

# Data Science Workshop

## Lecture 4: Communication

Marcin Luckner, PhD  
mluckner@mini.pw.edu.pl

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## Questions



# Role of questions

- The best form of communication with a team is asking questions.
- The questions allow us to supervise project progress, but they also play other roles.
  - The questions stress lacks in the project.
  - The questions point to solutions.

## Questions about the project

1. What has been done since the last meeting?
2. What obstacles have you faced?
3. What do you plan to do with the unfinished tasks?
4. When will you finish the task?
5. Which tasks are the most important?
6. What are the next planned steps?
7. Who will manage the tasks?

## Directing questions

- We use directing questions instead of orders.
  - An order
    - *Find some publications on that.*
  - A question
    - *Have you searched for publications on that?*
  - Better questions
    - *Where can you find that information?*
    - *Which of these sources can be trusted?*

## Closed-ended and open-ended questions

- Closed-ended questions give us limited knowledge about the project.
  - We have to ask many questions to see the whole state of the project.
- Open-ended questions force the team to give us a more specific description of the project.
- However, a closed-ended question is a good form for the final question to confirm the arrangement.
  - *I understand that the prototype will be ready until the next meeting?*

## Open-ended questions

- We should avoid feigned open questions that force the interlocutor to focus on defence or limit the answer.
  - Bad questions.
    - *Why?*
  - Good questions.
    - *Where?*
    - *How?*
    - *What?*
    - *When?*
    - *Who?*



# Examples of Open-ended and Close-ended Questions

Closed-ended question example	Open-ended question example
Would you recommend our product/service?	What were the main reasons you chose our product/service?
Did you experience good customer service?	How did you feel about our customer service?
Would you consider using our product/service again?	What would make you use our product/service again?
Did you like our product/service?	What is the most important feature of our product/service for you?

source: <https://www.hotjar.com/blog/open-ended-questions/>

## Question Why?

- The question *Why?* should not be used in everyday project communication.
- However, the question helps increase the team's self-consciousness and specify the project basis..
- Several *Why?* questions – but not more than five – can help us to get to the bottom of the matter.
  - *In the Design Thinking method, we spend much time prototyping.*
  - **Why?**
  - *We believe that a prototype quickly shows what we want to achieve.*
  - **Why?**
  - *By a contact with the prototype, the client better understands how it works.*
  - **Why?**
  - He/She can see it, touch it, try it.

# Criticism

- In the Design Thinking method, we abandon the created solutions very often.
- It is tied to a criticism of the solutions.
- It is best when the team can see that the solution is problematic.
- The team must know that criticism is a part of the creation process.

## Solution evaluation

- We always stress that the aim of the criticism lies in an improvement of the solution.
- Therefore, we stress strong points of the existing solution and point out lacks.
  - First, we point bright points of the existing solution.
  - Next, we point the lacks.

## Questions during evaluation

- *Who will use the solution?*
  - If a team defines a Person, a hypothetical user of the solution, we should ask how the Person will use the solution.
  - The criticism comes from the Person, even if it is formulated on its behalf by team members or reviewers.
- *How the solution will be used?*
  - A prototype should allow the reviewers to test the solution.
  - Before the test, we should stress that we are looking for strong and weak points of the solution.
  - The tester should share their feelings during the test.
    - *These short braces are disturbing me.*

# Open evaluation

- If a solution is tested in a broader open circle, i.e. during a presentation, we should limit an audience criticism.
- A survey consisting of the following fields can be used
  - I like.....
  - Try to work on.....
  - I wonder.....

# Team criticism

- Questions are an excellent communication approach.
- However, a criticism of a coworker should base on a straight message.
- Mostly, we form a message to point breaking rules behaviour.

# Message schema

## 1. Reason

- What was done?

## 2. Results

- Why it was inappropriate?

## 3. Repair

- What should we do to avoid such situations?
- *You did not update your git branch. The rest of the team worked on outdated code. Let us go through the updating process together to see what went wrong.*



## Team evaluation

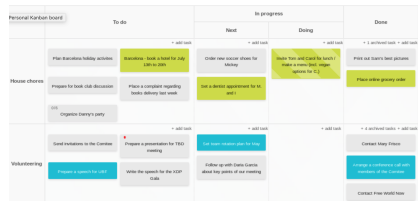
- An evaluation of a team should not be done just by a manager.
- The manager is outside the team and has limited knowledge about individual workers.
- It is recommended to take inside team opinions under consideration during the evaluation.
- The inside evaluation should be formalised and moderated from the outside to limit the influence of non-substantive factors.

# Team communication channels

- A team can communicate through:
  - scheduled meeting
    - once a week
  - shared working space
    - Google docs,
    - MS Teams
    - Facebook group
  - Specialised tools

# Kanban

- Kanban is a Japanese management technique.
- It bases on the circulation of product cards among departments.
- It is applied in software development to visualise the state of tasks.

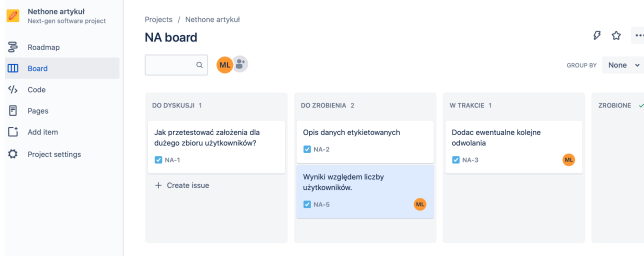
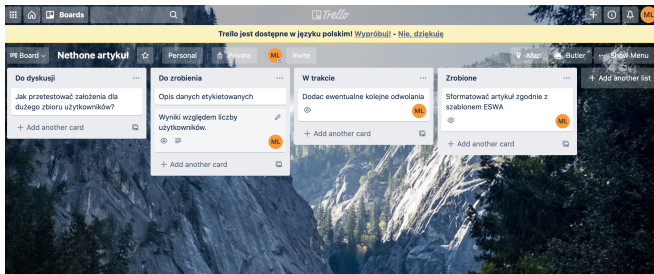


source: <https://kanbantool.com/personal-kanban-board>

# States

- **To do**
  - Incoming tasks for the current working cycle.
- **In progress**
  - Tasks in progress.
- **On hold**
  - Tasks that cannot be finished because of external reasons.
  - An intervention is necessary.
- **Review**
  - Finished task under evaluation.
  - Internal quality control (code review).
- **Done**
  - Finished tasks accepted in the review process.

# Kanban tools



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