

A decorative horizontal banner at the top of the slide. It features a nature scene with a white flower on the left, a brown animal in the center, and blue rocks on the right, all set against a textured, golden-brown background.

Usability Testing Methods – An Overview



Usability

- Examples of user interfaces that you like or dislike
 - Are you the only one?
 - What about other audiences?
 - Have your preferences changed over time?
 - Are there general guidelines that you feel others should follow (style guide)?



Usability Tests

- There are many tests out there and this will introduce you to several popular ones in a Nutshell!
 - Questionnaires
 - Interviews
 - Observation
 - Thinking aloud
 - Performance Measurement
 - Heuristic Evaluation



Questionnaires

- These Contain various questions that you come up with in regards to your interface
- They are easy to repeat and can find user preferences
- However, pilot work may be needed to prevent misunderstandings and it may be hard to receive all of the questionnaires back.
- Suggested number for significant results: at least 30



Interviews

- These are flexible and can be more or less in-depth depending on the person.
- However, they are time-consuming and can be hard to compare from interview-to-interview.
- Suggested number for significant results: 5



Observation

- Observation is very good in revealing how the user actually goes about performing tasks including what functions and features that they use.
- However, appointments may be hard to set up and the experimenter does not have much control as they are silently observing the user.
- Suggested number for significant results: 3 or more



Thinking Aloud

- The thinking aloud method involves observing users and asking them to 'think aloud'
- This test is good at pinpointing user misconceptions and is a cheap test.
- However, it may feel unnatural to the users that are using the product to speak out loud at the same time!
- Suggested number for significant results: 3-5



Performance Measurement

- Various things may be measured!
 - For example:
 - Could a user enter numbers into a spreadsheet?
 - Could they use the function to find the average of the numbers?
- This can provide hard results.
- However, it does not pinpoint individual usability problems.
- Suggested number for significant results: at least 10 people



Heuristic Evaluation

- This is a collection of usability guidelines to help a user to evaluate Usability!
- There are 10 'categories' in the Heuristic Evaluation



Heuristic Evaluation: Simple and Natural Dialogue

- Does the interface have a Simple and Natural Dialogue?
 - Are features easy to understand?
 - Are features easy to find?
 - Could the amount of navigation in the interface be minimized?
 - Are graphics intuitive?
 - Is the use of color appropriate?



Heuristic Evaluation: Speak the User's language

- Are terms understandable to the user?
 - Does the user know that the trash can is used to delete items?
 - Are units in the users native language?



Heuristic Evaluation: Minimize the User's Memory Load

- Does the user have to remember too much?
 - For instance: instead of:
 - Enter Date:
Use
 - Enter Date (MM-DD-YYYY):



Heuristic Evaluation: Consistency

- Do commands and actions always have the same meaning?



Heuristic Evaluation: Feedback

- Do users receive feedback when they do something in a reasonable time response?
 - Status bars indicating that a program is installing
 - Feedback that a command has been executed
 - Notice that your email has been sent



Heuristic Evaluation: Clearly Marked Exits

- Do users feel safe exiting a program without fear of losing work?



Heuristic Evaluation: Short-cuts

- Are short-cuts available for frequently performed operations?




Heuristic Evaluation: Good Error Messages

- Errors should be easy to understand and should help the user.



Heuristic Evaluation: Prevent Errors

- Are there problems that could have been prevented?
- Appropriate to have special modes?
- Could something be designed to be more intuitive?



Heuristic Evaluation: Help and Documentation

- Most users do not read manuals
 - Do they need to read one or is the interface intuitive enough?
 - Does the documentation allow users to quickly find what they were searching for?



Heuristic Evaluation

- A Heuristic Evaluation tries to come up with an opinion as to what the good and bad things in an interface are!



Usability Testing!

There are several types of usability testing, and one or more may be chosen for your particular application.

- ◆ Questionnaires
- ◆ Interviews
- ◆ Observation
- ◆ Thinking aloud
- ◆ Performance Measurement
- ◆ Heuristic Evaluation