

## Task Tracker Usability Testing Results

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 Date of Test: November 26, 2013  
 Location of Test: Boston, Massachusetts  
  
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### Executive Summary

The purpose of this study was to test an advanced version of my interface with a group of representative users. By completing this study, I was hoping to discover any usability issues that may present themselves in the current design. According to Jakob Nielsen, when there are between 3-5 users, approximately 80% of usability problems are detected via usability testing. Using this as a general rule, I recruited 3 representative users for this second round of usability testing. Participants were asked to complete the same tasks as were asked during paper prototyping (add a task to the website, update the task that they added, mark it as complete, and then delete it). The participants were asked to speak through their thought process as they performed actions. All participants were able to complete all of the tasks that they were presented. The task requiring the user to update the assignment was the only one where a user encountered an error in their interaction with the software. This was due to a lack of visibility of how to update a task, and therefore the help window was loaded. The loading of the help window was counted as an error since it clearly indicates that the functionality is not as visible as it should be.

### Methodology

#### Who we tested

Three participants, having the following characteristics, evaluated the online Task Tracker website that I developed.

#### Audience Type

Students	3
Corporate Employees	0
<b>TOTAL (participants)</b>	<b>3</b>

#### Age

18-25	3
<b>TOTAL (participants)</b>	<b>3</b>

#### Computer Usage

0 to 10 hrs. wk.	0
11 to 25 hrs. wk.	2
26+ hrs. wk.	1
<b>TOTAL (participants)</b>	<b>3</b>

#### Gender

Women	1
Men	2
<b>TOTAL (participants)</b>	<b>3</b>

### **What participants did**

When participants arrived, they met with the test facilitator who greeted them, received oral consent for the study, and started the test users on the tasks. After the tasks were completed, the user was asked to complete a brief online questionnaire regarding the interaction they just had with the interface. Following the questionnaire, a brief interview was conducted to gather answers about any questions that I may have had during the interaction.

### **What data we collected**

The data that was collected during the interaction included task completion rates, task completion times, and various notes about the user's choices and thought process.

The questionnaire collected information regarding demographics, and a few additional questions for determining the class of user that was being tested such as the number of hours of computer use per week, occupation, etc. as well as interface satisfaction level.

## **Major findings and recommendations**

### **List of Issues:**

- Lack of Visibility for Update functionality – Severity: 3

### **List of Solutions:**

- Increase size of command icons

Although the above list of issues may not be all-inclusive, it provides a framework for the primary issues with the current prototype and the solutions provide potential methods of fixing those problems.

## **Detailed findings and recommendations**

### **Introductory Questions & Tasks**

When users arrived at the study, they were read a [briefing article](http://www.ccs.neu.edu/home/mrodrig/IS4300/P8/P8-Briefing.pdf) (<http://www.ccs.neu.edu/home/mrodrig/IS4300/P8/P8-Briefing.pdf>), which described what the study would involve and requested oral consent for the study. After the briefing document was read to the participant, the study began with the representative [tasks](http://www.ccs.neu.edu/home/mrodrig/IS4300/P8/P8-TaskScenarios.pdf) (<http://www.ccs.neu.edu/home/mrodrig/IS4300/P8/P8-TaskScenarios.pdf>).

## Scenario 1 – Adding a Task to the Website

*Your professor for your IS4300 (Human-Computer Interaction) class just assigned the reading of Chapter 14 to be due on Friday, November 29th, 2013. Please use this website interface to add the assignment to your list of assignments. As you proceed through this task, please talk through your thought process and feel free to ask the facilitator any questions as they arise.*

*Username: foo*

*Password: bar*

Number of participants	3
Percent successful	100%

Findings	Recommendations
<p>All 3 participants were able to complete this task with no errors.</p> <p>All of the participants first logged into the website using the username and password specified on the scenario card. They then briefly scanned the website to find the widgets that they needed to click on. They all found the “Add” tab after a short amount of time and proceeded to complete the task.</p>	

The charts of time to complete each task and the number of errors for each task are located on the page after the scenario analyses, though the data will be discussed here.

The time to complete a task and the number of errors are both ratio values and thus the measure of center for this particular task is the mean, and the measure of spread will either be the interquartile range or the standard deviation depending on the distributions.

	Time To Complete Task (seconds)	Number of Clicks	Number of Errors
<b>Measure of Center:</b>	33.67 seconds	5	0
<b>Measure of Spread:</b>	4.04 seconds	1	0

## Scenario 2 – Updating a Task on the Website

Your professor for your IS4300 class just realized that the reading might take longer than he expected, so he postponed it to be due on Monday, December 2nd, 2013. Please use this website interface to update the assignment's due date. As you proceed through this task, please talk through your thought process and feel free to ask the facilitator any questions as they arise.

Username: foo

Password: bar

Number of participants	3
Percent successful	100%

Findings	Recommendations
<p>All 3 participants were able to complete this task but only 2 of them successfully completed it without any errors.</p> <p>The user that struggled with the task encountered 1 error, which was a lack of visibility of updating the task. Since they did not immediately see the update icon, they first loaded the Help window which was counted as an error because it was not a step to directly aid in the completion of the task.</p> <p>All of the participants first briefly scanned the website for an update feature. One of the users initially struggled finding the update feature and clicked on the Help link instead. The other users were able to complete the task successfully without any issues.</p>	<ul style="list-style-type: none"> <li>Increasing size of update and delete icons</li> </ul>

The charts of time to complete each task and the number of errors for each task are located on the page after the scenario analyses, though the data will be discussed here.

The time to complete a task and the number of errors are both ratio values and thus the measure of center for this particular task is the mean, and the measure of spread will either be the interquartile range or the standard deviation depending on the distributions.

