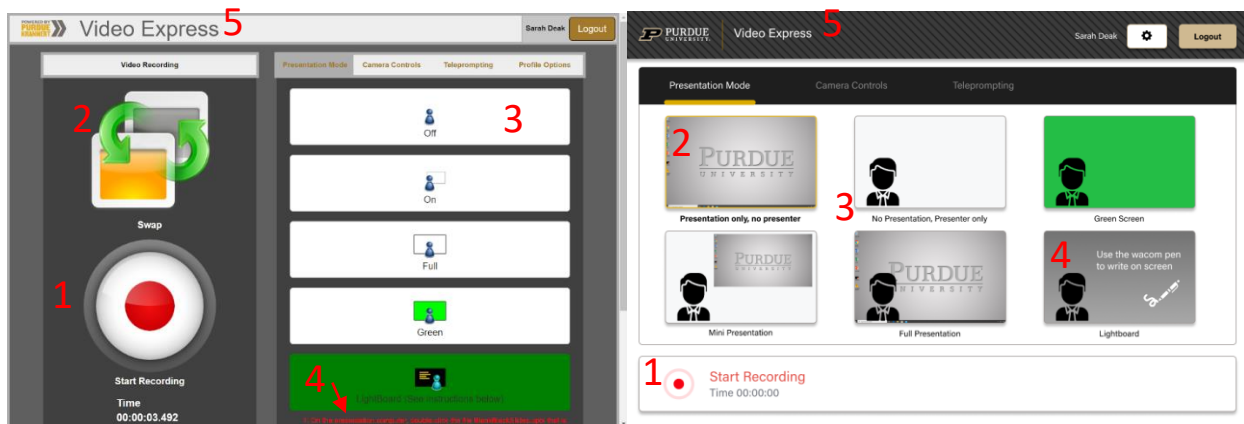


Video Express UI changes overview

This document outlines the changes made in the redesign of the Video Express Tablet Interface. Each section explains the changes and the research to support each design decision.

Presentation Modes & Header

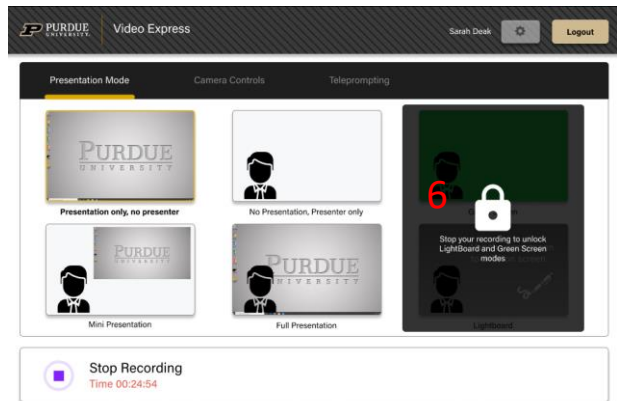
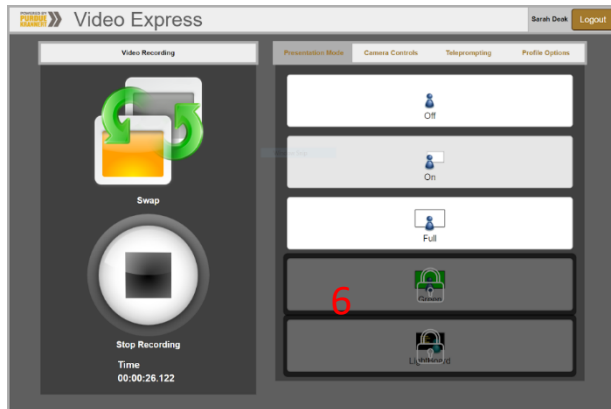


1. In my heuristic evaluation, I recognized the **“Start Recording” button as the main function of the application**. In creating the redesign, I wanted to ensure that this function stayed the **most prominent**, while still providing enough room for ample visual communication in other areas of the app. The button still **stays on the screen at all relevant times**.
2. Usability tests indicated that 80% of new users were unable to recognize “swap” as the only way to turn off their camera. To bring this lost function to attention, I **created an explicit presentation mode in place of the “swap” function**.
3. Usability tests also indicated that the previous presentation modes were unintuitively named: 100% of first-time users thought that “off” would turn off their camera, and 40% of users could not correctly identify the function of some of these modes after using them multiple times during the test. These modes have been redesigned to ensure that **their function is explicitly demonstrated through both the image and the explanatory text**.
4. 60% of new users were unable to discover the function of the LightBoard presentation mode, even after clicking on this feature at least once. **Lightboard icon has now been redesigned to be more explanatory**, and the “invisible” instructions

attached to the LightBoard function (hidden behind scrolling with no visual indication) will now **pop-up to tell the user what is and how to set up LightBoard**.

