USABILITY PROTOCOL

Team 1: eLC

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CONSENT FORM

eLC User Experience Study

Researcher's Statement

You are being asked to take part in a research study. The information in this form will help you decide if you want to be in the study. Please ask the researcher(s) below if there is anything that is not clear or if you need more information.

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The purpose of this study is to assess the usability of the eLC interface from a student's perspective. As researchers, we are aiming to identify the amount of time and effort it takes students to complete tasks while using eLC. We are investigating the aspects of eLC in which students find easy, frustrating, or confusing to use and how they could be better designed to increase efficiency and user satisfaction. In order to understand where improvements can be made, we will ask you to complete a series of tasks that require you to navigate the eLC interface. Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. The study should take no more than 15–30 minutes and you are free to discontinue your involvement at any point during the study. You are going to be asked to complete the following five tasks and corresponding subtasks while using the eLC interface:

Task 1: Navigate through the course content of a class

- · Log in to eLC
- $\boldsymbol{\cdot}$ Navigate to the course page for your class
- · Find the course content under the 'content' tab of the course navigation bar
- · Find the correct module in the table of content and open the required reading

Task 2: Review an assignment's guidelines and requirements

- · Find the 'assignments' tab under the tools menu bar of the navigation bar
- · Find the assignment in the correct module in the table of content
- · Click on the correct assignment to view the assignment's description and formatting guidelines

Task 3: Check grades and assignment feedback through eLC

· Find the assignment dropbox under the 'assignments' tab

Task 4: Check grades and assignment feedback through eLC

- · Find your grades under the 'grades' tab of the course navigation bar
- · Find the correct assignment line to view the received grade

Task 5: Message your professor through eLC using the eLC mail feature

- · Click on the 'mail' icon in the navigation bar of eLC
- · Compose an email
- · Send an email to the correct professor

This study is being conducted in order to gather information on how eLC can be better designed to increase efficiency and decrease the amount of frustration or challenges experienced by students. That information in mind, risk factors of partaking in this study include experienced frustration or stress while completing the required tasks. Your participation in this study will lead to an easier and more enjoyable user experience for those navigating the eLC interface. If you decide you do not wish to participate in this study, any comments or suggestions on how to better improve the eLC interface are welcomed.

If you are interested in participating in the study, please read the additional information on the following pages, and feel free to ask questions at any point.

Study Procedures and Time Commitment

You will have unlimited time to complete the required tasks; however, we predict the study should take no more than 15-30 minutes. When you have completed the required tasks you are free to leave the study and will not be required to return at a later date for any further observation.

Risks and Discomforts

For this study we are aiming to identify the amount of time and effort it takes students to complete certain tasks while using eLC. We are investigating the aspects of eLC which students find easy, frustrating, or confusing and how it could be better designed to increase efficiency. Participants may have to use features that are frustrating or poorly designed which may lead to confusion. Participants may feel stressed, frustrated, or confused while completing the require tasks using the eLC website. Participating in this study will require you to use a computer and look at a screen for an extended amount of time. If you have any pre-existing medical conditions which may arise during this study due to increased screen use you should not participate. Your participation in this study is completely confidential and any steps taken while completing the required tasks will not be shared with any persons other than the researchers to prevent any possible embarrassment.

Benefits

Your participation in this study will provide researchers with information on how to make eLC more user friendly for UGA students. Additionally, participation may result in a better understanding of navigating the eLC interface which could prove useful in your career as a UGA student. Note: there is no financial compensation for participating in this research study.

