D2L coLab Usability Test Report

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HCI 430
02/19/20

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Usability Test Plan

Introduction

D2L coLab is an app designed to allow students to communicate about group projects. The app is intended to help in-class and online students collaborate on assignments. The app will integrate with the D2L (Desire to Learn) learning-management system, which is used by universities nationwide. The app gives students the ability to set up video meetings with classmates, participate in online chat sessions, have easy access to assignments from instructors, collaborate on shared documents, and assist with project management by allowing students to create and assign tasks to other team members and manage a team calendar. The app is available on both desktop and mobile in order to meet students where they are.

Because the app is focused on productivity, usability testing is essential to ensure that users are able to use the app with ease. Nothing is worse than a productivity tool that doesn't actually help you be productive!

For this usability test, we focused on testing four main tasks that best demonstrate the core functionality of the app:

1. Set up a meeting in the chatroom
2. Set up a meeting via the calendar
3. Assign a task to team member via the calendar
4. Assign a task to a team member via a report (an assignment)

Goals

By conducting testing, we hope to find answers to the following questions:

- Which tasks are the easiest to complete?
- Which tasks are the most difficult?
- Which tasks can be improved?
- Do users understand the difference between an "assignment" and a "task"?
- How do users prefer to assign a task to a group member and set up a team meeting— through the calendar or through the chatroom?

Target Participant

For our testing, we focused on finding participants who are either graduate or undergraduate students currently enrolled at an educational institution. Participants had familiarity with D2L, and have participated in group assignments for class before. Most participants were in their twenties. A mix of genders was chosen. Participants will be recruited via group members' personal networks, since our status as graduate students gives us unique access to our ideal participant.

Ultimately, 5 total participants were chosen, with 3 tests completed on mobile, and 3 tests completed on desktop (one participant completed both mobile and desktop tests).

Methods

Testing will be performed by each member of the team. Each team member will conduct at least one test. Tests will be conducted in an environment that is convenient to the participant (e.g. a classroom, a coffee shop, a living room). Tests will be recorded by the moderators and notes will be taken to ensure that findings can be shared and analyzed collectively as a group.

Prototypes

Testing was performed using the following prototypes:

- Mobile
- Desktop

Script

Introduction

Hello, [participant name], my name is [your name] and I will be your test moderator for today. The purpose of this study is to collect user opinions on the usability of our app, D2L coLab. Our app, in conjunction with D2L, is a collaborative tool that aims to help DePaul students work together. Many students use a multitude of apps and tools in order to communicate, collaborate, and submit group work. This app combines these important features into one and connects it to D2L.

If you decide to participate in this study, you will be led through a series of tasks that I will describe to you. With your permission, we will take notes and video record you as you go through the tasks. We will not be collecting personally-identifying information. All video and written recordings will only be shared by the research team and the HCI 430 class in our presentation.

During the tasks, we ask you to think out loud as much as possible and express any questions or thoughts that come to you so as to better understand your process through the app. We like to stress that there are no wrong answers. If you feel you are having difficulty, please tell us so we can note it.

Your participation in this study is completely voluntary. You do not need to answer any questions that you are uncomfortable with and you may withdraw from this study at any time with no penalty. Do you have any questions?

Do you give your verbal consent to participate in this study? Do we have your permission to record this session?

Task Prompts

Thank you for participating in our study. I will now read to you a series of tasks. Each task will take approximately 15 minutes each to complete and there will be some follow-up questions after. All feedback is welcome and we encourage you to share your thoughts out loud.

These tasks are carried out on the assumption that you are a DePaul University student who is working on a group project with three additional team members. You have logged into the D2L coLab app.

Mobile or Desktop *(moderator: circle one)*

Task 1

You have a group assignment due in 1 week. You want to set up a video-call meeting with your group in order to determine everyone's availability to work on this project and to assign tasks. Set up a meeting for your HCI 445 group through the chat for March 3rd at 12PM.

Task 2 Mobile

Your assignment is due in 2 days. You want to set up another video-call meeting with your group to go over last-minute details. Through the calendar, set up a meeting for March 3rd, at 12PM.

Task 2 Desktop

Your assignment is due in 2 days. You want to set up another video-call meeting with your group to go over last-minute details. You need to find a time when everyone is available. Find your groupmate's availability in the calendar and set up a meeting at an appropriate time where everyone can attend.

Task 3

You are putting together the final report for your assignment, and you realized that you and your team have forgotten to find a source for one of your claims. You decide to assign John with this task. Assign John with the task of "research" due on March 3rd using the calendar.

Task 4

You and your group have finished the Prototyping report and need to turn it in before the deadline. Assign yourself the task to submit the report, then submit the report to D2L. Then on your home page, check off the "Prototyping on Google Docs" task.

Post-Task Questions

1. What did you feel was the most difficult part of this task?
2. What did you feel was the easiest part of this task?
3. Are there any improvements you would make to this task?
4. Do you think this task is helpful for working on group projects?
5. Do you have any comments or questions?
6. On a scale of 1-10, with one being the easiest and 10 being the hardest, how difficult was it to complete this task?

Post-Test Questions

1. Which task did you find was the hardest?
2. Which task did you find was the easiest?
3. Comparing task 1 and task 2, which method did you prefer when setting up a meeting?
4. What task did you find was the most helpful for allowing you to work on group projects?
5. Would you use an app like this when working on group projects?

Analysis

Summary of Findings

Quantitative Results

After discussing the results of user testing as a group, we found that most users were able to complete most tasks with moderate ease. Test participants were asked to rate the ease or difficulty of completing each task. The results of this survey are below:

		Desktop Channel				Mobile Channel				Both Channels
Task #	**Task Description**	**P1**	**P3**	**P6**	**Average**	**P2**	**P4**	**P5**	**Average**	**Average**
1	Set up meeting (chat)	6	2	3	3.67	5	8	4	5.67	5.2
2	Set up meeting (calendar)	2.5	3	5	3.5	Null	3	9	6	5.7
3	Assign task (calendar)	3	8	7	6	6	4	6	5.34	5.67
4	Assign task (report)	10	4	4	6	3	4	10	5.67	5.83
		Total Desktop Average			**4.79**	**Total Mobile Average**			**5.67**	**5.6**

*Rating scale: 1-10, 1 easiest, 10 most difficult
**P2 was not asked to complete task 2

From these results, we can see that participants found the following:

- **Most difficult desktop task:** Assigning a task (both through the calendar and through a report)
- **Easiest desktop task:** Setting up a meeting in the calendar
- **Most difficult mobile task:** Setting up a meeting in the calendar
- **Easiest mobile task:** Assigning a task via the calendar
- Participants rated the **desktop app as easier to use** overall

The **overall average rating for all tasks** across both channels is **5.6**, which suggests that participants found the app neither easy nor difficult to use. Given that the focus of the app is productivity, and that its goal is to make working on group projects easier, care should be taken to ensure that tasks are as easy to complete as possible.

