SHAUN KELLY|UX
Formal Usability Test Plan and Results

RFP Responder Formal Usability Test Plan

The RFP Responder application is close to completion of the minimum viable product. The application has been updated based on the results of the initial usability testing and a number of additional features have been implemented. The purposes of this test are:

- To verify that the changes made based on the initial testing have resulted in improved usability.
- To test that the new features that have been implemented meet usability standards.
- To uncover any major usability issues before the final release of the application.

Overall objectives for the study

We will gather data about the overall effectiveness of the RFP Responder application. The goals of this study are to:

- Assess the overall effectiveness of RFP Responder users in completing the main application tasks.
- Assess the results of updates made based on initial usability testing.
- Assess users' impression of the overall usability of the application.

Research questions

In addition, in this study will try to answer these questions:

- How easily do users add snippets of text?
- How easily do users add new projects?
- How easily do users add snippets to projects to projects and organize the table of contents?
- What language do users use to describe the key concepts of the application?

The focus of the test will be to collect qualitative data:

- The verbal protocol – the running commentary that participants make as they think aloud – will give us indicators about what participants were confused by and why.

I will also collect quantitative data:

- Errors in completing each task
- Impression of the usability of the application via the Systems Usability Scale (SUS)

Location and setup

The application will be loaded for testing in the following location:

> rfp.superawesomegood.com

Participants will be given the opportunity to complete the test in person or remotely. For participants completing the test in person, we will complete the test in Chrome.

For participants completing the test remotely, we will use the following:

- We will connect audio using Skype.
- We will use Skype or join.me for desktop sharing.

All tests will be recorded using Screen Record Pro on a Macintosh.

Participants will complete the SUS using Google Forms.

I will set up a database containing the information needed for the tests and additional data to give an idea of what the application will look like. The database will be reloaded with the default testing information before each test.

Recruiting participants

For the formal round of usability testing, we recruited 6 participants with related technical documentation experience from coworkers and former coworkers.

Methodology

The formal round of testing will be validation testing. We are testing the application as it approaches completion of minimum viable product. There is a single testing path, so we will use a within-subjects design.

The testing session will last approximately 25-35 minutes, including <5 minutes for test introduction, 15-20 minutes for testing, and 5-10 minutes for debriefing.

Introduction to the session (<5 minutes)

Discuss:

- The purpose of the product
- The purpose of the test; testing the product, not the user
- Thinking aloud.

Tasks (15-20 minutes)

You have been using RFP Responder to create proposals in response to RFPs. You just received a new RFP and need to create a new proposal. You are now ready to use RFP Responder to complete the new proposal.

Your proposal must use the following outline:

- Overview
    - Super Awesome Good Corporation
        - Our Team
    - History
- Products
    - Z820
    - Z820X
    - Z4700
- Pricing Options
- Support
    - Warranty

Task 1: Access RFP Responder so you can create your proposal.

URL: rfp.superawesomegood.com

Login Information:

Email: test@superawesomegood.com

Password: testtest123

Task 2: Determine whether all of the topics in the required outline have information already stored in RFP Responder.

Task 3: The following information describes the Z4700. Add this information to RFP Responder:

The Z4700 is our top selling product. We know you will be satisfied with these great features.

Features:

- Top selling
- Fast
- Run Windows
- Apps galore

Task 4: Your proposal should contain pricing details for only the products listed in the outline. Update the information in RFP Responder to reflect this, assuming the Z4700 costs $95,000.

Task 5: Create a proposal in RFP Responder to match the required outline.

Task 6: The requirements for the proposal have changed. Update the proposal to match the new outline. The new required outline is:

- Overview
    - Super Awesome Good Corporation
        - History
        - Our Team
    - Frequently Asked Questions

- Products
  - Pricing Options
  - Z820X
  - Z4700
- Support
  - Warranty

Task 7: Identify how you would get your proposal out of RFP Responder.

Task 8: Leave the RFP Responder application so that another user may not access your data.

Post-test debriefing (<5 minutes)

Discuss:

- What areas did you find particularly challenging or confusing?
- Did the language used to describe the types of information stored in the application make sense? If not, how so?
- What did you expect to see after saving the snippet you edited?
- What did you expect to see after saving the project you created?
- Follow up on any particular problems that came up for the participant.

Survey:

- Ask user to complete the Systems Usability Scale

Measures

To answer these questions:

- How easily do users complete the main functions of the application using the design as currently developed?
- What obstacles do users face in completing these tasks?
- What workflow makes most sense to the users?
- Does the language used in the application match the users' understanding of the product?
- What is the user's overall impression of the application?

I will collect both performance and preference data during the test sessions.

Performance:

For each of the tasks, was the task:

- Completed successfully, without errors
- Completed, with errors or prompting
- Failed to complete

Preference:

- Qualitative description of impression of usability
- Overall impression of usability as measured by SUS

Results
Qualitative Indicators

Snippet List

- Organization by last edited may have issues, though participants found it helpful that new snippets appears at top. Several participants suggested they wanted to be able to order in alphabetical order.
- Participants didn't realize you could return to all results by clearing search field and hitting enter.
- Participants generally scrolled through entire list to find items rather than using the search, unlike in previous test. Participants only resorted to search when confronted with a topic they couldn't find.

