

Sensemaking in the Agile Forest

Being predictable as an agile team¹

Henny Portman

Introduction

In traditional project management, clients often complain that the project does not deliver on the agreed end date. In other words, they find that predictability leaves something to be desired! How do you ensure predictability as an agile team?

Hours or story points

You probably know this: when you ask two people how many hours it takes to create a user story, you get two different answers. What helps here is to work with a unit of measurement for the size of a user story, for example a storypoint. Storypoints represent the size of a user story, independent of the person who will realize the user story.

Planning poker

Planning poker is a technique in which the team assigns story points to a user story. As a frame of reference, the team usually uses a user story the size of one story point. All developers of the agile team give their estimate of the number of points of the current user story compared to the reference user story. Agile teams often use a modified Fibonacci sequence for this (1, 2, 3, 5, 8, 20, 40, 100). In practice, 1, 2, 3, 5 and 8 are sufficient values.



If it is larger than 8, it is recommended to split the user story into smaller user stories. This is also called 'slicing' or cutting into slices. After everyone has made their choice, everyone puts their estimate on the table. This is done 'blind', i.e. with the value facing the table top. Hence the name planning poker: the others are not allowed to see your chosen card yet. The team members with the highest and the lowest value may explain their choice, after which the whole

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team makes another estimate. This is usually sufficient to reach a joint decision on the number of points.

Data

Agile teams collect or should collect a lot of data. The estimation of the number of story points per user story is a source of data. The estimation of how many story points the team can realize in a sprint is also important data. This is called the velocity of the team. The average of stories a team delivers is another sort of data.

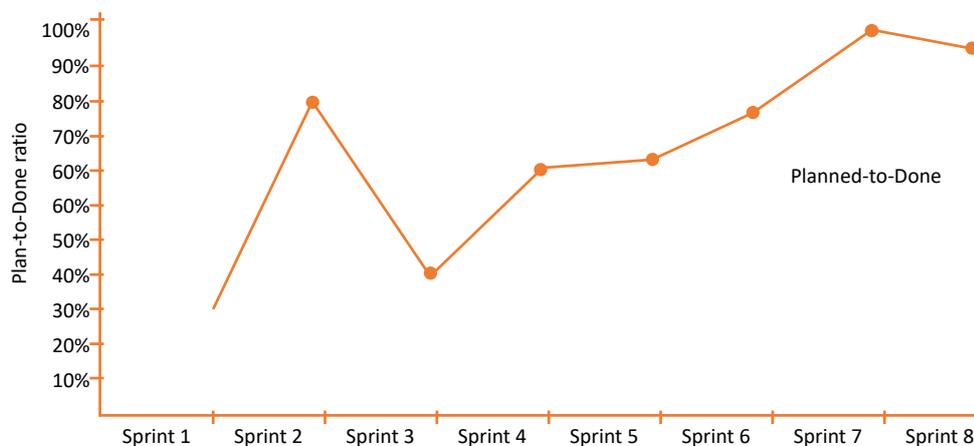
Novice team velocity

A starting team has no idea how many story points can be achieved and therefore cannot be as predictable as an established agile team. And that is not a bad thing. It has to learn and grow in maturity. Suppose the team starts with a velocity of 40 story points. At the end of the sprint, 6 user stories are accepted and delivered. These user stories represent a total of 20 story points.

In the next sprint they start with a velocity of 20. Halfway the team has already delivered 15 and they add a few more user stories. In the end, 24 story points are realized. After a number of sprints, it is clear what the velocity of the agile team is and the predictability of the team is greatly improved.

Planned-to-Done ratio (Predictability)

A metric to measure predictability is the Planned-to-Done ratio. If a team commits to twenty stories (planned) and only delivers seven (done), there is about a 40 percent change of any one story being delivered in the sprint (under the assumptions that the stories are more or less equal and there is no prioritization order). Or if the team delivers eighteen instead of the seven, there is roughly a 90 percent change of any one story being finished.



If you measure this every sprint the team's plan to done ratio must be positioned between an 80% to 100% bandwidth.