	Time To Complete Task (Seconds)	Number of Clicks	Number of Errors
Measure of Center:	29	6.33	0.33
Measure of Spread:	12.12	1.53	0.57

### Scenario 3 – Marking a Task Complete on the Website

*You just finished reading Chapter 14 for IS4300. Please use the web interface to mark the assignment as complete. As you proceed through this task, please talk through your thought process and feel free to ask the facilitator any questions as they arise.*

*Username: foo*

*Password: bar*

Number of participants	3
Percent successful	100%

Sample Findings	Recommendations
<p>All 3 participants were able to complete this task without any users encountering an error.</p> <p>These participants appear to have noticed the checkbox either during a previous task (most likely the update task) and were able to quickly complete this task after being handed the notecard.</p>	

The charts of time to complete each task and the number of errors for each task are located on the page after the scenario analyses, though the data will be discussed here.

The time to complete a task and the number of errors are both ratio values and thus the measure of center for this particular task is the mean, and the measure of spread will either be the interquartile range or the standard deviation depending on the distributions.

	Time To Complete Task (Seconds)	Number of Clicks	Number of Errors
<b>Measure of Center:</b>	4	1	0
<b>Measure of Spread:</b>	1.73	0	0

## Scenario 4 – Deleting a Task from the Website

*You decided that you do not want the website to keep track of old completed tasks, so you would like to delete the assignment for the Chapter 14 reading in the web interface. As you proceed through this task, please talk through your thought process and feel free to ask the facilitator any questions as they arise.*

Username: foo

Password: bar

Number of participants	3
Percent successful	100%

Sample Findings	Sample Recommendations
All 3 participants were able to complete this task rapidly with no issues at all. I believe this is largely due to the update icon being placed close to the delete icon and therefore users already knew where this functionality was before receiving this task.	

The charts of time to complete each task and the number of errors for each task are located on the page after the scenario analyses, though the data will be discussed here.

The time to complete a task and the number of errors are both ratio values and thus the measure of center for this particular task is the mean, and the measure of spread will either be the interquartile range or the standard deviation depending on the distributions.

	Time To Complete Task (Seconds)	Number of Clicks	Number of Errors
Measure of Center:	6	6	0
Measure of Spread:	1	1	0

## Additional Data:

*Table of Time to Complete Tasks in Seconds:*

Time to Complete (Seconds)	Participant 1	Participant 2	Participant 3	Average Time (Seconds):
Task 1	30	38	33	33.67
Task 2	18	42	27	29
Task 3	3	6	3	4
Task 4	5	7	6	6
Total Time (Seconds):	56	93	69	72.67

*Table of Number of Clicks per Task:*

Number of Clicks	Participant 1	Participant 2	Participant 3	Average (Clicks):
Task 1	4	6	5	5
Task 2	5	8	6	6.33
Task 3	1	1	1	1
Task 4	5	7	6	6
Total Time (Seconds):	15	22	18	18.33

*Table of Number of Errors:*

Task Errors	Participant 1	Participant 2	Participant 3	Number of Errors per Task:	Percentage Errors per Task:
Task 1	0	0	0	0	0%
Task 2	0	1	0	1	100%
Task 3	0	1	0	0	0%
Task 4	0	0	0	0	0%
Number of Errors per Participant:	0	1	0		
Percentage Errors per Participant:	0%	100%	0%		

## Exit Questions/User Impressions

The following are some sample questions and responses from both the questionnaires responses and brief interviews after the usability tests.

### *Summary of user impressions*

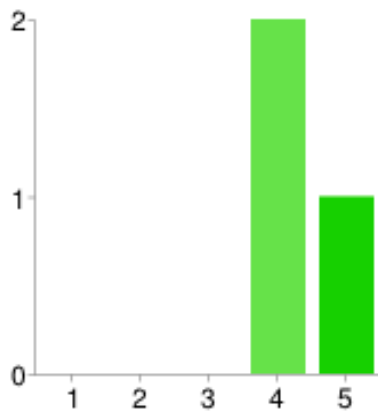
Questions	Responses
What did you like best about the website?	1) Simplicity 2) Predictability 3) Layout 4) Functionality/Features
What did you like least about the website?	1) Color choice could use improvement 2) Icons could be bigger
If you were to describe this website to a friend, how would you describe it?	1) Good Layout 2) Nice site 3) Great Idea 4) New task management method
Do you have any other final comments or questions?	1) Icons could use improvement 2) Include more color in design

The questionnaire results can also be found viewed online [here \(via Google Forms\)](https://docs.google.com/a/husky.neu.edu/forms/d/1V9v48jQnWIVmWirYo9UtLXQ3OTHTwNlyUUv221fbFM/viewanalytics).  
(<https://docs.google.com/a/husky.neu.edu/forms/d/1V9v48jQnWIVmWirYo9UtLXQ3OTHTwNlyUUv221fbFM/viewanalytics>)

I used the same exact survey as the paper prototyping exercise to eliminate any possible result discrepancies due to differing wording.

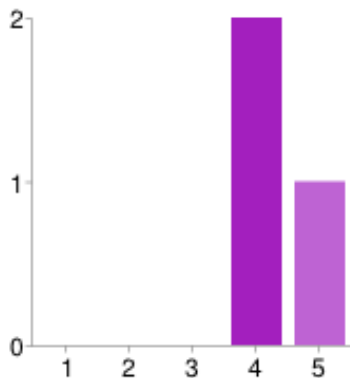
Here are a few samples of the data collection and analytics obtained by using Google Forms:

### **How experienced are you with computers?**



1	0	0%
2	0	0%
3	0	0%
4	2	67%
5	1	33%

### **How satisfied are you with the user interface of the website you tested?**



1	0	0%
2	0	0%
3	0	0%
4	2	67%
5	1	33%