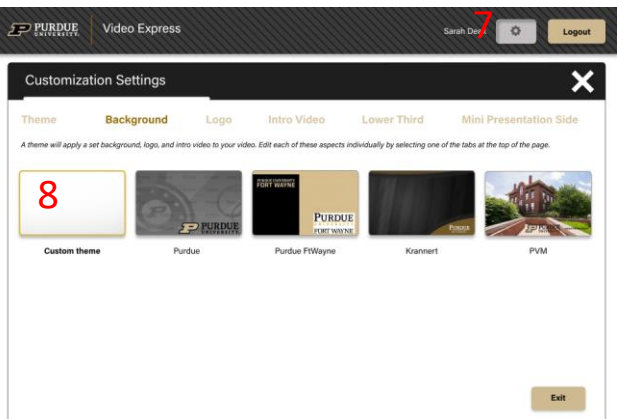
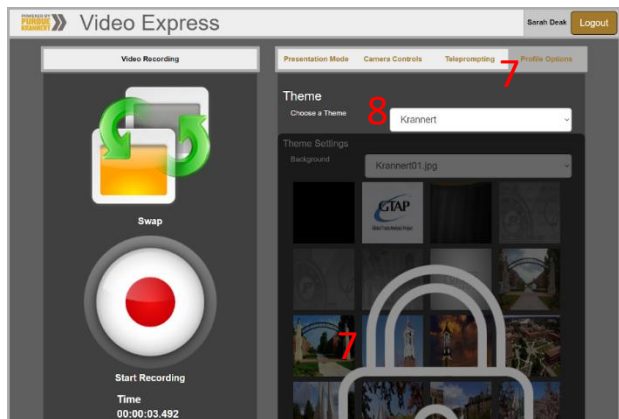
- 5. The Video Express header has been **updated with the new Purdue logo and subtle pattern**.

