



Draw from requirements

Requirements are at the foundation of any application. They are the functional demands of a customer. They prescribe what should be developed. To testers they prescribe what should be tested. Requirements are important to nearly everyone involved at any stage. In this activity participants will observe the effect of generic requirements and practice formulating specific requirements which enable testers to test.

Activity in one sentence

Draw a space ship based on generic requirements and rewrite and expand those requirements to form a set of specific requirements to draw a second spaceship.

Goal

Experience the effect of generic requirements and practice formulating specific requirements.

Target group

Team members who have limited experience defining requirements but intend to do so to improve the development process.

Necessities and prerequisites

- 2 to 6 participants, preferably team members
- A room with a projector, blackboard or equivalent, enough tables to accommodate participants
- White A4 paper to draw on for each participant
- Colored pencils and/or markers
- A set of generic requirements
- Camera to record the session, if desired

Steps

1. Instruct the participants to sit at a table
2. Introduce the activity
3. Hand out papers and pencils and/or markers to the participants
4. Instruct the participants to write down a set of requirements to create a space ship in 5 minutes.
Participants should not discuss
5. Collect the sets of requirements
6. Shuffle and exchange the sets of requirements among the participants



7. Instruct the participants to draw a spaceship based on the requirements they received. Instruct them not to collaborate with other participants on this task
8. Instruct the participants to compare their drawing to the expectations of the participants who wrote the requirements. The following question can help: How do their drawings differ? What is included and what is not? What do features of the spaceship look like and how do these features differ? What decisions were made that cause the differences?
9. Instruct the participants to define a second set of specific requirements based on the lessons learned from the discussion
10. Collect the sets of requirements
11. Shuffle and exchange the sets of requirements among the participants
12. Instruct the participants to draw the spaceship based on the second set of requirements
13. Instruct the participants to compare their drawings with expectations for the second time

Outcomes

Participants experienced the effect of unclear requirements and practiced formulating a second set of specific requirements. They also experienced the improved outcome thanks to specific requirements.

Notes

- No drawing made is correct or incorrect. The differences in the interpretation of the requirements by participants caused by their frame of reference is vital to the success of this activity

Variations

- Instead of a spaceship, another object can be chosen
- Work from a prepared set of generic requirements
- Skip step 4, 5, 6 and 7. Instruct the participants to draw an object without further information
- Stop at step 7, ending the activity with defining a second set of specific requirements



Example generic requirements

- The spaceship can travel long distances
- The spaceship can land
- The spaceship can shoot
- The spaceship can be invisible
- The spaceship can host a large number of residents

Example specific requirements

- The spaceship travels by flying through space
- The spaceship can travel a distance of 10 lightyears without refueling
- The spaceship is powered by a chemical engine
- The spaceship has four engines on the bottom
- The engines can change orientation whereby the spaceship can change direction
- The space ship has four legs to land on
- The four legs are folded in during flight and folded out during landing
- The spaceship has a command center to control the spaceship from
- The spaceship has a command center to navigate through space
- The spaceship has a command center to coordinate from during battle
- The spaceship has four main guns and 10 minor guns
- The guns of the spaceship can be used during battle
- The guns are spread around the exterior of the spaceship to shoot in all directions
- The spaceship can be invisible by an invisibility cloak in case of a battle
- The spaceship can be invisible for 30 minutes
- The spaceship can host 120 residents
- The spaceship has four compartments for the residents
- The spaceship has windows on the exterior for residents to look out of