Project Part 1 – Proposal & Usability Test Report

CMPT 363 @ Simon Fraser University
Fall 2021

Team #9
Yuhang Yuan - 301357634
Rahil Sharma - 301401661
Supreet Dhillon - 301417326
Pritpal Dhillon - 301365506
Liu Zhe - 301449316

**Note that with the cover page and table of contents, this document should not exceed 11 pages **

Table of Contents

Part 1: Proposal (0.5-1 page)

Through extensive discussion, group 9 has decided to choose "Online class participation" as the area of focus for this project. Since the spring of 2020, due to covid many post-secondary schools have decided to withhold all in-person activities and looked towards the online platform when it comes to post-secondary education. After almost two years of online classes, some schools are finally returning to the default method of in-person classes and education delivery. However, it is not to say that online learning did come with its own share of difficulties, namely in the applications used for delivering online education. In preparation for another wave of the pandemic and taking into consideration that some classes are still being offered online, group 9 has decided to tackle these obstacles and attempt to improve the state of art. Within post-secondary schools, "canvas" is likely the most popular and state-of-the-art app used for online class participation. A major selling point for the application is its connectivity with other student services; namely, the login by default is the same as a student's school account and email just to name a few. Canvas as a platform also acts as a hub for student access to courses they are enrolled in and has the current semester courses displayed on the home page. After entering a specific course page, students would have access to class notes, discussion boards, homework, submit assignments and much more features depending on what the professor has enabled. There is also an online lecture feature, Bb Collaborate Ultra that functions similarly to zoom and allows classes to have online lectures. However, although canvas has numerous functions that contribute positively towards online education, it does have its downs. A major issue is consistency among different courses. Due to each individual course being supervised and constructed by their respective instructors, the canvas page may vary for each course. There are some instructors who even refuse to use canvas and opt to use their own website for distributing class material. This causes confusion in some cases as all the course materials aren't concentrated in one spot. Not to mention due to the limited capabilities of BBcollaborate, some teachers would rather use zoom when teaching lectures while others would continue to use collaboration. Our initial thoughts were to generalize some of the generic tabs such as grades, lecture notes, assignments so that they are uniform in their design and format across all courses. Second, for those instructors who prefer using their own websites, plugins/integrations can be implemented so that students can still access the instructor's personal websites through canvas; this method should allow students to access all their courses through canvas while still retaining an instructor's freedom of choice when it comes to material distribution. Lastly, similarly, zoom can also be integrated into canvas for easier student access, or improve the functions of BB collab to include the zoom functions loved by some professors.

Part 2: Usability Test (max 8 pages)

Executive Summary [1-2 paragraphs]

We are testing the SFU canvas app. We are testing it for four tasks - **Find out the recent activities in a particular class, Start on an Assignment, Participate in the online lecture, Communicate with group members.** We are testing the canvas app because as students of SFU we are regular users of canvas and have experienced some problems initially and sometimes even face it presently.

Objectives for our usability test were as follows:-

- § Testing the noticeability of the 'Recent Activity' tab on the Canvas website, how it assists in keeping the user updated about the recent activities in class. Potential errors would include:-
    - Ø **Navigation error -** Participants may not successfully be able to find the 'Recent Activity' tab in a short span without any interference from us

- § Testing the accessibility of assignments, finding a specific one amongst the plethora of assignments. Potential errors would include:-
    - Ø **Presentation error- '**Start Assignment' button within a specific Assignment page could insinuate to the participants that the assignment submission may be timed.

- § Testing and comparing the ease of participation in the online lectures for Zoom and BB Collaborate respectively in Canvas along with the quality of audio/video in lectures. Potential errors would include:-
    - Ø **Navigation error –** Confusion could arise when choosing among BB Collaborate, Zoom and Lectures tab to join a lecture
    - Ø **Navigation error -** Participants could have difficulty finding certain tools in BB Collaborate such as screen sharing, chat.

- § Testing the ease of communications among Group Members on the canvas website. Potential errors would include:-
    - Ø **Navigation error –** For this particular test, there is a very high potential for error in navigating to the Groups tab since it is located within the 'People' option of the Course Home Page making it very hard for the participant who may have no familiarity with the interface.

    - Ø **Presentation error –** This is another chance of error since participants could face disappointment knowing that communication among group members can only be made in the forms of announcements or discussions and not through chat or audio/video call.