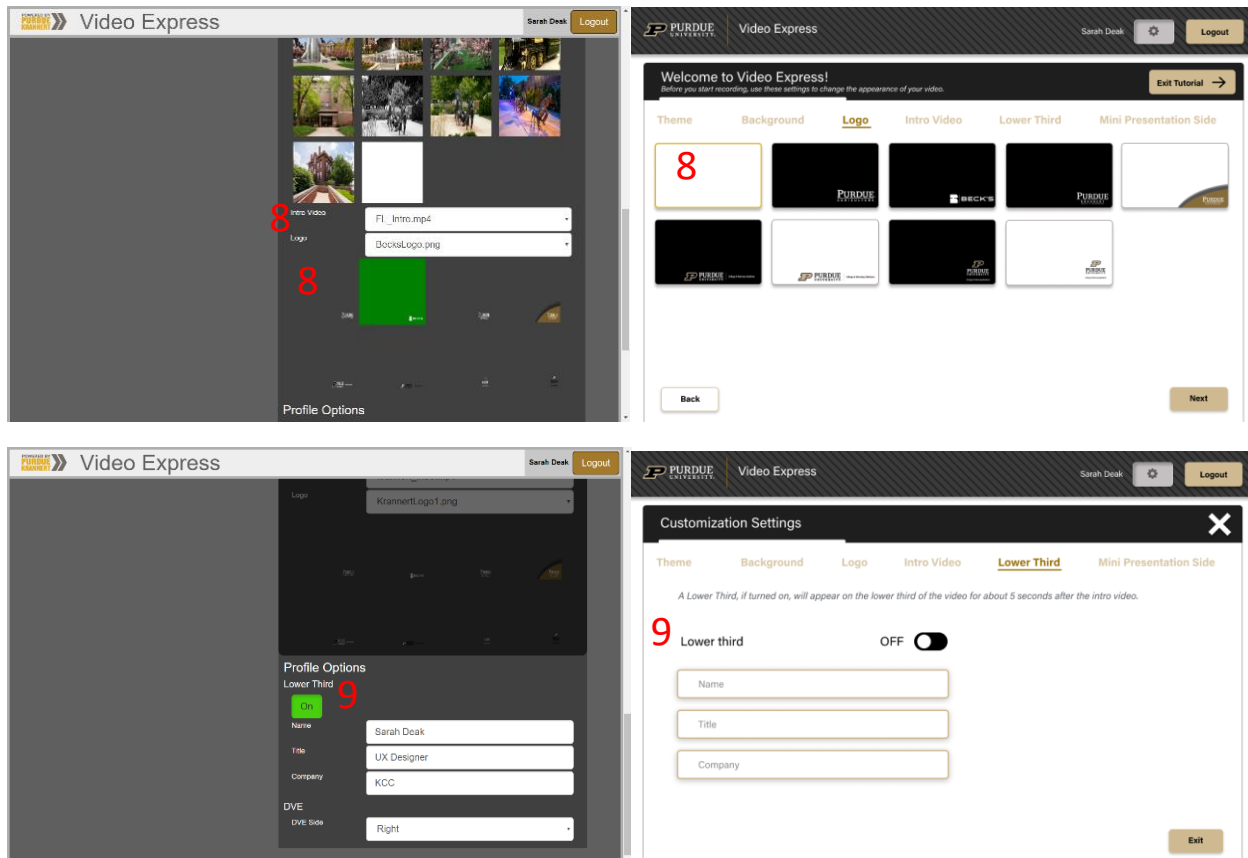
Presentation modes- locked



- 6. In my heuristic evaluation, I recognized that feedback and recovery was an issue throughout the application, namely within inaccessible features. **ALL Locked features now have explanations of how to remove the lock and access the feature.**

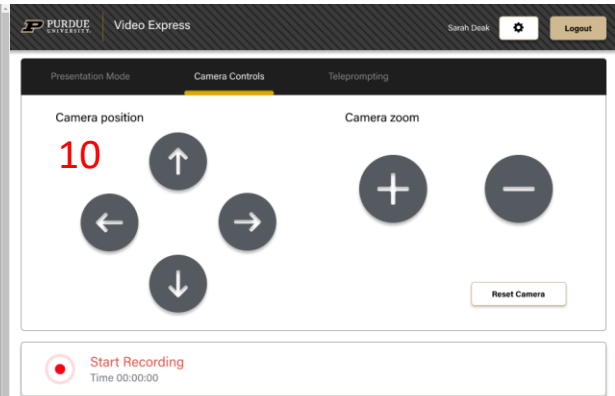
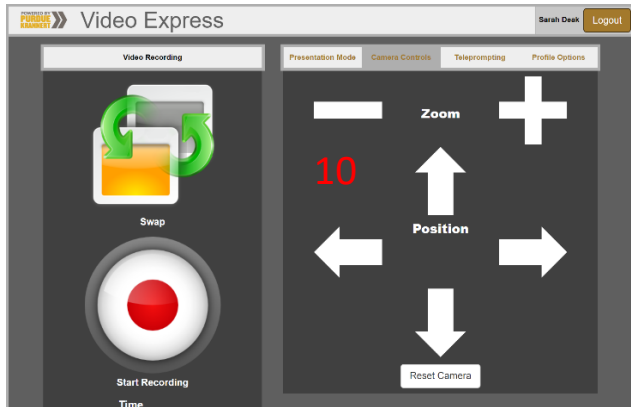
Customization settings





