

Capstone 2020

Final Progress Report

Partnered with UW Continuum College

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Executive Summary

For this final progress report we will summarize and show the findings and work we have accomplished during the third milestone. Over the course of this milestone we developed and conducted usability tests of our high fidelity prototype, we then analyzed and solidified the results into workable feedback and refined our prototype. Through multiple refinements we were able to finalize our design and create our final deliverable.

Findings

By conducting our usability tests with UW students we were able to learn that our design could be more engaging as well as it lacking clarity or purpose in some pages. Then by incorporating this feedback into our design we were able to iterate on the design multiple times to get to our final product.

Usability Testing

The following section contains our procedure and results for the usability studies that we conducted. To begin with, we reached out to our Regina, our PhD advisor, to pilot our usability test in order to refine both our script and usability issues. From there, we recruited 4 participants to serve as “users” of our new feature. After conducting these tests, our team analyzed the findings to move our designs to its final iterations.

Recruitment

We recruited our participants with a screening survey similar to the one we had in Milestone 1 (**Appendix 1**). The participants needed to fulfill the following requirements to be eligible for the usability test.

- **Participants should be former or current University of Washington (UW) students.** Canvas itself is an LMS utilized by many universities, each with customized experiences. For our project, we are looking specifically to understand UW Canvas.
- **Participants have used Canvas for a college-level course.** To gather the most relevant insights, participants need to have experience using Canvas with a college course.
- **Participants have experience taking an online college-level course.** As we sought to evaluate students’ experiences and cognitive load with online learning, it was necessary for students to be experienced in an online course environment.
- **Participants should have access to a working computer with video and audio.** To observe our participants in their working environment especially with the social restrictions from COVID-19, our contextual inquiries needed to be done remotely.
- **Participants have a UW email.** In order to conduct real-time testing with H5P content, our participants needed to be placed into a specialized sandbox Canvas course that our sponsor created. The optimal method for giving access was for our participants to have an active UW email account.

Procedure

We conducted moderated remote usability studies. For the usability test, our team crafted a scenario along with guiding tasks and questions based on our objectives. We wanted to explore student’s perspectives of our proposed Canvas feature for study

groups. We designed a script with broad tasks and questions (**Appendix 2**) for the participants and asked them to explore the feature's onboarding and main interactions as if they were a student being introduced to it. We designed the usability testing with flexibility as well, giving the moderator and notetakers the option to explore any interesting thoughts or interactions our participants may have expressed.

Analysis

To qualitatively analyze the data, we grouped feedback from participants based on task. As a team, we approached these tasks as areas of focus for our analysis. We recorded their comments/behaviors for each task into a table to organize and prioritize observations that showed up the most. Finally, we used this table to figure out the level of priority for each issue/behavior that was recorded.

Results

Task 1 <ul style="list-style-type: none"> - Want to view class info first before exploring study groups (Javaria, Lena) - Didn't really read through modal or welcome to study group page (All) 	Task 2 <ul style="list-style-type: none"> - For Q1 in the quiz, Wonder if there is a way to customize Monday mornings or evenings. (Reina) - Can't decline a group after the quiz (Javaria) - Might be helpful to do some personality questions in case, it makes sense that it's for study groups and when (Alida) - Wonder if you already know people then you can choose people to be in your study group. (Reina) 	Task 3 <ul style="list-style-type: none"> - Would like to see how many tooltips are in the onboarding sequence, i.e. 1 out 3 (Javaria) - Not sure how to reply to an announcement itself not others' comments (Javaria, Lena) - Who's online at announcement seems unnecessary, something else there instead? - If there were a lot of comments, I wonder what would happen if there's more nested comments. (Javaria, Alida)
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<p>Task 4</p> <ul style="list-style-type: none"> - More functionality to messages, see time stamps and search messages, see who read a message (Javaria, Reina) - Maybe include an image in the prototype for the messenger? Illustrate that we have the ability to attach files - Would be cool to see who saw the message in the main chat b/c it would be nice to see who saw it instead of waiting for a response or not knowing if the message is being ignored. (Reina) 	<p>Task 5</p> <ul style="list-style-type: none"> - Terminology for buttons are confusing, example when leaving a study group, it says “next” instead of “confirm” (Javaria) - Did not know that you couldn’t go back. Would want the ability to come back because you’re not sure what kind of groups are available. (Reina/Alida) 	<p>General</p> <ul style="list-style-type: none"> - Remind me tomorrow, want to dismiss notification - Home page is unclear (Javaria, Lena) <ul style="list-style-type: none"> - Looks just like a messenger - Could have more information like upcoming events, and when they meet
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After the analysis and compilation of results, our team moved forward to iterate based on the feedback from our results.