Qualitative Findings

After discussing the results of testing, the group noted that the following observations were made amongst the majority of test participants:

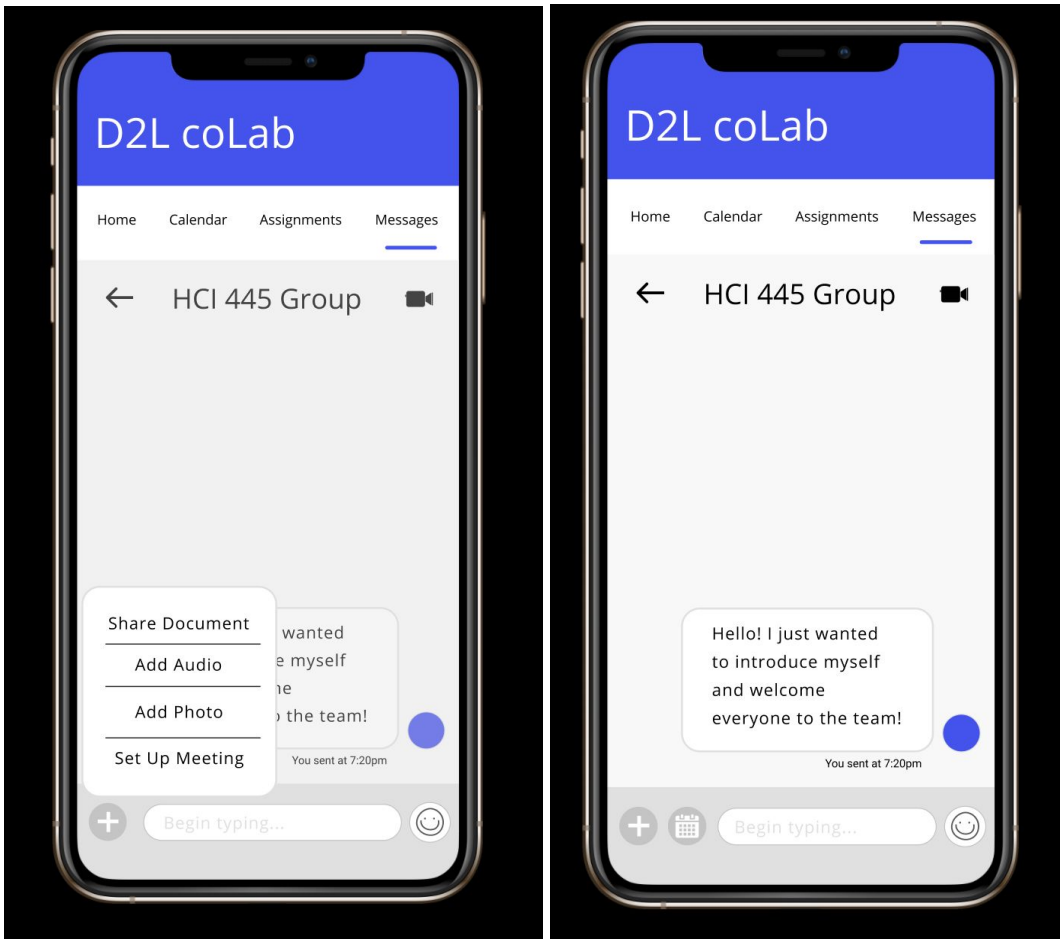
- Participants found setting up a meeting via the calendar more intuitive than setting up a meeting in the chatroom.
- When in the calendar, it was difficult to see how to add a new entry since the "add" icon was towards the bottom of the screen
- In the calendar (desktop), participants were confused about the different calendar "views" presented in the right-hand menu.
- When in the chatroom, users did not expect to find the option to set up a meeting in the "+" menu. They associate "+" menus with adding a photo or document to a chat. They expressed preference for a more intuitive "calendar" icon outside of the "+" menu.
- Participants expressed confusion over the difference between an "Assignment" and a "Task"
- Participants were also confused about the difference between "self tasks" and "group tasks"

Recommendations & Next Steps

Recommendation 1

Create a calendar icon to make it more obvious to users

- Redirect to the calendar on mobile
- Create calendar icon



Notes

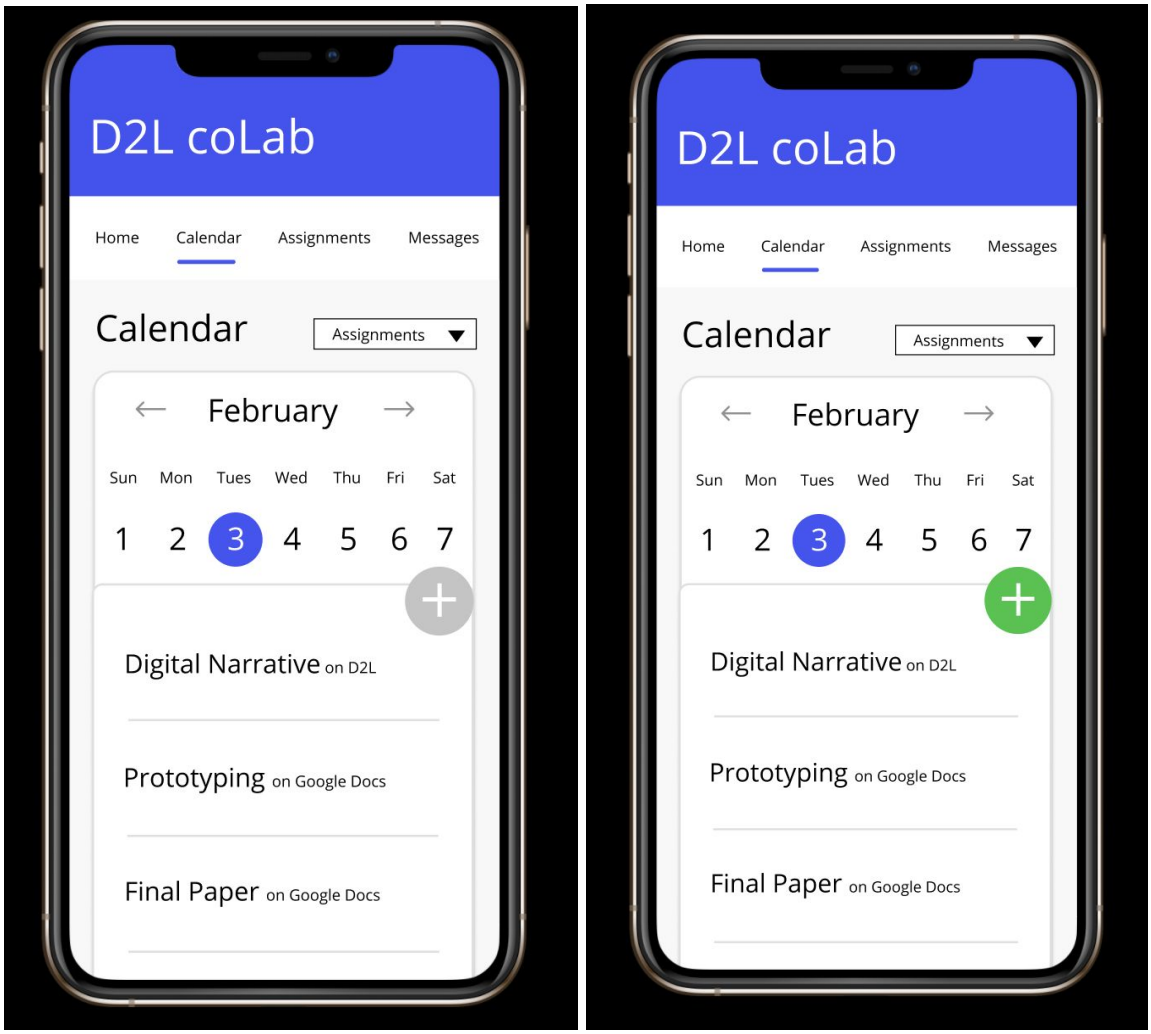
One of the general comments among all of the testers was that the plus icon did not seem intuitive for something such as the task of setting up a meeting. One tester had explained that "...having the option to add an audio or adding a photo seemed logical to put inside the plus icon... for setting up a meeting it seemed out of place." What the team had agreed to make it more obvious, and some feedback from the testers was to provide a calendar icon that would display the option to set up a meeting. From there, the user tapping on the calendar icon would redirect the user to the calendar page to complete the rest of the task. The next step from here would be to make sure that