Add/Edit Snippets

- The table editor in TinyMCE (JavaScript rich text editor plug-in) was such a clear disaster in the first test, I decided not to test tables any further. Participant 1 ended up using HTML editor to fix tables. Need to look at better options or remove.
- Participants wanted TinyMCE to mimic MS Word functions. They were happy about keyboard shortcuts, ability to paste with formatting, and ease of use for lists and bold.
- After adding snippet, most participants clicked over to snippet list.
- Participants 1, 3, and 4 expressed concerns about not being able to save a copy when editing pricing for Task 4
- Participants 1-4 read the help text for the tagging field and successfully added tags. Participants 5-6 successfully added tags, but did not indicate that they read the help text.
- P6: "Reminds me of Author it."

Project List

- Some participants showed confusion as to whether a project was a proposal.

Add Project

- Participants 4 and 6 were initially confused as to whether this screen was the correct screen; they expected to immediately begin creating TOC or at least to see some indication that that step was next after adding details.

Project TOC

- First participant said it wasn't clear that TOC list was draggable, yet immediately used drag and drop to reorganize.
- Add snippet list window obscures promote/demote/delete buttons so you can't add and update levels at the same time.
- In add snippet list window, searching for Our Team returned so many results that it wasn't clear the search had occurred.
- Need better indication of what level in TOC a topic is.
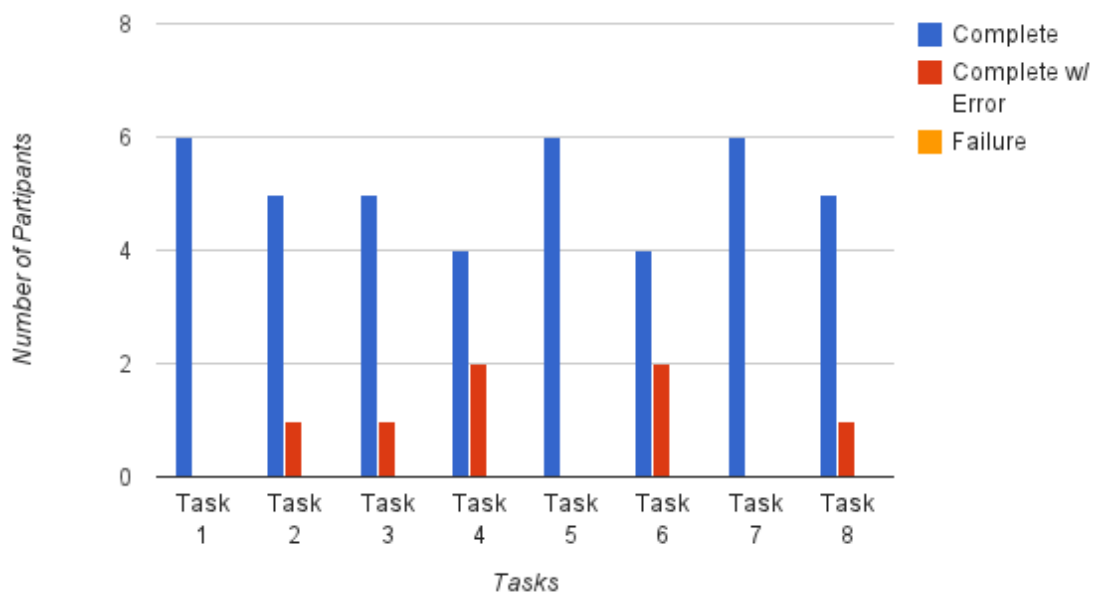
- Participants found promote, demote, and delete buttons clear
- Participants commented on how easy and useful dragging and dropping TOC topics to reorganize was. P6: "Oooo. I like it."
- Discovered a bug in Firefox. Search in add snippet list window refreshed the whole page instead of just the search results via Ajax.

Quantitative Results

Task Success

For each task participants were rated on whether they completed the task, completed the task with errors or prompting, or failed to complete the task.

The results for task success are shown below:

Systems Usability Scale

Participants were asked to complete the Systems Usability Scale (SUS) after completing the test.

The following table lists:

- Overall SUS score by each participant
- Average SUS score

Participant	Score
P1	70
P2	87.5

Participant	Score
P3	95
P4	97.5
P5	87.5
P6	77.5
Average	85.8333333333333

According to research by Jeff Sauro (as described here: http://www.measuringusability.com/sus.php), 68 is average and the top 10% of applications score above 80.3. All scores for RFP Responder were above average and the average score among the 6 partipcants was 85.833, which is squarely in the top 10%. Participants viewed RFP Responder to be highly usable.

Follow-Up Actions

Based on the results of the usability testing, I will make the following changes to the application:

Overall:

- Replace language of Snippets and Projects with Topics and Proposals

Snippet List screen:

- Set off search form so that it stands out more.
- Add text showing that a search occurred and a separate link to clear search results.
- Add option to order search results alphabetically.

Add Snippet screen:

- Main Add Snippet button will go back to Snippet List screen and I will add a secondary call to action button for "Save and Add Another" that will save snippet and return to blank Add Snippet screen.
- Despite the disaster with table editing with participant 1, I will continue to use TinyMCE as my rich text editor plug-in. Participants had no trouble with other formatting tasks such as bolding text and creating lists and were happy that they were able to use keyboard shortcuts to do that. For commercial development, the table editor would need to be improved, but the scope of that effort is too great for this project.

Add Project screen:

- Update page and Add Project button language to indicate that clicking saves the title and descriptions and goes to the next step of adding topics and organizing the TOC.

Project TOC screen:

- Update layout so Add Snippet list does not obscure promote/demote/delete buttons.
- Add better indicator of level in TOC of each item than just indent level.