

Project 5b: Usability Study

1. Usability Plan

Participant Selection Criteria

You must find three students who attend BYU-Idaho. These students should live busy, fast paced lives. They should consistently use I-Learn to do find and complete their assignments and be able to access it for this study. They need to often have multiple assignments due and sometimes have a hard time knowing which should take priority. Here is how you will find someone for this usability study:

1. Enter any building on the BYU-I campus and find someone who is sitting down using a laptop.
2. Ask them if they would be willing to participate in a quick study.
3. To make sure that they are the right candidate, ask the following questions
 - a. How often do you use I-Learn?
 - b. Do you sometimes have a hard time seeing which of your uncompleted assignments are most urgent?
 - c. On a scale of one to ten, how busy are you? (1 being you have all the free time in the world and 10 being absolutely no free time to yourself)

If they answer yes to the first two questions AND rated their busyness at a 6 or above, they are the right ones for the test.

Hypothesis

- The users will be able to know which assignments are most urgent much faster than they can without the extension.
- The users will be able to navigate to the desired urgent assignment much faster than they can without the extension.
- The user will be able to learn to use and navigate the interface almost immediately upon using it.
- The user will have a greater desire to use the I-Learn homepage.

Experiments

	Hypothesis	Experiment	Interpretation
A	Know which assignment is most urgent (without extension)	Ask the user to identify their most urgent assignment by using the I-Learn homepage. Record how long it takes.	They should be somewhat delayed in finding it.
B	Navigate to the most urgent assignment (without extension)	Ask the user to navigate to the most urgent assignment the way that they usually do (start at the top of the page). Record how long it takes.	They should be somewhat delayed in navigating there. It should take about 5 seconds or more
C	Know which assignment is most urgent (with extension)	With extension installed, ask the user to identify their most urgent assignment. Record how long it takes.	It should take less than 5 seconds. If it takes more than 5 seconds, something is wrong.
D	Navigate to the most urgent assignment (with extension)	With extension installed, ask the user to navigate to their most urgent assignment. Record how long it takes.	It should take less than 3 seconds. If it takes more than 3 seconds, something is wrong.
E	Learn the Interface	Ask the user to identify and navigate to their second and then their third most urgent assignments. Record how long it takes.	It should take less than 5 seconds each. If it takes longer, it fails.
F	Desire to use I-Learn homepage	Ask the user if they would use the I-Learn homepage more with the extension installed than before.	They should answer yes. If they answer no, it fails.

Script

Step	Instructions	Experiment	Interpretation
1	Ask the user if they are willing to participate in a study.	-	-
2	Ask the user to open I-Learn to the homepage and identify the most urgent assignment that they need to complete.	A	Use your phone's stopwatch to track how much time it took and record it.
3	Ask the user to open I-Learn to the homepage and navigate to the most urgent assignment that they need to complete.	B	Use your phone's stopwatch to track how much time it took and record it.
4	Email the link to the extension to the user.	-	-
5	Ask the user to install the extension and then go to the I-Learn homepage.	-	-
6	Ask the user to identify the most urgent assignment that they need to complete again.	C	Use your phone's stopwatch to track how much time it took and record it.
7	Ask the user to navigate to the most urgent assignment that they need to complete again.	D	Use your phone's stopwatch to track how much time it took and record it.
8	Ask the user to identify and navigate to their second and then their third most urgent assignments. Record how long it takes.	E	Use your phone's stopwatch to track how much time it took and record it.
9	Ask the user if they would use the I-Learn homepage more with the extension installed than before.	F	Use your phone's stopwatch to track how much time it took and record it.

Interpretation Guidelines

- If the user uses the homepage calendar, course calendar, or content section to navigate to their most urgent assignment, ask them why they used that route rather than the other possible routes.
 - Speed? Organization? Etc.
- If the user hesitates to begin after you have asked them to complete a task, ask the why they hesitated.
 - Lack of confidence? Unfamiliar with the interface? Etc.
- If the user takes more than five seconds to identify and navigate to their assignment using the extension, ask them why they think it took them so long.

2. Raw Notes

Interviews were recorded using the iOS Voice Recording App. Notes were also taken during the study, and both the notes and the recordings are summarized here.

Times were recorded using the iOS Clock app. I started the stopwatch as soon as I asked the question requiring recording how much time an action took in every instance.

Interview with Christina Jones

a. How often do you use I-Learn?

Answer: Every day.

b. Do you sometimes have a hard time seeing which of your uncompleted assignments are most urgent?

