



PLANNING POKER®

Outcome

Planning Poker is a consensus-based estimation technique. It produces quick and reliable estimates backed by the whole development team.

Function

The technique was created as a solution to issues that teams often experience when estimating. Relying on one or two individuals in the team for an estimate does not take into account the full knowledge and experience of the team. This can reduce the reliability of an estimate. However, estimating as a group poses problems too. For example, an individual's estimate can be heavily influenced by the estimates already provided by others. Planning Poker provides a balance between individual and group estimating.

Benefit

The approach taken in a Planning Poker session is as follows:

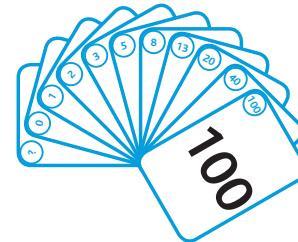
- Everyone that does the work is involved.
- Each team member provides their own estimate for a requirement, without prior knowledge of their colleagues' estimates.
- Team members are called on to openly explain their estimates, helping all of the assumptions and facts to be brought to the surface.

Who

Implementation

Start by making some simple playing cards:

1. Get some index cards.
2. Make a 'hand' of cards for each team member. A hand is made up of 11 cards. Each card has one of the following values written on one side: 0, 1, 2, 3, 5, 8, 13, 20, 40, 100 and '?'.



How the playing cards work:

Each value in the sequence represents an estimate for the amount of effort required to meet the requirement, going up from no work (zero). The sequence is nonlinear, i.e. the gaps between the numbers get larger. This is to show that there is more uncertainty in larger estimates. The estimates are 'unit-less': they do not imply a certain amount of hours, days, and so on. Rather, they are relative measures of effort: for example, a requirement estimated as 1 point is roughly half the size of a requirement with 2 points.

Scaling Factors

The question mark card can be used to indicate that a requirement is too vague to estimate.

Difficulty

Run the session as follows:

1. Get your team and customer/user together.
2. Select a requirement you wish to estimate from a group of requirements you are likely to need next.
3. Have your customer/user read it out.
4. Have a brief discussion about the requirement. The discussion should focus on *why* it is needed,



what value it has and **how** it should be implemented. This is the chance for the team to ask questions about the requirement and clarify any assumptions. It's important that estimates are not mentioned at this stage.

5. Each team member should pick a card to represent his or her estimate for the requirement. The card should be laid face down on the table.
6. Once everyone has put down a card, the team members should reveal the card they played.
7. If the estimates are all the same, note the estimate down and move on to the next requirement.
8. If there are differences in the estimates, then get the team to explain their estimates. In particular, we are interested in getting those team members who have chosen the highest and lowest estimates to explain why. After some more discussion, ask the participants to re-estimate.
9. If the estimates are now all the same, then note the estimate down and move on.
10. If there are still differences in the estimates, then you have a few options.
 - Encourage more discussion and have **another estimation round**. It can sometimes take a couple of rounds before the team converges on an estimate.
 - If the estimates for the requirement are generally large, try and **split** the requirement into several smaller requirements, which the team can estimate separately.
 - If the numbers are close, see if the team are comfortable going with the majority, or median value.
 - If the team cannot agree on an estimate, then you can **defer** estimation for that requirement. Do however attempt to work out *why* the team cannot agree. The root cause can then be tackled after the session, be that clarifying a vague requirement, or gaining a better understanding of a system component.

Potential Pitfalls

One of the key purposes of this technique is for the team to talk about and share all the assumptions and facts that are underlying their estimates. This will not be achieved if there is no or very limited discussion taking place. An example of this is, after the initial estimation, everyone just moving to the majority position, or to a specific individual's estimate (particularly if he or she is perceived as the most knowledgeable or experienced). As the facilitator, you need to encourage the team to discuss *why* they have produced differing estimates.

Conversely, if after running several sessions you are finding that discussions are dragging on, try introducing a time limit. One way to do this, is to bring a long a two minute sand timer which any team member can turn over during discussions. The idea is that once the timer runs out, the team must (re)estimate or move on.

Planning Poker® is a registered trademark of Mountain Goat Software, which has popularized the technique. You can purchase official Planning Poker® cards and find other further information at <http://www.mountaingoatsoftware.com/topics/planning-poker>.