SuperBetter Comparison Study and Report

HCI 460 Group 6 Project 4

Amy Tang, Javier Guzman, & Roddette Moore

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Executive Summary

We conducted a comparison study to compare the average duration of time it takes for a user to find premade quests on the original SuperBetter website versus a mockup design. From our study, we determined that there was a significant difference in task completion times, with the mockup design having a faster average task completion time than the original website. Therefore, we propose implementing the mockup design to increase the ease in which users can access premade quests on the SuperBetter website.

Purpose

The purpose of our study was to develop a better alternative to the current site's approach to providing pre-made quests to users. Past usability studies done by our team found that the majority of users found tasks related to accessing pre-made quests difficult and confusing. Many participants incorrectly navigated to the "Add+" button where users can make custom quests, as the UI and word choice drew users towards that area (see: Figure 1).
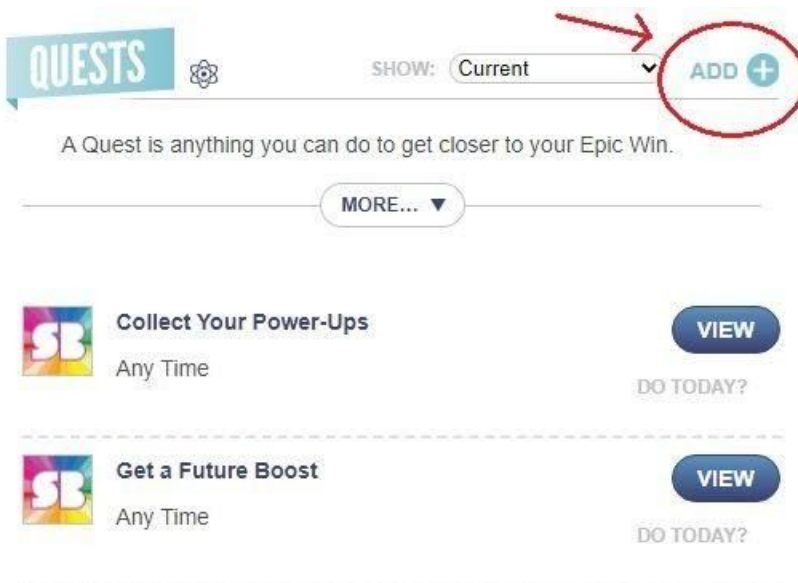

Figure 1: SuperBetter's prominent "Add" button which functions to let users add custom quests.

As a result, we decided to utilize this key finding to redesign the site and accommodate both pre-made quests and custom quests when using the "Add+" button. We hope that this change would remove user confusion and make the navigation process quicker and more intuitive. Our test objective for this report is to compare the completion time of accessing premade quests on the current live site and completion times while using our redesigned site.

Methods

We conducted a between-groups remote unmoderated study to gather information about the ease of use of navigating to SuperBetter's "Power Packs" feature to add new premade activities to the user's feed. We focused on collecting task completion time data in order to make assumptions on the effectiveness of our site redesign in regards to making the feature easier to find.

We ran the study through Validately where we made simple intractable wireframes of the site and the redesign. This was done to allow the users to complete the study without having to sign up for the site and login.

We had 8 participants in each group, and each participant was randomized into either the control group or experiment group. Those in the control group completed the task on the current live site (see: Appendix B). While participants in the experiment group completed the task on our proposed mockup design (see: Appendix C).

Session outline and timing

The test sessions took approximately 3-5 minutes total after the participant installed the Validately extension to record their screen. The participants were given a consent form (see: Appendix A) when asked to participate which were signed and sent back to the researchers if they agreed to participate.

Introduction

Due to the purpose and design of the study, there were minimal introductions conducted before the participants started the task. The following actions were the extent of the introduction:
  ● Have the participants sign the consent form

- Discuss the study's goal with the participant and their involvement in the study.
- Have the participant run through the instructions on how to set up and use Validately as provided by Validately

Task

The study had only one task. Participants began the task on the "Quests" page of SuperBetter.com and were given the following scenario:

- "Please imagine you are looking for a way to add a new premade quest to the following page. Please show us how you would go about doing that."

Post-Test Actions

As we were collecting data on task completion times, we periodically looked at the current completed studies to remove any recordings and data points in which the participant didn't successfully complete the task. By doing this, we compared the average time taken to complete only successful attempts of the task.

Results

We tested a total of 16 participants, with 8 participants being tested using SuperBetter's current website design and 8 participants using our proposed mockup design. We conducted a t-test to compare the duration of time spent completing the task between the two groups of participants, Condition 1 (current website) vs. Condition 2 (mockup website). We found a significant difference ($t_{(14)}$= 6.15, p < .05), such that participants that used the original website (M= 60.75, SD= 16.73) to complete the task spent a longer time completing the task than participants who used the mockup website (M= 22.13, SD= 5.99).

