

Name: _____

HCI 460: Usability Evaluation Methods
Midterm Quiz with Answers to Part I
Spring 2015
Due Sunday May 10 before 11:30 PM

This is a take-home quiz. It should be submitted using the D2L Website. A rubric has been provided with the dropbox.

Instructions for Part I: Initially answer questions without the benefit of the book or notes. Then correct your answers using provided solutions and explain any discrepancies. You will not be penalized for having any initially incorrect questions provided that they are corrected with explanations. Even correct answers should have additional comments and explanations. Your score for Part I will be based on the quality of your comments. Use a different font or color when correcting answers or adding comments so that they are easily distinguished from the initial answers. Finally, use the provided answers to obtain an estimated score (your calculated score is for your own assessment and will not be used for scoring the quiz).

Part II can be completed with notes and the book, but it must be completed individually. No correct answers will be provided for this part.

Part I -- 15 points

Multiple choice (1 point each). Circle the **best** answer.

1. Post-test questionnaires (conducted after a usability test) are particularly useful for measuring
 - a) safety.
 - b) efficiency.
 - c) learnability.
 - d) user satisfaction.**
2. A pluralistic walkthrough
 - a) is usually conducted at the end of the development process.
 - b) is often conducted with low-fidelity designs.**
 - c) requires having several alternate designs.
 - d) requires a fully functional prototype.
3. Providing accelerators (e.g. keyboard shortcuts) mostly addresses
 - a) utility.
 - b) efficiency.**
 - c) learnability.
 - d) user satisfaction.

4. A method that does not require human participants serving as test users is the
- usability test.
 - pluralistic walkthrough.
 - Rubin and Chisnel's comparison test.
 - heuristic evaluation.**
5. The cognitive walkthrough mainly evaluates a product's
- utility.
 - efficiency.
 - learnability.**
 - likeability..

Short answer questions.

6. Provide one reason why Rick Spencer thinks discussing possible solutions while conducting a cognitive walkthrough is not an effective use of time. (2 points)

Possible answers (any one is fine):

- Problems can be prioritized after all have been identified. (best)
- It's possible that multiple problems could be solved with one solution.

Note: simply saying that this wastes time isn't adequate since it doesn't explain why the time is wasted.

7. Present **two** reasons why scripting the test monitor's greeting and instructions is a good idea. (2 points)

Choose any of the two below:

- Provides an accurate record of the instructions that were given to participants.
- Ensures consistency (alternatively phrased, makes sure nothing is left out).
- Allows for team deliberation of scripted instructions (alternatively phrased, moderator doesn't need to spontaneously produce instructions)

8. Present **one** advantage to using a pluralistic walkthrough instead of a cognitive walkthrough. (2 points)

Choose any one:

- Incorporates expertise of developers in the evaluation.
- Developers experience user's point of view (gain empathy).
- Allows deliberation among users, usability experts and developers.

9. Your team of usability experts wants to quickly identify potential usability problems **throughout** a Web site. Unfortunately, you have no time to recruit and use human participants. Which evaluation method do you use? Why? (2 points)

Heuristic evaluation is an expert inspection method that does not require test participants. Unlike the cognitive walkthrough, it is not task-specific and provides a broad examination of the system based on a (nearly) comprehensive set of guidelines.

10. Describe **one** circumstance when the actions for the cognitive walkthrough should be constructed and analyzed at the micro-level (e.g. mouse-clicks and keystrokes). (2 points)

Choose one:

- The task involves a new control that the users are not familiar with.
- The users are novices and are not familiar with the controls required by the application.

Part II – 15 points (5 points each question)

These questions pertain to the Chicago Park District program finder, which can be accessed with the following URL:

<http://tinyurl.com/l8c3ncd>

To answer these questions, you may use notes, texts and other resources as you find them useful. Correct answers will not be provided for this part.

When answers questions, you may assume the following about the users and the context of use:

Users:

- Can successfully identify and use standard web controls including text fields, buttons, checkboxes and drop-down menus.
- Use web-based online stores to purchase items at least 5 times within the last year.
- Have used forms to find content in a web application.
- Do not have previous experience with this program finder.

Context of use: user would like to find sports (e.g. tennis) lessons at an appropriate level and at a convenient time and location.

1. Using analysis based upon a heuristic evaluation **or** a cognitive walkthrough, identify **one** potential usability problem. Explain the problem in terms of your analysis. (1 – 2 paragraphs)
2. Develop and present a **research question** that could be addressed by asking users to complete a task in a usability test.
3. Consider a task that would address your research question. Write the task instructions that could be given to a test user to see how he or she completes the task.