

Requirements for end-of-section review screen

Description

Problem

We need a way to encourage students to answer *all* the test questions. If there's a high rate of omitted responses, test reliability goes down, or we have to increase the sample size to obtain a similar level of reliability. Some kind of reminder feature is needed.

Design requirements

- Students aren't required to answer questions, so we can't add a feature which forces them to complete every item.
- The reminder feature should be lightweight—i.e., it should require little or no instruction to use, and using it shouldn't take up more assessment time than absolutely necessary.
- The reminder feature should be seamlessly integrated into the navigation scheme. For example, it should be easy to move from the reminder screen back to an unanswered item. It should be easy to find the reminder screen again once all questions have been answered. And, it should be clear how, when, and why the student is (or isn't) allowed to move on to the next section.
- Students may or may not be allowed to move on to the next section as soon as they're ready. Previous designs required students to spend the full allotted section time (25 mins) before they were allowed to move to the next section. Our new test design may allow students to move on as soon as they are ready, or it may retain the old rules, or, potentially, a mixture of both.

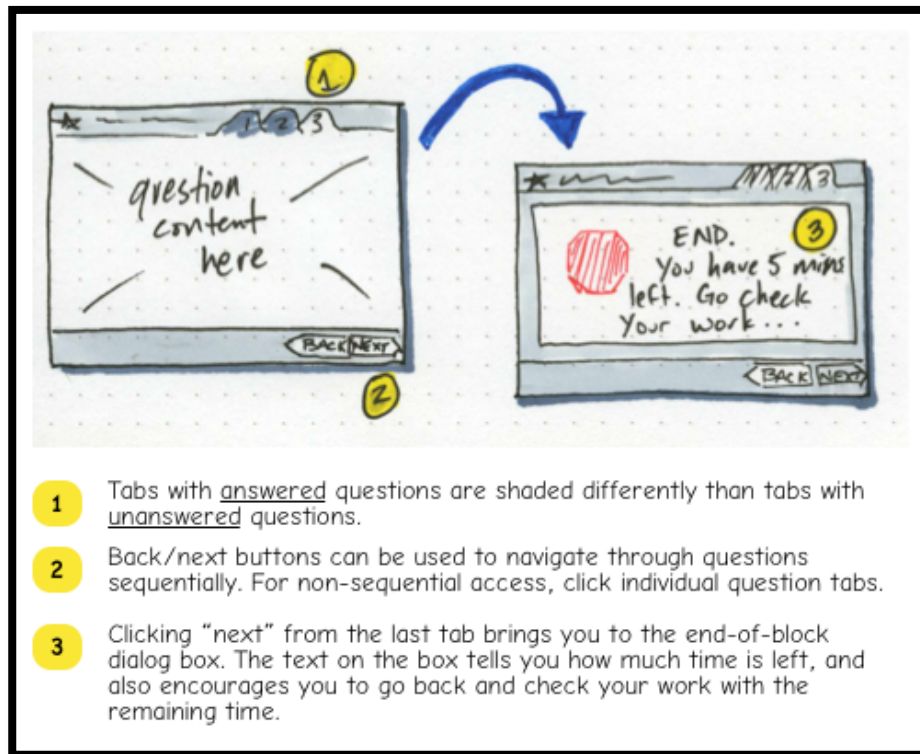
What we know (or suspect) about users

- Skipping questions is a common test-taking strategy.
- It's hard to tell, after the fact, what portion of items are intentionally omitted and what portion are accidentally omitted (the student forgot to return to a difficult question that they initially skipped).
- Some new features of computer-delivered tests may make it easier to accidentally forget to answer a question. Small screen size may make some response areas easy-to-miss if they fall below the fold and the student doesn't scroll. And, it's possible that some students may think they have responded to a question by using the annotation/scratchwork feature.
- Anecdotal information from usability testing conducted so far suggests that students do understand the shading scheme that indicates which items have been answered and which haven't. However, recognizing the meaning of tab

shading doesn't necessarily mean you've remembered to check tabs before ending your work on the section (it's possible to understand the shading and still forget to answer a question).

Historical context

Here's a quick sketch of the navigation & section-end dialog box features of the old CBA assessment system.



This design has a minor UX problem, in that the "next" button sometimes means "go to the next question" and sometimes means "exit this section, I'm finished answering all the questions." This isn't that big a deal when the student is trapped in the section until the allotted time is up. However, it's not so good when the student has the option of leaving the section, since the interface doesn't make it readily apparent how to do that or what the consequences will be. And, it's not readily apparent how to move between unanswered items and the end-of-section dialog, which means that the dialog isn't a great place to stick reminder information.

Proposed design

- Instead of a section-end dialog box, create a section-end screen on the last tab of the section (as though it were an additional item)

- Use the space to include a written reminder that some items may be unanswered.
- All navigation functions work on the section-end reminder screen as though it were a regular item like any other.

See appended wireframe for additional details.