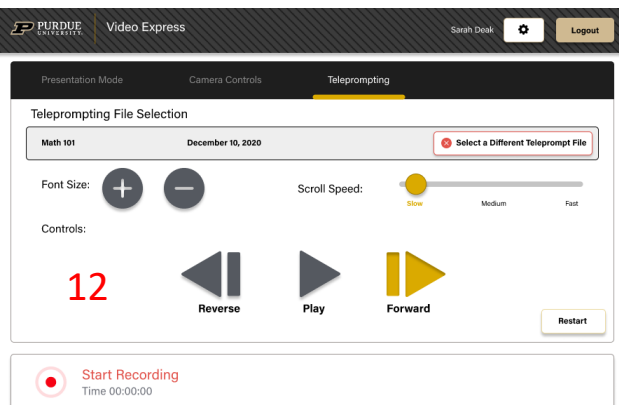
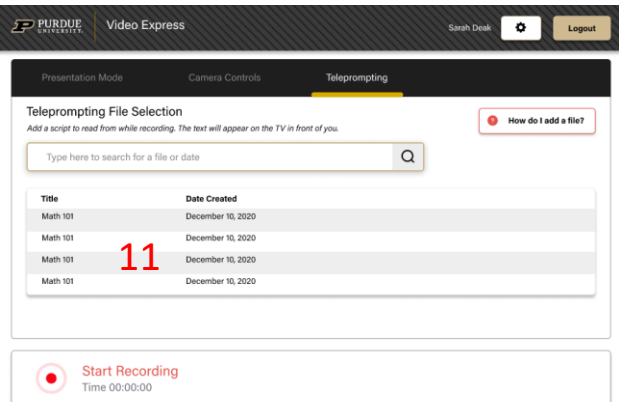
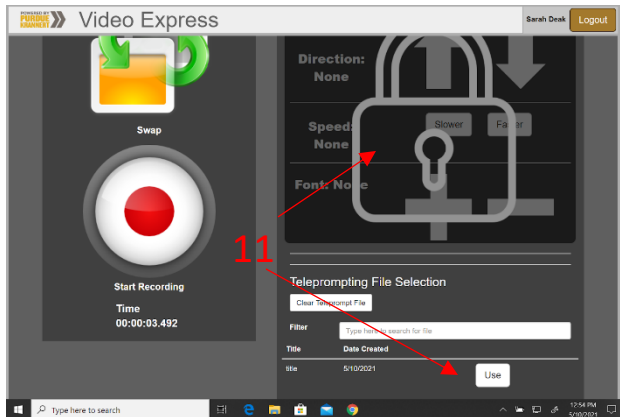
7. The issue of scrolling continued when it came to the Profile options page. 80% of users believed “profile options” was confusing and not indicative of the settings it contained. **I placed these settings underneath a settings icon and moved it to the location near the name**, in accordance with app users’ mental model of settings features. This decision to make them a more “hidden” feature is backed up by the idea of these settings being “one-and-done” settings: Users will set these preferences and go back to them infrequently. **This change also means there are no “locked” settings**- they are inaccessible while recording (with a recovery message) because they cannot be altered during that time.
8. In my heuristic evaluation, it was clear that users lacked feedback while trying to change their theme, backgrounds, and logos. These options were either in dropdowns and thus had no previews, or they were so small they could not be seen. In the redesign, **I created visual cards for easier selection.**
9. All users struggled to find the Lower Third options due to scrolling. To mitigate lost functions within the profile options, I created a more extensive settings page in which scrolling is not necessary and each page contains the necessary information. **Lower Third now has its own tab.**

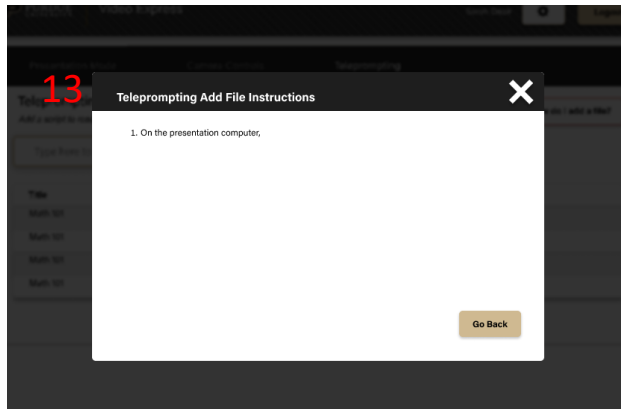
Camera controls



10. The camera controls page has been redesigned only to match the rest of the UI. This feature was not shown to have any issues throughout testing, so I kept them **very similar to the previous UI**.