Confidentiality of Records

The only persons who will have access to the personal information provided are the researchers conducting this study as a way to stay in communication with participants following the study. Any information found during this study will be shared with participants via the contact information given. We will only keep information that could identify you long enough to match your participation with our findings. We do

study.		
Permission to Record Your	Participation	
Check one of the following t	ooxes to indicate your cons	ent to having the zoom
conversation you will have v	vith your researcher record	ed.
I <u>do consent</u> to my zoon	n conversation with the res	earcher being recorded and used
solely for purposes of the st	udy.	
I <u>do not consent</u> to my z	coom conversation with the	e researcher being recorded and
used solely for purposes of t	he study.	
Participant Rights		
If you have any questions or	concerns regarding your ri	ights as a research participant in
this study, you may contact	the Institutional Review Bo	oard (IRB) Chairperson at
706.542.3199 or irb@uga.ed	du.	
If you agree to pa	rticipate in this research st	udy, please sign below:
Name of Researcher	Signature	 Date

not plan to share this information with anyone who is not connected to this research

Please keep one copy and return the signed copy to the researcher.

Date

Signature

Name of Participant

TEST SCRIPT

Since the study will be over zoom, the researcher will initially reach out to the participant over email with a link to the zoom call. Once the zoom call has been established, the narrative will begin.

Hello,	my name is	, and I will be walking you through this
study today.		

Before we begin, I have some information to share with you. I will go over all of it with you now.

I'm sure you already know why we have asked you here, but to reiterate, I will briefly cover that again with you now. We're asking people to go perform some tasks on eLC so that we can determine how we can improve the site and its functions. The session should take about an 15-30 minutes.

The first thing I want you to know is that we are testing the site, <u>not you</u>. You can't do anything wrong here. You don't have to worry about making mistakes. However you interact with the site will give us the information we are looking for, so just use it as you normally would.

As you use the site and go through the tasks we ask you to perform, I'm going to ask you to think out loud as much as possible: to tell me what you're looking at, what you're attempting to do, and what you're thinking and feeling as you do those things. This will be extremely helpful to us.

As you do this, don't worry that you are going to say the wrong thing. We are doing this to make the site better, so we need to hear your honest thoughts in order to learn what we can improve. Nothing you say will be taken negatively or personally. All of it is beneficial.

If you have any questions throughout this study, feel free to ask me them whenever you want. I may not always answer right away, because we are interested in seeing what people do when they don't have someone to help them figure things out. But if you still have questions when we finish a task I'll try my best to answer them.

If you need to take a break at any point during the test, just let me know. And if you want to stop at any point, just let me know.

Since we are performing this study over zoom, we will be asking for your permission to record the conversation you will be having with me today. This recording will only be used to help us figure out how to improve the site, and the only people who will see it are myself and my team members working on this project with me. This also helps me, because I won't have to take as many notes.

I am about to send you a link to a consent form. This form just goes over the details of the study and all you need to do is check whether or not you consent to be recorded, and then fill out your signature and the date. I'll be cutting our audio and video over zoom while you complete that, so that you feel a greater sense of privacy while filling that out. If you'd prefer otherwise, let me know and we can keep the audio and/or video on throughout that time.

Send them the link to the google form of the consent form. Start the screen recorder once they have filled out the form and confirmed with you that they have consented to be recorded.

Okay, do you have any questions so far? Is there anything you'd like for me to clarify from the consent form before we continue?

Next, I'm going to send you a small survey to fill out before we start the test. This will just ask you a few demographic questions as well as a few simple questions about your personal experience with the eLC website. Just like with the consent form, I'll be cutting our audio and video over zoom while you complete that, so that you feel a

greater sense of privacy while filling that out. If you'd prefer otherwise, just let me know.

Send them the link to the google form of the pre-test survey. Wait for them to fill it out in its entirety before proceeding.

Okay, do you have any questions now? Is there anything you'd like to share with me or ask about in regards to the pre-test survey?

Now that we've finished that up, we can get started with the study.

For this study, I'm going to ask you to complete 5 different tasks that will allow us to see how you interact with the different tools and features that this website has to offer.

You will have an unlimited amount of time to complete these tasks and you can ask me any questions whenever necessary. Also remember that it will help us if you can try to think out loud as you go along. I will now share my screen with you and read you the instructions for Task 1.

Share screen with user displaying Task 1 and read it out loud. Wait for the user to complete each subtask before reading the next one. Allow the user to proceed until the experiment is no longer useful or the user becomes frustrated. Upon completion of a task, ask user to reflect on the experience and to include pros and cons of the design.