the calendar follows the feedback that the users have given such as adding more space and separating the calendar and the events on the specific days to provide more space for a user to select specific elements.

Recommendation 2

Change the color of the plus icon

- Green to make it stand out from the rest of the screen



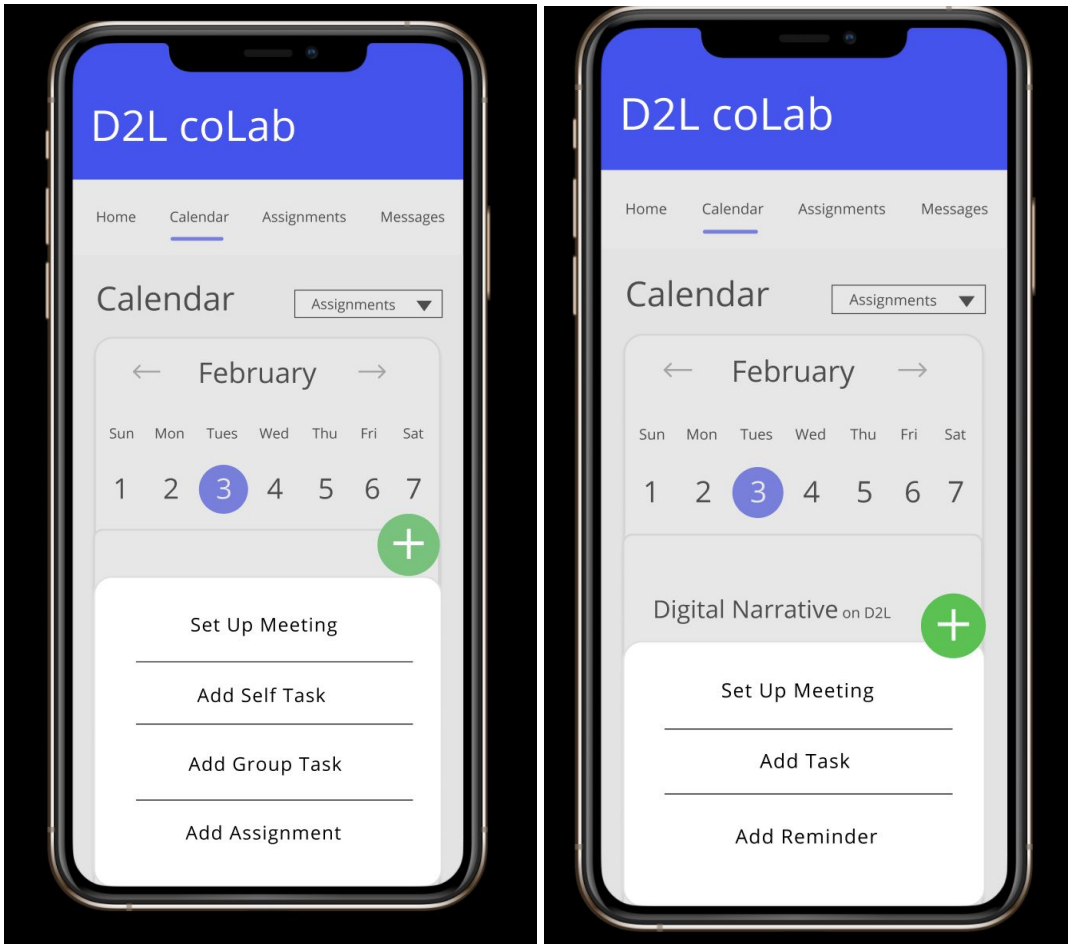
Notes

Another thing that was mentioned by a few of the users was that the plus icon on the calendar did not create enough contrast with the rest of the screen, so this was confusing for users. One user added a comment "...the plus icon looks exactly like the rest of the screen, if there was a way to maybe change the color of the button or make it stand out, this would make it more obvious to me." The team had decided that green would be a great contrast color against the white background and gray text and elements to display that this has is something that is allowed to be pressed on. The next step for this would be to make sure that the script follows the prototype and continues through the process that allows a user to understand that the task has been completed. Such as once a new task has been added, it will appear at the top of the list and in a darker shade than the other events to make a distinction.

