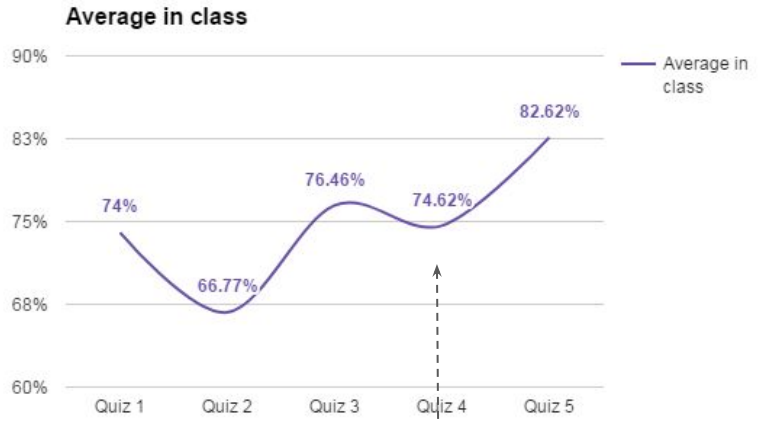
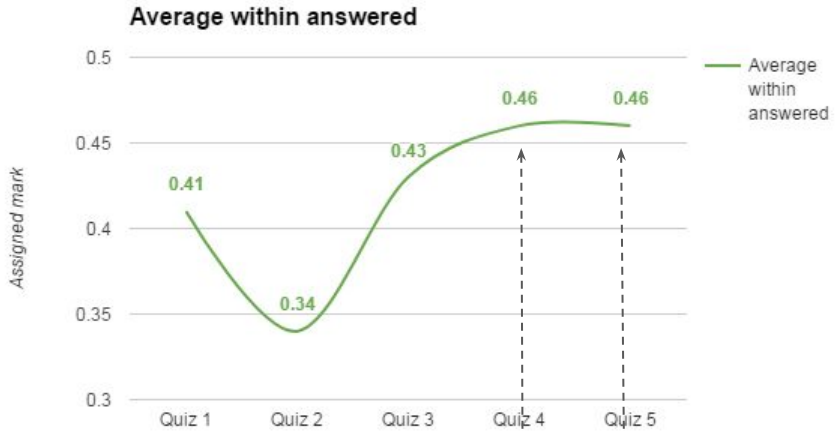
CS449/649:
Human-Computer Interaction

