

Planning Poker



German name Planning Poker

Brief description Planning Poker is an effective method, which helps to estimate the relative work effort of User Stories or tasks within small groups. The agile approach facilitates a direct work effort assessment by courtesy of the members of the implementation team. The already existent technical expertise of individual persons is deployed in order to evaluate a topic from different perspectives, backgrounds and using the principle of the multiple-assessor verification.

Fields of application

- Initial work effort evaluation of all the requirements in the form of User Stories
- Periodic evaluation of new and/or still new tasks in order to systematically react to context or project-goal modifications.

Advantages

- + Assessment from different perspectives, depending on the team configuration.
- + Easy setup
- + It can also be applied in distributed teams (e.g. through video web sessions)
- + The participants are encouraged to identify themselves with the requirements.
- + A more accurate assessment due to the collective approach, as opposed to individual estimations.
- + It is independent of the nature of existing requirements.

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| Drawbacks / risks / boundaries | <ul style="list-style-type: none">- The results of the evaluation can only be applicable after an appropriate translation into monetary or fiscal indicators or into other management systems (e.g. risk planning).- The method loses its context-related benefits when applied in groups with less than five persons.- When applied in groups with more than eleven persons the assessment becomes confusing and time-consuming.- If the participants don't have sufficient technical background, their estimation will only be speculative. |
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| Requirements | <ul style="list-style-type: none">• Method acceptance on behalf of the participants• A quiet and private working space; it should be large enough for the number of participants. |
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| Qualification | <ul style="list-style-type: none">• All participants should be familiar with the basic rules of Planning Poker.• New participants need two to three practice sessions to get acquainted with the method and apply it effectively.• The workshop manager should have relevant moderation skills. |
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| Required information | <ul style="list-style-type: none">• User Stories, usually in the form of a Product Backlog or Sprint Backlog• Practical knowledge of the participants (ideally from similar tasks)• Expert knowledge of the participants about the execution techniques to be applied.• Planning Poker scale (e.g. Fibonacci numbers, T-shirt sizes) to guarantee the comparability of the results. |
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Output

Story Points for every evaluated User Story

The Story Points are a relative indicator for estimating the work effort of the User Stories. They must not be treated as equal with working days or monetary values. You can obtain absolute effort values based on the first actual values by using project-specific conversion formulas. The results can also be applied in other fields, serving as an input (e.g. in resource and operational planning).

Indication of uncertainties and lack of transparency

If the particular estimate values for a User Story differ considerably in spite of providing additional information and holding several evaluation sessions, you will have to document this consensus in the User Story.

Expanded documentation of the User Stories

You will have to document new information that emerges during the discussions and the assessments of the User Stories (addendum, Excel-list, software).

Required tools

- Pin board for gathering and classifying the results.
- Moderation material (cards, flipcharts, pens) for editing and presenting the results.
- Sufficient card sets for Planning Poker. The numerical values that serve for evaluating a User Story are imprinted on the cards. You can use special cards (e.g. card "cup of coffee") to guide the procedure.
- Moderation cards with the User Stories referred to in the chapter "Required information".
- If necessary further material for possible versions in the evaluation technique (e.g. poker-chips, T-shirt in the sizes XS-XXXL)
- (Optionally) Software that supports Planning Poker or replaces the Planning-Poker cards (see: "Software").

If you use a collaboration platform (such as Skype, Google Hang-out...) for distributed teams:

- Webcam, headset
- A private working place suitable for video conferences
- Software that supports internet-based communication (e.g.: Skype, Webex, Sametime...) – including a relevant account.

Execution

Step 1: Prepare the Planning-Poker workshop!

Make sure that the User Stories are completely available in the current version. Verify if all User Stories to be evaluated are printed/written down on moderation cards.

Please ensure that all the following team roles have been allocated:

- **Product Owner:** he represents the client, prioritises User Stories and is responsible for explaining the User Stories in detail to the participants. The Product Owner makes no estimates.
- **Scrum Master:** he usually organises the Planning Poker, makes sure that everyone complies with the rules of the game and documents the results.
- **Developers:** they will create the User Stories at a later stage. Due to their expertise from other projects, they have an essential part in the Planning Poker. The developers provide estimates, and, if necessary, also expert estimates (see below).
- **Experts (e.g. analysts):** if you are familiar with the fact that the developers lack expert knowledge, then you can invite experts to the session, who will fill the knowledge gaps. They will support the team by answering technical questions and will participate at the estimations of the User Stories in which they specialise.