Methodology [1-2 pages]

Four participants of varying demographics and a variety of countries were chosen and were asked to complete the usability testing form. Following the completion of this form, participants were instructed to fill out a pretest questionnaire (provided in the appendix) which lets the facilitator get slightly more information about the participant. Next, the facilitator gives the participant two options either to meet up with the facilitator and

complete the tasks in front of them or they have the option to complete the tasks while being monitored over Zoom. Some tools required for the facilitation process include access to a computer, an internet connection, method of communication between facilitator and participant (either in the person sitting beside each other or with a webcam/microphone setup), access to an account with access to the course webpage

Participants

4 participants are expected. participants' responsibilities will be to attempt to complete a set of 4 representative task scenarios presented to them in as efficient and timely a manner as possible. Participants will be asked to provide feedback regarding the usability and acceptability of the user interface. The participants will be directed to provide honest opinions regarding the usability of the application and to participate in both pre-session and post-session subjective questionnaires and debriefing. Participants will be chosen from a wide varying demographic, age, and school status to get an idea of how the usability of canvas scales between participants of different backgrounds.

Our team members got in touch with willing participants and selected participants who have no experience with canvas to determine usability for new users. Additionally, we compared participants and found that we had selected participants from a range of backgrounds (from students to full time workers who had graduated from a school which does not use canvas). We opted for participants who would be able to understand what is asked of them however had no prior experience doing this on canvas.

Procedure

Participants will take part in the usability test using a mixture of Mac and Windows OS with the application running website version "Canvas.sfu.ca". The participant's interaction with the website will be monitored by the facilitator by sitting in the vicinity and asking the participant to be vocal about what they are thinking while doing the tasks allowing the facilitator to collect data

The facilitator will brief the participants on the application and instruct the participant that they are evaluating the application, rather than the facilitator evaluating the participant. Participants will sign an informed consent that acknowledges: the participation is voluntary, that participation can cease at any time. The facilitator will ask the participant if they have any questions.

Prior to being assigned tasks. The participant must complete a pre-test questionnaire which allows for the facilitator to gain knowledge of the participants' background and will allow for a better analysis of the data collected.

The facilitator will explain that the amount of time taken to complete the test task will be measured and that exploratory behaviour outside the task flow should not occur until after task completion. At the start of each task, the participant will read aloud the task description from the printed copy and begin the task. Time-on-task measurement begins when the participant starts the task. The facilitator will instruct the participant to 'think aloud' so that a verbal record exists of their interaction with the application. The facilitator will observe and record observations of user behavior, user comments, and system actions.

Upon completion of the given tasks, participants will be asked for their feedback on Canvas by the facilitator who will again take notes of the feedback. Following this [participants will be assigned a post-test questionnaire (results and questionnaire shown in appendix) which will ask for their satisfaction with Canvas, whether they would like to use this program more instead of alternatives and lastly how Canvas can continue evolving to better suit their needs.

Usability Tasks [1 page]

The Usability Tasks will be focused and conducted on the web version of Canvas. The application setups were straightforward as all evaluators had access to a canvas account and access to their respective course pages. In the event that evaluators are not from the 363 class group, a canvas account with access to courses would be necessary for completing the following tasks, as well as a PC regardless of the operating system with a stable internet connection.

Test Application: Canvas.sfu.ca

Task 1: **Find out the recent situation for class**. A holiday just passed and you have been on a long weekend break. Being detached from class for a while, you have already forgotten what happened prior to the break. Use canvas to find out what recently happened in all your classes and get caught up.
Reason: The main focus of this task is to test the noticeability of the recent activity tab in the canvas dashboard and see if the user can be updated on what happened in class through the feature

Task 2: **Start on an Assignment.** The instructor for one of your courses just recently released a new assignment. Seeing that you are free for the next few days, you decided to start on the assignment. Navigate through the canvas, access the assignment and find out what is due.
Reason: Considering for most classes, assignments account for a large amount of the grades, it is important for users to efficiently be able to access new assignments and learn of what's expected

Task 3:**Participate in the online lecture:** It is the first day of class but prior to the start of the semester, you decided to leave your school's city and return home due to the pandemic. Seeing that the pandemic is raging on, you are unable to return to school due to travel bans. Navigate through canvas and participate in the online lecture of CMPT 363.
Reason: The covid pandemic has vastly changed how post-secondary education is delivered and seeing how an issue with canvas is that some instructors rather prefer using zoom over BB collaborated, it is important to have this feature tested and find out what is causing the issue

Task 4: **Communicate with group members:** For one of your classes, you are engaged in a group project activity. Unfortunately, you were unable to obtain the contact information of any of your group members. The next assignment for the group was released and discussions need to be had between members to coordinate the distribution of tasks. Use canvas to communicate with your CMPT 363 group and discuss the plan for the project.
Reason: When it comes to group projects, communication is key for success, taking into account that not everyone would be using the same media application. It is best for the canvas built-in feature to be tested and improved upon if necessary

Usability Metrics

Using a combination of the following Task Metrics we measured the Usability Metrics under ISO/IEC 9126-4 approach (https://www.iso.org/obp/ui/#iso:std:iso-iec:tr:9126:-4:ed-1:v1:en). There were 4 participants who performed the Tasks:

1. Task Success: For Task 1, all the participants were able to complete the task very easily. For Task 2, two people took extra time to do it but eventually they were successful. For Task 3, the majority of the people found it a bit confusing and took about 5 min to get it done and In Task 4, all the participants found it the hardest one but they all were successful in completing.
2. The number of errors: For Task 1 and Task 2 there were no errors performed. For task 3 the average was 1.5, whereas, for task 4 the average was 2.5.
3. Task Time: End Time - Start Time. See information regarding Time for Task under "Efficiency".
4. Subjective Mental Effort Question (SMEQ): All the participants gave their views on how hard or easy it was to do the task. Further information is under the "Satisfaction".