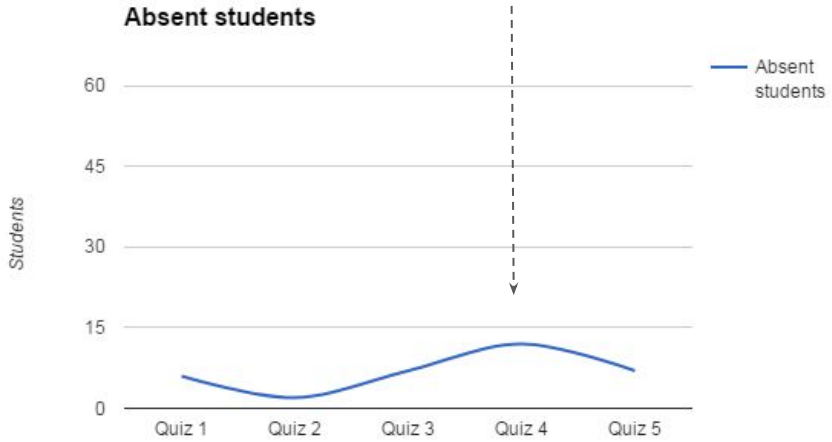
Spring 2017

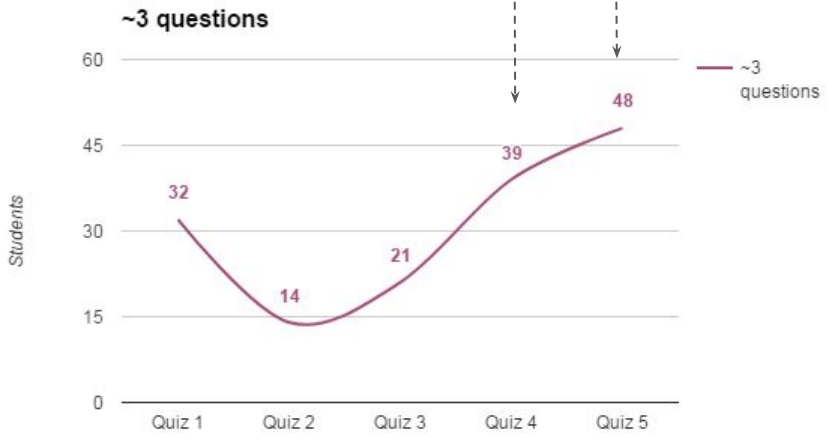
Lecture X

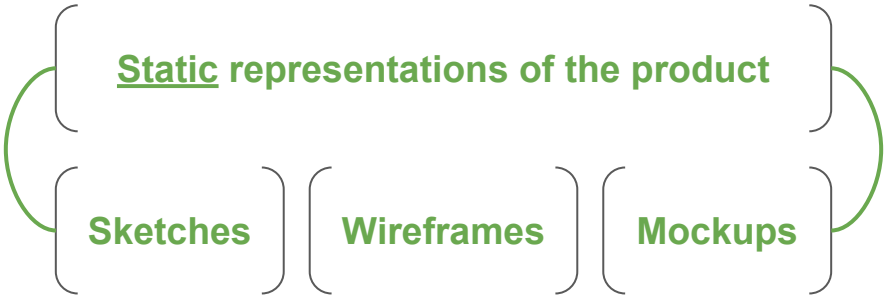
Anastasia Kuzminykh

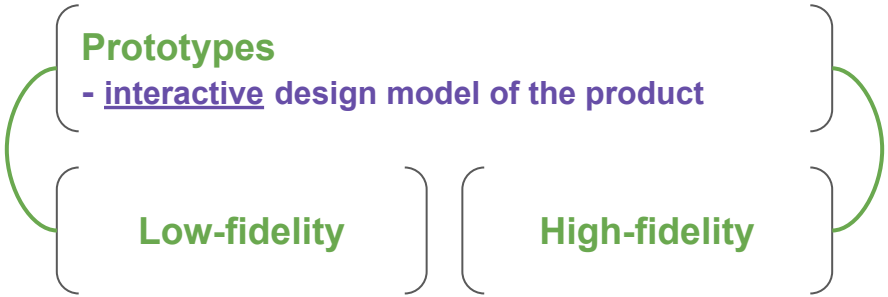

Average in class
90%
83%
75%
68%
60%
74%
66.77%
76.46%
74.62%
82.62%
Quiz 1
Quiz 2
Quiz 3
Quiz 4
Quiz 5
Average in class


Average within answered
Assigned mark
0.5
0.45
0.4
0.35
0.3
0.41
0.34
0.43
0.46
0.46
Quiz 1
Quiz 2
Quiz 3
Quiz 4
Quiz 5
Average within answered


Absent students
Students
60
45
30
15
0
Quiz 1
Quiz 2
Quiz 3
Quiz 4
Quiz 5
Absent students


~3 questions
Students
60
45
30
15
0
32
14
21
39
48
Quiz 1
Quiz 2
Quiz 3
Quiz 4
Quiz 5
~3 questions


Static representations of the product
Sketches
Wireframes
Mockups


Prototypes
- interactive design model of the product
Low-fidelity
High-fidelity

Create Design Ideas

Static representations of the product

- Sketches
- Wireframes
- Mockups

Visualization

Prototype Design

Prototypes
- interactive design model of the product

- Low-fidelity
- High-fidelity

Testing and Evaluation

Understanding how to use a remote is made easier by a friend.
***Photo* Nicolas Zurcher**

