CSC 310: Human Computer Interaction

Usability Evaluation Report Template

Dated
10/25/2022

Prepared By

NAMES: Aaron Prichard

SIGNATURES:

Brief Description of User

User is a late 30s, white female. She uses Mac devices for photo editing for work and has used windows for college.

Process Overview

Pre-study:

1. Have you touched the power & sleep settings in Windows 10?
2. Have you touched the power & sleep settings in a different version of Windows?
3. Have you touched the power & sleep settings in a different operating system? (macOS, Linux, iOS, etc.)

If yes to any of these questions:

4. How often do you use the power & sleep settings?
5. When was the last time you used the power & sleep settings?
6. What was your experience last time?
7. What prompts you to change the power & sleep settings?
8. What settings do you change the most?
9. What settings do you search for the most?
10. What problems did you encounter when changing the power & sleep settings?

Post-study:

1. Which of these settings have you changed before?
2. Of the settings you haven't changed before, are there any settings you would now change on your own computer?
3. What settings were you satisfied with the process of changing?
4. Which settings were the hardest for you to change?
5. What improvements would you suggest to the power & sleep settings?

Script

Hello [subject], my name is [surveyor]. Thank you for participating in our study. I am a Computer Science student at the University of Michigan Flint. I am a member of a group working on a project for our Human Computer Interaction course.
We are studying the Windows power and sleep settings and hope to improve the user experience. To do this, I'm going to ask you to perform some tasks that will help us determine any issues with the system.
Before we begin, I'd like to ask you some questions about your experience with Windows power and sleep settings.

1. Have you touched the power & sleep settings in Windows 10?
2. Have you touched the power & sleep settings in a different version of Windows?

3. Have you touched the power & sleep settings in a different operating system? (macOS, Linux, iOS, etc.)

If yes to any of these questions:

4. How often do you use the power & sleep settings?
5. When was the last time you used the power & sleep settings?
6. What was your experience last time?
7. What prompts you to change the power & sleep settings?
8. What settings do you change the most?
9. What settings do you search for the most?
10. What problems did you encounter when changing the power & sleep settings?

End of Pre-study

Thank you for your answers. We are going to move on to the tasks now.
I'm going to ask you to perform some tasks. I will only tell you what to do and not how to do it. We will not be judging your performance. Our goal is to find issues with the system so any difficulty you have performing the tasks is actually what we are looking for. This means we can work on improving that component of the system. Please feel free to talk through your thought process to give us as much insight as possible. This will help us to be more effective in improving the system.
We have pulled up the Windows 10 Power & sleep settings for you.
First, change the screen to turn off after 1 minute.
Now change the PC to go to sleep after 1 hour.
Can you set the hard disk to never turn off?
I'd like you to change playing video to optimize video quality.
Great. Can you set the power plan to High performance?
I'd like you to customize your own power plan.
Then, can you set the power plan to your custom power plan?
Now change the power button to put the computer to sleep.
Can you turn on fast startup?
Now allow the Hibernate option to show in the Power menu.
Thank you for going through those tasks. Now I have some final questions to ask you about your experience.

Post-study

1. Which of these settings have you changed before?
2. Of the settings you haven't changed before, are there any settings you would now change on your own computer?
3. What settings were you satisfied with the process of changing?
4. Which settings were the hardest for you to change?
5. What improvements would you suggest to the power & sleep settings?

Thank you for participating in this study. This is very helpful feedback for how we can improve these settings for our project.

Transcript

Aaron: Okay. Hello, [user]. My name is Aaron. Thank you for participating in our study.
Aaron: I'm a computer science student at the University of Michigan Flint and a member of a group working on a project for human computer interaction course.
Aaron: We are studying the windows, power and sleep settings and hope to improve the user experience.
[User had some experience with power and sleep settings and changes the screen awake time fairly often on her Mac]
Aaron: I have our prototype power and sleep settings pulled up for you.
Aaron: Okay. Can you set the hard disk to never turn off hard disk to never turn off?
User: Oh, what am I supposed to do? Hard disk to turn off?
[User went to shutdown settings first]
User: oh advanced power settings. Then turn off this guy to never.
Aaron: Okay, can you change the when playing video to optimize video quality?
User: Okay. Advanced power settings. change the quality to optimize.
[user wasn't sure which video setting was used here, but did find them fairly easily in advanced settings]
User: So I think, let me change it here. Yeah, good. Can you set the power plan to high performance?
[user went to power button settings before finding the default high performance setting.]
User: No, not here. Okay. Cool: High Performance playing Video: Oh, here, default settings set to high performance setting.
Aaron: Okay, good. Now change the power button to put the computer to sleep..
User: Button, power and sleep button when I press the power button… sleep.
Aaron: Okay. Good. Now, can you turn on fast startup?
User: Oh, yeah, Turn on fast Startup
Okay? Good. now. Allow the hibernate option to show in the power menu.
[user accessed rest of the settings first time and didn't have trouble finding them]
Aaron: Which of these settings have you changed before? Of, the ones I just did? Sleep button like sleep when to go to sleep.
User: Well, I've done this one turn off screen after this many minutes.
User: I've done that sleep after this many minutes I don't think I've done anything with the video before, or any of these power plans.
Aaron: Okay, of the settings you haven't changed before?
Aaron: Are there any settings you would now change on your own computer?
User: Well, I have a Mac. but I might try power saver settings to try to conserve battery.
Aaron: Which of these settings, where you satisfied with the process of changing in this system?
User: Okay. Well, I feel like I could fairly, smoothly change the power and sleep ones.
Aaron: Yeah, I guess that's it. Okay, which settings were the hardest for you to change?