Usability Testing Metrics fall under three different types which ensures an all-round quantification of the usability of the system being tested:

- Note: All the participants undertook 4 tasks.
- Participant 1 was Pawan Hayer, Participant 2 was Hugh, Participant 3 was Aman Dhillon , Participant 4 was Kajal.

1. Effectiveness: Task Success, the number of errors were used to calculate the effectiveness.

$$Effectiveness = \frac{Number\ of\ tasks\ completed\ successfully}{Total\ number\ of\ tasks\ undertaken} \times 100\%$$

   a. Participant 1: Number of Tasks completed successfully = 4.
      Therefore, Effectiveness $= (4/4) * 100\% = 100\%$
   b. Participant 2: Effectiveness $= (4/4) * 100\% = 100\%$
   c. Participant 3: Effectiveness $= (4/4) * 100\% = 100\%$
   d. Participant 4: Effectiveness $= (4/4) * 100\% = 100\%$

   So, Overall Effectiveness $= (100 + 100 + 100 + 100 / 4) = 100\ \%$

2. Efficiency: The efficiency is measured using Time - based Efficiency.

$$Time\ Based\ Efficiency = \frac{\sum_{j=1}^{R}\sum_{i=1}^{N}\frac{n_{ij}}{t_{ij}}}{NR}$$

where:
N = The total number of tasks (goals)
R = The number of users
n_{ij} = The result of task i by user j; if the user successfully completes the task, then $N_{ij} = 1$, if not, then $N_{ij} = 0$
t_{ij} = The time spent by user j to complete task i. If the task is not successfully completed, then time is measured till the moment the user quits the task

   As time is in minutes so Time Based Efficiency will tell us about the number of goals achieved per minute.

   a. Task 1: N $= 1$, R $= 4$
      User 1: Tij $= 1$ min, Nij $= 1$; User 2: Tij $= 7$ min, Nij $= 1$
      User 3: Tij $= 5$ min, Nij $= 1$; User 4: Tij $= 1$ min, Nij $= 1$

T.B.E = (1/1 + 1/7 + 1/5 + 1/1) / (1 * 4) = 0.58 goals/min
  b. Task 2: N = 1, R = 4
    User 1: Tij = 1 min, Nij = 1; User 2: Tij = 1 min, Nij = 1
    User 3: Tij = 7 min, Nij = 1; User 4: Tij = 1 min, Nij = 1
    T.B.E = (1/1 + 1/1 + 1/7 + 1/4) / (1 * 4) = 0.59 goals/min
  c. Task 3: N = 1, R = 4
    User 1: Tij = 5 min, Nij = 1; User 2: Tij = 1 min, Nij = 1
    User 3: Tij = 5 min, Nij = 1; User 4: Tij = 5 min, Nij = 1
    T.B.E = (1/5 + 1/1 + 1/5 + 1/5) / (1 * 4) = 0.4 goals/min
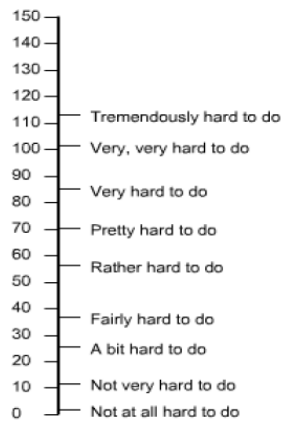 d. Task 4: N = 1, R = 4
    User 1: Tij = 7 min, Nij = 1; User 2: Tij = 7 min, Nij = 1
    User 3: Tij = 15 min, Nij = 1; User 4: Tij = 10 min, Nij = 1
    T.B.E = (1/7 + 1/7 + 1/15 + 1/10) / (1 * 4) = 0.11 goals/min
    Therefore, we can see here that Task 4 has least efficiency with 0.11 goals/min.s

3. Satisfaction: SMEQ, and the participants' views were used to rate the level of satisfaction with the product.

This scale is used under Subjective Mental Effort Questionnaire (SMEQ) also referred to as the Rating Scale for Mental Effort.