IDEO: An early prototype for the Gyrus ENT Diego, a surgical tool

Image by Victor Schade, source: Creative Edge Products

Prototype Design

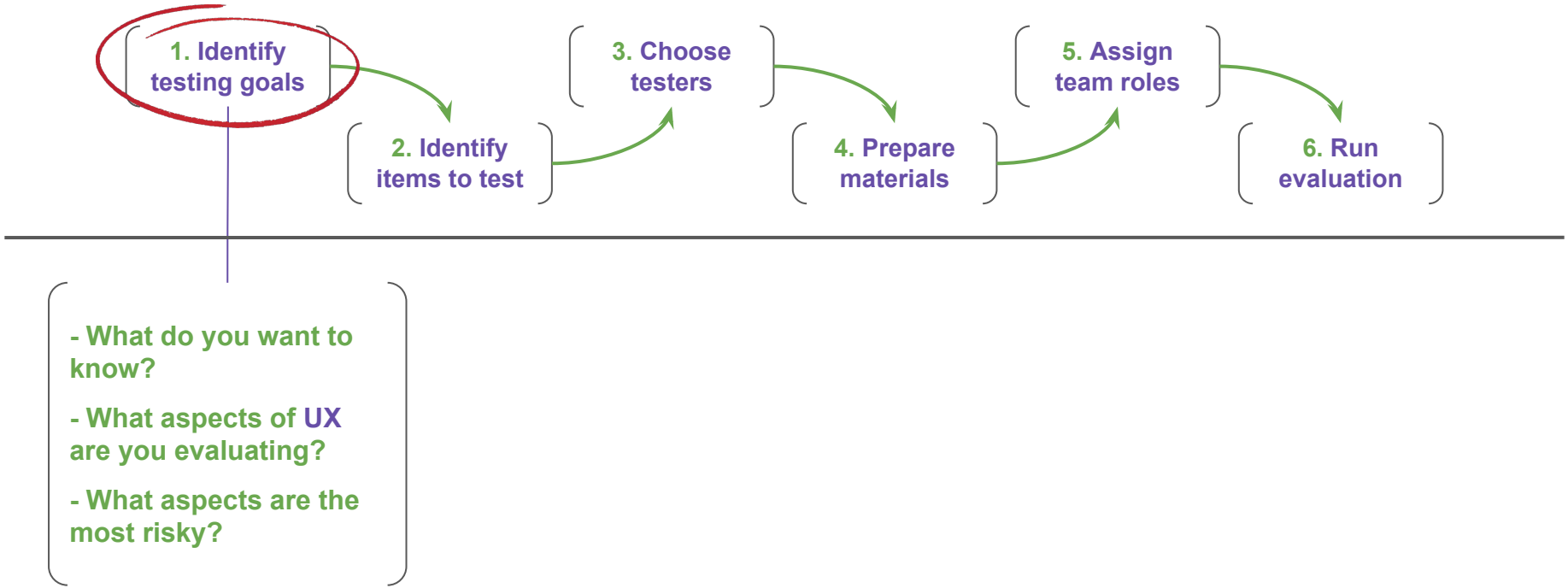
Paper Prototyping Tips

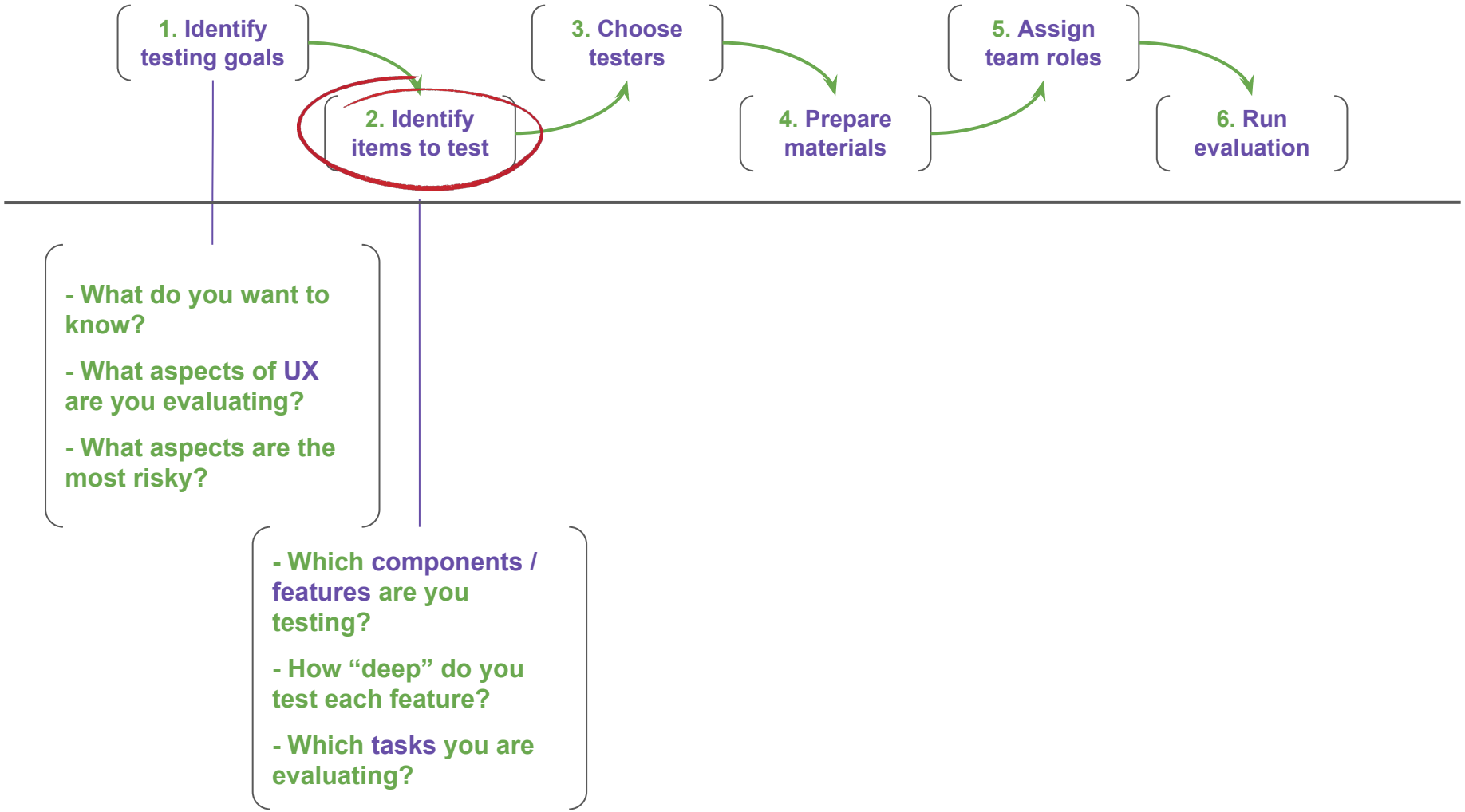
- Make it large
- Preprint widgets
- Work fast!
- Add ideas as they come
- Use audio description
- Make it monochrome
- One sketch per screen