Repeat for Tasks 2-5.

Congratulations on completing the tasks! That was super helpful!

Do you have any questions for me now that we are done with those?

Okay. I have one final survey for you to fill out and then you're done! This survey will ask for your thoughts on the tasks you just completed. You can either complete this right now while we are still on this Zoom call, or we can end the call first and you can complete it anytime within the next hour. I'll send you the link for it now.

Send them the link to the google form of the post-test survey. Either wait for them to fill it out over the Zoom call before continuing or continue forward immediately if they prefer to do it once the call has ended.

Thank you for participating in this study! Your participation is greatly appreciated and will be very useful in providing UGA students with a better eLC experience.

You are now free to leave the zoom call. Have a great day!

Wait for the participant to end the zoom call and save the recording properly.

TASKS Overview of Tasks

Task 1: Navigate through the course content of a class.

Imagine you are a freshman who has just started attending the University of Georgia, and it is your first week of classes. You get back from the dining hall and realize that you completely forgot that you have a geology assignment due tonight and haven't even started the required reading for it! Where would you go to find the required reading for your geology class?

- · Subtask 1: Log in to ELC
- · Subtask 2: Navigate to the course page for your geology course
- · Subtask 3: Find the course content under the 'content' tab of the course navigation bar
- · Subtask 4: Find the correct module in the tables of content and open the required reading

Task 2: Review an assignment's guidelines and requirements.

You finish your assigned readings and are ready to begin the assignment. You vaguely remember your professor mentioning the instructions in class, but you definitely need a refresher to get an 'A'. Look up the assignment and check the guidelines and formatting requirements before you get started.

- · Subtask 1: Find the 'assignments' tab under the tools menu bar of the navigation bar
- · Subtask 2: Find the assignment in the correct module in the tables of content
- · Subtask 3: Click on the correct assignment to view the assignment's description and formatting guidelines

Task 3: Submit an assignment in the proper dropbox.

You are now geared up with all of the information you need to start the assignment. An hour has passed, you add the finishing touches and think your professor will be proud of what you're about to submit. Go ahead and submit the assignment so that you turn it on time.

· Subtask 1: Find the assignment dropbox under the 'assignments' tab

Task 4: Check grades and assignment feedback through eLC.

At the end of class, your professor announces that he has finished grading your first geology assignment and that you are able to check your grade and view his feedback in eLC. How would you find your final grade for the assignment?

- · Subtask 1: Find your grades under the 'grades' tab of the course navigation bar
- Subtask 2: Find the correct assignment line to view the received grade Nice! You made a B, now let's go look at our professor's response so that you can understand where you fell through. How would you find their feedback if it is an online assignment?
 - · Subtask 3: View the feedback provided by the professor under the 'evaluation' column of the assignments page

Task 5: Message your professor through eLC using the eLC email feature.

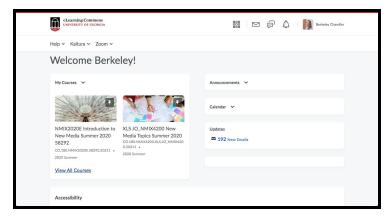
Even after reading your professor's feedback, you have a few questions regarding your grade. How would you go about contacting your professor?

- · Subtask 1: Click on the 'mail' icon in the navigation bar of ELC
- · Subtask 2: Compose an email
- · Subtask 3: Send an email to the correct professor

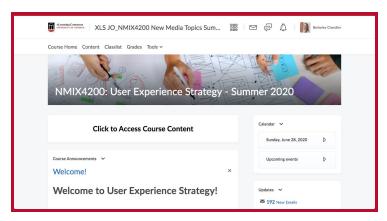
Observation Checklist

1. How long does the user spend on the home page before clicking on anything?				
2. How long does the user spend on the course home page before clicking on anything?				
3. Approximately how many different pages	did the user navigate to?			
4. What was the approximate amount of time	ne spent on each page of the site?			
Page:	Time Spent:			
Home Page				
Course Home Page				
Course Content Page				
Assignment Page				
5. Were there any moments where the user navigation?6. How did the user navigate the site?	became noticeably frustrated with their			
Type of Navigation:	Number of Times Used:			
Home Page				
Top Menu Bar				
Links within the Updates Icon				
7. Did the user ever navigate out of the site	?			