150 —
140 —
130 —
120 —
110 — Tremendously hard to do
100 — Very, very hard to do
90
80 — Very hard to do
70 — Pretty hard to do
60
50 — Rather hard to do
40
30 — Fairly hard to do
20 — A bit hard to do
10 — Not very hard to do
0 — Not at all hard to do

  a. Task 1: Participant 1 and 4 thought that Task 1 was not very hard to do (10/150). whereas, participants 3 and 4 find the task a bit hard to do (20/150)
  b. Task 2: Participant 3 finds the task to be Fairly hard to do (40/150) whereas, all other participants finds it not very hard to do (10/150)
  c. Task 3: All the Participants find this task not very hard to do so (10/150).
  d. Task 4: All the Participants find the task Rather Hard to do (60/150).

Overall, from the views, all the participants were satisfied with the app.

Key Observations [1-2 pages]

For the first task i.e. checking the Recent Activity for the course, participants initially clicked on the course page. On the course homepage, participants consider the list below "to do" to be a recent activity. After clicking on the "Show All", the page jumps to the Announcements screen. After browsing through the main page of the course, the participant tries to click on different options. Since the View Course Stream is in the upper right corner, the participant clicks on it and enters a page showing recent activity in CMPT 363. However, the facilitator's goal was for participants to find a page that contained all the recent activities. So, the participant searched it from the Web homepage and finally found recent activity in the Kebab menu of the Dashboard ten minutes later.

During the second task, participants found it relatively easier than the other tasks. Participants go directly to the course home page and click the Assignment option on the navigation bar of the course home page. The Assignments page displayed all the assignments; past, pending and upcoming. Furthermore, it also depicted the deadline to submit along with displaying the assignment availability date. However, half of the participants found the Start Assignment option on the respective assignment quite confusing. One thought that clicking on it would result in a timer within which he had to submit the respective assignment. All in all, this task took the least amount of time and was the easiest to navigate.

For Task 3, although the participants were quickly able to find the Zoom option, they did not realize that BB Collaborate was also a meeting tool thus, failing the facilitators' goal. Furthermore, they got confused deciding which option to choose from in order to join the online class i.e., whether to go to Zoom or Lectures or (upon informing them of BB) BB Collaborate. Zoom would not display lectures and resulted in confused participants. Following this confusion, participants would spend time carefully going through the rest of the canvas page and during exploration they would realize BB Collaborate is also a meeting tool and would allow them to join the course session. Having two meeting tools available and having an unrecognizable name "BB Collaborate" proves to be a usability issue for participants.

In the final task, participants faced the most difficulty. Participants either failed completely or took a great deal of time to locate the Groups tab. They kept clicking several options in order to find the Groups section. After failing to find the Group tag, the participants clicked On Syllabus and Announcements respectively. Finally, they found the Group tab within the People tab. Locating the section wasn't the only problem faced by the participants. They initially had no idea whatsoever on how to communicate to other Group Members. After several minutes of browsing through menus, which involved clicking on random options, going back and forth, few participants realized that communication among the group members could only be made in the form of discussions/announcements within the Groups Section which can only be viewed by the Group members. They seemed to be disappointed by the fact that the group members could not communicate in the forms of chat or audio/video call through Canvas. One other aspect that the participant wanted was to talk to a group member in private since he believed they might need to communicate about the delay, the urgency of certain matters caused by one group member.

Interpretations of Results [1 page]

Problem name	Relevant heuristic	Severity	Detail
Repetition	Consistency and standards	minor	When the user click the canvas logo icon, it refers to the dashboard page
Hidden useful function	Flexibility and efficiency of use	major	Three useful functions is hidden in the kebab menu of the dashboard.(Card View, ListView, Recent Activity)
Inappropriate name	Visibility of system status	minor	The option of ListView shows the activities timeline.
Lack of practical function	Aesthetic and minimalist design	minor	History tab in the global navigation bar. History is mostly considered in browsers because people can't remember web addresses. History in the APP has no browser-like functionality.
Communicat ion	User Control and Freedom	critical	No method/tool is available to chat with someone in private. The only way to talk or share an opinion is through an announcement or discussion.

Strength:
1. Meet most of the requirements of online courses, such as handing in homework, meeting and downloading materials.

2. Canvas presents understandable information with a proper illustration.

3. On the calendar interface, users can see the date and day of each activity.

Important Changes:

1: We will add a private chat function. In the navigation bar of the course page, there is a "People" tab. Users can see the student's contact information, but this requires that students have already edited their personal information in the settings. The only way for students to communicate with each other through canvas is to post messages in the Discussion tab, which can be seen by all members of the class. Students cannot meet

each other in person during the pandemic period, so they can not get others' personal contact information. Adding a private chat function can facilitate better communication among students.

2: Let the Card View, ListView and Recent Activity no longer be hidden in the kebab menu icon. Card View allows students to intuitively see the number of unread announcements and discussions of a specific course. List View shows all the activities in a timeline. Recent View displays recent activities of all classes. These three functions are helpful, and users will use them frequently. Hiding in the kebab menu icon makes it harder for users to know and increase users' operations.

