

Evaluation techniques

Assessment Task Number 10

1) Design an experiment to test whether adding color coding to an interface will improve accuracy. Identify your hypothesis, participant group, dependent and independent variables, experimental design, task and analysis approach.

2) **Choose an appropriate evaluation method for each of the following situations. In each case identify:**

the participants

(ii) the technique used

(iii) representative tasks to be examined

(iv) measurements that would be appropriate

(v) an outline plan for carrying out the evaluation.

(a) You are at an early stage in the design of a spreadsheet package and you wish to test what type of icons will be easiest to learn.

(b) You have a prototype for a theatre booking system to be used by potential theatre-goers to reduce queues at the box office.

(c) You have designed and implemented a new game system and want to evaluate it before release.

(d) You have developed a group decision support system for a solicitor's office.

(e) You have been asked to develop a system to store and manage student exam results and would like to test two different designs prior to implementation or prototyping.

ANSWER

2. Spreadsheet package

(i) The participants - secretaries, academics, students, accountants, home users, schoolchildren

(ii) Technique Use - Heuristic evaluation

(iii) Representative tasks to be examine - Sorting data, printing spreadsheet, formatting cells, adding functions, producing graphs

(iv) Measurements that would be appropriate- Speed of recognition, accuracy of recognition, user-perceived clarity

(v) Outline plan for Carrying out the evaluation- Test the subjects with examples of each icon in various styles, noting responses.

Theatre booking system

(i) The participants -goers, the general public

(ii) Technique use - Think aloud

(iii) Representative tasks to be examine- Finding next available tickets for a show, selecting seats, changing seats, changing date of booking

(iv) Measurements that would be appropriate - Qualitative measures of users' comfort

with system, measures of cognitive complexity, quantitative measures of time taken to perform task, errors made

(v) Outline plan for Carrying out the evaluation - Present users with prototype system and tasks, record their observations whilst carrying out the tasks and refine results into categories identified in (iv).

New game system

(i) The Participants - game's target audience: age, sex, typical profile should be determined for the game in advance and the test users should be selected from this population, plus a few from outside to see if it has wider appeal

(ii) Technique use- Think aloud

(iii) Representative tasks to be examine- Whatever gameplay tasks there are - character movement, problem solving, etc.

(iv) Measurements that would be appropriate - Speed of response, scores achieved, extent of game mastered.

(v) Outline plan for Carrying out the evaluation - Allow subjects to play game and talk as they do so. Collect qualitative and quantitative evidence, follow up with questionnaire to assess satisfaction with gaming experience, etc.

Group decision support system

(i) The participants - Solicitors, legal assistants, possibly clients

(ii) Technique use - Cognitive walkthrough

(iii) Representative tasks to be examine- Anything requiring shared decision making: compensation claims, plea bargaining, complex issues with a diverse range of expertise needed.

(iv) Measurements that would be appropriate - Accuracy of information presented and accessible, veracity of audit trail of discussion, screen clutter and confusion, confusion owing to turn-taking protocols

(v) Outline plan for Carrying out the evaluation - Evaluate by having experts walk through the system performing tasks, commenting as necessary.

Exam result management

(i) The participants - Exams officer, secretaries, academics

(ii) Technique use - Think aloud, questionnaires

(iii) Representative tasks to be examine- Storing marks, altering marks, deleting marks, collating information, security protection

(iv) Measurements that would be appropriate - Ease of use, levels of security and error correction provided, accuracy of user

(v) Outline plan for Carrying out the evaluation - Users perform tasks set, with running verbal commentary on immediate thoughts and considered views gained by questionnaire at end.