Design Revisions

With the results from our testing, we sought to operationalize the feedback into design improvements. As a team, we worked to create a list of changes in our design that would address the feedback we felt was most important.

Here is the list of changes from our previous medium/high fidelity mockups.

Onboarding

- Improve modal/welcome page to be simpler and have less text
- Change wording for buttons to be more positive
- Change the successfully joined a group page to let users decline groups and explore others

Home Page (of a Study Group)

- Have a clearer home page, with more information about study meetings, etc.
- Figure out group description

Announcements

- Announcements could include pictures of who's replying
- Change announcement page for comments and replies, better distinguishing between the two
 - Addressing how to reply to the announcement vs a person's comment

Find a study group

- Rejoin study groups - provide the card when exploring for new study groups
- Change the "Find a study group page" to include a Search and Filter function

Matchmaking Quiz

- Reword and structure the quiz's questions related to study schedule
 - Reduce confusion between the frequency of studying and days
 - Potentially change first two questions to function like when2meet
- Change the matchmaking quiz to be more cohesive in its visual branding with the rest of the study group
- Add in questions about personality and interests to address the missing personalization/customization of a study group

High Fidelity Mockups

With the list of design revisions, our team collaborated on Figma to create the final high fidelity mockups. We went through two separate iterations, highlighted in **Figure 1**.

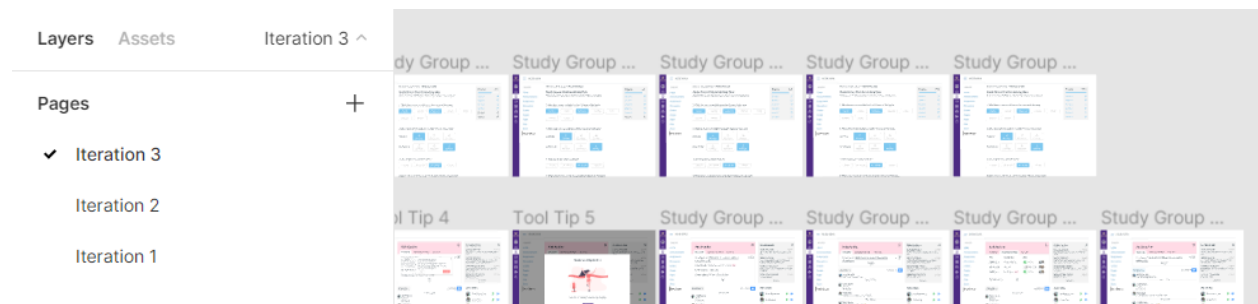


Figure 1. We used Figma pages to separate our different design iterations

The high fidelity mockups serve as our final deliverable for our exploratory design of Canvas. Below are several figures showcasing features of our feature, study groups.

Home

Announcements

Assignments

Discussions

Grades

People

Pages

Files

Zoom

Study Groups

HCDE 419 A

Spring 2020

Welcome to Study Groups > Matchmaking Quiz

Study Group Matchmaking Quiz

Please answer the following questions to help us find you a study group.