Recommendation 3

Group vs. self tasks

- No need for seperation, keep the same since assigning will display all names anyway



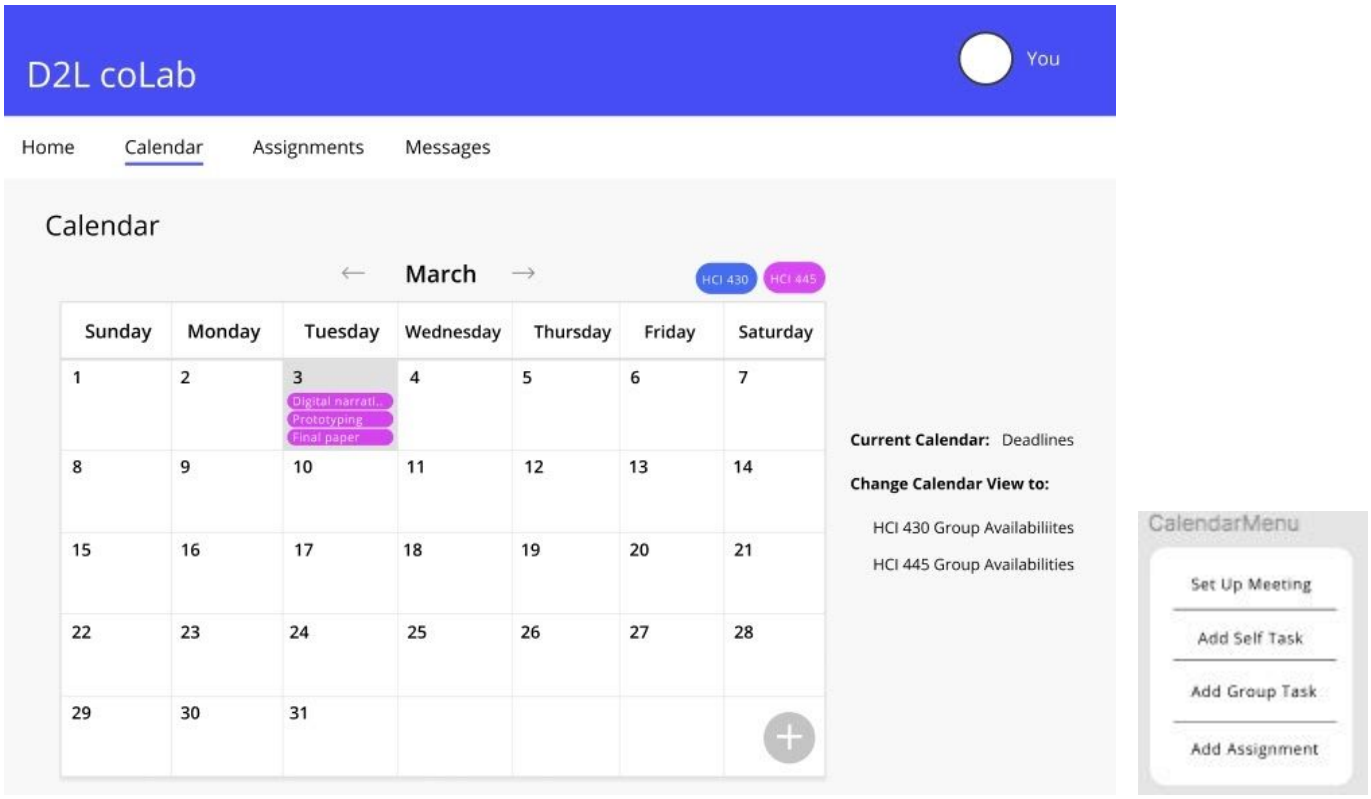
Notes

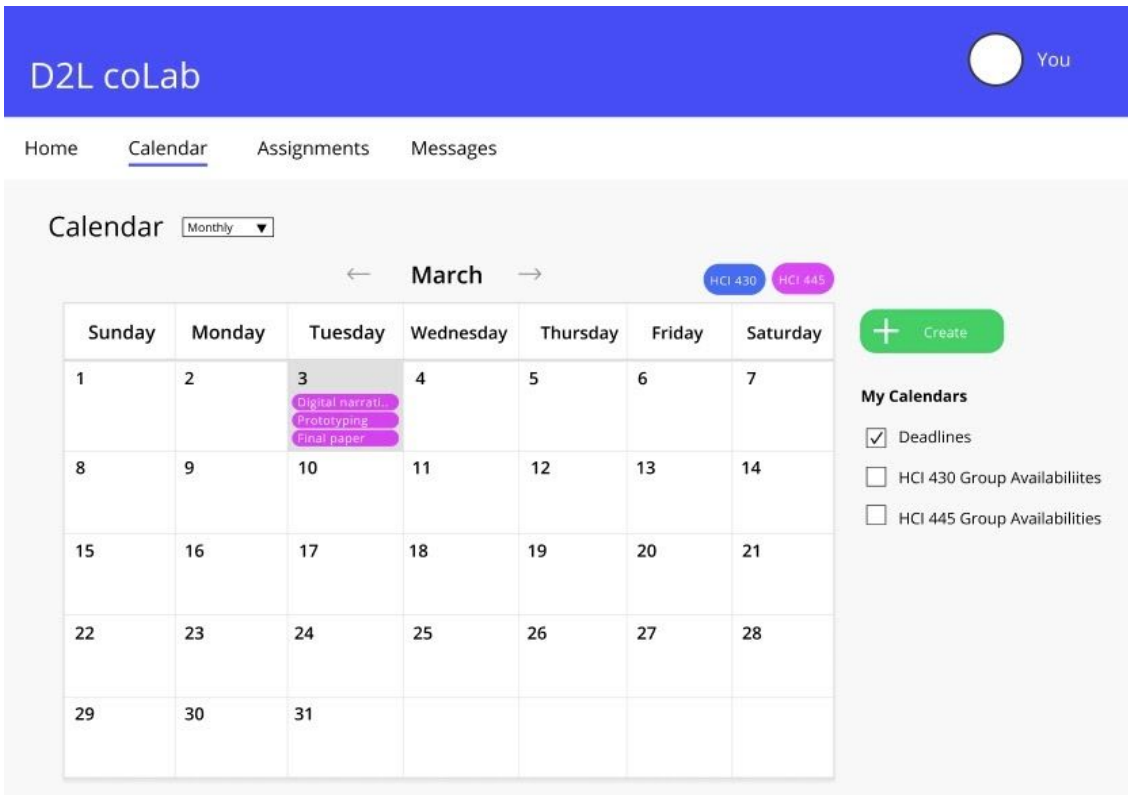
The last general feedback given from the users when testing was that it seemed out of place that the self task and the group tasks were seperated. One of the users had said "...it seems that since the same people are showing up for both tasks, can you just combine the two?" So what the team has decided that the best option to further improve coLab was to combine the two, and when the user taps to add a task this will appear with the specific class selected as well as the names of the team members that are in that class. From there, they have the ability to further continue finishing the task at hand. The next step for this screen would be to further improve the task described and make sure that all screens show the appropriate information. Such as making sure that the calendar displays the March calendar for a user task that is supposed to assign a task to a team member for a date in March.