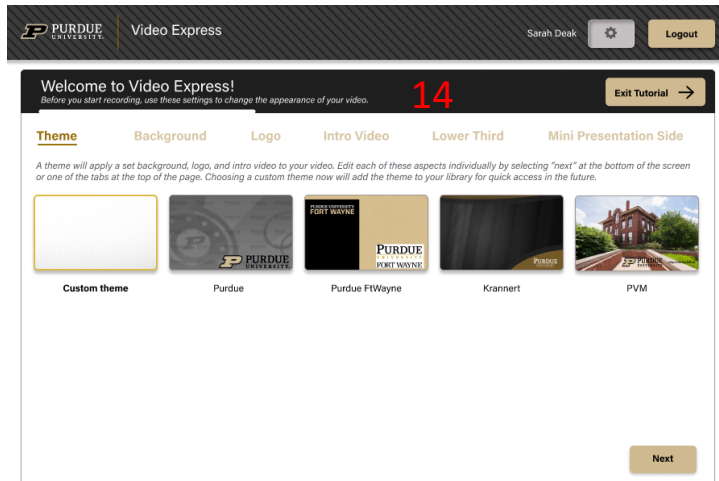
Teleprompting





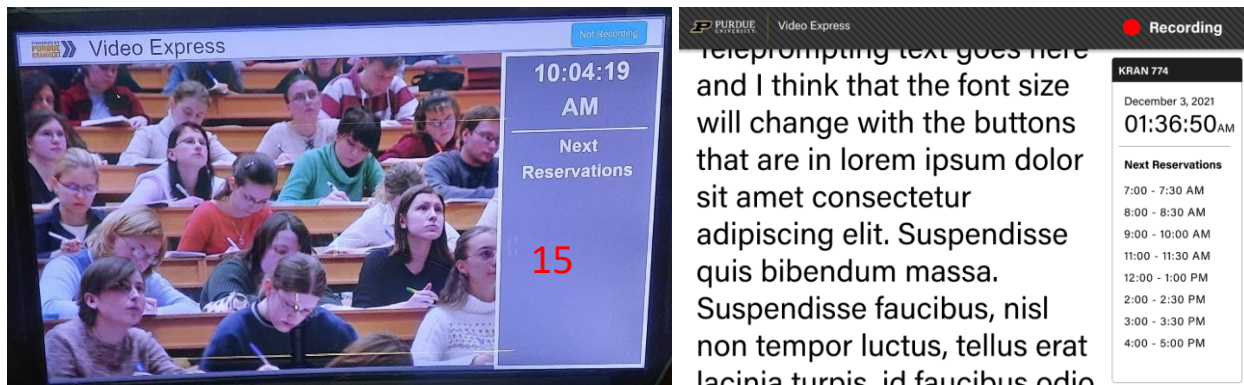
11. Another lost feature located in my heuristic evaluation is teleprompting. This feature is hidden behind another lock and scrolling. In my redesign, **this workflow has been modified to be linear.**
12. Teleprompting controls were not tested upon thoroughly, but have been **modified to better fit the mental model of a user** of the application.
13. Adding a file is one of the most confusing and least explained features of the application. To help people use teleprompting without the help of external guides, I created a **help button that explains the steps to add a file.**

Onboarding



14. In addition to these other changes, I also created a small onboarding process. Due to the nature of having “hidden” settings, I added an onboarding that would allow users to **set their “one-and-done” preferences the very first time they use the app, and then shows them where to go to alter these settings.** Of course, users are able to simply skip this onboarding if they so choose.

Teleprompting screen



15. Lastly, I redesigned the teleprompter to **match the updated UI.** This was the only change to this screen.

Appendix

The two main research methods that impacted this redesign were *Heuristic Evaluation* and *Usability Tests*, both of which are included here.

Heuristic Evaluation

Login

<i>Heuristic</i>	<i>Info.</i>	<i>Notes</i>
minimalism	Initial login screen?	Is this screen necessary? Will users ever need an alternate login option? (like in other purdue logins where there is an option for logging in w/o career account)
minimalist	Only option is "login"	
usability	Initial login screen button could be larger	why not let it take up more space if it is the only option anyway
Familiarity/recognition	Purdue login screen- well known	

Main screen

<i>Heuristic</i>	<i>Info.</i>	<i>Notes</i>
minimalism	Simple interface	Buttons are large enough to comfortably press
User control	"Video recording" section is always displayed	This includes start/stop recording & "swap" Not sure what to do with this- it takes up a lot of the screen: How important are these two options to users?
Feedback	Video was saved/uploaded	
User control	"Pausing" the video doesn't seem to be an option	Would this be an important feature to consider adding?

consistency	Why isn't "swap" another "presentation mode" option?	It is basically just another presentation mode..
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Presentation mode

