

A painting of three dogs playing poker at a green felt table. The dog on the left is wearing a bow tie and has a pipe in its mouth. The dog in the center is smoking a pipe and holding cards. The dog on the right is also holding cards. There are stacks of coins and cards on the table.

# Planning Poker & Fibonacci Sequence

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By DrivaPi

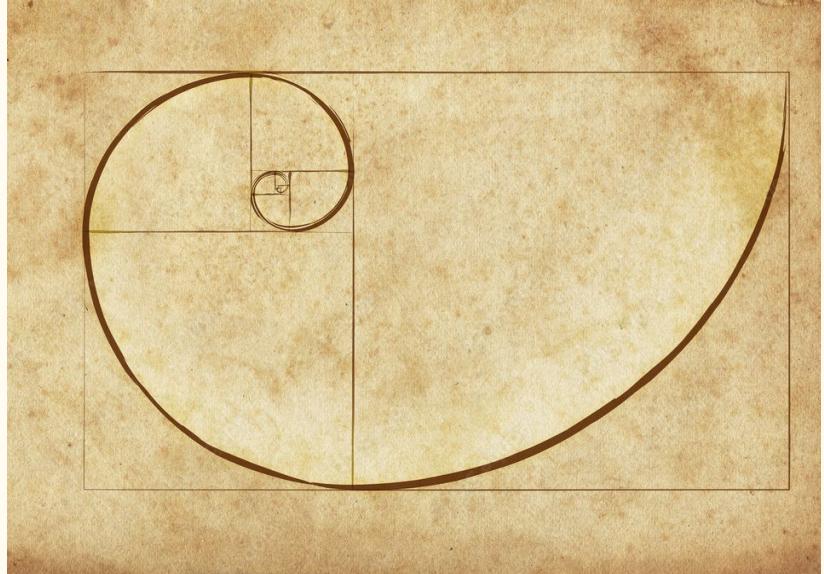
# Fibonacci Sequence

Leonardo Fibonacci was considered the **greatest mathematician** of the Middle Ages.

Arguably, the most important work of his life was the **Fibonacci Sequence**.

It consists of the sum of the two elements that come before it: **0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, ...**

But how does a **2000 year old** sequence help us in the **modern world**?



# The Problem With Humans & Time

Humans are absolutely **terrible** at estimating time, but this problem can be solved by **establishing comparisons**.

For that to work, we need to move away from the traditional time system, which is **too complex**.

By using **individual comparisons** (e.g. between a 5, 8 and 13) and calculating the team **average**, we get a value closer to reality.



# Fibonacci Story Points

Relative Sizing!

The unit of measure to express the estimated effort of a user story.

- **Volume:** How much code/work is there?
  - **Complexity:** How difficult is the logic?
  - **Uncertainty/Risk:** What don't we know yet?
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But  
WHY?