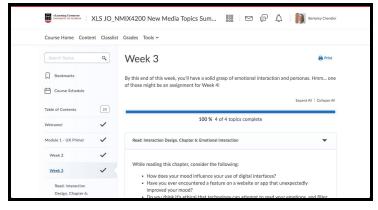
Screenshots



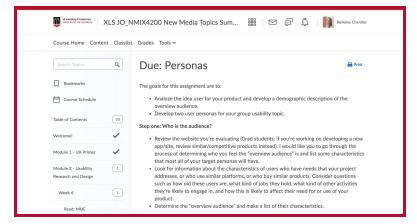
Home Page of eLC



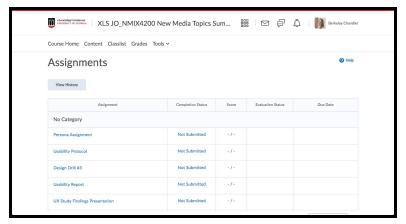
Course Home Page



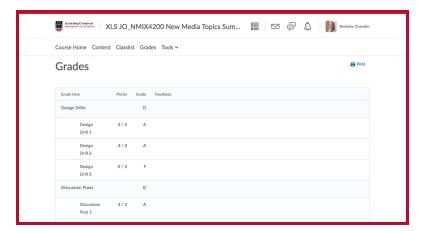
Course Content



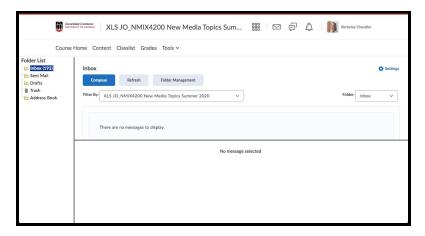
Assignment Guidelines



Assignment Submission Page



Grades & Feedback Page



eLC Messaging Page

ISSUES

Possible Common Usability Issues for eLC

eLC is, at its root, a website like any other. The nature of its platform can lead to generic usability issues that can cause distress to users. Common usability issues that might be discovered through testing include:

- · Items needed for task completion are not immediately noticeable
- · Item labeling is misleading to the user, causing them to not find what they are looking for
- · Frustration from not finding a specific item
- · Unclear weblinks to navigate through webpages

Usability issues that are positive might present themselves throughout the testing.

These usability issues will be collected to ensure that they are maintained throughout future changes to eLC. Common usability findings that might occur can include:

- Successful and smooth login process by the user
- · User can easily navigate to the main page

Collecting Usability Metrics

Usability metrics will be collected directly through a "think aloud" observation study, in which a tester will guide the participant through various tasks over Zoom. As they are completing tasks, the participant will be asked to verbally express their thoughts.

Additionally, participants will be asked to provide commentary at the end of every task, expressing thoughts of ease or difficulty. The participant will be asked to voluntarily screen share and video call with the tester. The screen share will be used by the tester

to view possible usability issues that can occur as tasks are being completed. The tester will also be observing the participant as they are completing tasks to look for issue cues such as: facial expressions, repeated behaviors, eye movements, and signs of stress, frustration, success, and decisiveness. As the tester is observing the participant, they will also be taking notes of their own observations and findings, along with the commentary provided by the participants. Notes will include observed issues, task completion time, satisfaction, frustration, and behavior. There will also be a questionnaire provided both at the very beginning and very end of the study for each participant.

