

## More detailed guidelines from the Living Lab Methodology Book



### Prototype Evaluation

#### Cycle 2, Phase 3

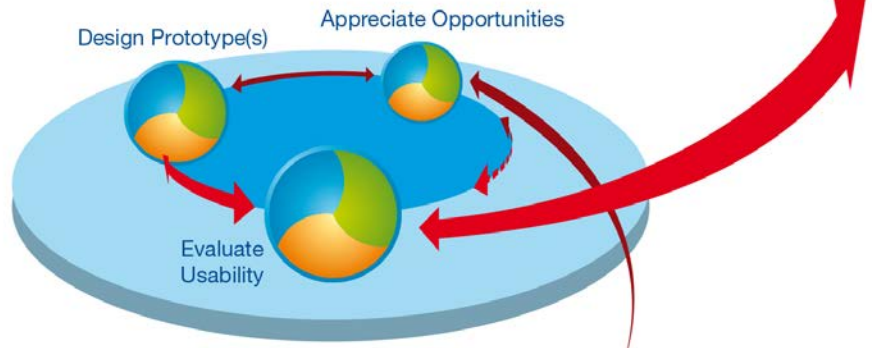
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## Checklist for Prototype Evaluation – Usability Evaluation

In this phase, the focus is to encourage users to express their thoughts and attitudes towards the design being developed from the basis of the needs in the developed system. Users want systems that are easy to learn, effective, efficient, safe and satisfying, .i.e. the systems usability And to achieve this, the system needs to be evaluated with users.

### PROTOTYPE DESIGN



During this process it is important to keep the five key principles in mind and to consider how, for example, **value** can be created for the users, how the users can **influence** the process, how **sustainability** take form, how openness should take form, and how the process should be designed to capture as **realistic** situation as possible in this phase.

Issues that need to be clarified among project stakeholders in this phase are listed below:

- What is the purpose of the evaluation? (Navigation issues, user satisfaction, graphical design, efficiency, utility, etc?)

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- What kind of data is aimed for?
  - Qualitative, quantitative
  - Subjective, objective
- Which evaluation method should be used?

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- Who is the typical user?

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- What are typical tasks the users will do with this system?

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- Create questions or other preconditions for the evaluation focusing on **what should be**. At this stage – develop questions **on the basis** of the users identified needs, requirements and values in the system (for example, How long does it take for the user to upload a document in the system?). Typical usability measures are (Wixon & Wilson, 1997):
    - Time to complete a task
    - Time to complete a task after being away from the system for a specified time
    - Number of errors/task
    - Number of errors/unit of time
    - Number of navigations to online help or manuals
    - Number of users doing a particular error
    - Number of users completing a task successfully
  - Define the number of users (5-12 is usually enough) and selection criteria such as age, gender, occupation, and so forth

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- What technical equipment does the usability evaluation require?

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- What competencies are important to involve in the process? Aim to have competencies of complementary technical as well as social character.

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- Are there any ethical considerations that need to be handled?
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- What resources are needed to start the evaluation?

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- Which important time-frames needs to be handled?

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- Where can the evaluation take place?

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- **Carry out the evaluation**

The analysis of the data from the evaluation should emphasis **what went wrong** as well as **what needs to (or must) be changed and modified** in the next iteration.

Present the findings from the evaluation in an evaluation report including users comments, design suggestions.