1. What days are you available to study? Choose all that apply.

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

2. What times are you available to study? Choose all that apply.

On Monday

Mornings

Afternoons

Evenings

On Wednesday

Mornings

Afternoons

Evenings

3. How long do you usually study for?

< 30 min

30 - 60 min

60 - 90 min

> 90 min

4. What resources do you like to use to study? Choose all that apply.

Progress 33%

Question 1

Question 2

Question 3

Question 4

Question 5

Question 6

Figure 2. Our matchmaking quiz helps students find study groups that fit their schedules and interests

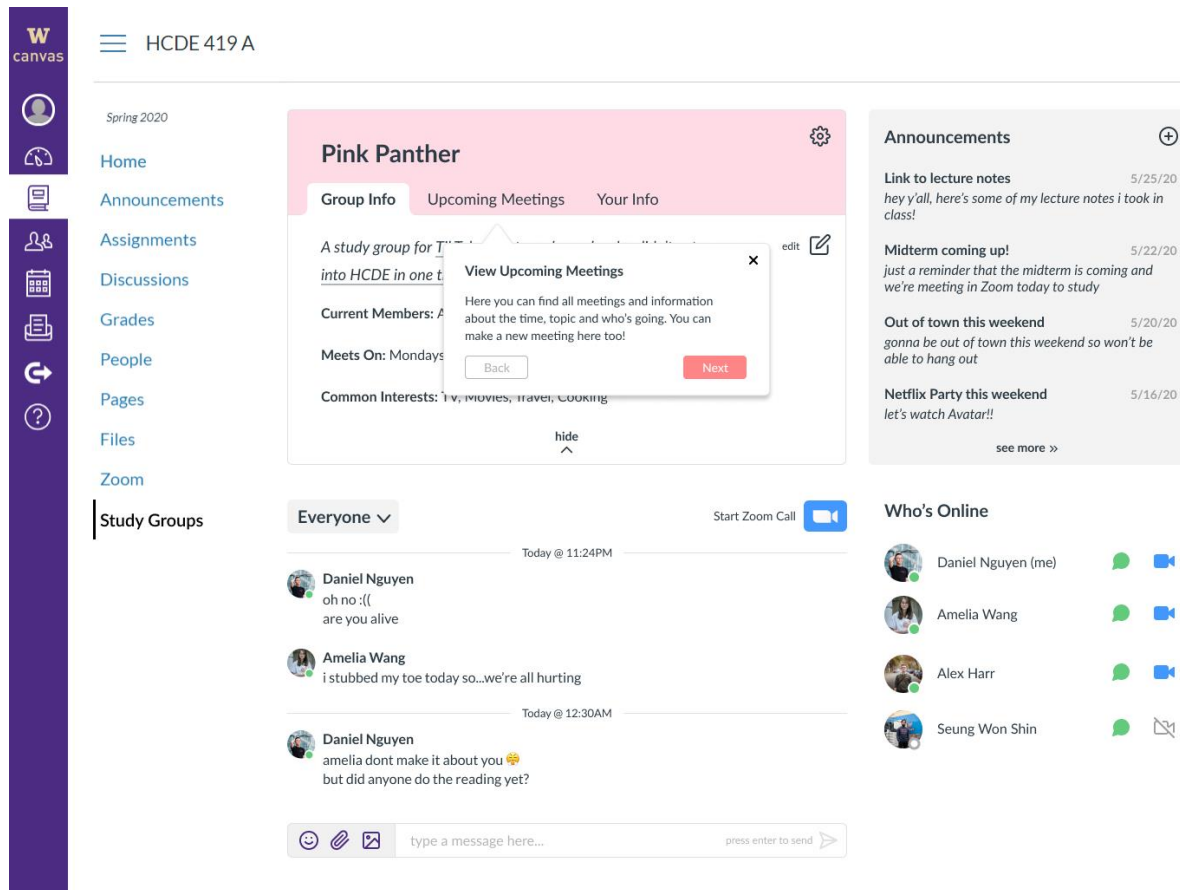


Figure 3. We designed an onboarding with tooltips to explain how study groups function. Users can instantly message others, view group information, schedule meetings, and post announcements in a study group.

