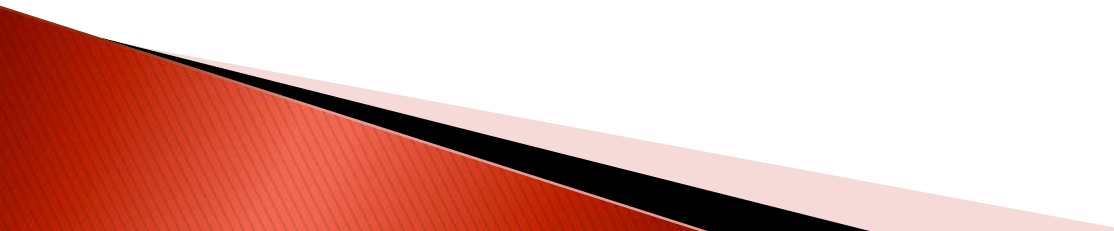# THINK ALOUD

Evaluating software with users

Basic Idea

- Ask users to perform a test task, but also ask them to talk to you while they are working on it.
- Ask them to tell you what they are thinking: what they are trying to do, questions that arise as they work, things they read.

Purpose

- Uncover issues such as:
  - Vocabulary problem
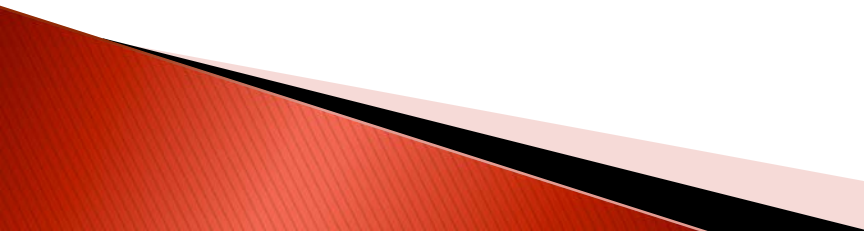 - Layout issues
  - Mismatch with user's mental model

How to

- Identify a task or suite of tasks
- Provide a mockup or a working prototype
- Record the user's comments or just take notes
- If you record the session, be sure to tell the users that their privacy will be protected
- Summarize your information by creating a list of all the difficulties users encountered.
  - For each issue, you'll need to make a judgment of how important it is and how difficult it would be to fix.
  - Consider the cost of the problem to users (in time) and what proportion of users you can expect to have similar trouble.

Tips

- Make clear that it is the system, not the user, that is being tested, so if they have trouble it's the system's problem, not theirs.
- Tell the user that you are not interested in their secret thoughts, but only what they are thinking about their task.
- You should prompt the user to keep up the flow of comments, and provide help when necessary (but work out a policy for this that avoids distorting your results). Your prompts should be general, such as "Tell me what you are thinking" or "Keep talking." Bad choices might be "What do you think these prompts about xxx mean?" or "Why did you do that?"

Tips

- You are better off collecting the comments that people offer spontaneously than in prodding them to tell you about things you are interested in (avoids bias, research shows that people will make up an answer to any question you ask, whether or not they have any basis for the answer).
- You may also want to tell users that you want them to tell you the questions that arise as they work, but that you won't answer them (at least not at that point in time).

Tips

- This is NOT an interview – the goal is not to ask about other features etc. but to see how effectively users can accomplish the specified tasks. After a task is complete, however, you may want to ask a few additional questions, to get more feedback about your design.