Answer: Yes.

c. On a scale of one to ten, how busy are you? (1 being you have all the free time in the world and 10 being absolutely no free time to yourself)

Answer: 7.

Yes, the user was willing to participate

16 seconds to decide on group presentation for natural disasters

24 seconds to navigate to the actual assignment

Sent link to extension through Facebook messenger

No problems installing extension

23 seconds to figure out that red means overdue

51 seconds to figure out that the assignment she was looking for was the second one down

5 assignments were included that were due last week

She didn't like that it was showing overdue assignments

3 seconds to click through to the assignments using the widget

It does not show the assignments in the order of when they were due

To her, the extension needs to show the assignments in the order of when they're due to be useful

She likes that you can check them off, and she checked off several past due assignments

She said this would have been very useful to have at the beginning of the semester

"I really like it. I think it's great!"

"I'm not seeing all assignments? If I refresh the page is it going to give me more?"

She didn't know how it decides which assignments to show, and asked if it was a bug. It also showed past due assignments and assignments that had already been completed rather than prioritizing assignments that needed to be completed.

She discovered that when you selected the page for a certain class, it would display the upcoming assignments for that class. "I like that."

Interview with Jarom Weatherford

a. How often do you use I-Learn?

Answer: Every weekday.

b. Do you sometimes have a hard time seeing which of your uncompleted assignments are most urgent?

Answer: Yes, some of my classes have over five assignments due on the same day, and I can't check off completed assignments.

c. On a scale of one to ten, how busy are you? (1 being you have all the free time in the world and 10 being absolutely no free time to yourself)

Answer: 6.

Yes, the user was willing to participate

He had to install Chrome, and Chrome was very slow on his laptop. He asked whether the extension would be available on other, less resource-intensive browsers.

The first three things displaying on his I-Learn homepage without the extension had already been completed.

16 seconds to find a CS 308 peer review assignment

1 minute, 47 seconds to find the assignment and confirm that it was the most urgent assignment.

Expected to find a reading as the most urgent assignment, but the reading was not assigned

2 minutes, 31 seconds to review the extension

2 seconds to click through to the assignments using the widget

"Is it missing stuff? Pretty sure there's more than just that stuff tomorrow."

"I think I know what it is..."

"Looks like a different assignment is more pressing, but I can't find what I was looking at earlier."

He also had no idea what they sorted the assignments by

"Something's done already. Not that. I'm confused now."

He found the original, what he thought was the most pressing. He was mistaken on when it was actually due.

When asked, he said that he didn't know which of the two sources was the most reliable, so he couldn't say which one he would rather use.

The extension widget and the I-Learn homepage were giving conflicting reports. When further examined, it turned out that the widget was reporting the due date as an hour later than the actual due date.

All assignments were showing up as an hour late. Was there something broken with the time zone? His computer was definitely set to the right time zone, and his assignments were also showing up as being in the right time zone outside the widget in I-Learn.

Interview with Katy Dymond

a. How often do you use I-Learn?

Answer: Almost every day.

b. Do you sometimes have a hard time seeing which of your uncompleted assignments are most urgent?

Answer: Yeah.

c. On a scale of one to ten, how busy are you? (1 being you have all the free time in the world and 10 being absolutely no free time to yourself)

Answer: 7.

Yes, the user was willing to participate

Had to magnify the Upcoming Events module and view calendar to view assignments

Seemed confused and uneasy, like she didn't use I-Learn much to view assignments

Had to complete a FDSCI Benefits and Outcomes in Biology (L12), took 45 seconds to find

23 seconds to navigate to actual assignment

"Whoa! So cool!"

Thought she had found most recent assignment at first glance, actually pointed to several overdue assignments

"I need these white ones, cause these red ones are past due."

Said L11 Evaluation, was past due

1 minute, 15 second to find Lesson 12 Evaluation

2 seconds to navigate

Clicked directly on the link to get to assignment

No noticeable issues with time zone or misreporting times

"Yes, because it shows my old stuff, stuff in the future that's like really big, and then has what I need for tomorrow in different colors, it breaks it down real easily so I can tell."

"Oh, I like this a lot!" regarding the checking-off feature

When questioned whether the prioritizing was an issue, she said, "No, but I really didn't put much thought into this."

3. Report

Hypotheses

- a. The users will be able to know which assignments are most urgent much faster than they can without the extension.

