

Step 10: Iterative Conceptual Model Evaluation

Purpose of this step:

The purpose of this step is get some quick and early feedback on the usability of the Conceptual Model Design mock-ups generated in steps 8 and 9.

Overview:

- Iterative design and evaluation can be efficiently and effectively conducted before a major investment or commitment has been made.
- Decide whether an evaluation will focus on ease of learning or ease of use.
- Three to ten representative users should run through a set of core, high-frequency, realistic test tasks.
- Testing should be conducted in the users' actual work space.
- Error data should be collected and users should be asked to "think out loud" as they work.
- Summarize error data and observations to identify problem areas.

Practical application of these principles to your site:

- 1) **Decide on ease of learning/ease of use focus for the test:** Use user profiles and usability goals to determine the focus.
- 2) **Decide on user and task focus for the test:** Identify the type and range of users to be included in the test. You may decide to focus on high-priority users. Identify the general types of tasks to focus on.
- 3) **Design test tasks:** Write task descriptions in a format that can be handed directly to test users, read, and easily understood. Make tasks as realistic as possible. Try to not exceed two hours total time.
- 4) **Design the test and develop test materials:** Plan the exact sequence of events for the test.

- 5) **Design and assemble the test environment.** Set up a test area that resembles the typical user's real work area as much as possible. If the product will be used in an unusual work environment (e.g., police stations, hospital operating rooms), testing should be carried out in the actual work environment.
- 6) **Recruit/schedule pilot test users:** Make sure the pilot users are representative of the actual target user population.
- 7) **Run pilot test:** Run the pilot users through test procedures as a way to test the test procedure. Observe the materials and procedures that need to change.
- 8) **Revise test procedures and materials:** Make needed changes as a result of step 7.
- 9) **Recruit/schedule test users:** Consult with the business customer to find test users.
- 10) **Conducting the Tests:**
 - a. **Run the test and collect data:** Run the test users through the testing procedure as planned, videotaping if possible. Collect data as you observe the testers.
 - b. **Summarize data:** Collate and summarize test data, such as errors per task, types of errors per task. Also collect user comments about the testing and errors encountered.
 - c. **Analyze/interpret data:** Focus on areas where problems are indicated, such as high frequency errors.
 - d. **Draw conclusions/formulate recommended design changes:** Draw conclusions about the specific sources of problems and make recommendations about how to change the design to eliminate the problems.
 - e. **Document/present results:** Document the results in a report, or presentation.

Examples: See examples of this step in the "Examples" folder.