutherland, 2013, p. 1).

Coached teams achieved 300-400% increases in performance. Downey, one of the writers of this paper peaked at 1680% of initial velocity, and averaged at 450% over 10 sprints. Teams achieve more when directed correctly.

“Currently, the best Scrum Teams in the world average 750% gains over the velocity of waterfall Teams with much higher quality, customer satisfaction, and developer experience.” (Downey and Sutherland, 2013, p. 1).

Scrum Framework must be obeyed. When followed; teams become Hyper-Productive.

Energy produces results.

“We want to introduce energy into the Team” (Downey and Sutherland, 2013, p. 2).

Scrum Meetings create energy, induce better communication, focus and team spirit. Energy is focused on the backlog, user stories and impediments. Done must be understood.

With effective communication, everything to do with the project increases in speed and value.

The paper states metrics maintain energy.

The first Sprint should establish a baseline velocity. The PO estimates priority backlog in the Sprint Planning meeting. The team then decides what can be accomplished during the sprint and the PO details the definition of Done.

These estimates for the approved work become baseline Velocity. SMs must only reward the team for task completion.

There must be a 15 minute stand-up in the morning. The focus must be shifted off the individual and onto the most priority backlog Item. The team plans on how to get this Done as fast as possible.

“What did WE…What was OUR contribution…What is OUR plan…What…is blocking US” (Downey and Sutherland, 2013, p. 3).

Focus on backlog rather than the individual creates team spirit and impetus. There are better updates, understanding, self-policing and more participation by team members.

Story points are updated daily, estimates become more accurate. Cross training improves due to this and it individual ruts are avoided. Backlog is the focus, meaning less time on non-essential items.

Shareholders are given progress in uncomplicated language.

The new everyday stand-up gives the team a sense of the Backlog.

Next the writers show the differences in the teams who incorporated Scrums constrains and the team which didn’t. Metrics are fundamental.

“Teams that achieve this typically went on to surpass 400% into a Hyperproductive state in later Sprints. The low data points were from the only Team in this data set where the MySpace Agile Coach did not assume the Scrum Master role.” (Downey and Sutherland, 2013, p. 4).

Clear metrics make Hyper-Productive teams. It allows the SM to offer advice. Next they go through the following metrics.

“Velocity, Work Capacity, Focus Factor, Percentage of Adopted Work, Percentage of Found Work, Accuracy of Estimation, Accuracy of Forecast, Targeted Value Increase, Success at Scale, and the Win/Loss Record of the Team.” (Downey and Sutherland, 2013, p. 5).

Velocity must be below projected work capacity as if it is not, complexity of the work has been overestimated

Focus factor should be at 80%, if less; the team may be being disrupted externally and when above; the team is under forecasting their ability or ignoring organisational responsibilities.

Percentage of adopted and found work should be only 20% of the original forecast.

Accuracy of Forecast and Estimation should be 80%, as when 100%; the team is being ill-managed. If below 75% the SM needs to make sure of the team’s direction or if the teams are not coordinating.

A good SM coordinates with the POs on the issue of backlog ahead of sprint planning.

If Accuracy of Estimation is too high the team needs to focus on working. If too low, the SM needs to see if there are problems.

Target Value increase indicates an increase in original velocity.

Success at scale breeds confidence.

Note that a Sprint can only be considered a win if 80% of the original backlog is approved by the PO.

Hyper productive scrum teams need to follow simple metrics.

The writers of this paper have been effective at getting their point across. They use facts, figures, experiences and statistics throughout the text; how to coordinate roles on the team, what success is, what metrics to use, SM’s purpose, shareholder input. The text inspires us to take up Scrum; as it has been in other sectors with success.

“Schools become increasingly interested in Scrum, where the Netherlands is clearly taking the lead”. (Kreb, 2018)

This is an expert paper and it is easy to see it as the future for productivity.

The data proves the effectiveness of their Framework; how it can transform a team into a Hyper-Productivity.

The Metrics are easy to understand. I like how they give indicators to treat the team more humanely.

“Any Team that achieves 100% Accuracy is likely under some form of external pressure and is, therefore” (Downey and Sutherland, 2013, p. 6).

The switch of focus from the individual to the team is refreshing. It’s clear that the team will perform better due to the new openness.

Roles need to be defined. SC needs authority and teams need coordination. Confusion must be avoided.

“A great Scrum Master will work with the Product Owners to be sure their PBLs are coordinated ahead of Sprint Planning” (Downey and Sutherland, 2013, p. 7).

The SM must have meetings with the POs before Sprints. Done must be decided as it is the only way of measuring progress.

“In Scrum, we do not recognize Value Creation until the work is accepted by the Product Owner as Done.“ (Downey and Sutherland, 2013, p. 3).

I address the question; “under which circumstances the productivity of the development team should and should not be considered as a primary marker of success?”

It should be considered the primary mark with a budget or time deadline.

“The short answer is – companies that want to ship effective software, according to specs on time and within budgets.” (Shkabura, 2018)

It should be considered the primary mark of success when the project is well planned. For example a good Scrum Master should have everything planned for success.

“…has the big picture in mind and is always looking ahead for what could be in the way of the project moving forward… to bring the sprint to a more expeditious completion.” (Malsam , 2018)

It should be considered primary as software is constantly evolving and requires finished projects as competition is fierce.

“You have to grow really fast. You have no choice, otherwise someone else is going to take that spot.” (Kutcher, 2015)

It should not be considered when the team is being abused by leadership. Team spirit is essential to a good Scrum. As stated, it leads to under-productivity and an underforcasting of work.

“under-forecasting work because of fear of reprisal or some similar, dysfunctional dynamic.” (Downey and Sutherland, 2013, p. 6).

Productivity is useless if there is no real plan or understanding, so if the project is going in the wrong direction; productivity will be worthless.

“This is the nature of the software development beast — sometimes things just don’t translate very well.” (Vogelgesang, 2017)

Productivity means nothing if the end product is far from what the shareholder wants.

“Involving the stakeholders of a product is one way to validate the assumptions that we continuously make while developing products early and often.” (Overeem, 2020)

This paper is an excellent description of what can be achieved by implementing Scrum correctly. By improving energy by short focused meetings, improving lightweight metrics, servant leadership and an understanding of the goal, we can help any team become hyper productive. The knock on effect of this revolutionary idea to the world at large could be exponential if applied cross board. The effect we have as a species is sure to boom in the next century if there are more papers like this. The facts are undeniable. The progress made in Development teams is unbelievable but we must spread the word.

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