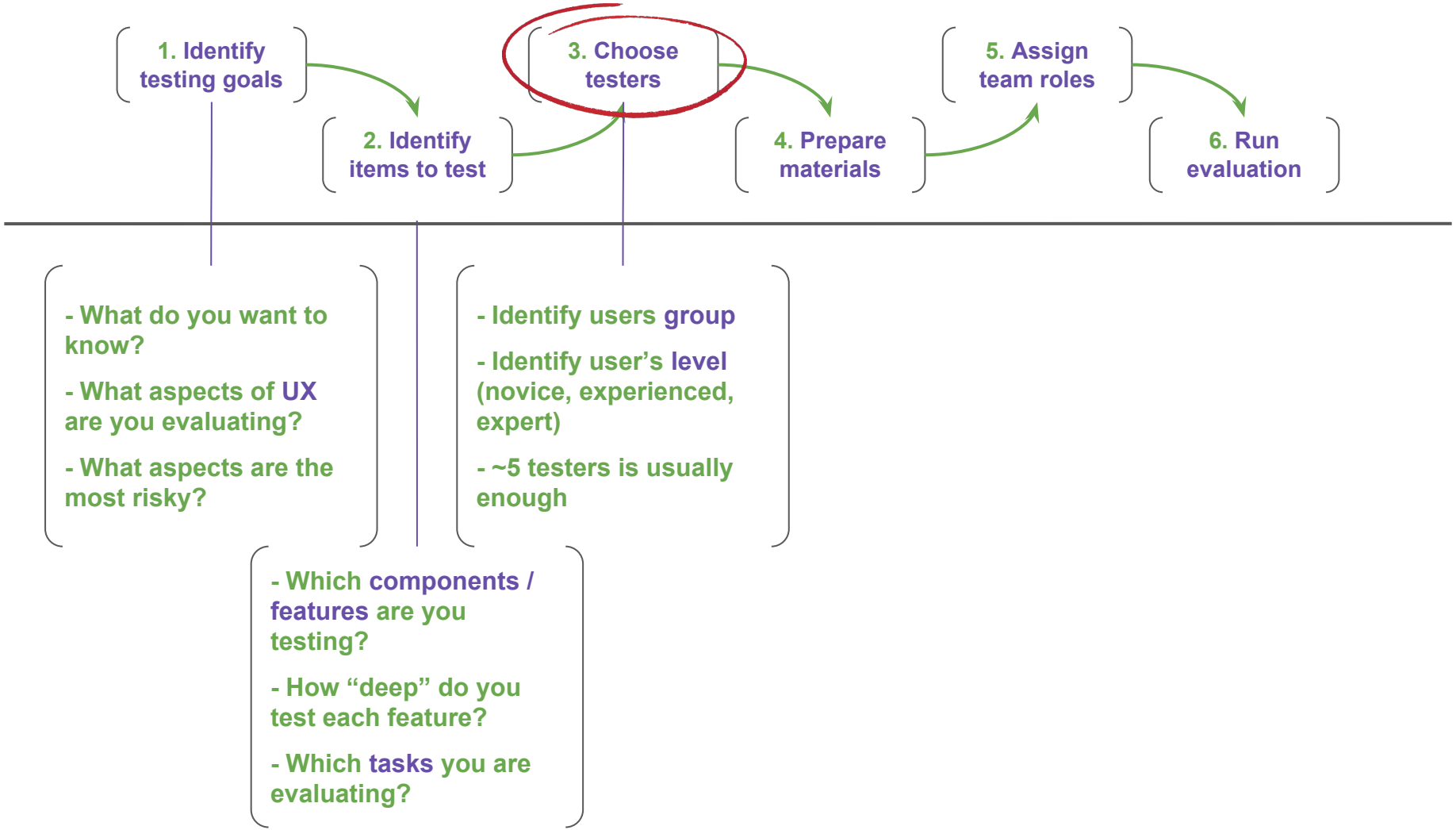
Prototype Design

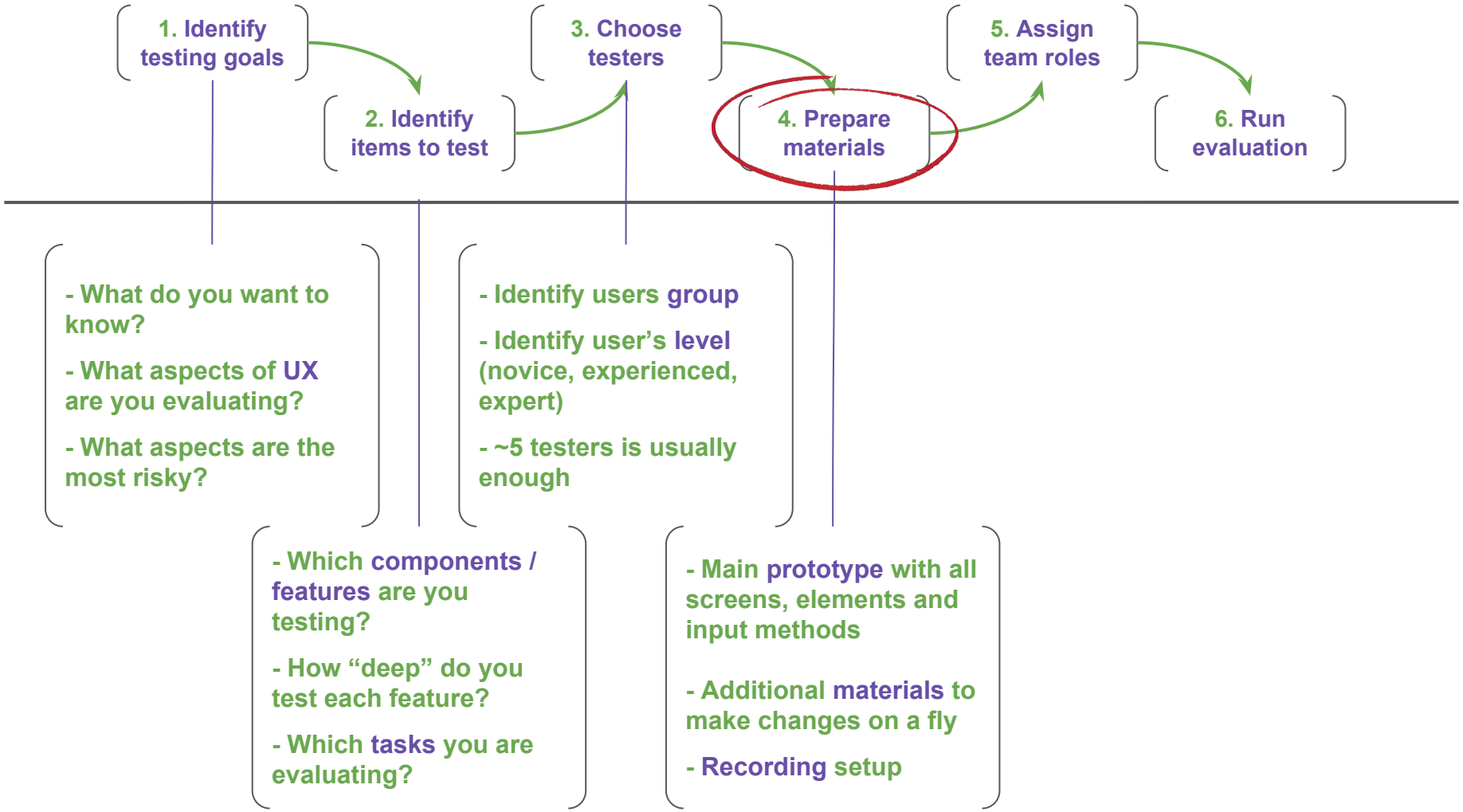
Paper Prototyping Evaluation

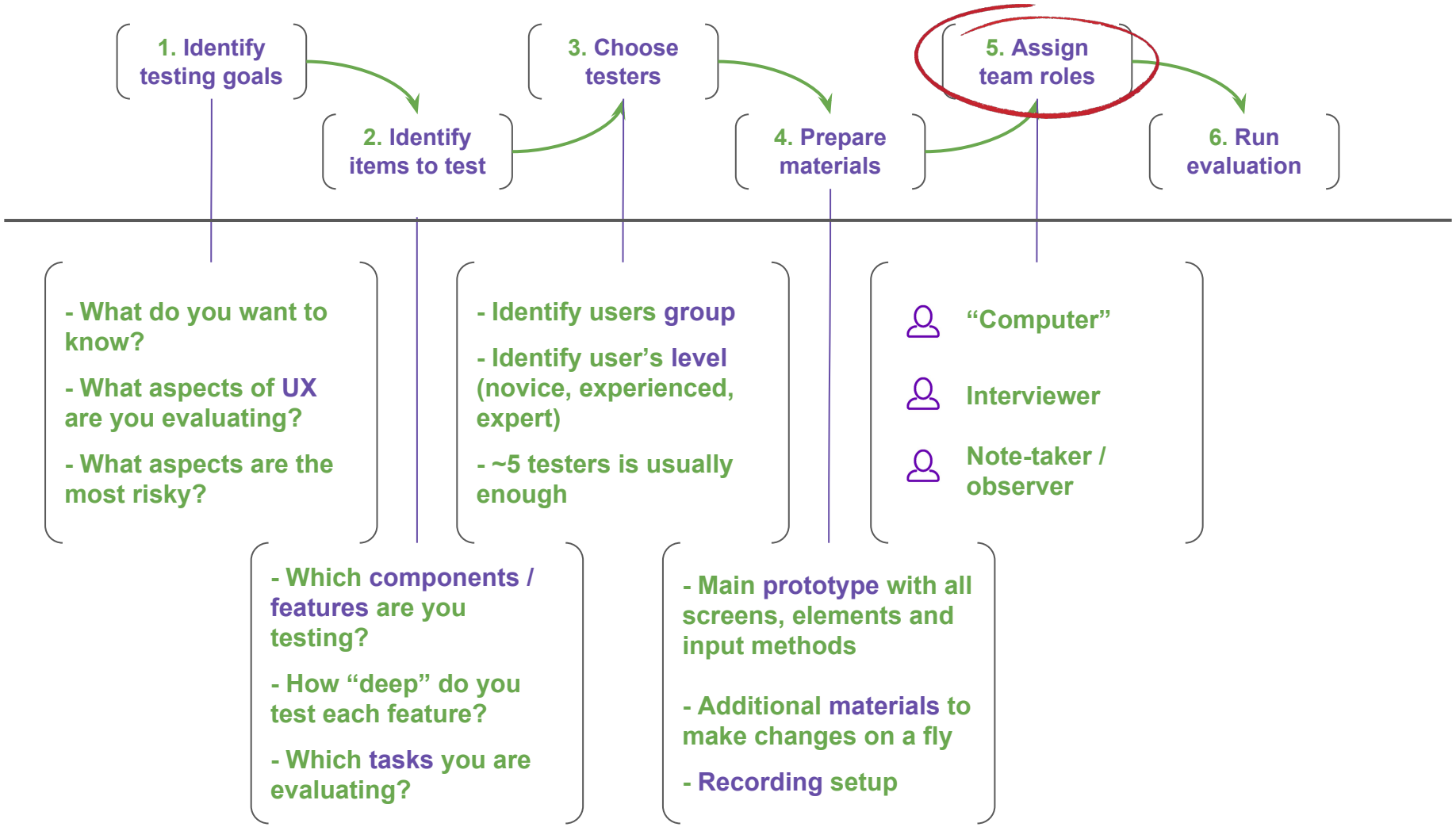
1. Identify testing goals
2. Identify items to test
3. Choose testers
4. Prepare materials
5. Assign team roles
6. Run evaluation


1. Identify testing goals
2. Identify items to test
3. Choose testers
4. Prepare materials
5. Assign team roles
6. Run evaluation
- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?


1. Identify testing goals
2. Identify items to test
3. Choose testers
4. Prepare materials
5. Assign team roles
6. Run evaluation
- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?
- Which components / features are you testing?
- How “deep” do you test each feature?
- Which tasks you are evaluating?


1. Identify testing goals
