Overview
- Cognitive Walkthrough
- Heuristic Evaluation
- Usability testing
- Performing Cognitive Walkthrough
- Cognitive Walkthrough principles and steps
- Performing a Heuristic Evaluation
- Heuristic Evaluation principles
- Performing usability tests
- Appropriate methods

Cognitive Walkthrough
Cognitive Walkthrough is a method for evaluating user interface by analyzing the mental processes required by users.

Performing a Cognitive Walkthrough
- Choose a specific task from the suite of tasks the interface is intended to support.
- Determine one or more correct sequences of actions for that task.
- Examine these sequences in the context provided by the interface.
- Assess whether a hypothetical user would be able to select an appropriate action at each point.

Key Features of the Cognitive Walkthrough
- Performed by an analyst and reflects the analyst judgments.
- Examines specific user tasks.
- Analyzes correct sequence of actions, and if they will be followed by users.
- Identifies likely trouble spots in an interface and suggests possible reasons.
- Identifies problems by tracing the likely mental processes of a hypothetical user.

Advantages of the Cognitive Walkthrough
- Permits early evaluation of designs at the prototyping stage or without a mockup.
- Helps the designer assess how the features of their design fit together to support users’ work.
- Provides useful feedback about action sequences.
- Assists designer by providing reasons for trouble areas.
- Provides indications of the users’ mental processes, which helps build a successful interface that accommodates users.

Disadvantages of Cognitive Walkthrough
- Relies on analysis rather on user testing.
- Provides a detailed examination of a particular task rather than an overview of the interface.
Main Steps for a Cognitive Walkthrough

- Preparation
- Analysis
- Follow up

Cognitive Walkthrough Preparation

- Define assumed user background
  - General knowledge
  - Computer knowledge
  - Task knowledge
- Choose a sample task
  - Important
  - Realistic
- Specify the correct action sequence(s) for the task
- Determine the interface state along the sequence(s)

Cognitive Walkthrough Analysis

For each action answer the following questions:

- Will the user be trying to achieve the right effect?
- Will the user notice the correct action is available?
- Will the user associate the correct action with the desired effect?
- If the correct action is performed, will the user see that progress is being made?

Based on the “yes” or “no” answer:

- Explain why a user would choose that action
- Explain why a user would not choose that action

Cognitive Walkthrough Follow-up

- Suggest where the design is likely to fail and why.
- Provide specific guidance for each problem.
- Indicate which the problems may be superficial and where profound changes are needed.
- Report the designer’s view of the interface and eventual difference with the users’ view (if any).

Conclusion