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HCI Quiz 2

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1. What is a "metaphor" in an interface? Please explain and give an example.

-5 A part of an interface that is familiar to the user.

2. What useful information can be gathered from an eye-tracking study?

✓ Where the user looks the most within a screen. This can be used to strategically place important information or controls in those areas.

3. Describe Fitts' Law (no equation necessary):

-5 Tracks how long it takes a user to do certain tasks on a computer, like click a mouse or hover the pointer to another position on the screen.
based on distance and size of the target

4. Name three ways to grab the user's attention in an interface:

Video

✓ blinking

sound

5. What impact do performance times have on UI design? In other words, why do we care that it takes 200ms to click a mouse and 400ms to switch between mouse and keyboard?

✓ While small, users continuously perform those mental tasks and the less time you can save per action, the overall time that it saved in the long run.

6. Describe the Gestalt psychology theory:

✓ The human mind tends to order things naturally to help make better sense of the world, such as shapes, sizes, and colors.

7. Approximately how many pieces of information can be held in short-term memory? 7 ± 2

8. Name two groups of people for whom reading ease grade level should be as low as possible, as long as the meaning of the text is retained.

a. children

b. non-native English readers.

9. Circle the appropriate choices. To reduce reading grade level (by Flesch-Kincaid and Fry calculations):

Syllables per word should be

few / many / doesn't matter

Letters per word should be

few / many / doesn't matter

Paragraphs should be

short / long / doesn't matter

Sentences should be

short / long / doesn't matter

10. The information visualization mantra is (1) overview first, (2) zoom and (3) filter, and (4) details on demand. Label each on the Google Calendar below.

The screenshot shows the Google Calendar interface. A box labeled '4' points to the 'Edit event details' link for a 'Database' event. A box labeled '2' points to the 'Print' and 'Refresh' buttons. A box labeled '1' points to the 'Day' button in the view selector. A box labeled '3' points to the 'Display only this Calendar' checkbox in the 'My calendars' list.

Bonus: Name a UI case in which Fitts' Law is "broken", or does not apply

iPad/iPhone: Fitts' Law does not take into account touch interfaces.
broader than just mice, so it does apply here
w/ different constants