2. Identify items to test
3. Choose testers
4. Prepare materials
5. Assign team roles
6. Run evaluation
- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?
- Which components / features are you testing?
- How “deep” do you test each feature?
- Which tasks you are evaluating?
- Identify users group
- Identify user’s level (novice, experienced, expert)
- ~5 testers is usually enough


1. Identify testing goals
2. Identify items to test
3. Choose testers
4. Prepare materials
5. Assign team roles
6. Run evaluation
- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?
- Which components / features are you testing?
- How “deep” do you test each feature?
- Which tasks you are evaluating?
- Identify users group
- Identify user’s level (novice, experienced, expert)
- ~5 testers is usually enough
- Main prototype with all screens, elements and input methods
- Additional materials to make changes on a fly
- Recording setup


1. Identify testing goals
2. Identify items to test
3. Choose testers
4. Prepare materials
5. Assign team roles
6. Run evaluation
- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?
- Which components / features are you testing?
- How “deep” do you test each feature?
- Which tasks you are evaluating?
- Identify users group
- Identify user’s level (novice, experienced, expert)
- ~5 testers is usually enough
- Main prototype with all screens, elements and input methods
- Additional materials to make changes on a fly
- Recording setup
“Computer”
Interviewer
Note-taker / observer

Prototype Design

Low-fidelity prototype ← The Wizard of Oz technique - a human simulates the responses of the system → High-fidelity prototype