<i>Heuristic</i>	<i>Info.</i>	<i>Notes</i>
Internal jargon? recognition	Description of modes are unclear	This issue is already addressed in the tablet guide. Change/enlarge icons, or add written description of modes
feedback/usability	Need for scroll unclear for further "light board" instructions	

Camera controls

<i>Heuristic</i>	<i>Info.</i>	<i>Notes</i>
Recover from errors	Camera default	
familiarity	Use of arrows & +/- Also use of familiar language "position" & "zoom"	
User control & feedback	Can move the camera w/o it showing on screen. When turned back on the camera is moved	Camera should probably automatically turn on if shifted Does this also mean that presentation modes and cameras should be more linked than they are? Right now they feel very separated

Teleprompting

<i>Heuristic</i>	<i>Info.</i>	<i>Notes</i>
feedback/user control	Big "lock" button + grayed out section means you cannot customize	Does not explain <i>why</i> Yes, users could read the tablet guide- but should they have to?

User control	“Reset” doesn’t appear to work	Reset is important in order to give users the chance to go back if the action they take doesn’t result in what they anticipated
Familiarity/consistency	Speed slower/faster looks like two options instead of a running total	up/down arrows most likely

Profile

<i>Heuristic</i>	<i>Info.</i>	<i>Notes</i>
Recover from errors	Needs “default” profile option	
jargon?/recognition	The word “Profile” is misleading.	This section is more like style/background/customization
Minimalism <i>Good enough as is but also the opportunity to simplify</i>	When “theme” is selected, ‘lock’ icon appears and section is grayed out	This has the opportunity to be only shown when it is available to be altered. +Could they make their own “custom” one that would be added to their specific account? So that they wouldn’t have to remake the same custom one every time they use the studio (useful only if users utilize this feature frequently)
feedback	Can they see the “intro video” before recording the video?	Perhaps add a preview (<i>however, consider next row</i>)
feedback?	Very difficult to see previews of logo options	There is lots of space available on this screen- but the record/ swap buttons take up half of that space?
	off/on button is very clear for “lower third”	
Internal jargon	However, what does “lower third” even mean? Also, the guide says it runs	Perhaps changing layout so it is more clear that the on/off button is a modifier to the “name, title, company” stuff Or, perhaps a preview?

	only at the beginning. Maybe more options for this, or making that clear in the settings	Or, Perhaps “presenter title” or something similar Maybe users understand this phrase
Internal jargon	What is a DVE? How long will it stay? More customizable options as well as info for this?	Could be unimportant to users?
	Maybe “themes” could open into a popup. Not necessary to see record & theme changes?	

Video Express Usability Testing Summary

A moderated usability test was conducted with the objective of evaluating the usability of the Video Express Tablet Application among first-time users. The key findings are outlined here.

Key Findings

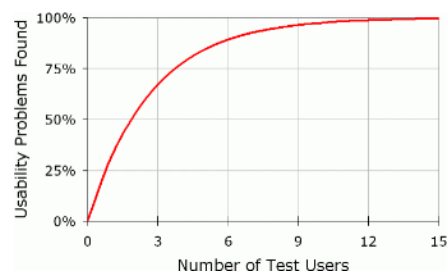
- | | | |
|--|--|---|
| 1. Language and icons used to describe buttons within the tablet application do not accurately convey their function | 2. Many functions are lost to users due to application layout as well as lack of explanation | 3. Users need clearer ways to recover from errors |
|--|--|---|

This research report includes how we conducted our research, the key insights and results and a list of recommended actions and next steps.

Participant information

- | | | |
|--------------------------------|--|--|
| 1. Five participants recruited | 2. None of the participants had ever used the Video Express Studio tablet application previously | 3. Mix of grad and undergrad students, all currently enrolled at Purdue University |
|--------------------------------|--|--|

Why only five users? As soon as we test with a single user, we learn almost one third of all there is to know about the usability of the design. With five users, we will catch about 85% of all usability issues. With more users, the returns start to diminish. The graph here demonstrates this curve.



Each user was given the same three tasks to complete. These are listed below along with the aspect of the application that task was meant to evaluate. This is followed by the success rate for the task, as well as the main takeaways for the task.

In-depth information about pathways and comments from each participant can be found in the appendix.