QUESTIONNAIRESPre-Test Survey

Demographics
Age:
Gender (check one):
Cisgender Male
Cisgender Male
Transgender Male
Transgender Female
Non-Binary
Prefer not to say
Race (check one):
White
Black / African American
Asian / Pacific Islander
Hispanic / Latino
Native American
Other:
Prefer not to say
Current Level of Education:
First Year Undergraduate
Second Year Undergraduate
Third Year Undergraduate
Fourth Year Undergraduate
Fifth+ Year Undergraduate
Pursuing a Masters Degree
Pursuing a Doctoral Degree

Personal eLC Usage

On average, how many hours do you spend each week using eLC for school? (circle one)

0-3

3-6

6-9

9-12

12-15

>15

On average, how many classes per semester require you to use eLC? (circle one)

0

1

2

3

4

5

>5

On a scale of 1-5 (1 being no experience; 5 being an expert), please rate your skill level with the following eLC functions: (circle one for each)

eLC as a whole:	1	2	3	4	5
Navigating course content:	1	2	3	4	5
Reviewing posted guidelines:	1	2	3	4	5
Submitting assignments:	1	2	3	4	5
Checking grades & feedback:	1	2	3	4	5
Messaging professors via email:	1	2	3	4	5

On a scale of 1-5 (1 being never; 5 being extremely often), please rate how often you use the following eLC functions: (circle one for each)

Navigating course content:	1	2	3	4	5
Reviewing posted guidelines:	1	2	3	4	5
Submitting assignments:	1	2	3	4	5
Checking grades & feedback:	1	2	3	4	5
Messaging professors via email:	1	2	3	4	5

Post-Test Survey

Response to Tasks Performed During the Study

On a scale of 1-5 (1 being very easy; 5 be	eing very	ı difficu	lt), pled	ise rate	how difficu	lt it was to
perform the following eLC functions: (ci	rcle one i	for each	1)			
Navigating course content:	1	2	3	4	5	
Reviewing posted guidelines:	1	2	3	4	5	
Submitting assignments:	1	2	3	4	5	
Checking grades & feedback:	1	2	3	4	5	
Messaging professors via email:	1	2	3	4	5	
Which of the 5 tasks listed above was <u>ea</u>	<u>siest</u> for	you and	d why?			
Which of the 5 tasks listed above was <u>m</u>	ost diffic	<u>ult</u> for y	ou and	why?		
Which of the 5 functions do you think is	<u>most hel</u>	l <u>pful</u> to	you as (a studer	nt?	
Which of the 5 functions do you think is	<u>least hel</u>	<u>pful</u> to <u> </u>	you as c	a studer	ıt?	
What about the site makes it <u>easy to nav</u>	<u>vigate</u> ?					
Which parts of the site are difficult to no	ıvigate?					
Do you find the site to be any of the follo Easy to Use Comforting	owing? (check a	ll that o	ipply)		

Useful
Engaging
Stressful to Use
Annoying
Useless
Boring
(Optional) Elaborate on any of the answers you checked in the previous question:
Are there any eLC functions not observed in this study that you use relatively often?
How frequently do you use eLC email?
Do you prefer other forms of communication (outlook email, slack, etc) over eLC email? You may explain why you prefer them but it is not necessary.
Can you recall a time you used eLC and had a positive experience?
Are there any features (on eLC or on other platforms) that you feel have helped your online learning experience?
Leave any other comments you have about the study here:

Instructions For the Researcher's Use

Because the study is being conducted over zoom, both the pre-test and post-test survey will be administered online via Google Forms. The above questionnaires will be formatted identically into a Google Form, and the researcher will send the participant the link to the pre-test survey at the beginning of the zoom call, and then both the researcher and participant will mute themselves and stop video sharing over zoom throughout the duration of the time it takes for the participant to fill out the form. This is to create an environment of anonymity for the participant. The researcher will inform the participant that whenever they have any clarifying questions, or if they have completed the questionnaire, they can unmute their microphone in order to speak to the researcher. Once the form has been submitted and the participant has informed the researcher of this, the researcher may begin the test.

The same protocol is done with the post-test survey, except the link is sent after the participant has completed all 5 tasks that are observed in the study. The form can either be completed at the end of the Zoom call or within an hour after the call had ended.