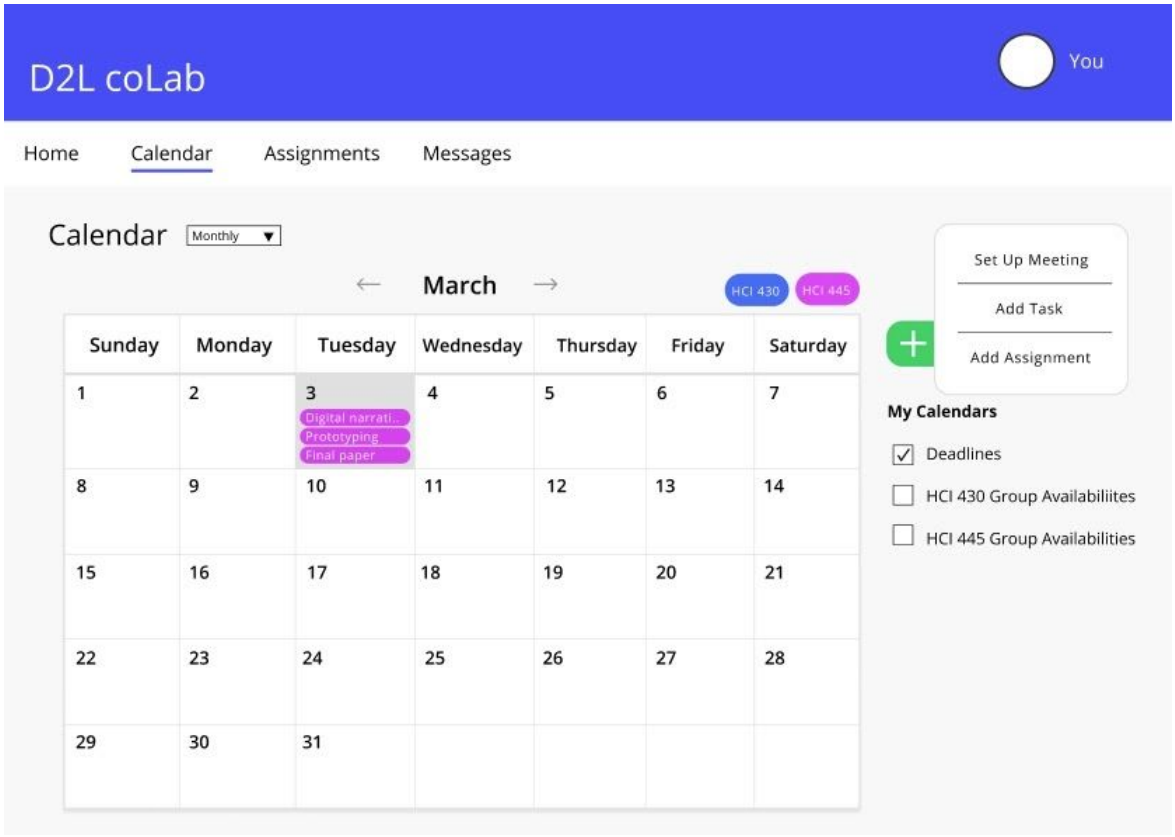
Recommendation 4

Calendar changes made:

- Made + sign/actions more obvious
- made different calendars more obvious
- added option to change view of calendar (ie. monthly, weekly)
- Combined self and group task into one task