The screenshot displays the Canvas LMS interface. On the left is a dark purple sidebar with the Canvas logo and navigation icons for Home, Announcements, Assignments, Discussions, Grades, People, Pages, Files, Zoom, and Study Groups. The main content area is titled 'HCDE 419 A' and 'Spring 2020'. It features a group chat for 'Pink Panther' with tabs for Group Info, Upcoming Meetings, and Your Info. The Group Info tab shows a study group description and a 'show more' link. Below this is a list of group members: Daniel Nguyen, Amelia Wang, Daniel Nguyen, and Amelia Wang, with their last messages. A 'Start Zoom Call' button is visible. On the right, there are 'Announcements' and 'Who's Online' sections. The 'Announcements' section lists several messages with dates. The 'Who's Online' section shows a list of users with their status (online or offline).

Canvas LMS Interface

Navigation Sidebar:

- Home
- Announcements
- Assignments
- Discussions
- Grades
- People
- Pages
- Files
- Zoom
- Study Groups

Group Chat: Pink Panther

Group Info:

A study group for TikTok addicts and people who didn't get into HCDE in one try.

Members:

- Daniel Nguyen: amelia have you done the reading
- Amelia Wang: what no isn't it due tomorrow?
- Daniel Nguyen: ya
- Amelia Wang: exactly

Announcements:

- Link to lecture notes** (5/25/20): hey y'all, here's some of my lecture notes i took in class!
- Midterm coming up!** (5/22/20): just a reminder that the midterm is coming and we're meeting in Zoom today to study
- Out of town this weekend** (5/20/20): gonna be out of town this weekend so won't be able to hang out
- Netflix Party this weekend** (5/16/20): let's watch Avatar!!

Who's Online:

- Daniel Nguyen (me)
- Amelia Wang
- Alex Harr
- Seung Won Shin

Message Input:

smh, i guess i'll ask Alex

press enter to send

Figure 4. Messaging is instant and allows for users to input casual and formal information within the textbox. Users can message the group and individual people as well as view who's currently online.