Task 1 Outcomes

Questions to answer: *Can users quickly and accurately get to the main function of the site (record)? Are the presentation modes and swap functions intuitive as well as located correctly? Will also help us understand how the landing page affects the goals of the user.*

Task 1:

“Record a short presentation using the Video Express Studio. You are not required to talk about anything, just focus on completing the tasks below.

During the presentation:

- start the recording
 - please make yourself not appear on the screen.
 - please make it so that the desktop does not appear on the screen.
 - end the recording”
-

Success Metrics: Successfully using “swap” to remove themselves from screen.

Task Success Rate: 30%

What is working?

- 5 out of 5 users started recording right away without issue.
- 5 out of 5 users were able to remove the desktop from the screen.
- 5 out of 5 users ended the recording right away without issue.

What isn't working?

- 4 out of 5 users turned off the tablet before starting.
- 5 out of 5 of users thought that “off” was going to turn off their camera.
- 3 out of 5 users failed to turn off their camera. One of the other two users, after correctly using the feature in the first task, at the end of the session could not properly identify what “swap” would do.

- 4 out of 5 users believed turning their camera off would be in camera control settings.

Task 2 Outcomes

Questions to answer: *Is navigation in this application clear? (For instance, does “profile” make sense, is the terminology intuitive, do the functions of profile settings make sense). Also, perhaps consider perceived importance of these functions to users.*

Task 2:

“Personalize the appearance of your video output by adding your name and a fake title to the bottom-third of your screen. After you’ve completed that, change your background image.”

Success Metrics: Could they find these customization settings within two minutes (reasonable) and successfully change the settings?

Task Success Rate: 70%

What is working?

- 5 out of 5 users were able to successfully add lower third information.
- 5 out of 5 users changed their background without issue.

What isn’t working?

- 2 out of 5 users found the “off” button to turn on the lower third confusing.
- 1 user chose a theme that returned a large, incoherent error screen.
- 4 out of 5 users encountered issues with items being barred or “locked” from alterations. Two of these users were directly barred from completing a task because of options being “locked” without explanation.
- 4 out of 5 users believed “profile options” was confusing and not indicative of the settings it contained.

- 5 out of 5 users struggled to find where to input lower third information due to lock mechanism, language confusion, or scrolling.
- 3 out of 5 users thought the “locked” profile section was confusing, and 2 of these users were unsure how to unlock it.

Task 3 Outcomes

Questions to answer: *Is the meaning of Lightboard correctly displayed, and does its placement make sense? Are the instructions to utilize Lightboard clear?*

Task 3:

“Record a short video as though it were a math lecture. Utilizing the Wacom monitor & pen, write out a few equations for your students to see.

If stuck, please feel free to use any learning aids that are in the room. You are also free to end the task at any time.”

Success Metrics: Did they utilize Lightboard?

Task Success Rate: 40%

What is working?

- 2 users were able to correctly follow the Lightboard instructions.
- The other 3 users were able to find a different, less optimal method of completing the task.

What isn't working?

- 3 out of 5 users never discovered the function of Lightboard, even though each of these users clicked on the Lightboard button at least once.
- The two users who were able to follow the Lightboard instructions shared that the instructions were not intuitive to locate.
- These users also were unsure of the function of Lightboard before going through the instructions.

Additional notes:

- 4 out of 5 users encountered a situation in which the need to scroll was unapparent and barred forward progress.
- 3 out of 5 users shared that they thought the interface was easy to learn quickly. 2 of these users, after finishing the test, incorrectly identified the functions of some of the buttons they had used during the test.

Suggestions and Action Items

INACTION ITEMS:

- ✓ Starting & ending recording is large and apparent
- ✓ All options are highly discoverable
- ✓ Overall feedback after pressing a button is good, the TV shows setting changes in real time
- ✓ Certain settings are intuitive: themes meaning and execution, background images function, lower third information input boxes, camera controls

ACTION ITEMS:

- × “Swap” icon and language needs altered
- × Presentation modes “Off” & “on” language and icons need altered
- × Locked settings need explanations or to be altered/removed
- × “Profile options” language needs altered
- × Scrolling needs to be minimized or altered
- × Profile options lower third “Off/On” button needs altered to be more clear
- × Error screen needs altered to be explanatory, or removed
- × “Lightboard” needs clearly defined purpose, and more visible instructions
- × Experience outside of interface needs improvement: tablet “sleep” button mapped differently, explanation of how to turn on tablet and why they need the tablet, ITAP help information, improved guides