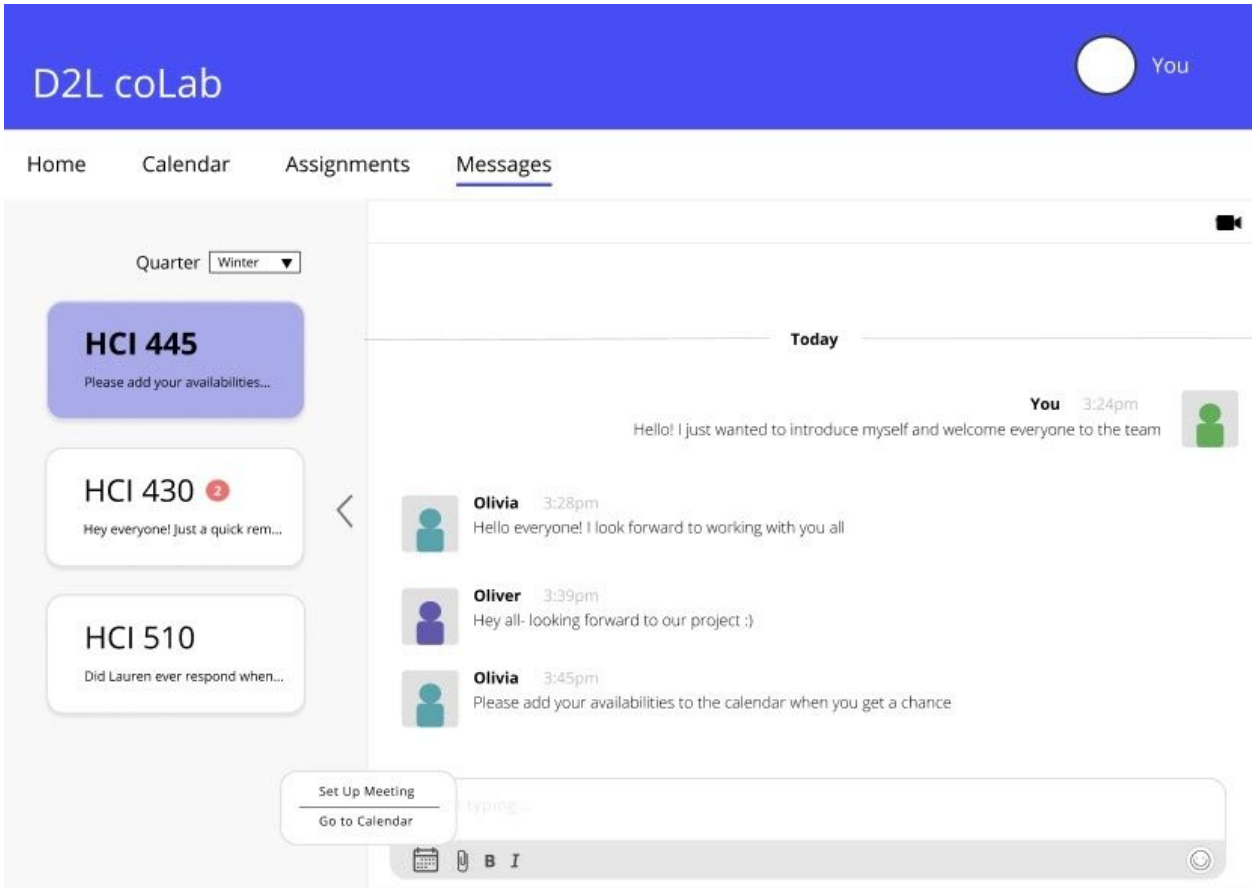


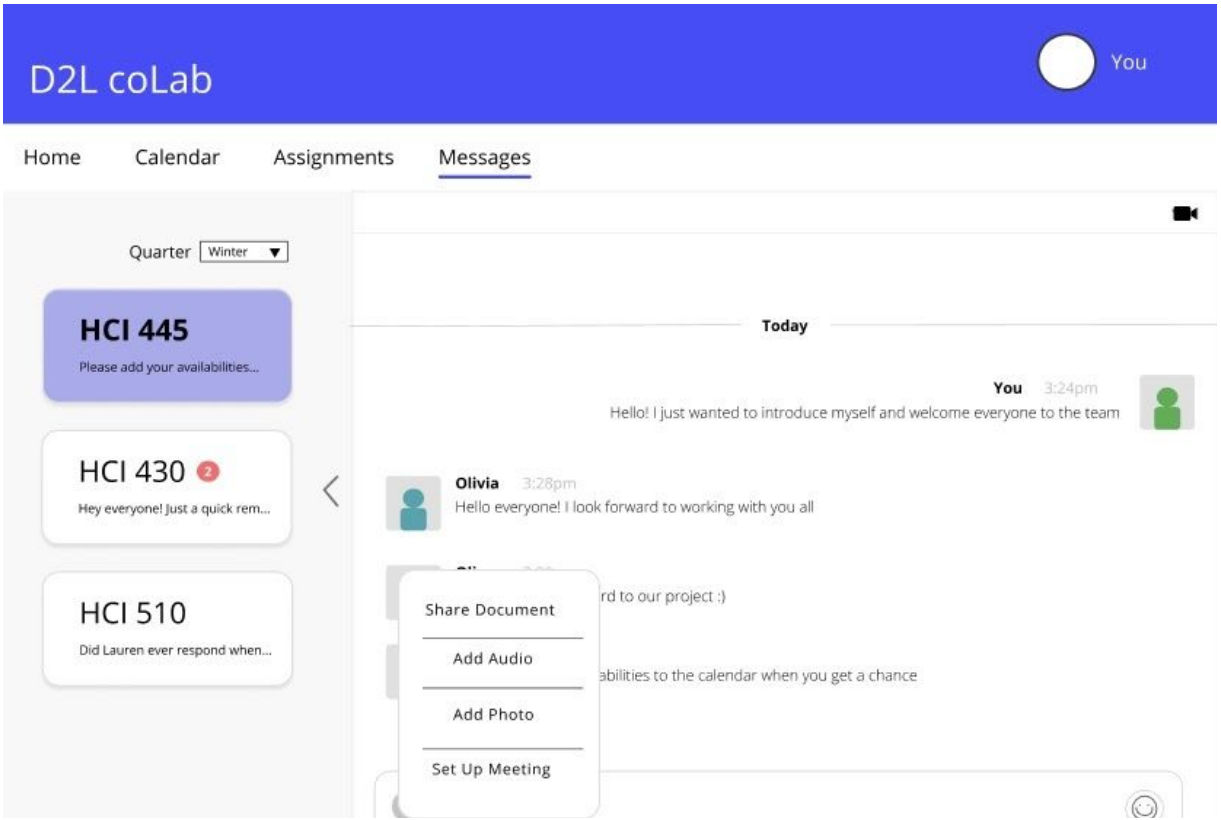

D2L coLab
You
Home
Calendar
Assignments
Messages
Calendar
Monthly
March
HCI 430
HCI 445
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
1
2
3
Digital narrati...
Prototyping
Final paper
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
Set Up Meeting
Add Task
Add Assignment
My Calendars
Deadlines
HCI 430 Group Availabiliites
HCI 445 Group Availabilities

Recommendation 5

Messages changes made:

- Removed plus sign and replaced with icons

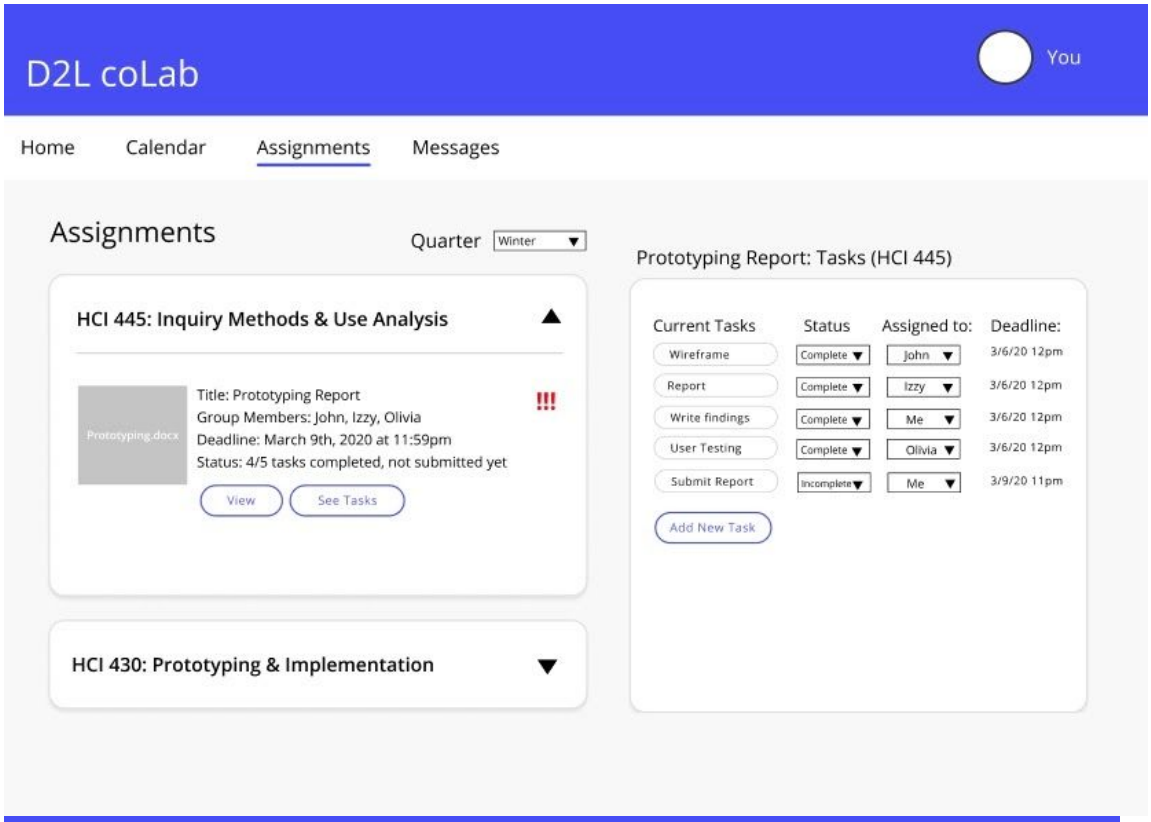


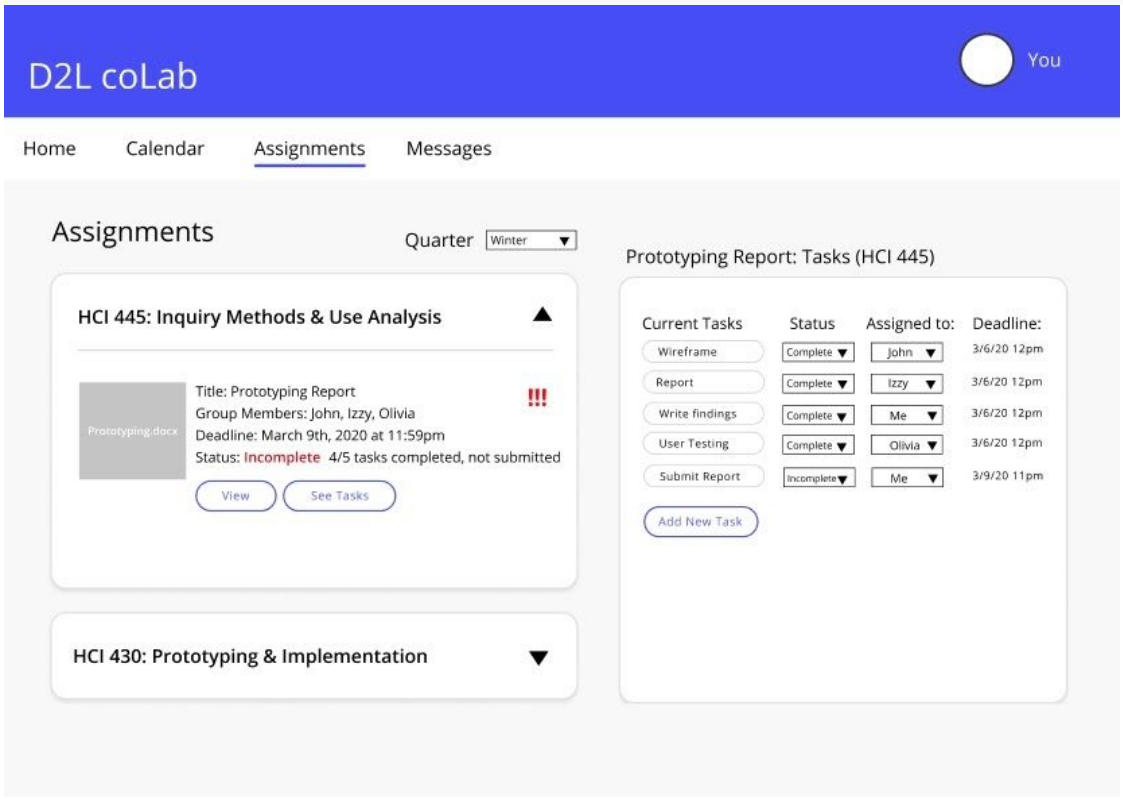


Recommendation 6

Assignments changes made

- Made status of assignment more obvious





Appendix: Test-Session Notes

Moderator Name: Natalie

Participant 1: Ben
Age: 20s
Occupation: graduate student
Device Tested: desktop
Date of Testing: 2/12/20

Question: On a scale of 1-10, with one being the easiest and 10 being the hardest, how difficult was it to complete this task?

Task #	Task Description	Participant Task Rating (1-10)
1	Set Up Meeting (Chat)	6
2	Set Up Meeting (Calendar)	2 or 3
3	Assign Task (Calendar)	3
4	Assign Task (Report)	10 (could not complete)

Participant Feedback

Task 1
Task was phrased in weird way
Would want to create a from the calendar
The plus sign was confusing because he thought it was to add a document. Meeting needs a separate icon
Message icon should be in a separate menu so you can access it from other features

Task 2
Easiest part: Because the moderator said "calendar" he knew where to go
Hardest part: Couldn't see the plus sign (maybe move it to the top)
Liked: the ability to visually see group member availability

Task 3
Tried to complete the task via the "Assignments" tab (not calendar)
Confused about the ability to add "group task" and "self task." Didn't immediately associate "group task" with the ability assign a task to a specific team member

Hardest part: determining where to start. Confused about the difference between a "task" and an "assignment."
Would try to complete this task using the "assignments" tab, not "calendar."
Also confused about what "current calendar deadlines" means. (After explanation, thought this was would be a cool, useful feature, but thought that "Deadlines" should appear as a header/title on the page)

Task 4

Navigated to "Calendar" first (not assignments)
Was very confused about this task and could not complete without moderator assistance
Said that the "add new task" button shouldn't be in a hidden menu— it should appear more prominently on the screen
(After moderator explained that he should use the assignments screen, he said...)
He would like to be able to see the status of the assignments (e.g. "complete" or "in review").
Then, there should be a submit button on the main screen screen. The submit button should be disabled until an assignment has been marked as complete.
Maybe add the ability to let group members review and sign off
There were too many steps in the task, which is why he was confused.

Other feedback:

What do the exclamation points mean on the home screen?
Doesn't think that "submitting" counts as a task
The name of the current calendar (e.g. deadlines, availability) shouldn't be hidden on the right panel, it should appear as a title on the top of the screen.

Moderator Name: Anna

Participant 2: Veronica
Device Tested: Mobile
Date of Testing: Feb 14th, 2020

Question: On a scale of 1-10, with one being the easiest and 10 being the hardest, how difficult was it to complete this task?

Task #	Task Description	Participant Task Rating (1-10)
1	Set Up Meeting (Chat)	**5**
2	Set Up Meeting (Calendar)	**NULL**
3	Assign Task (Calendar)	**6**
4	Assign Task (Report)	**3**

Participant Feedback

Task 1
Clicking around on the HCI 445 on the homepage
Messages was having minor difficulties and did not work complete tasks
Issue with the plus icon
Everything was prefilled on the page
Finished
How to find out how to set up the meeting
Easiest finding messages
Plus sign in another color

Task 3
Click on calendar
Click on Assignments - Would assume that this is where to assign tasks
Plus icon should be a different color... maybe green?
Clicked John
Click through and was able to complete the rest of the task

Task 4

Pressing the plus to add self self task
Disappears... then add self task mode
Prototyping and then it also disappears
Malfunction

Other feedback:

Hardest task was the 2nd one (Assign task)... not a first instinct for looking for the calendar
Easiest task was assign task because the calendar was understandable since she already learned how to go through it
Most helpful task was to assign tasks because it is clear of expectations and the hardest part of group projects
She would use this app for group projects

Moderator Name: Anna

Participant 3: Ben S.
Device Tested: Desktop
Date of Testing: Feb 14th, 2020

Question: On a scale of 1-10, with one being the easiest and 10 being the hardest, how difficult was it to complete this task?