3:Modularized navigation bar, enables users to customize the modules in the navigation bar. The navigation bar is an anchor point for the entire site, and users can see it on every page in canvas. As such, it not only facilitates good navigation but is a crucial element to maintaining positive numbers for time spent on the site, bounce rates, and conversions. In the test, users completed mainly tasks on the course page, which indicates that the navigation bar of the canvas home page does not play its due role. In addition, all users ignore the groups tab of the global navigation bar when looking for groups. Let users be able to customize the navigation bar so they can set up functions that they frequently use.

4: Make the "group" section more visible to the user. Having this important section more visible will allow for less confusion and less time scrambling around the menus to get to this section. This was a common issue throughout the interviews and thus requires a solution.

Summary & Conclusions [1 paragraph]

Although canvas has been a widely used, powerful tool for students to use with their classwork, it also is prone to usability errors such as ones we have found through interviewing participants. Our analysis and observation of users with Canvas have allowed us to realize that no usability design will be perfect for everyone, this was evident throughout the usability interviews as the different participants had different things they found confusing and different things they found easy. Adding on, through our usability testing interviews we were able to see how new users would find issues that we would never. As regular users of canvas we are quite familiar with the layout and the features of it and have no issues completing tasks within seconds, spectating new users struggling with tasks highlights how we must think like a user and consider regular user feedback when starting to design a new user interface. Additionally, our approach of selecting a variety/differing participants further allowed us to see the differences in how people think and how difficult it will be to cater to everyone however, what we also noticed is that some issues during assigned tasks were recurring in participants and this is how we are able to note down that this is an actual usability issue. Thus, in conclusion, the main points we have taken from our usability testing include how difficult it will be to satisfy every user, how usability testing allows us to see things from a user's perspective and this leads to finding usability problems.

Appendix [does not count in page count]

[Include any notes, consent forms, results from questionnaires, screenshots, etc. in the Appendix]

Thank you for agreeing to help us assess our software. We are taking a course at Simon Fraser University that involves the design computer software, and would like you to help us evaluate our design. In this session, we will ask you to work with an existing application or a paper or interactive software mock-up of our design and to help us evaluate its clarity and simplicity. We are evaluating the software, not you. Any difficulties that you may encounter while using the software will help us locate problems with our interface design.

This usability study is completely voluntary. You may decline to answer any question or stop the study at any time and for any reason. Any data gathered up to the point of stopping the study will be destroyed. If you are a student at Simon Fraser University, this interview will have no effect on your grades in any courses. The only data we will gather will be written notes. These notes will only be seen by our team members, our instructor, and our teaching assistant and will be destroyed at the end of the course. Your name will not be attached to any gathered data, but rather a unique ID code such as "Participant A".

Concerns or Complaints
If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Jeffrey Toward, Director, Office of Research Ethics at jtoward@sfu.ca or 778-782-6593.

Do you agree to the following: I have read and understood the subject information and consent form and freely consent to participate.

Yes

No

Selecting yes indicates that you consent to participate in this study and that you are 19 years of age or older. Select no if you wish to decline or are under 19 years of age.

CMPT 363 Online Usability Testing Consent Form (v1.0 August 17, 2016)

Name: **Pawan Hayer**

Signature:

CMPT 363 Usability Testing Consent Form (v1.0 August 18, 2014)

Before Test:
Q1: What is your name?

Pawan

Q2: What age group are you in?

25-30

Q3: Would you mind tell me about your background?

Prior student at KPU, working full time now

After Test:

Q1:

What is your impression of using Canvas during the test?

Frustrating			Satisfying	
1	2	3	**4**	5

Q2:

Do you use similar software now? If yes, in comparison, what are the advantages and disadvantages of Canvas?

No, I do not use similar software currently

Q3:

Do you want your school to use Canvas? Why?

When I was at KPU I was familiar with Moodle and had no complaints about it so no

Q4:

What are the biggest strengths and weaknesses of Canvas in your opinion?

Clean design, easy to see where course are located

Difficult to find groups

Q5:

What features do you think need to be improved most in Canvas?

More visibility for hidden things such as groups for a new user

Interview:

Task 1: Find out the recent situation for class:

Upon entering the canvas.sfu.ca website where my participant was met with the SFU login screen. I typed in my username and password for him and told him to do the task. My participant was easily able to see the sign in and proceeded forward quickly. After signing in he was presented with my dashboard and since he could see the box for "cmpt363 e100 user interface" and thus since it was so easy, he quickly entered the class page. Since there was a "Recent announcements' ' , "announcements' ', and "lecture notes' ' section where he could catch up he spent a few seconds questioning what he should click and went through them all.

Time spent: 1 minute

Task 2: Start on an Assignment:

Starting from the course homepage. I told my participant to start an assignment and he visually saw the "assignments" tab and he proceeded with clicking it and he was presented with a list view of assignments and following that he clicked on HE assignment and was presented with the description and instructions to the assignment. Again as my participant is familiar with tech he was able to find everything here easily.