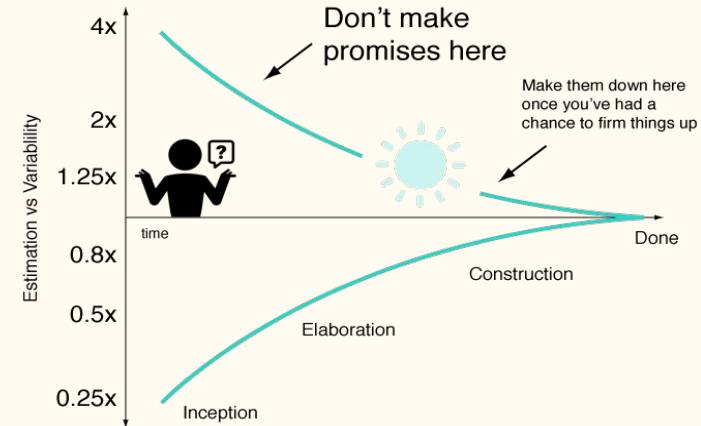


# The Calculations

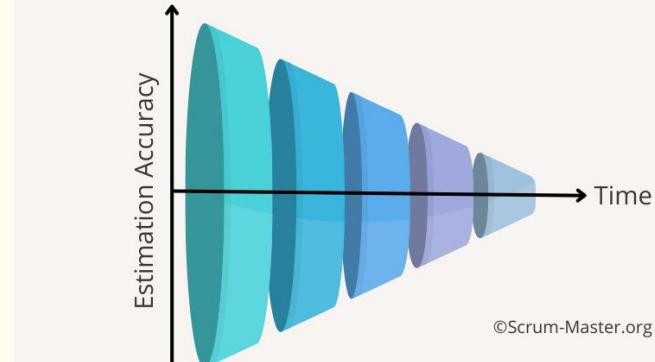
We can use a Modified Fibonacci scale to make the math easier: **0, 1, 2, 3, 5, 8, 13, 20, 40, 100** vs. **0, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144**.

The gap between numbers gets **wider** as the numbers get **higher** (1 to 2 is a small jump, but 13 to 20 is a way larger jump).

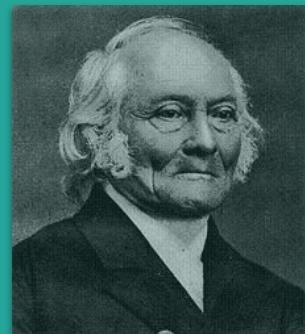
The **larger** a task is, the **less we know** about it and the **worse** our time estimate is. We shouldn't argue if a task is a 14 or a 15, it's either **big** or **very big**.



Cone Of Uncertainty and Agile Estimation



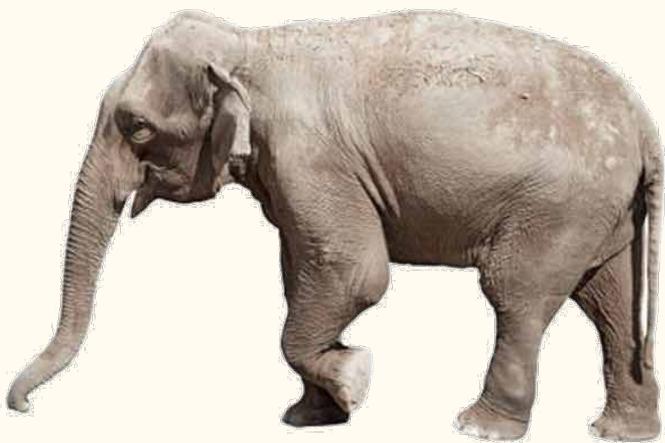
# Weber's Law



Weber's Law states that the difference between two objects **must be a certain percentage to be noticeable**.

You can probably notice the difference between 1kg and 2kg, but maybe not between 20kg and 21kg.

This is why we don't have a 20 and 21 in our measurement scale: the difference **wouldn't be big enough to matter**.



# The Game of Planning Poker

A **consensus-based** gamified estimating technique using the **Fibonacci Sequence**.

It encourages discussion and avoids **Anchoring Bias**, where the first person who speaks would set the starting number for everyone else.

After **multiple sprints**, the team can have an idea of the **Story Points** they can **handle effectively**, improving this method further.



# Planning Poker - How to Play



1. PO/Scrum Master **reads a User Story**.
2. The Team **discusses** technical approach.
3. Each developer privately **selects a number** that classifies that user story.
4. After everyone has picked, the **numbers are revealed**.
5. Discussion:
  - If everyone's opinion **matches**, we move on to the **next Story**;
  - If there is a **variance**, the outliers (**lowest** and **highest**) speak.

# Planning Poker - Special Cards

**Coffee Cup:** I need a break.

**Question Mark:** I have absolutely no idea and the requirements are too vague to estimate.

**The Infinity Symbol:** This task is way too huge, it must be broken down into smaller stories before we can estimate it.

## Notes:

- Never say “1 point = 4 hours”.
- Managers or POs **should not vote**.
- If half the team votes 3 and half votes 5, **discuss until you agree** on either 3 or 5; **averages hide risk**.





Thank you!

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