User: I guess the fast startup one I had trouble finding, I thought it would be under start up or something.

Feedback & Critical Incidence

Prototype Screen/Page:
Which screen of the user interface the user was evaluating at the point of feedback/critical incidence/problem.

Reference:
This column should be used to relate an item back to a specific point in the session. The reference can be to a specific line number in the transcript above or a time code.

User feedback / critical incidence / problem:
This column may contain :
- Feedback (positive or negative) given by the users, **or**
- Critical incidences (breakdowns or problems encountered by users) and/or mistakes committed by users.

Reason for negative feedback / breakdown:
Briefly explain the reason for a breakdown or any negative feedback.

Scope:
Describe the scope of the feedback or the problem; include whether the scope of the issue is throughout the system/device or within a specific screen or screens. If the problems are specific to a page, include the appropriate page reference.

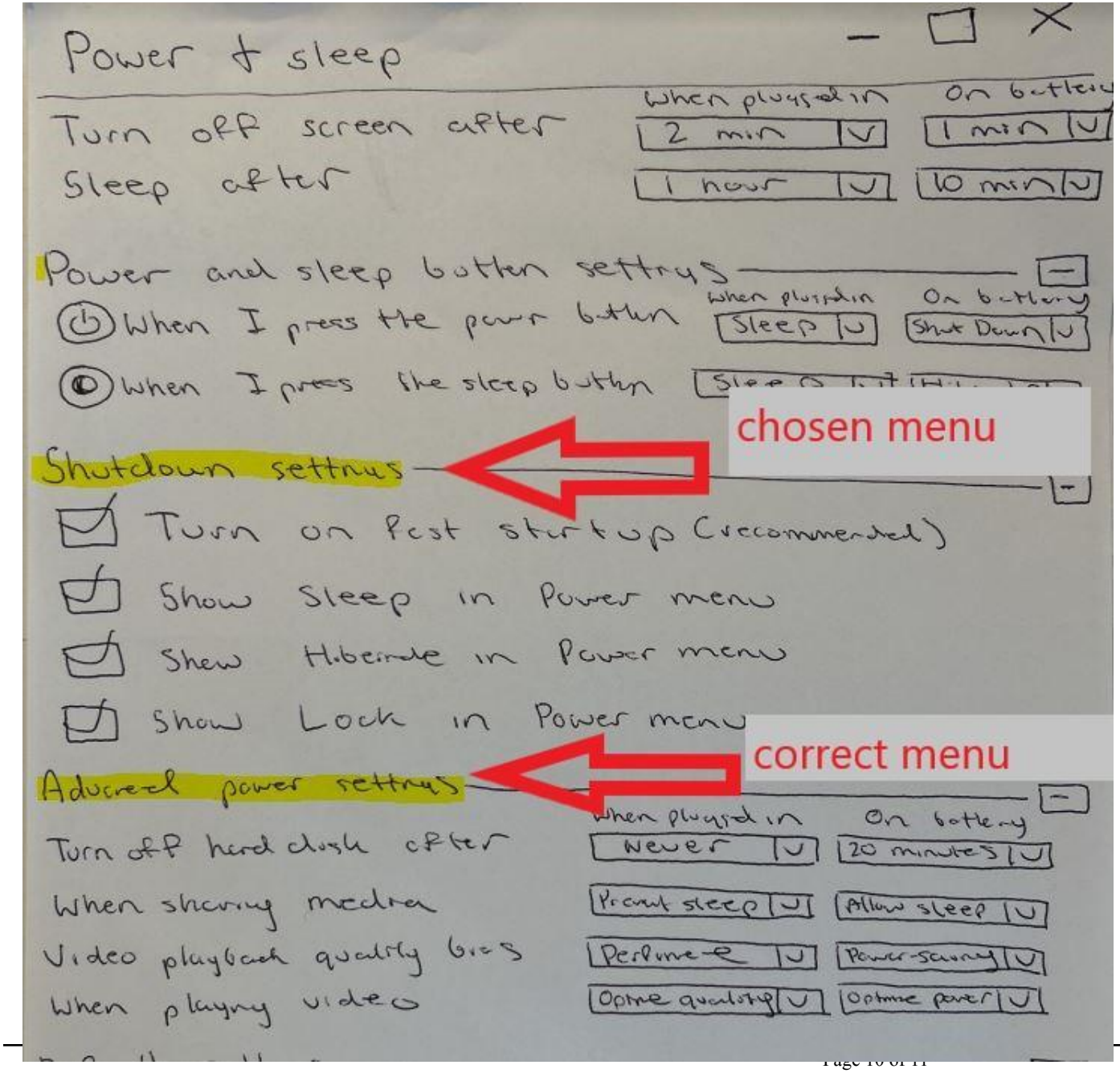
Severity (H/M/L) :
Your assessment as to whether the implication of the feedback is *low*, *medium*, or *high* severity, and the **justification** for that rating.