Time spent: 1 minute

Task 3: Participate in the online lecture:

Starting from the course homepage, my participant was confused on where to go. He was debating between the zoom and lecture notes tab and he found neither of them included lectures. After browsing through the course page, participant was able . From here he was presented with the course room and was allowed to join the session and had there been a live lecture he could participate.

Time spent: 5 minutes

Task 4: Communicate with group members:

This was the most problematic task. Starting from the course homepage, my participant could not locate a group button for a while. He browsed through the course webpage and under the people section he saw a sub section called "groups" even though this was unclear to him and did not show him which group he was a part of. After looking closer on the page my participant discovered that team 9 did not have a lock next to it and he was able to click on it. From there he entered the group page and was able to see a discussions section and he commented that he would communicate with the teammates through that way

Time spent – 7 minutes

NEXT INTERVIEW BELOW

SFU SIMON FRASER UNIVERSITY
ENGAGING THE WORLD

Thank you for agreeing to help us assess our software. We are taking a course at Simon Fraser University that involves the design computer software, and would like you to help us evaluate our design. In this session, we will ask you to work with an existing application or a paper or interactive software mock-up of our design and to help us evaluate its clarity and simplicity. We are evaluating the software, not you. Any difficulties that you may encounter while using the software will help us locate problems with our interface design.

This usability study is completely voluntary. You may decline to answer any question or stop the study at any time and for any reason. Any data gathered up to the point of stopping the study will be destroyed. If you are a student at Simon Fraser University, this interview will have no effect on your grades in any courses. The only data we will gather will be written notes. These notes will only be seen by our team members, our instructor, and our teaching assistant and will be destroyed at the end of the course. Your name will not be attached to any gathered data, but rather a unique ID code such as "Participant A".

Concerns or Complaints
If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Jeffrey Toward, Director, Office of Research Ethics at jtoward@sfu.ca or 778-782-6593.

Do you agree to the following: I have read and understood the subject information and consent form and freely consent to participate.

Yes ✓

No

Selecting yes indicates that you consent to participate in this study and that you are 19 years of age or older. Select no if you wish to decline or are under 19 years of age.

CMPT 363 Online Usability Testing Consent Form (v1.0 August 17, 2016)

Name: Hugh

Signature:

CMPT 363 Usability Testing Consent Form (v1.0 August 18, 2014)

Before Test:
Q1: What is your name?
Hugh
Q2: What age group are you in?
18-24   25-30   31-40   41-50
Q3: Would you mind telling me about your background?

Yes, I am Chinese. I am a grade one student of Langara College, and I want to transfer to SFU or UBC in the future. I am interested in psychology.

After Test:

Q1:

What is your impression of using Canvas during the test?

Frustrating			Satisfying	
1	2	3	**4**	5

Q2:

Do you use similar software now? If yes, in comparison, what are the advantages and disadvantages of Canvas?

Yes, Bright Space, to compare with Bright Space, Canvas's interface is not simplicity, but it shows the recent activities of all courses, while Bright Space only shows notice of coming events.

Q3:

Do you want your school to use Canvas? Why?

No, because I am familiar with Bright Space.

Q4:

What is the biggest strength and weakness of Canvas in your opinion?

What impresses me most is the calendar, which shows the activities of each course, making it easier for me to plan my study. Some important functions are hidden in the kebab menu.

Q5:

What features do you think need to be improved most in Canvas?

Let user be able to modify the module of the interface, so that I can add assignments tab to the navigation bar.

Task 1: Find out the recent activity for class:

For the first tasks, participants first clicked on the course page. On the course homepage, participants consider the list below "to do" to be a recent activity. After clicking on the "Show All", the page jumps to the Announcements screen. After browsing through the main page of the course, the participant tries to click on different options. Since the View Course Stream is in the upper right corner, the participant clicks on it and enters a page showing recent activity in CMPT363. However, the facilitator's goal for this participant was to find a page that contained all of the recent activities. So the participant searched it from the Web homepage and

finally found recent activity in the Kebab menu of the Dashboard five minutes later. For the second task, participants said it was easy.

Time: 7 minutes.

Task 2: Start on an Assignment:

Participants go directly to the course home page and then click the Assignment tab on the navigation bar of the course home page. Complete this task on the CMPT363 course page soon.

Time: less than 1 minute.

Task 3: Participate in the online lecture:

 For task 3, similar to task 2, the participant quickly found the link to Zoom, but he didn't realize that BB Collaborate Ultra is also a meeting tool in canvas.
Time: less than 1 minute.

Task 4: Communicate with group members:sg

In the last task, participants first went to the course homepage and looked for the groups tag. After failing to find the Groups tag, the participants clicked On Syllabus and Announcements respectively. After a five minutes search, finally, they found the groups on the Collaborations interface.

Time:7 minutes.