The mean duration of time spent on task for Condition 2 (22.13 seconds) was significantly lower than Condition 1 (60.75 seconds). Additionally, the spread of data collection was far more varied for Condition 1 (SD= 16.73) than Condition 2 (SD= 5.99) as shown in the graph below.

Duration of Time Spent on Task for Condition 1 (current website) and Condition 2 (mockup website)
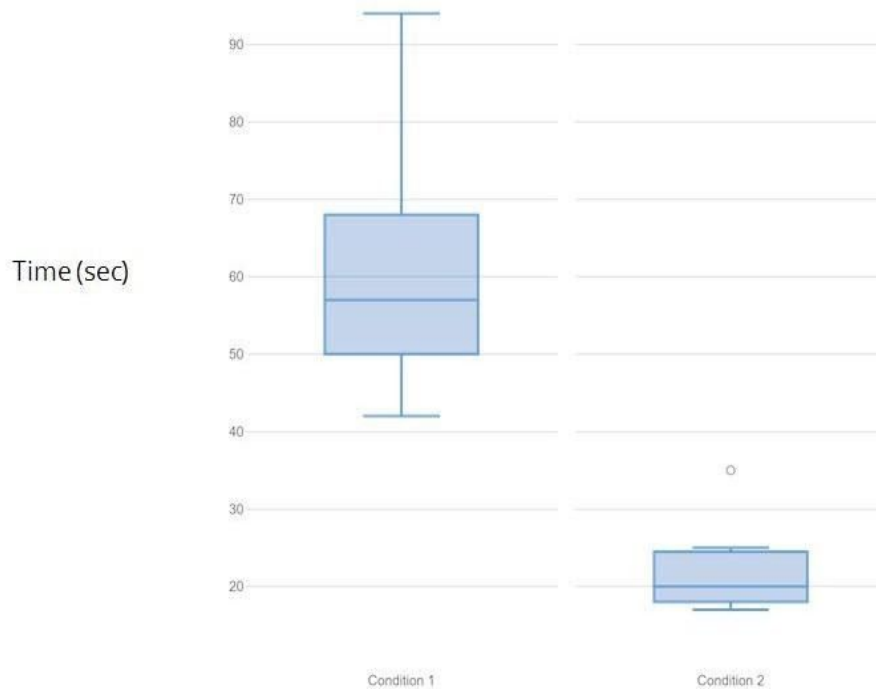
Findings and Recommendations

The updated mock-up interface significantly improved user performance. All eight participants using the mockup design completed the task in less than 40 seconds. Three out of eight participants using the original interface took more than one minute to complete the task. Three participants who used the original interface users failed the task and their data was discarded.

As a comparison, three out of eight participants using the mock-up design completed the task in under 20 seconds. Three out of eight participants completed the task between 21-25 seconds. Two out of eight participants took more than 30 seconds to

complete the task. Additionally, none of the participants in the mock-up group failed the task.

This suggests that our redesign provided a clearer and more intuitive navigation pathway to access premade quests.

To view the raw data collected from the testing sessions, please refer to Appendix: D and Appendix: E.

Recommendations

We highly recommend a website re-design to implement the pre-made quest navigation pathway featured on our team's mock-up interface.

The change from "Power Packs" to "Pre-made Quests" clarified unfamiliar terminology and cleared up confusion around the feature's purpose, allowing users to more quickly identify the correct path. Notably, the large, colorful "Premade" button on the mock-up also allowed users to easily recognize where to click.

Additionally, allowing users to access the feature from the "Add+" button provided more intuitive navigation. The navigation pathway to access premade quests on the current website is not clearly marked or easily recognizable. As a result, seven out of nine participants using the original design clicked the "Add+" button as their first action prior to any other click behaviors. Considering that the mock-up interface allows users to access premade quests from the "Add+" button and the original SuperBetter interface does not, we can determine that this was a major factor in faster completion times for participants using the mockup interface as opposed to the original design.

Discussion and Future Studies

Our team would have loved to increase our participant study pool to collect data from a larger number of participants. However, with time constraints, we had to move forward with comparing only eight participants for each condition as we had to discard three failed attempts. More participants testing our mock-up and the original will allow us to better pinpoint user behaviors and provide more data-backed insights for system recommendations.

Member Contributions

- Amy Tang (amyytang1@gmail.com): Results section, Statistical analysis, Executive summary, Final edits/formatting
- Javier Guzman (jguzma53@mail.depaul.edu): Study setup, Methods section, Results and findings section, Final edits/formatting, Axure wireframes for study
- Roddette Moore (RMOORE41@mail.d2l.depaul.edu): Findings and Recommendations, Appendix: A, D, E, Discussion and Future Studies

Appendix

Appendix A: Consent Form
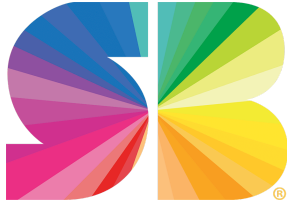
SuperBetter.com Usability Test Consent Form

As a SuperBetter.com Usability Test participant I will answer questions about SuperBetter.com through the Google Chrome browser and complete an online session of SuperBetter.com tasks provided by the researchers. At the conclusion of all tasks, I agree to answer a questionnaire to share my SuperBetter.com experience.