The users were initially confused by the extension, and were not able to find the upcoming assignments where they expected them. After some exploration, users could find the color-coding in place and the checkboxes, but they still had to search and determine which assignment was urgent at about the same speed or slower than the I-Learn Upcoming Events module.

- b. The users will be able to navigate to the desired urgent assignment much faster than they can without the extension.

The users could navigate to the desired urgent assignment much faster than they could without the extension. It took the users a few seconds to click on the link and directly access the assignment, rather than the 30 seconds or longer required to navigate to the assignment either through the Upcoming Events module or through navigating via the menus and content on I-Learn.

- c. The user will be able to learn to use and navigate the interface almost immediately upon using it.

The users were generally confused by the extension, but quickly grasped the purpose of the color coding and checkboxes. Generally, the users liked the widget and were intrigued by the possibility, but did not understand how or why the extension would prioritize certain assignments over others. The users still liked the extension and planned to keep it and use it, but agreed that they would appreciate having their assignments prioritized in a recognizable fashion.

- d. The user will have a greater desire to use the I-Learn homepage.

The widget increased motivation for most users, but some expressed concern over the reliability of the widget. When questioned whether they had a greater desire to use the I-Learn homepage, most users responded that they already had to use the I-Learn homepage to find all the assignments, and thus would not be using the homepage more than usual. One user, however, seemed very excited to use the extension and was looking forward to using it, even though up to that point she had not been using the I-Learn homepage regularly.

Recommendations

Although the other aspects of the widget impressed the users and increased their motivation, the prioritization of assignments should be more transparent, or possibly customizable. Users expressed concern that the assignments they needed to see were not shown, or that they could not trust what the widget was showing them because it did not show a wide enough range of assignments. I recommend either prioritizing the assignments by when they are due, by class, or by adding in a Settings option to customize how it sorts the assignments it does show.

It was also not clear to the users why it would show certain assignments and not others. Adding in an explanation or directions could be beneficial to the users, so they know which assignments will be shown and can rely entirely on the extension. At this point, users had to check the Upcoming Events module to verify that they had seen all of their assignments. To increase trust and reliability, the selection criteria for displaying assignments should be more transparent.

Other Observations

During the second participant's interview, we found that the extension was reporting the assignments due an hour later than when they were actually due. No other users had this problem, so it may have been a temporary bug. I would recommend looking into the issue further and testing with users from other time zones to make sure there are no issues or bugs with reporting the times the assignments are due.

Overall Thoughts

The users were impressed by the simple, easy to use nature of the widget, and found it easy to install and to use. All the users asked if they could keep using the extension, and planned to leave it installed on their computer and to use it. Most users liked the extension because it reminded them of I-Learn 2.0, and they preferred the layout to the Upcoming Events module. At this point, the extension does need to implement better and more easily interpretable sorting of the assignments, but it did accomplish the purposes of increasing desire to use the I-Learn homepage, and navigating to the desired urgent assignment much faster than they could without the extension. The users were, for the most part, satisfied and excited to continue using the extension.

Grading

	Exceptional 100%	Good 90%	Acceptable 70%	Developing 50%	Missing 0%
Participants 20%	“Compelling” evidence supports that all the participants are members of the target audience	Every participant nicely matched the participant selection criteria	One or two notes about the participants indicates they are members of the target audience	One can infer from the notes that the participants were members of the target audience	No mention of how the participants matched the persona
Notes 30%	Notes record completely every event that occurred during the study	Notes paint a complete picture of what occurred during the study	Notes record what occurred	Notes present but lacking any detail	Notes missing
Qualitative Data Analysis 20%	Observations are insightful and illuminating	Mastery of the qualitative data analysis techniques were demonstrated	There is at least one type of qualitative data analysis applied to the data	Analysis inconsistent, lacking any detail, off topic, or applied incorrectly	There is no qualitative analysis presented in the report
Recommendations 20%	Recommendations are highly likely to address every usability issue found and improve the product	Every recommendation is likely to address the issues found to some degree	Recommendations are consistent with the observations	At least one recommendation betrays a lack of understanding of the user, the design, or the principles	Recommendations are missing
Objectivity and Tact 10%	Everything about the report is accurate and paints things in a positive light	Objectivity and tact maintained in the study and in the report		One instance of subjectivity or loss of tact exist	Lack of objectivity or tact severely tarnish the value of the report

In addition to the above criteria, a penalty will be added for write-ups that suffer from usability issues: grammar or spelling errors, overly verbose, poor formatting choice, difficulty finding important information, etc.