NEXT INTERVIEW BELOW

Thank you for agreeing to help us assess our software. We are taking a course at Simon Fraser University that involves the design computer software, and would like you to help us evaluate our design. In this session, we will ask you to work with an existing application or a paper or interactive software mock-up of our design and to help us evaluate its clarity and simplicity. We are evaluating the software, not you. Any difficulties that you may encounter while using the software will help us locate problems with our interface design.

This usability study is completely voluntary. You may decline to answer any question or stop the study at any time and for any reason. Any data gathered up to the point of stopping the study will be destroyed. If you are a student at Simon Fraser University, this interview will have no effect on your grades in any courses. The only data we will gather will be written notes. These notes will only be seen by our team members, our instructor, and our teaching assistant and will be destroyed at the end of the course. Your name will not be attached to any gathered data, but rather a unique ID code such as "Participant A".

Concerns or Complaints
If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Jeffrey Toward, Director, Office of Research Ethics at jtoward@sfu.ca or 778-782-6593.

Do you agree to the following: I have read and understood the subject information and consent form and freely consent to participate.
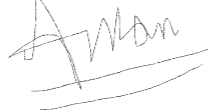
Yes

No

Selecting yes indicates that you consent to participate in this study and that you are 19 years of age or older. Select no if you wish to decline or are under 19 years of age.

CMPT 363 Online Usability Testing Consent Form (v1.0 August 17, 2016)

Name: Aman Dhillon

Signature:

CMPT 363 Usability Testing Consent Form (v1.0 August 18, 2014)

Before Test:
Q1: What is your name?
Aman
Q2: What age group are you in?
19 -20

Q3: Would you mind tell me about your background?
Currently studying in London.

After Test:
Q1:
What is your impression of using Canvas during the test?
Frustrating   Satisfying
                1   2   3   4   5
Q2:
Do you use similar software now? If yes, in comparison, what are the advantages and disadvantages of Canvas?
Yes, I have used a similar software. When comparing, I think that Canvas has a good UI with mostly clear option, however it does need a lot of improvement in its communication features.
Q3:
Do you want your school to use Canvas? Why?
No, I do not wish my school to use Canvas mainly due to the fact that I am currently used to my school's platform which has better communication features.
Q4:
What are the biggest strengths and weaknesses of Canvas in your opinion?
Strengths – Great UI, clear depiction of options, seamless
Weakness – the 'Groups' section and communication between students.
Q5:
What features do you think need to be improved most in Canvas?
The one feature that definitely needs an upgrade is the method of communication not only among group members but also between students and teachers.

Interview

Task 1
I asked my brother to use my canvas account and find out what happened in the holidays so he first opened the canvas tab, put in the username and password, then straight away he saw the courses and selected the course CMPT 363. In that he saw the TAB recent announcements and he opened it and saw all the announcements which had been made and became updated.

This task was pretty easy for him. My brother passed this task very easily. Chances of error are very less. He took 5 minutes for this task.

Task 2

My brother was already on the CMPT 363 page so then I told him to access the Proposal and Usability testing assignment, he first kind off looked at the home screen of CMPT 363 and then looked at the side tabs(Home, Syllabus, etc) then scrolled down and found the heading Part 1- Proposal and Usability Testing under group projects, then he clicked on it and then read the whole thing and he understood what had to be done, then he found that to submit the assignment he had to click on the Start Assignment button, this was kind of confusing for him as he thought if he clicked the Start Assignment button he would be timed or something, so he found the submission process of the assignment to be tricky. And he also suggested that the assignment tab should also be made with the other tabs. This task was easy for him just figuring out the submission part was a bit tricky and needed time, and also he was expecting to find the assignments tab in CMPT 363. But the chances of error are there in this task. He took 7 minutes for this task.

Task 3

I told my brother his next task was to participate in the zoom class for CMPT 363 which would be held on canvas. So he looked through the tabs in CMPt 363 and found the zoom tab, he clicked on it and it took him to the redirected zoom page their he found were 3 tabs, upcoming meets, previous recordings and previous meetings , but he got confused that if the office hours are held on zoom then why don't they appear in the upcoming meetings tab. This task was very easy for him, as the zoom tab on CMPT 363 is very handy. He took 5 minutes for this task.

Task 4

Communicating with the group was the hardest task for my brother, first he looked at all the options tab in the CMPT 363 page and then he scrolled down the home page. Then he thought he would post something on discussions, but I told him to find other ways to talk to your group members, then he clicked on the people's tab in CMPt 363 and then clicked on the groups part then he clicked on a random group just to see what would happen. When he clicked on a group he could only see the participants but not click on them to chat with them, so he then closed the people tab and clicked on the home tab then he clicked on announcements but could not find anything useful. So he asked me how to do it, I told him to figure it out on his own. So then he looked on the canvas tabs(Dashboard, courses, account, groups) in groups he found his group for CMPT 276 and then he posted an announcement which could only be seen by his group members. So this was the hardest task. He took the longest time out of all the tasks on this task. He took 15 minutes.