I understand and consent to the use and release of the recording by DePaul University HCI 460 Team 6. I understand that the information and recording are for research purposes only and that my name and image will not be used for any other purpose. I relinquish any rights to the recording and understand the recording may be copied and used by DePaul University HCI 460 Team 6 without further permission.

I understand that participation is voluntary and I agree to immediately raise any concerns I might have. I also understand that if at any point I would like to leave the study for any reason I am able to do so by letting the researcher know.

If you have any questions after today, please contact any of us at the following emails. Javier Guzman (javguzman20@gmail.com), Roddette Moore (RMOORE41@mail.d2l.depaul.edu), Amy Tang (amyytang1@gmail.com) or our professor Dr. Enid Montague (emontag1@cdm.depaul.edu).

By signing this form, you agree to all the terms stated and willingly wish to participate in the SuperBetter.com Usability Test. Therefore, you have read and understand what is required to participate and have all the answers you need to move forward with the SuperBetter.com Usability Test.

Date:

Please print your name:

Please sign your name:

Participant's Signature or eSignature

Thank you!

We appreciate your participation

Appendix B: Current Live Site

Appendix C: Mockup Site

Appendix D: Live Website Data

ORIGINAL INTERFACE USERS

Respondent	Video Clip Time	Task Start Time	Task Stop Time	Completion	PASS OR FAIL	CLICKED ADD+ LABEL & NOTES
2772676	1 MIN 21 SECS	20 SECS	1 MIN 20 SECS	DISCARD	FAIL	@35 seconds; FIRST CLICK BEHAVIOR CHOICE
2772748	1 MIN 23 SECS	38 SECS	1 MIN 23 SECS	DISCARD	FAIL	@1 MIN 10 SECS; SECOND CLICK BEHAVIOR CHOICE
2777908	1 MIN 33 SECS	16 SECS	1 MIN 32 SECS	1 MIN 16 SECS	PASS	@34 SECS; FIRST CLICK BEHAVIOR CHOICE
2779443	53 SECS	9 SECS	53 SECS	44 SECS	PASS	@17 SECS; FIRST CLICK BEHAVIOR CHOICE
2779586	1 MIN 8 SECS	7 SECS	1 MIN 8 SECS	1 MIN 1 SEC	PASS	@18 SECS; FIRST CLICK BEHAVIOR CHOICE
2779879	1 MIN 4 SECS	9 SECS	1 MIN 4 SECS	55 SECS	PASS	@27 SECS; FIRST CLICK BEHAVIOR CHOICE
2779938	1 MIN 36 SECS	2 SECS	1 MIN 36 SECS	1 MIN 34 SECS	PASS	@32 SECS; FIRST CLICK BEHAVIOR CHOICE
2779945	1 MIN 12 SECS	16 SECS	1 MIN 12 SECS	56 SECS	PASS	@23 SECS; FIRST CLICK BEHAVIOR CHOICE
2781917	3 MIN 22 SECS ***OUTLIER***	3 SECS	3 MIN 22 SECS	DISCARD	FAIL	@3 MIN 7 SECS; SECOND CLICK BEHAVIOR CHOICE; DISTRACTED; INACTIVE 1 MIN, HOVERING 1 MIN IN SAME TASK GUIDE POPUP AREA

Appendix E: Mockup Website Data

MOCK-UP INTERFACE USERS

Respondent	Video Clip Time	Task Start Time	Task Stop Time	Completion	PASS OR FAIL	EXTRA TASK POPUP GUIDE REFERENCE & NOTES
2773918	42 SECS	16 SECS	41 SECS	25 SECS	PASS	@30 SECS
2776928	55 SECS	20 SECS	55 SECS	35 SECS	PASS	@40 SECS
2777440	31 SECS	6 SECS	30 SECS	24 SECS	PASS	NO EXTRA REFERENCE; CONFIDENT
2778833	1 MIN 50 SECS ***OUTLIER***	17 SECS	49 SECS	32 SECS	PASS	@34 SECS; CONFUSED; PERFORMED TASK TWICE
2779590	30 SECS	10 SECS	29 SECS	19 SECS	PASS	@20 SECS
2779951	29 SECS	11 SECS	29 SECS	18 SECS	PASS	@15 SECS
2780051	29 SECS	11 SECS	28 SECS	17 SECS	PASS	@14 SECS
2780098	28 SECS	7 SECS	28 SECS	21 SECS	PASS	@9 SECS