

Quiz # 3
May 21st 2010
BESE 14 B

- 1. The Design team has submitted you an interface and you want to check whether adding 'ToolTipText' to icons will improve the accuracy. You decide to carry out empirical evaluation. What would be the dependent and independent variables? What hypothesis do you suggest? How would you carry out the experiment?**

DV: 'ToolTipText' (Present or not present)

IV: Accuracy/No. of errors

Hypothesis: Adding ToolTipText to the interface will improve the accuracy of the system.

Experiment: The system will be developed with two interfaces, one having ToolTipText and one without it. A set of participants will be asked to perform certain tasks using the icons and the number of errors will be recorded. For experimental design with-in subjects or between-subjects method could be used. Based on the results obtained, the hypothesis will be validated/disproved.

- 2. What is the difference between Think Aloud and Cooperative Evaluation?**

Both of these are observational methods of evaluation. In Think Aloud the evaluator only observes the user and plays a passive role. In Cooperative evaluation the evaluator may interrupt the user and ask questions (Why?, What if? etc.) thus playing a more active role.

- 3. How Fixations and Saccades help in evaluating the usability of an interface?**

Number and duration of fixations indicate level of difficulty with display. Rapid eye movements from one point of interest to another (saccades) indicate that the user is having difficulty in locating the relevant information.

- 4. Give advantages and disadvantages of Lab and Field studies.**

In lab studies, specialized equipment can be made available (audio visual recording etc.) and the experiment is conducted in an uninterrupted and controlled environment. These studies however lack context and it is difficult to observe the users cooperating with one another.

In field studies, we have the natural environment and the evaluator might observe interactions between system and individual that may be missed in a lab study. Longitudinal studies are also possible in the field. On the other hand the experiment is not controlled and could be distracted by phones, visitors, noise etc.