NEXT INTERVIEW BELOW

Thank you for agreeing to help us assess our software. We are taking a course at Simon Fraser University that involves the design computer software, and would like you to help us evaluate our design. In this session, we will ask you to work with an existing application or a paper or interactive software mock-up of our design and to help us evaluate its clarity and simplicity. We are evaluating the software, not you. Any difficulties that you may encounter while using the software will help us locate problems with our interface design.

This usability study is completely voluntary. You may decline to answer any question or stop the study at any time and for any reason. Any data gathered up to the point of stopping the study will be destroyed. If you are a student at Simon Fraser University, this interview will have no effect on your grades in any courses. The only data we will gather will be written notes. These notes will only be seen by our team members, our instructor, and our teaching assistant and will be destroyed at the end of the course. Your name will not be attached to any gathered data, but rather a unique ID code such as "Participant A".

Concerns or Complaints
If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Jeffrey Toward, Director, Office of Research Ethics at jtoward@sfu.ca or 778-782-6593.

Do you agree to the following: I have read and understood the subject information and consent form and freely consent to participate.

(Yes)

No

Selecting yes indicates that you consent to participate in this study and that you are 19 years of age or older. Select no if you wish to decline or are under 19 years of age.

CMPT 363 Online Usability Testing Consent Form (v1.0 August 17, 2016)

Name: Kajal

Signature: *Kajal*

Q1: What is your name?
Kajal
Q2: What age group are you in?
20-22
Q3: Would you mind telling me about your background?
Currently Studying in India

After Test:
Q1:
What is your impression of using Canvas during the test?
Frustrating   Satisfying
**   1   2   3   4   5**
Q2:
Do you use similar software now? If yes, in comparison, what are the advantages and disadvantages of Canvas?
Yes, I use Moodle in my school, I believe Canvas has better design and more functions eg.Dashboard change etc.
Q3:
Do you want your school to use Canvas? Why?
No, I do not wish my school to use Canvas because I am familiar with the school platfrom (Moodle).
Q4:
What are the biggest strengths and weaknesses of Canvas in your opinion?
1. **Strengths – Great UI, clear depiction of options, seamless**
2. **Weakness – the 'Groups' section and communication between students.**

Q5:
What features do you think need to be improved most in Canvas?
Method of communication between group members.

Interview:

Task 1:

The participant finds the web version to be very informative with what is happening in the class. She also finds the design of the website to be very captivating, as it shows all important information on the dashboard such as course number and assignments due dates, etc.
She points out if she misses something there is a bell notification at the top right corner to remind her about the missed activity.
For improvement on canvas she finds that canvas dashboards should also show gpa as well just like grades. She finds the dashboard very easy to learn. She also likes the option of list view, card view and recent activity where she can change the display of content according to her choice.

She added that the dashboard should have different colour themes as well where the user gets an opportunity to set the color on the dashboard according to their wish.
Time Taken = 1 min

Task 2:
For assignment, she finds canvas useful as she uses the dashboard to see the deadline of upcoming assignment, also when she wants to see the description of the assignment she can click on that assignment where she is able to see all the useful and important description of the assignment. However, she says that it

would be much more useful if there would be a timer which shows how much time is left for uploading. For example, just like a timer in smartphones 10:06 (10 mins and 6 seconds) left etc.
Time Taken = 1 min,

Task 3:
She does not like the bb collaboration as she finds it confusing.
Most of the time when she has to join tutorial through bb collab it says "you are the only one in the room", also the quality of voice and video is low, she pointed that zoom is better platform for classes or online meeting site as there is an alternative option if a link is not working one can put the meeting id and passcode to enter the session. However, there is no feature in bb for this.
She also finds it hard to annotate or screen sharing which she finds easy and better on zoom. In most of the classes, many instructors changed to zoom over BB because they also think that bb collabs are confusing for students and due to which she also missed a few classes just to figure bb collabs. BB also gets closed if there are a number of people in the zoom. At last but not the least Buffering is very high in bb Compared to zoom
Time Taken = 5 min

Task 4:
For contact purposes she found canvas a bit confusing and didn't find it much useful. She also gave an example that when she wants to see the contact information of her group, she has to go through various steps and still maximum she can just see their sfu mail id.
She compared canvas with discord for the contact feature and said that it is better because on discord there is also an option for audio, video call, chatting and even screen sharing. However, she still prefers social sites such as instagram or messenger to contact her group mates. She thinks that there should be an option for other contact information like discord link on student's contact information which might be more convenient.
As she says that even if she contact her group mates there will be no notification or calling option in case of urgent work, there will just be a mail which she needs to open mail again and again to see of her group mates replied but if she contact through discord she gets notifications on her phone and in case her group mates didn't see the notification she can directly call them.
Time taken = 10 min