T-shirt sizing

Instead of using story points according to the Fibonacci series, it is also possible to use T-shirt sizing. This involves expressing the size of a user story in the size of a T-shirt: S, M, L, XL, XXL. Compare this with the Fibonacci sequence 1, 2, 3, 5 and 8.



Flying fingers

A third variant is called flying fingers. All developers in the team hold a hand behind their back. Several fingers are then raised out of sight. Then someone counts 1, 2, 3 and everyone shows his/her hand. Again, comparable with the Fibonacci sequence 1, 2, 3, 5 and 8.

Relative estimation with reference stories²

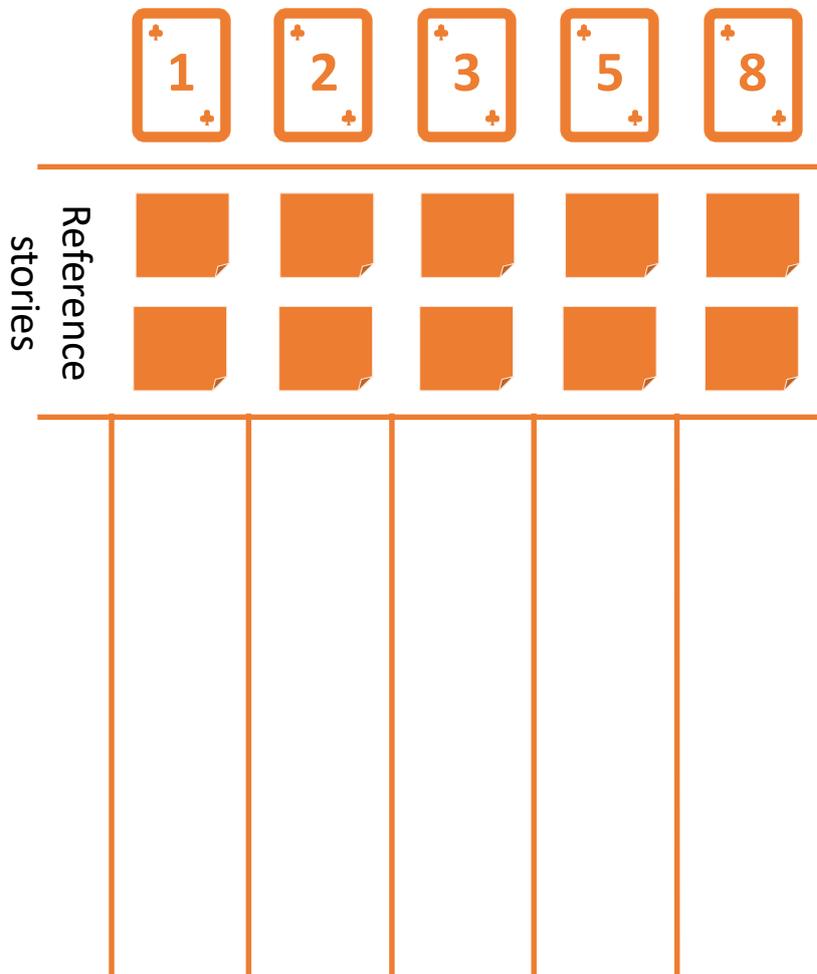
It is generally accepted that a team that has three sprints of data can more accurately assess its ability to deliver and use that information to plan for what can be delivered in a future Sprint. You can take this historical approach a step further by looking back at a random set of stories from the past and answering some basic questions. How big was the estimate of the story? Was the estimate accurate? Was this story representative of a particular type of work? By answering these questions, you can build a set of similar reference stories that can be used to estimate the effort required for future work.

Building a set of reference stories is a great first step. To make them useful in sprint planning, create a Reference Story Board (see figure):

- Collect 3 sprint's worth of data including: completed items, estimated effort required, and actual work required.
- Take a random selection of 10-15 historical items and compare the estimates to actual work.
- Identify which historical items were good examples of a particular type of work and the effort required. These are your Reference Stories.
- Arrange items on a Reference Story Board according to the Fibonacci number estimates where your team most commonly works.