Task #	Task Description	Participant Task Rating (1-10)
1	Set Up Meeting (Chat)	**2**
2	Set Up Meeting (Calendar)	**3**
3	Assign Task (Calendar)	**8**
4	Assign Task (Report)	**4**

Participant Feedback

Task 1
Click on the HCI 445 on main page
Went into documents
Clicks on Messages
Struggles with plus icon
Type up a message to a group...but instead tap the plus icon
Let the test click on things freely
Set Up meeting does not follow guidelines as usual plus icon... add photo
Make them circles
12pm is not centered to the time

Task 2
Click on Calendar
Clicked on Group available
Sees availability
Click on Set meeting
Scheduled
Options on the side was difficult

But the first calendar was based on first task
Looks like standard text
Colors look great… how does this look with lots of groups???

Task 3
Assignments on the bottom of the calendar
Obvious based on the top of the location
Research is not current task
Submit report??? Instead of the other
Assumes you can type in instead
No idea what he was doing
Submitting reports and got very confused

Task 4
No Notes
Seemed to go pretty easy
Not understanding the website
Simple… click on the little check mark here
RIght off the gate have submit to d2l

Other feedback:
View Document
Pop out more in calendar
Does not like to make things verbally instead of assigning tasks
If the school made me… but probably not

Moderator Name: Samantha

Participant 4: Rene O.
Device Tested: Mobile
Date of Testing: 2/14/2020

Question: On a scale of 1-10, with one being the easiest and 10 being the hardest, how difficult was it to complete this task?

Task #	Task Description	Participant Task Rating (1-10)
1	Set Up Meeting (Chat)	**8**
2	Set Up Meeting (Calendar)	**3**
3	Assign Task (Calendar)	**4**
4	Assign Task (Report)	**4**

Participant Feedback

Task 1

Participant found the task difficult, mostly due to wording. After hearing the task, he assumed he would need to go to calendar and set up a meeting from there. Then clicked around in messenger. He did not complete the task fully. He found the most difficult part in the UI. He had no idea where to go. Also task said "chat" instead of "messages". He wondered why he needed to get a meeting through messages, usually meetings are set up through calendar - at least when he sets them up. He does find this feature useful for group work as long as there is a way to set up meetings from calendar as well.

Task 2

Participant was confused on what the assignments listed in the overlay were. He would have liked a heading of some sort that showed that they were assignments for a class. Also if they were assignments he would like the see the time that they are due. He found the steps to get to setting up the meeting was simple and easy to figure out once he found the + icon.

Task 3

Felt that the calendar was too cramped and it was hard to see what he was looking it. When the tasks are submitted they should be separated from the assignments. The steps were easy to take because he remembered seeing the add task when doing the second task, but intuitively he would have gone to assignments to assign tasks because it has to do with an assignment. He wondered if the group member that is assigned a task would receive a notification.

Task 4

Participant was confused why there were self tasks and group tasks, should have been just one. He found submitting the assignment was easy and simple, but confused on why he needed to submit the assignment through calendar.

Post-Test

He found the first task difficult - meeting should be made from the calendar. He found assigning tasks to group members the easiest. He preferred setting up meetings from calendar. He found all tasks helpful for group work, especially the meetings. He would not use this app.

Moderator Name: Katie

Participant 5: RJ
Device Tested: Mobile
Date of Testing: 2/14/20

Question: On a scale of 1-10, with one being the easiest and 10 being the hardest, how difficult was it to complete this task?

Task #	Task Description	Participant Task Rating (1-10)
1	Set Up Meeting (Chat)	4
2	Set Up Meeting (Calendar)	9
3	Assign Task (Calendar)	6
4	Assign Task (Report)	10

Participant Feedback

Task 1
Clicked on HCI 445 on home page
Clicked on Tasks dropdown on home page
Clicked around the screen before realizing he had to select + button
Easier after finding "Set Up Meeting" after figuring out + button

Task 2
Didn't know to select 3 first
After reading task list, tried to scroll down to see if action was there
Figured out to select + button
Clicked on 3 on calendar and it went to chat room
Went to video call because wasn't sure the task was finished
Easiest part was beginning when going to the calendar, got increasingly difficult

Task 3
Tried to click on tasks dropdown on homepage
Went to calendar tried tried to click assignments dropdown box
Tried to scroll down again to see if there were any actions before selecting + button
Easier when figuring out to select + button

Confusing that you have to select 3 first to get to the + menu

Task 4

Tried to click Assignments tab first
Went to calendar and tried to add task from there
Repeated task 3 instead
Was confused where to go next so did not complete task
After being shown the path, thinks Self Task and Group Task should be combined into one command

Moderator Name: Katie

Participant 6: RJ
Device Tested: Desktop
Date of Testing: 2/14/20

Question: On a scale of 1-10, with one being the easiest and 10 being the hardest, how difficult was it to complete this task?

Task #	Task Description	Participant Task Rating (1-10)
1	Set Up Meeting (Chat)	3
2	Set Up Meeting (Calendar)	5
3	Assign Task (Calendar)	7
4	Assign Task (Report)	4

Participant Feedback

Task 1
Some people might not know to click + sign to set up a meeting unless there was a signifier.
Likes that messages are grouped into classes

Use icons instead of opening the menu
(May have been easier because completed the same task in mobile- also applies to task 3 and 4)

Task 2
The option menu was confusing, prefers that it would be at the side.
Clicked on pink HCI 430 button first
Easiest part was viewing everyone's availability and choosing the date
Would be easier if option menu was more obvious to click

Task 3
Figuring out to click + button was most difficult
Would think its easier if did not need to open menu and actions were already displayed

Task 4
Easiest part was submitting the report

Prefers to verbally instruct someone to submit the report rather than assigning a task

Notes on desktop prototype:

- Set up a meeting/look at the messages, different colors
- More intuitive to do calendar to set up meetings
- + sign is confusing, use icons instead of + sign
- Make sidebar more obvious -> Make it look like a link or button
- Remove the plus sign -> Have things more obvious at the side
- (On calendar) Move + sign to the top or make it more obvious
- Group vs self tasks - does not need to be separated
- Make different views more obvious
- See status of an assignment

Notes for the mobile prototype (Anna):

- Setting up a meeting seems out of place (chat...not instinctual)
    - Maybe redirect into the calendar
    - Calendar icon (common theme with the testers)
    - Keep the same place and stay in the calendar... but still have option to view in the chat
- Group and Self task does not need to be seperated
    - Seperate in the second screen
- Change the color to something that will stick out more
- Calendar seems cramped... maybe make more space between the weeks and the days
- Wording isn't something that the most common for people who aren't taking the task
- Change the February for March 3rd... maybe have the option to have it open already?
- Submit the assignment... go to the assignment tab