Designate the project to be evaluated (your project, if necessary the individual User Stories, too) when inviting the participants to the Planning Poker.

You should add notes to the topic Planning Poker for the initial application. You should be ready to allocate some time for offering training sessions to those participants who are not familiar with the method.

Step 2: Workshop kick-off

The Product Owner will introduce the audience to the product/project vision and present the main topic of the Sprint to be evaluated.

The Scrum Master will introduce the new team members and experts to the audience. Moreover, he will explain that the “calibration”, i.e. the joint understanding of the card values, is achieved by holding one to two warm-up sessions with the appropriate User Stories.

Step 3: Introduce the audience to the Planning Poker and card values!

You should describe the operational principle of Planning Poker to the participants, depending on their background knowledge. However, you should explain the responsibility each role has (see above) and illustrate the card values:

- The special card “0” means that the assignment has already been completed according to the participant.
- The participant should choose the special card “?” if he realises that he hasn’t understood the assignment and that he needs further information to give an estimate.
- The special card with the symbol “cup of coffee” signifies that the participant asks for a break.
- Numerical cards: the numerical value indicates the effort needed for executing a task (as considered by the participants) in comparison to a reference task with a fixed numerical value (e.g. 5).

If the participants have no knowledge of Planning Poker, you should carry out two or three preliminary sessions, in which you will have to perform the steps 3 to 6 with comprehensive explanations and more time for the evaluations. You can already use the achieved estimates; otherwise you can put back the User Stories in the Pool to be estimated.

Step 4: Present the User Story

The Product Owner will choose a User Story for the next assessment session and present it. For the first assessment sessions he should choose the User Stories that are suitable for the “calibration” (see above).

Step 5: Clarify content-related questions!

The moderator (e.g. the Scrum Master) will ask the participants if they completely understood all User Stories. If necessary, he will clarify the questions. If this is not the case, he will postpone the User Story for the next workshop. The Product Owner should elaborate the User Story by then in order to bring it in once again.

Step 6: Covert assessment

The moderator will ask the participants to perform the assessment. Each participant will estimate the work effort for the User Story, then take out the card with the corresponding numerical value (or a special card) from his deck of cards and place it face-down in front of him. The moderator will decide how much time is available for this procedure; this particularly depends on the developer's familiarity with the method.

Step 7: Examine the results together with the audience!

As soon as all participants carried out the previous step, they can show their cards on command. You should now examine the results together with the participants. If a participant laid down one of the three special cards "0", "?" or "cup of coffee", you should apply the following:

- "0": you should check if the User Story was already dealt with. If this is the case, you should note this down on the moderation card of the User Story (moderation card, maybe also in the User Story itself) and put the card away for documenting it afterwards. It is not necessary to do a new evaluation in this case. If the User Story has not been dealt with yet, you should do the evaluation again.
- "?": You should solve the issue and do the evaluation again.
- "Cup of coffee": you should comfort the general need for a pause. You can call for a pause immediately or schedule it together with the participants. You should do the evaluation again.
- If the estimates consist only from numerical values, you should analyse the frequency distribution of the estimates and proceed as following:
- If there are obvious discrepancies between the estimates (e.g. four persons submit 2 points, two times 3 points and 8 points as estimates) then the persons with the highest and, respectively, lowest card values will have to explain the reasons for their decision. Afterwards you will have to evaluate the same User Story again (begin with step 4).
- If the results are similar (e.g.: four persons submit two times 2 points and two times 3 points as estimates), the group should come to a consensus value during a short discussion (not more than 2 to 3 minutes) and write it down on the User Story card.

If there are several major discrepancies for a User Story, you should record this in the protocol. Subsequently, it is recommended to agree with the majority vote and to document this on the User Story card. You are free to decide whether you want to assess the particular User Story one more time.