² Coming from a blog from Joel Bancroft-Connors: <https://appliedframeworks.com/relative-estimation-with-reference-stories/>

Reference Story Board



Taking one story at a time and starting with the 1 point reference stories, compare new items to what's on the Reference Story Board. Keep comparing and moving right until you find a match that makes sense. If the story is too big you first have to slice it.

Conclusion

Agile teams should continuously collect data and learn from it. It is important that a unit of measurement is chosen for estimating the work in progress that promotes independence from the creator. Story points, T-shirt sizing or flying fingers are therefore preferable to using an estimate in hours. The combination of collecting data, learning from it and using an independent unit of measurement and keeping your stories small, will dramatically increase the predictability of an agile team. If you combine this with small stories So, you can be predictable as an agile team.

Sensemaking in the Agile Forest series

This article is part of a series of articles called *Sensemaking in the Agile Forest*. This series³ consists of the following parts:

- [Portman, H. \(2022\). What is Agile? Sensemaking in the Agile Forest series, PM World Journal, Vol. XI, Issue I, January.](#)
- [Portman, H. \(2022\). What is Scrum? Sensemaking in the Agile Forest, series article 2, PM World Journal, Vol. XI, Issue II, February](#)
- [Portman, H. \(2022\). Is agile always better? Sensemaking in the Agile Forest series, PM World Journal, Vol. XI, Issue III, March](#)
- [Portman, H. \(2022\). The ideal Product Owner, Sensemaking in the Agile Forest series, PM World Journal, Vol. IX, Issue IV, April](#)
- [Portman, H. \(2022\). The Ideal Scrum Master, Sensemaking in the Agile Forest series, PM World Journal, Vol. XI, Issue V, May](#)
- [Portman, H. \(2022\). Is an agile team always autonomous? Sensemaking in the Agile Forest series, PM World Journal, Vol. XI, Issue VI, June](#)
- [Portman, H. \(2022\). What do iterative and incremental mean in Agile? Sensemaking in the Agile Forest series, PM World Journal, Vol. XI, Issue VII, July](#)
- [Portman, H. \(2022\). The Minimum Viable Product \(MVP\) unraveled; Sensemaking in the Agile Forest, series article, PM World Journal, Vol. XI, Issue VIII, August](#)
- [Portman, H. \(2022\). Prioritizing in an agile team, Sensemaking in the Agile Forest, series article, PM World Journal, Vol. XI, Issue IX, September](#)
- [Portman, H. \(2022\). Multitasking, task-switching or monotasking; Sensemaking in the Agile Forest series, PM World Journal, Vol. XI, Issue X, October](#)
- Being predictable as an agile team
- Self-managing or self-organizing agile teams
- Slicing user stories
- Agile management products (burn-down and burn-up charts)
- Agile user testing (cohorts, A/B testing)
- The Kanban board (WIP-limit, cumulative flow diagram)
- Culture makes or breaks your agile transformation
- Getting started as an agile team (a pilot)
- The evolution of agile frameworks
- ?

Please let me know if you would like to add specific agile topics to this series.

³ This series is based on a number of short blogs I made for Forsa Advies, a project management training organization in the Netherlands (<https://www.forsa-advies.nl>).

About the Author



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Henny Portman, owner of Portman PM[O] Consultancy and was partner of HWP Consulting, has 40 years of experience in the project management domain. He was the project management office (PMO) thought leader within NN Group and responsible for the introduction and application of the PMO methodologies (portfolio, program, and project management) across Europe and Asia. He trains, coaches, and directs (senior) programme, project and portfolio managers and project sponsors at all levels, and has built several professional (PM(O)) communities.

Henny Portman is/was accredited in a variety of qualifications, including P3O, PRINCE2, MSP, MoP, PRINCE2 Agile, AgilePM, AgilePgM and AgileSHIFT trainer and an SPC4 SAFe consultant and trainer. He is a P3M3 trainer and assessor and PMO Value Ring Certified Consultant (PMO Global Alliance). On behalf of IPMA, he assesses mega and large projects for the IPMA Project Excellence Award. In addition to this, he is an international speaker, author of many articles and books in the PM(O) field, and an active blogger (hennyportman.wordpress.com/).

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