Analysis 1: results of user tests 1.

o User 1: Xilei

- She is confused with the "notification" and "inbox". #navigation #wording
- The name of the group under the dashboard is unclear. #group #confusing
- She doesn't know where to find the feedback from TA or instructor for a certain assignment. #comment #hardtofind
- Group assignment is usually submitted by one of the group members, and it's not available for all members to view the system status after submission. #group #visibility #synchronization #functionality
- It is not easy to find a certain message in the inbox, cannot remember TA's name and cannot figure out if the message belongs to a certain course when there is no specification in the title or in the message. #inbox #hardtofind #recalling
- The filter design in the inbox is poorly designed. #inbox #aesthetics
- No messages under "archived". #inbox #functionality
- Notification number on inbox indicates all the unread messages including courses taken in the past quarters. #inbox #confusing
- No functionality to read all unread messages in the inbox. #inbox #functionality
- The time shown in the calendar is confusing. #calendar #confusing

- Top 3 usability errors

- 1. Cannot view group submissions (Visibility of system status)
- 2. Cannot read all unread messages in "inbox" at once (Flexibility and efficiency of use)
- 3. Unread messages from previous quarters are not archived (Flexibility and efficiency of use)

O User 2: Katie

- No problem finding the feedback
- Wonders if the TA reads her comment or not in "submission/rubric" "comment"
- She was not sure what the "file" was and did not know "why is there a check mark next to it"
- "Why is there nothing in rubric"
- She submits group assignment the same way as she submits an individual assignment
- She could not see submission details even though the other group member submitted it
- When the assignment is graded, she "still could not see the submitted files"
- She thinks the messages about zoom are "annoying and distracting" when she needs to find a particular message

- She didn't know "what course is this message from," she was not familiar with some of her TA's names and some of the messages didn't have the course name on it.
- "Filter is messy"
- To send messages to her group, she used group on the homepage
- Does not allow her to select all members together at one time
- She was confused when she checked her sent messages
- No problem using "To-Do" to check upcoming activities.

- Top 3 usability errors

- 1. Group submission details not shown for those who did not do the submission (Visibility of system status)
- 2. Can not identify TA in "inbox" (Recognition rather than recall)
- 3. Messages in "inbox" are not organized (Flexibility and efficiency of use)

O User 3: Brian

- Had no problem finding feedback on an assignment.
- Submit the group assignment using the same way as submitting the individual assignment.
- No problem finding a particular message.
- The inbox provides regular inbox features: sender, title, brief content.
- The filter function only provides filtering by courses, not by dates, or people's names.
- The inbox classifies the messages by unread, starred, sent, and archived, but lacks "submission details" which is included on the canvas website. This is a very useful feature when users need a shortcut to check submission comments.
- "Filter" in the inbox can only sort by courses
- There is no searching function in the inbox.
- The user reported that there have been delays in inbox messages, the longest delay is up to 2 days.
- When sending messages to specific groups, there is a lack of group members' information at the choosing window.
- Unless specified by the sender, the inbox does not show what course the message belongs to.
- The notification is so brief that you have to click on it to know the specific topic.

- Top 3 usability errors

- 1. Lacks "submission details". (Visibility of system status)
- 2. Filtering in "inbox" is not specific enough. (Flexibility and efficiency of use)
- 3. No searching function in "inbox".(Flexibility and efficiency of use)

O User 4: Hamza

- Messages cant be filtered by active classes
- Can only filter one at a time
- Layout is ugly and wastes space
- Calendar is super inefficient
- There's no organization under certain tabs
- There are many tabs/ links that take you to external sites without any warning
- Overwhelming amount of messages about zoom meetings
- Have problems identifying TA's names
- Can't mass delete from inbox
- Hard to sift through tasks per day
- There is a lot of unused space
- Have trouble finding a way to send messages to group members or classmates

Top 3 usability errors

- 1. Tabs / Links to external sites without warning (Help users recognize, diagnose and recover from errors)
- 2. Messy layout and unused space (Aesthetic and minimalist design)
- 3. No mass delete in "inbox" (Flexibility and efficiency of use)

Among the four users, only one user had problems with finding the feedback of an assignment. For the other three users, it is pretty easy for them to view feedback, mainly because they have been using the Canvas Student app for a while. In fact, the feedback is located under the "submission & rubric", which can certainly confuse the users, causing them to ignore the tab and then cannot find any feedback through the mobile app.

When performing the task of submitting group assignments, no users had problems doing it but all of them did it the same way as submitting individual assignments. The "group" section on the homepage did not provide ways to submit group assignments. Also, there are problems if they are not the ones to submit assignments, as it shows the assignment is missing on their ends even though the other members have already submitted it.

Three of the four users encountered problems when performing the task involved using "inbox". The "filter" in the "inbox" only provides filtering based on courses and is not clearly organized or displayed. Users also had problems looking for a particular message as they can't recognize the TA's name and the overview of a message sometimes doesn't show what course it is from. Also, since there are many messages about updates of zoom meetings, and there are no mass select functions. Since students are receiving Canvas messages via Gmail simultaneously, three of the users would prefer to check their email instead of Canvas, thus it often leaves users with many unread messages in Canvas.

Usability heuristics: https://www.nngroup.com/articles/ten-usability-heuristics/