A clear indicator for uncertainties regarding the assignment can represent the disagreement on allocating the Story Points for each User Story. If the disagreement can't be resolved by providing further information on the assignment, you will have to record a note of the lack of consensus in the documentation. You should assess the User Story at an advanced stage of the project again (as long as it can be delayed) or you can pass on the uncertainty to your risk management.

Step 8: Transfer the results to the interface!

- Transfer the results (the User Stories including the consensus estimates) to the Product Backlog.
- Interpret the assessment results for the resource and operational planning or for your risk management.

Practical tips

- You should give new participants the possibility to exercise the Planning Poker during a practice session!
- You should give them the possibility to introduce themselves. This gives a more personal note to the Planning Poker sessions and makes the first stages easier. Furthermore you should give them the possibility to mentally prepare for a new role or experience.
- You should also give them the opportunity to ask questions after each session. Even if there are no major discrepancies between the estimates, subsequent questions could always emerge. A coherent estimate does not necessarily mean understanding the User Story.

Deal with scepticism in a constructive way!

If you apply Planning Poker with a team for the first time, it is possible that you will experience certain scepticism regarding the “new method”. Don’t let yourself mislead by this. You should instead ask the participants to test this new method and find out if it is adaptable for them. Provide them with a contrast to the traditional assessment methods and compare the advantages and disadvantages of both methods. Planning Poker should not be applied in assessments that consist of recurring tasks; you can always draw on empirical values if this is the case.

Verify if Planning Poker is suitable for your team and your project!

Just the same as your team members, you can also verify if the method is suitable and productive for your project and team. You should also evaluate, possibly after consulting other stakeholders, which method provides a sufficiently accurate estimate using a fair amount of effort and resources.

Use Planning Poker as a management tool!

In some projects it is possible that the participants take over the role of the moderator at a later stage in the course of the project. You can use this transfer of responsibility as a management tool: you can become familiar with the skills of the team members and support the new moderators in a sustainable way, for example by offering them training sessions for presentation.

Alternative
versions

Planning Poker with alternative evaluation techniques (e.g. Poker-chips, T-shirt sizes)

Instead of the traditional cards you can also use other objects that symbolise equivalent values. Poker chips are suitable as they show considerable differences between the particular values (1, 5, 25, 100, 500). Slight value differences do not illustrate the distinct opinions of the participants in an explicit way.

Another widespread version is the one using T-shirt sizes. This version is indeed easy to apply, but it doesn't illustrate the discrepancy between different evaluations explicitly either.

Agile Planning Poker with remote teams

In Planning Poker version the workshop will take place as a virtual meeting, i.e. using videoconferences or appropriate software. The "rules of the game" are the same as in the traditional on-site Planning Poker. Instead of uncovering the Planning Poker cards on command, the participants will have to show them at the webcam's camera. Software-supported collaboration tools allow users to do a covert pre-selection on their individual user interface. The software will uncover the cards for all the participants, once all votes have been submitted.

Further reading
(German
language)

Planning Poker – Techniken, Erfahrungen und Empfehlungen

article, edition 10/2012 – by Oliver Linssen

Origin

The method was initiated by James Grenning in 2002 and spread by Mike Cohn (Owner of "Mountain Goat Software"), (Lant, Michael: Estimate Story Size by Playing Agile Planning Poker, <http://michaellant.com/2010/07/13/agile-planning-poker>, as consulted online on 10.8.2015).

The Mountain Goat Software holds the registered trademark on Planning Poker cards, as well as on standard numerical values: 0, 1, 2, 3, 5, 8, 13, 20, 40 und 100 (<https://www.mountangoatsoftware.com/agile/planning-poker/license>, as consulted online on 10.06.2015).

The method has been primarily correlated with the agile SCRUM procedure, but it can also be applied in traditional project approaches. Due to its simple setting and direct feedback between the persons in charge, this method promotes the discussion and evaluation of complex, not-completely-specified assignments at any point in time over the project course. Planning Poker not only delivers an empirical value, qualified accordingly to the group of participants, but also encourages the participants to identify themselves with the contents of the assignment by submitting their votes.

Author: Christian Reinold

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Click here for the online version (German language):

www.projektmagazin.de/methoden/planning-poker

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