Way(s) to rectify:
Suggestion for the modifications that might be made to the user interface to address the issue or issues in this row. You MUST include trade-offs to be credible. If you can't think of some bad trade-off, say so.

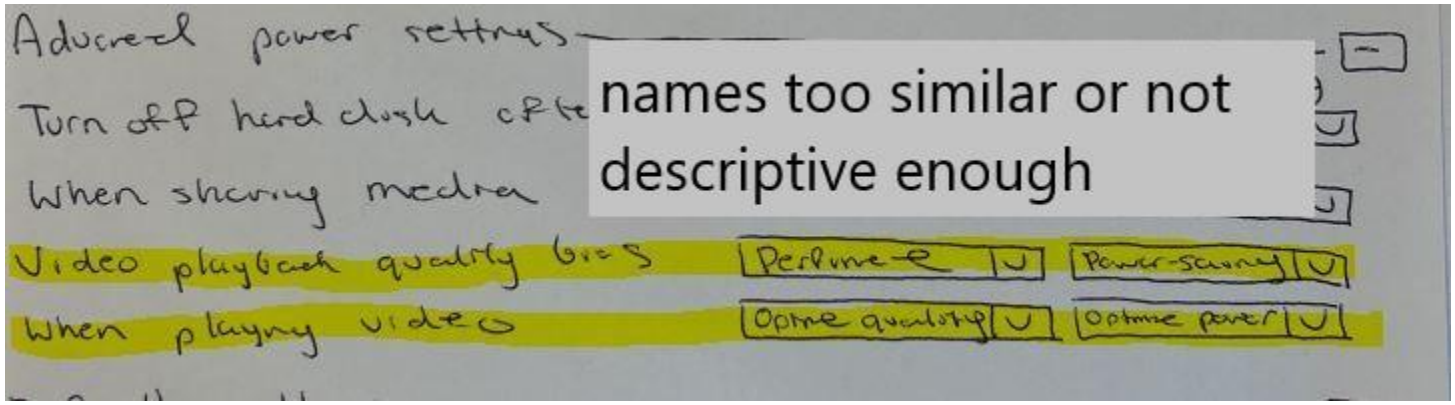
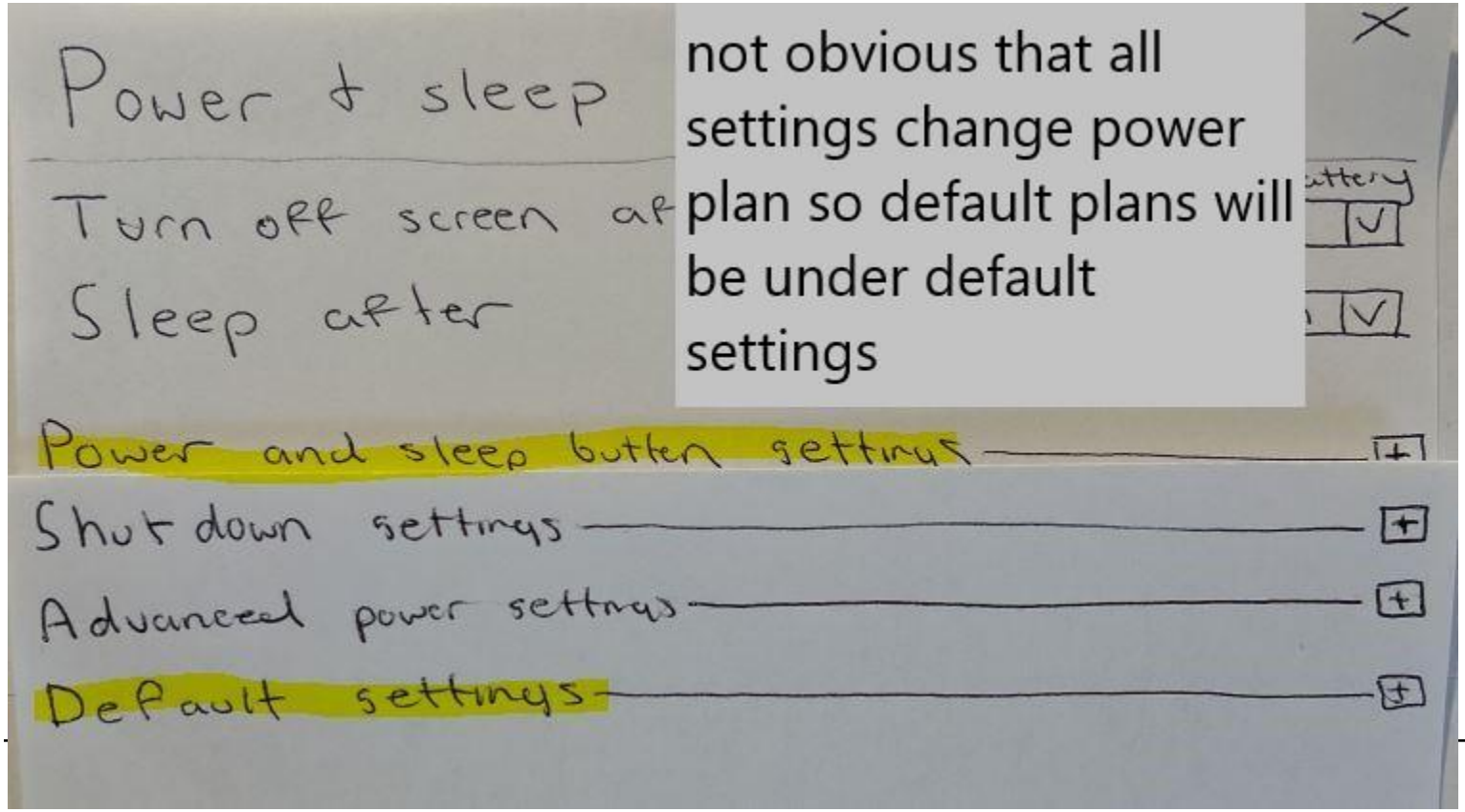
Usability Evaluation Feedback Analysis