John F. (“Jeff”) Kelley

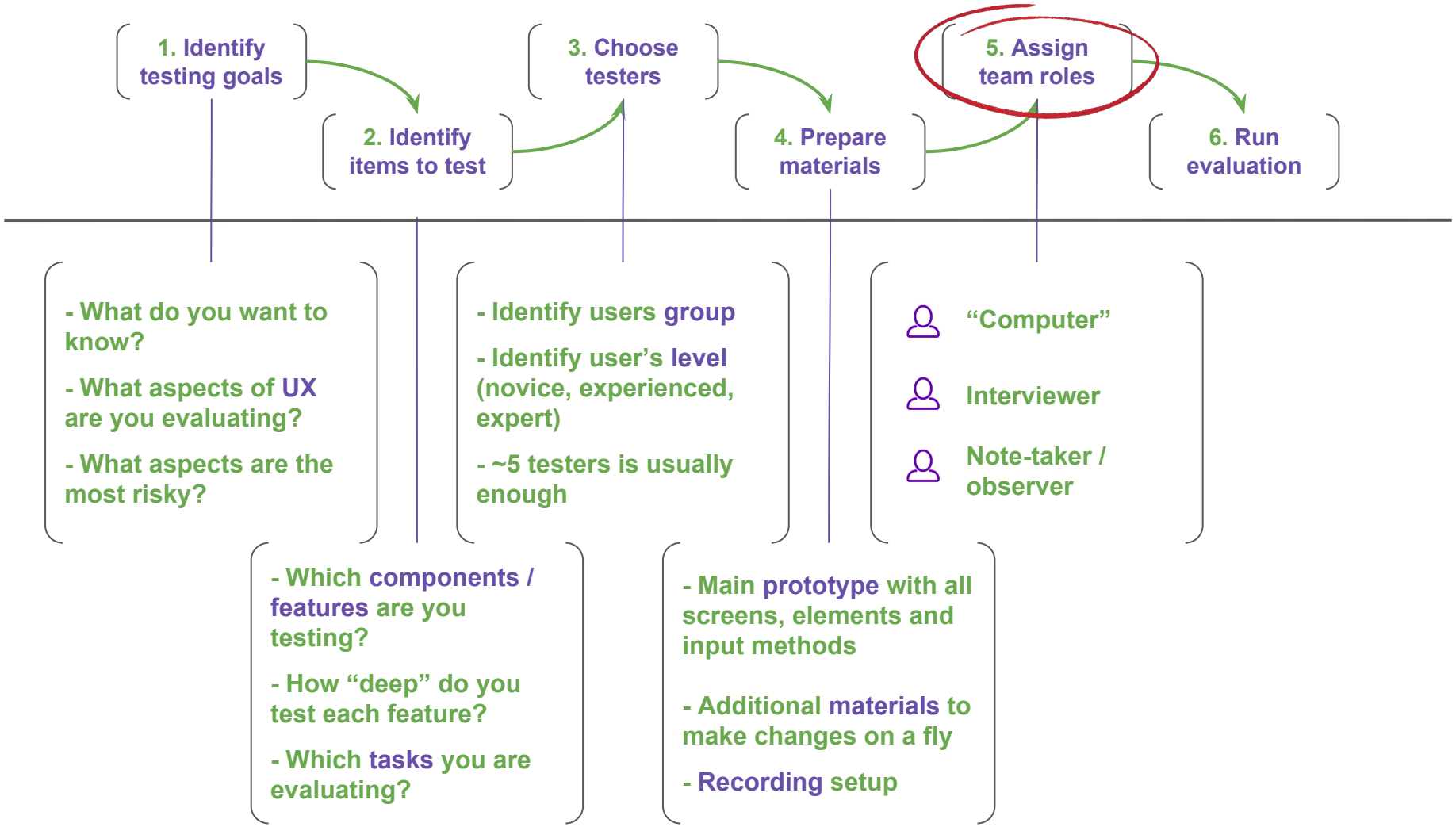
OZ = Offline Zero

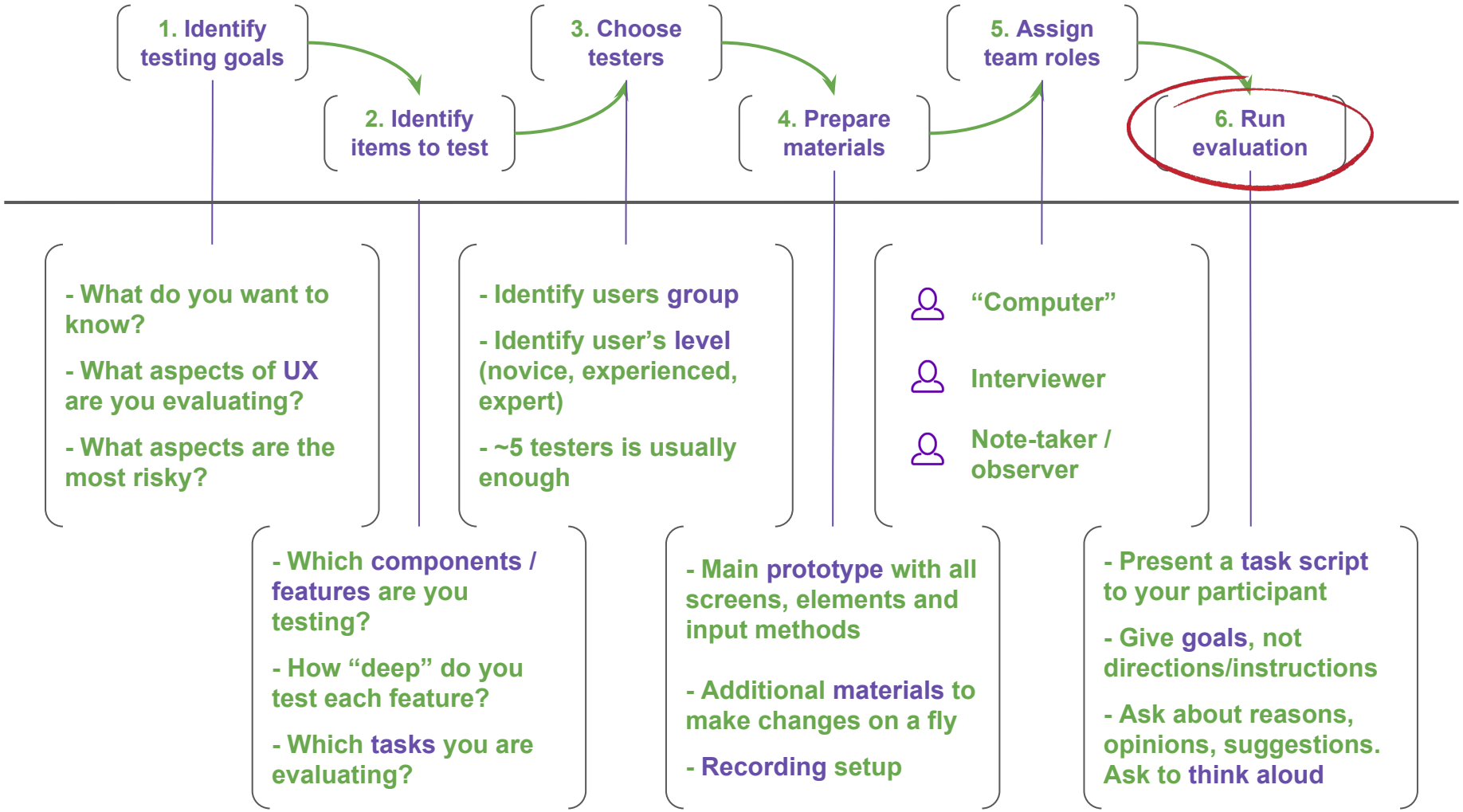
You need:

- Detailed test plan with test scenarios
- Script of instructions for the facilitator, wizard, participants
- Procedure for the wizard to properly respond to input from a participant
- The “wizard”

Kelley, J. F. (1984).

An iterative design methodology for user-friendly natural-language office information applications.


1. Identify testing goals
2. Identify items to test
3. Choose testers
4. Prepare materials
5. Assign team roles
6. Run evaluation
- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?
- Which components / features are you testing?
- How “deep” do you test each feature?
- Which tasks you are evaluating?
- Identify users group
- Identify user’s level (novice, experienced, expert)
- ~5 testers is usually enough
- Main prototype with all screens, elements and input methods
- Additional materials to make changes on a fly
- Recording setup
“Computer”
Interviewer
Note-taker / observer


1. Identify testing goals
2. Identify items to test
3. Choose testers
4. Prepare materials
5. Assign team roles
6. Run evaluation
- What do you want to know?
- What aspects of UX are you evaluating?
- What aspects are the most risky?
- Which components / features are you testing?
- How “deep” do you test each feature?
- Which tasks you are evaluating?
- Identify users group
- Identify user’s level (novice, experienced, expert)
- ~5 testers is usually enough
- Main prototype with all screens, elements and input methods
- Additional materials to make changes on a fly
- Recording setup
“Computer”
Interviewer
Note-taker / observer
- Present a task script to your participant
- Give goals, not directions/instructions
- Ask about reasons, opinions, suggestions. Ask to think aloud

Week 5 take-away

- Differences between static visualization tools and prototypes
- Information architecture: what is it about and why UX is concerned with it
- Knowledge organisation classification approaches:
  - taxonomy
  - folksonomy
  - domain analytics
- Dimensions of fidelity: breadth, depth, appearance and input
- Low-fidelity (paper) prototypes:
  - Characteristics and purposes
  - How to make
  - How to evaluate (6 steps)
- Wizard of Oz technique