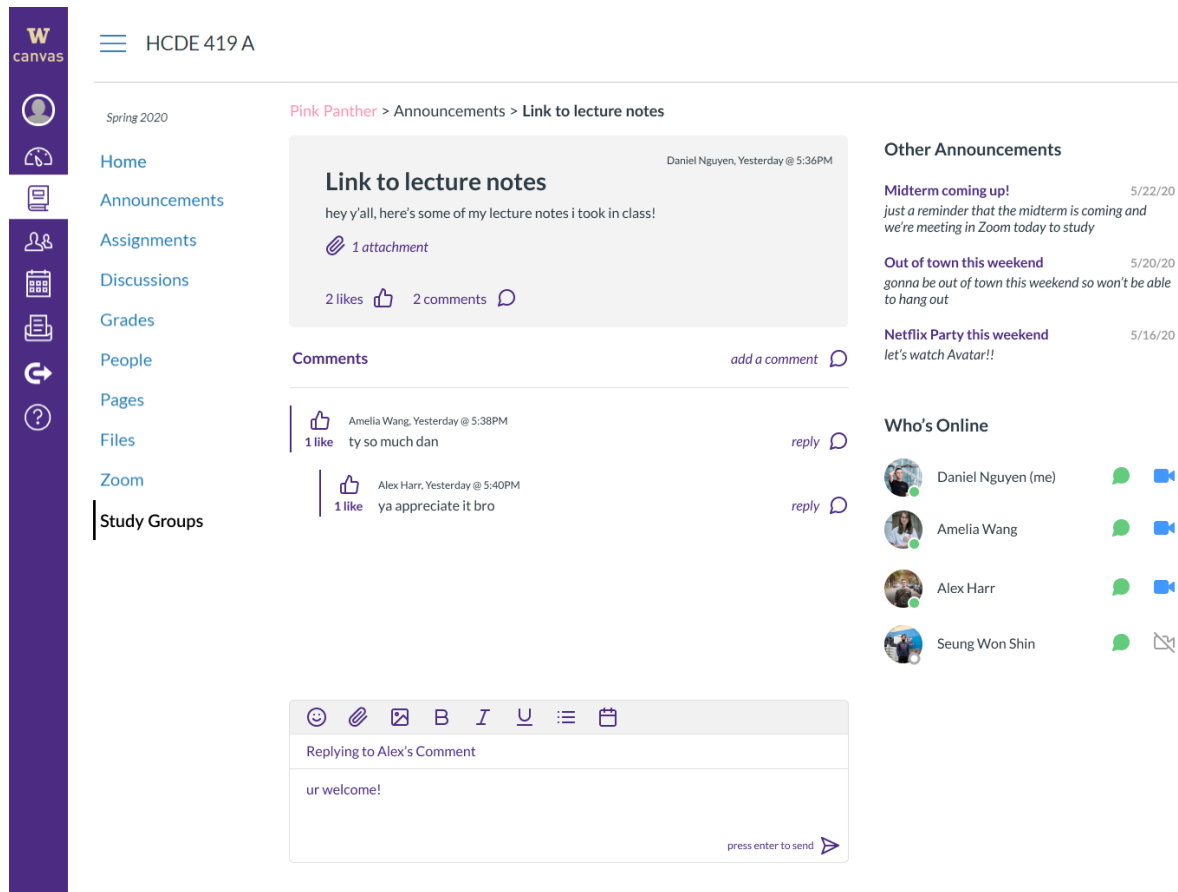


Figure 5. Announcements are pinned for users to easily access important information such as resources for studying. Users can easily comment and reply on them.

The complete prototype can be viewed through this Figma link:

<https://www.figma.com/proto/hYCQ9VIAbLn7aPSPCCLSz9/Mockups?node-id=235%3A11276&scaling=min-zoom>

Reflection + Next Steps

During this milestone, we iterated on our previous designs in Milestone 2 with feedback from users through usability testing. After our four successful usability tests, we successfully improved our study group feature to be a viable solution that enhances the student online learning experience. We received extremely positive feedback from our participants on their desire and appreciation of the feature. Our team is proud of our final design deliverable for its user experience, fidelity, and interactions.

For our next steps, we plan to focus on the presentation of our process and milestone deliverables to show at the Capstone showcase. We will be preparing a video to highlight the main features of the new study group feature as well as a process book to portray our extensive research and design process.

Appendix 1. Usability Screening Survey

Screening Survey

Thank you for your interest in participating in our research study!

Our team of UW students is seeking participants for a research study. We are seeking your help to evaluate a new feature for Canvas. If you are interested in helping us, please fill out this short screening survey below.

The study will require a commitment of 45 minutes, but will be done remotely online with Zoom. Please note that this study is for educational purposes only, and participation is voluntary.

If you meet our recruitment criteria, we will contact you in order to confirm a time and date for the study.

*** Required**

Email address *

Your email

Are you a current or former UW Student? *

☐ Yes

☐ No

Have you used Canvas before for a college course? *

☐ Yes

☐ No

Have you taken an online college course before?

☐ Yes

☐ No

Do you have a working computer with video and audio? *

☐ Yes

☐ No

Please select the dates on which you are available for a 45 minute Zoom call. *

☐ May 25, 2020 (Monday)

☐ May 26, 2020 (Tuesday)

☐ May 27, 2020 (Wednesday)

☐ May 28, 2020 (Thursday)

For the purpose of our research study, our team needs to analyze and review data collected during our sessions. We ask that you read the following statements and provide your consent by checking each statement. *

☐ I am voluntarily taking part in a research study conducted by Team 13.

☐ I understand that my participation will be recorded on digital audio and video.

☐ I understand that data and information I share will be handled confidentially and anonymously.

☐ I understand that the audio and video recordings will not be used for any commercial purposes whatsoever. The data may be used in class presentations but will not be used outside of the course.

☐ I will not be identified by name or by showing my face.

Appendix 2. Usability Script

Procedure

1 Moderator

1 Notetakers/Time Keeper

Zoom - Recorded Sessions

45 minutes - Usability Testing and Questions

Research Question - What do students think of the onboarding of a new feature? Do students react positively to the idea of study groups?

Introduction

Hi, thank you for agreeing to participate in our study today. My name is _____, and I will be the moderator. _____, _____, and _____ will be observers for this session and will be taking notes throughout the session.

Our team's objective today is to learn about how students react to a potential new Canvas feature. We will ask you to explore the new feature through several tasks and observe you while you do them. After each task, we will ask some reflection questions about the task.

We will be using the think aloud protocol throughout this study so we will be asking you to voice your expectations, questions, and any thoughts you might have as you complete the tasks.

Please know that we are testing the usability of the feature, not your ability to complete the task. There are no wrong answers while you go through these tasks. There is no time limit but please complete the task at the speed that you typically would.

Please be honest in any feedback during the session. We are not affiliated with Canvas and will not be offended by any of your thoughts.

This session should take around 45 minutes to complete. Feel free to let us know if you need a break at any time. All of your information will be confidential. If you have any questions throughout, please do not hesitate to ask.

Do you have any questions before we get started? Ok, let's start.

Usability Test

****We need to share the Figma prototype link before****

<https://www.figma.com/proto/hYCQ9VIAbLn7aPSPCCLSz9/Mockups?node-id=98%3A1449&scaling=scale-down&hide-ui=1>

Please click the link that we sent over email to access our prototype

Scenario

It is the first day of fall quarter and you decide to check the canvas sites for one of your new online classes, HCDE 419, to see what the class is like.

Task 1

For your first task, please complete the onboarding of the feature shown on the screen. And think aloud as you go through it. The task will be completed after you read through the “Welcome to study groups page”

Post-Task Questions

1. What are your general thoughts about this onboarding process?
2. Did you find it challenging at all to keep your focus during the onboarding process?
3. Are there specific things that you liked about the onboarding process?
4. Did you find any feature particularly helpful?
5. Did you find anything challenging about completing your task?

Task 2

Please complete the matchmaking quiz and join a study group. The quiz is prefilled with answers, but we would like you to imagine that you are actually taking it and answer questions one by one. Once joined, please proceed through the onboarding. The task will be completed when you reach the “Thanks for completing the tour page.” Again please remember to think aloud.

Post-Task Questions

6. What did you think about the matchmaking quiz?
7. Would you use it in any of your classes if this were a feature in canvas?
8. What could be improved about it? What did you like about it?
9. Looking at the main study group page, what are your thoughts about it?
 - a. What do you think you can do on this page?

Task 3

For your third task, comment on the “Link to lecture notes announcement. The task will be completed when a reply is added to the post. Please remember to think aloud.

Post-Task Questions

10. What did you think about the announcement commenting process?
11. What are some things that could be improved?
12. What features of announcements did you enjoy?

Task 4

The next task we will have you do is send a message to Amelia. The task will be completed after you send a message to Amelia and return to the “Everyone” chat.

Post-Task Questions

13. What did you think about using the chat feature?
14. How do you feel about this feature?

Task 5

The last task we will have you do is leave the study group as a member. The task will be completed when you reach the “Find a study group” page.

Post-Task Questions

15. What did you think about leaving the study group?
16. How do you feel about not being able to rejoin a study group?
17. What do you think about the “find a study group” page?
18. Would you want to join multiple study groups for a class or be in one?

Ok, that is all of the tasks. Thank you for doing a great job. We have a couple reflection questions left and then you’re free to go.

General Reflection Questions

1. What did you think of the overall concept of study groups?
2. Would you use this feature if it was implemented for real? Why or not?
3. Are there any features that you would like added to study groups?

Those are all the questions we have for you. Do you have any for us?
Is there anything else you’d like us to know?

Thanks so much for being part of our study!

Appendix 3. Participant Email

Hi _____,

Thanks for agreeing to participate in our usability study! We will see you on _____ at _____. You can join us at our zoom link: _____

Please open this link during our session when we tell you to.

<https://www.figma.com/proto/hYCQ9VIAbLn7aPSPCCLSz9/Mockups?node-id=98%3A1449&scaling=scale-down&hide-ui=1>

To help you during this remote session, here are the tasks we will be asking you. You can refer to these throughout the study or ask us to clarify any tasks!

Scenario

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The next task we will have you do is send a message to Amelia. The task will be completed after you send a message to Amelia and return to the “Everyone” chat.

Task 5

The last task we will have you do is leave the study group as a member. The task will be completed when you reach the “Find a study group” page.

Thank you again!

Sincerely, Team SAAD