#	Prototype Screen	Reference	User's feedback/ critical incidence/ problem	Reason for negative feedback / breakdown	Scope	Severity (High/ Medium/ Low) and **Justification** for giving that rating	Way(s) to rectify and any Tradeoffs (i.e., why the fix might not work)
1	See Picture 1	Line 9	User navigated to the wrong sub menu looking hard disk turn off time	User attributed hard disk turning off to a "shutdown" setting and looked there.	Throughout the system.	Medium. Causes user to search through menus, but without opening a bunch of windows like the old system, this is not as much of an issue.	Rename the submenus to be more explicit or indicative of the settings within. There is no perfect way to describe the settings without listing everything again so this could be difficult and still not solve for everyone. Tradeoff could be hitting the user with a wall of text to read. i.e. slower navigation.
2	See Picture 2	Line 13	User wasn't sure which video related setting would do what they wanted without seeing all of the drop down menu options.	The setting title didn't tip the user off enough so they needed to see what the options were to know which one they needed.	Present throughout system where drop downs are used.	Low. Opening the dropdown menu doesn't take much effort and user did not have this problem with any other settings.	Hovering over the setting for a more detailed description may be more user friendly than searching through drop downs. Or a description of each of the options in the drop down when hovering over setting. This should work well enough without any trade offs.
3	See Picture 3	Line 15	User went to wrong menu.	Default isn't necessarily called out as power plan default because we consider the new system's entire interface to be the power plan	Default settings	Medium. Is not impacting actual use of the system unless the user wants to default the settings to a premade plan.	Renaming default settings could help. Tradeoff would be that the user doesn't understand that they are customizing the power plan the whole time. Putting the current power plan setting at the top of the interface like "power plan: cusom" when settings are changed would have no trade-off.

Picture 1:


Power & sleep
When plugged in
On battery
Turn off screen after
2 min
1 min
Sleep after
1 hour
10 min
Power and sleep button settings
When plugged in
On battery
When I press the power button
Sleep
Shut Down
When I press the sleep button
chosen menu
Shutdown settings
Turn on Fast startup (Recommended)
Show Sleep in Power menu
Show Hibernate in Power menu
Show Lock in Power menu
correct menu
Advanced power settings
When plugged in
On battery
Turn off hard disk after
Never
20 minutes
When sharing media
Prevent sleep
Allow sleep
Video playback quality bias
Performance
Power-saving
When playing video
Optimize quality
Optimize power

Picture 2:



Picture 3: