CSC 310: Human Computer Interaction
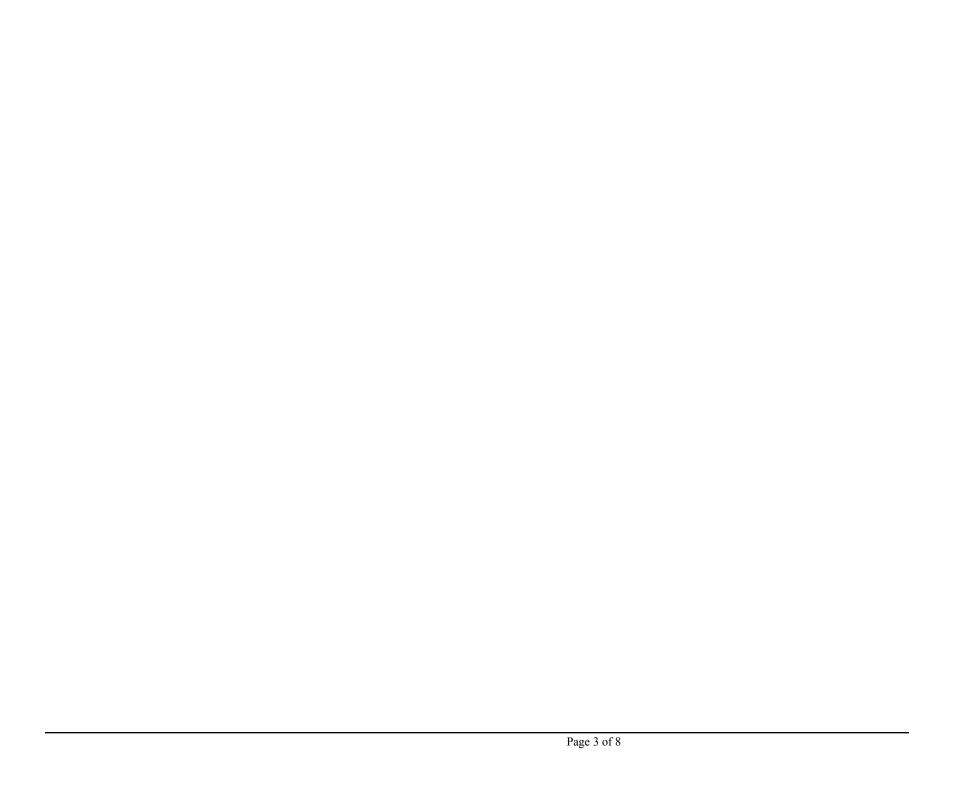
Usability Evaluation Report

Dated
10/27/2022

Prepared By

NAME(S): Marco Colonna, Ella Nikitin, Aaron Prichard

SIGNATURES:

Feedback & Critical Incidence

<< Record your observations in the table on the following page, based on your observations and notes taken during the usability evaluation

Description of columns in the table are as follows:

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

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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.
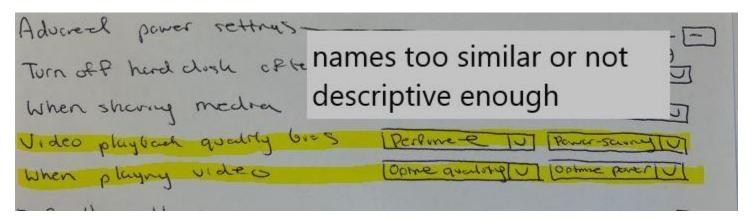
Usability Evaluation Feedback Analysis

#	Prototype Screen Provide link to images and circle relevant part with optional annotations	Reference include line number(s) in specific transcript for the identified issue	User's feedback/ critical incidence/ problem	Reason for negative feedback / breakdown	Scope which interface /function is impacted	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	Marco-1 line 37, 56-57 Aaron-2 line 15-18 Ella-1 line 36	User had difficulty finding fast startup setting.	Startup option being found under "shutdown" was confusing for multiple users.	Shutdown settings	Low. Users found the setting after minimal searching.	Rename Shutdown settings to Startup/shutdown with zero tradeoff. Or recategorize settings with a tradeoff of overwhelming the user with choices.
2	See Picture 2	Marco-1 line 46-47, 59 Aaron-1 line 13 Ella-1 line 43	Users had trouble differentiating between two similar video settings	The video quality playback and the "when playing video" settings seemed to do the same thing based on the information presented	Advanced settings	Low: The users were still able to change the setting	The setting could be renamed to be more descriptive, which could potentially make it more confusing for some, or they could be merged into one, which could have the downside of reducing options.
3	See Picture 3	Marco-1 line 46, 59 Aaron-1 line 15 Ella-2 line 43, 49	Default settings purpose unclear. User could not find power plan default settings.	Users did not understand that they were adjusting settings for the power plan and this would therefore return them to default.	Default settings	Medium. This is an overarching function of the whole settings menu that is not comprehended and hides a whole feature.	rename to "presets" with the tradoff that this might still confuse some people. Or listing examples of what is in the setting next to the title. The tradeoff here would be risking readability with lots of extra text. List the current selected power plan next to the setting title to hint the user they are adjusting it and this setting is for resetting it.

Picture 1:

Picture 2:

Advanced power settings

Turn off hard disk after...

When sharing media

Video playback quality bias

When playing video

names too similar or not descriptive enough

Performance ☑   Power-saving ☑

Optime quality ☑   Optime power ☑

Picture 3:

Power + sleep — □ ✕

Turn off screen after
When plugged in: 2 min ▾   On battery: 1 min ▾
Sleep after
1 hour ▾   10 min ▾

Power and sleep button settings ——————— [−]
⏻ When I press the power button   When plugged in: Sleep ▾   On battery: Shut Down ▾
◉ When I press the sleep button   Sleep ▾   Hibernate ▾

Shutdown settings ————————————————— [−]
☑ Turn on fast startup (recommended)
☑ Show Sleep in Power menu
☑ Show Hibernate in Power menu
☑ Show Lock in Power menu

Advanced power settings ———————————— [−]
Turn off hard disk after   When plugged in: Never ▾   On battery: 20 minutes ▾
When sharing media   Prevent sleep ▾   Allow sleep ▾
Video playback quality bias   Performance ▾   Power saving ▾
When playing video   Optimize quality ▾   Optimize power ▾

Default settings ——————————————————— [−]
Set to default settings (balanced)   [Change]
Set to high performance settings   [Change]
Set to power saver settings   [Change]

CSC 310: Human Computer Interaction

Usability Evaluation Report

Dated
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Prepared By

NAME(S): Marco Colonna

SIGNATURES:

Transcript	<< Provide a summary of what the user did and said, and what you did and said. If at some points you have to help the users, because they cannot figure out what to do, that must be included in your transcript in the order they occurred. It is not necessary to write down every word that the user says, just what is interesting and useful. Be sure to write down all actions on the system/device, whether correct or wrong. Include any notes of what happened along the way. Note: **Do not** turn in your videotape or audiotape, just the transcript. This section has line numbers, which you can use as the references in the next section, or add time codes if you want. >>

1   **Marco:** Hello [User], my name is Marco. Thank you for participating in our study. I am a Computer Science student at the University of Michigan
2   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
3   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
4   with the system. Before we begin, I'd like to ask you some questions about your experience with Windows power and sleep settings. Have you
5   touched the power & sleep settings in Windows 10?
6   **User:** Yes.
7   **Marco:** Have you touched the power & sleep settings in a different version of Windows?
8   **User:** No.
9   **Marco:** Have you touched the power & sleep settings in a different operating system? (macOS, Linux, iOS, etc.)
10   **User:** Yes.
11   [User answered the following questions talking about their experience with power & sleep settings in macOS]
12   **Marco:** How often do you use the power & sleep settings?
13   **User:** When I didn't want it to go to sleep or when I want to change that, but not frequently.
14   **Marco:** When was the last time you used the power & sleep settings?
15   **User:** When I got my new computer.
16   **Marco:** What was your experience last time?
17   **User:** It was easy.
18   **Marco:** What prompts you to change the power & sleep settings?
19   **User:** The length that it takes to turn off the screen and go to sleep. I did change my old computer to low power mode a couple times.
20   **Marco:** What settings do you change the most?
21   **User:** The length of time before the screen turns off and sleep.
22   **Marco:** What settings do you search for the most?
23   **User:** I haven't had to search for any settings.

24 **Marco:** What problems did you encounter when changing the power & sleep settings?
25 **User:** It's annoying that on some settings you have to click the lock button to make changes.
26 **Marco:** 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
27 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
28 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
29 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
30 pulled up the Windows 10 Power & sleep settings for you. First, change the screen to turn off after 1 minute.
31 [User found the setting to change the screen turn off time and changed it to 1 minute without difficulty]
32 **Marco:** Now change the computer to go to sleep after 1 hour.
33 [User also found the setting to change the sleep time and changed it to 1 hour without difficulty]
34 **Marco:** Can you set the power button to put the computer to sleep?
35 [User opened the Power and sleep button settings tab and changed the power button to put the computer to sleep]
36 **Marco:** I'd like you to turn on fast startup.
37 [User tried to find this option in advanced settings, and then looked in shutdown settings, where they found it and turned-on fast startup]
38 **Marco:** Great. Can you allow the Hibernate option to show in the Power menu?
39 [User continued looking in shutdown settings and eventually found the option to show Hibernate in the Power menu]
40 **Marco:** I'd like you to set the hard disk to never turn off.
41 [User returned to advanced power settings and set the hard disk to never turn off]
42 **Marco:** Then, can you change playing video to optimize video quality?
43 [User continued looking in advanced settings and found the video playback quality bias setting, but had to continue looking for when playing
44 video setting, and then they set it to optimize video quality]
45 **Marco:** Now set the settings to the high performance default settings.
46 [User opened the default settings tab, and selected the high performance settings, but voiced a concern about not knowing what settings it would
47 change]
48 **Marco:** Thank you for going through those tasks. Now I have some final questions to ask you about your experience. Which of these settings have
49 you changed before?
50 **User:** The screen turn off and sleep time settings.
51 **Marco:** Of the settings you haven't changed before, are there any settings you would now change on your own computer?
52 **User:** The video quality options are interesting, and fast startup sounds like a setting to investigate too.
53 **Marco:** What settings were you satisfied with the process of changing?
54 **User:** All the settings were easy to change, the biggest challenge if anything was finding them on my first try.
55 **Marco:** Which settings were the hardest for you to change?
56 **User:** The biggest difficulty was knowing what tab each setting was going to be in, like fast startup was in shutdown settings which doesn't make
57 sense to me.
58 **Marco:** What improvements would you suggest to the power & sleep settings?
59 **User:** I feel like the default settings could be more explicit with what settings they are going to change before you commit to changing them.
60 **Marco:** Thank you for participating in this study. This is very helpful feedback for how we can improve these settings for our project.

Feedback & Critical Incidence
<< Record your observations in the table on the following page, based on your observations and notes taken during the usability evaluation

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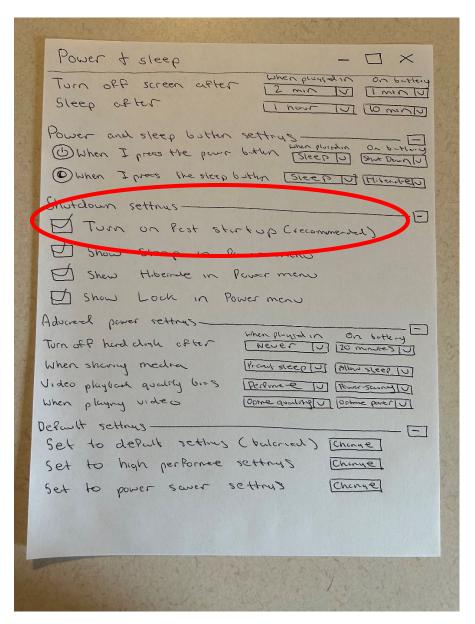
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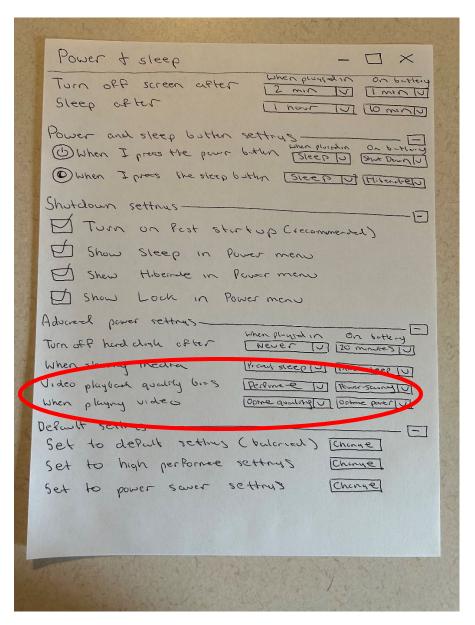
Usability Evaluation Feedback Analysis

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1	See Picture 1	Line 37, 56-57	User had trouble locating the fast startup setting	The user didn't expect for a setting named fast startup to be placed in the shutdown settings tab of the power and sleep settings.	Shutdown settings tab	Medium: the user was able to find the setting after looking in another tab, but the goal is to avoid the user having to hunt or search for the settings they want to change	Either renaming the shutdown settings tab to better reflect the settings it contains, or placing the fast startup outside of a tab if there is nothing related to it to group it with
2	See Picture 2	Line 43-44	User was confused by two similar looking video settings	The user found the video playback quality bias setting and thought it was the setting they were supposed to change but had to be directed to the other when playing video setting.	Advanced settings tab	Low: the user was able to find both settings, but they didn't understand what each setting did or the difference between them	Naming settings to be more descriptive may help with this problem, there could also be a description of the setting and what it does when a setting is hovered over
3	See Picture 3	Line 46-47, 59	User wanted to know what the default settings would change	The user easily found and used the default settings options, but they wanted to know what settings they would change and wanted to know them before they had to change and lose their current settings.	Default settings tab	Low: the user was able to find and use this setting, but they just wanted to have a clearer understanding of what the setting does and how it does it	A preview or some sort of description could be added to each of the default settings to explain what settings the default includes, there could be a description of the overall goal of the default and the specific changes it makes to each setting

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 I press the power button | When plugged in | On battery |
                                   Sleep ∨ | Shut Down ∨

◐ When I press the sleep button   Sleep ∨   Hibernate ∨

Shutdown settings ————————————————— ⊟
☑ Turn on fast startup (recommended)
☑ Show Sleep in Power menu
☑ Show Hibernate in Power menu
☑ Show Lock in Power 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 ∨

Default settings ——————————————————— ⊟
Set to default settings (balanced)   [Change]
Set to high performance settings   [Change]
Set to power saver settings   [Change]

Picture 2:

Power & sleep   — ☐ ✕

Turn off screen after	When plugged in	On battery
	2 min ▾	1 min ▾

Sleep after		
	1 hour ▾	10 min ▾

Power and sleep button settings ———————— ⊟

⏻ When I press the power button
When plugged in	On battery
Sleep ▾	Shut Down ▾

◑ When I press the sleep button   Sleep ▾   Hibernate ▾

Shutdown settings ———————————————— ⊟

☑ Turn on fast startup (recommended)
☑ Show Sleep in Power menu
☑ Show Hibernate in Power menu
☑ Show Lock in Power menu

Advanced power settings ———————————— ⊟

Turn off hard disk after	When plugged in	On battery
	Never ▾	20 minutes ▾
When sharing media	Prevent sleep ▾	Allow sleep ▾
Video playback quality bias	Performance ▾	Power-saving ▾
When playing video	Optimize quality ▾	Optimize power ▾

Default settings ———————————————— ⊟

Set to default settings (balanced)   Change
Set to high performance settings   Change
Set to power saver settings   Change

Picture 3:

Power & sleep   — ☐ ✕

Turn off screen after | When plugged in | On battery |
                             | 2 min ⌄ | 1 min ⌄ |
Sleep after | 1 hour ⌄ | 10 min ⌄ |

Power and sleep button settings ——————————— [−]
⏻ When I press the power button | When plugged in | On battery |
                                   | Sleep ⌄ | Shut Down ⌄|
◉ When I press the sleep button | Sleep ⌄ | Hibernate ⌄|

Shutdown settings ————————————————————————— [−]
☑ Turn on fast start up (recommended)
☑ Show Sleep in Power menu
☑ Show Hibernate in Power menu
☑ Show Lock in Power menu

Advanced power settings ———————————————————— [−]
Turn off hard disk after | When plugged in | On battery |
                             | Never ⌄ | 20 minutes ⌄|
When sharing media | Prevent sleep ⌄ | Allow sleep ⌄|
Video playback quality bias | Performance ⌄ | Power-saving ⌄|
When playing video | Optime quality ⌄| Optime power ⌄|

Default settings ——————————————————————————— [−]
Set to default settings (balanced)   [Change]
Set to high performance settings   [Change]
Set to power saver settings   [Change]

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Usability Evaluation Report

Dated
10/27/2022

Prepared By

NAME(S): Marco Colonna

SIGNATURES:

1   **Marco:** Hello [User], my name is Marco. Thank you for participating in our study. I am a Computer Science student at the University of Michigan
2   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
3   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
4   with the system. Before we begin, I'd like to ask you some questions about your experience with Windows power and sleep settings. Have you
5   touched the power & sleep settings in Windows 10?
6   **User:** Yes.
7   **Marco:** Have you touched the power & sleep settings in a different version of Windows?
8   **User:** Yes
9   **Marco:** Have you touched the power & sleep settings in a different operating system? (macOS, Linux, iOS, etc.)
10   **User:** Yes.
11   **Marco:** How often do you use the power & sleep settings?
12   **User:** Hardly ever.
13   **Marco:** When was the last time you used the power & sleep settings?
14   **User:** I don't remember when.
15   **Marco:** What was your experience last time?
16   **User:** I didn't have any issues
17   **Marco:** What prompts you to change the power & sleep settings?
18   **User:** Making it so my computer won't stay on all the time.
19   **Marco:** What settings do you change the most?
20   **User:** The length that it takes to go to sleep.
21   **Marco:** What settings do you search for the most?
22   **User:** None.
23   **Marco:** What problems did you encounter when changing the power & sleep settings?

24   **User:** I haven't had any problems.
25   **Marco:** 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
26   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
27   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
28   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
29   pulled up the Windows 10 Power & sleep settings for you. First, change the screen to turn off after 1 minute.
30   [User found the setting to change the screen turn off time and changed it to 1 minute without difficulty, but had some confusion on the meaning
31   between when plugged in and when on battery]
32   **Marco:** Now change the computer to go to sleep after 1 hour.
33   [User also found the setting to change the sleep time and changed it to 1 hour without difficulty]
34   **Marco:** Can you set the power button to put the computer to sleep?
35   [User went to open Power and sleep button settings tab, but asked if the plus button had to be clicked to open the tab or if the name could just be
36   clicked, they then changed the power button to put the computer to sleep]
37   **Marco:** I'd like you to turn on fast startup.
38   [User confidently went to advanced settings to find the setting and was surprised it wasn't there, and then looked in shutdown settings, where they
39   found it and turned-on fast startup]
40   **Marco:** Great. Can you allow the Hibernate option to show in the Power menu?
41   [User continued looking in shutdown settings and eventually found the option to show Hibernate in the Power menu]
42   **Marco:** I'd like you to set the hard disk to never turn off.
43   [User returned to advanced power settings and set the hard disk to never turn off]
44   **Marco:** Then, can you change playing video to optimize video quality?
45   [User continued looking in advanced settings and found the when playing video setting and set it to optimize video quality]
46   **Marco:** Now set the settings to the high performance default settings.
47   [User opened the default settings tab and selected the high performance settings]
48   **Marco:** Thank you for going through those tasks. Now I have some final questions to ask you about your experience. Which of these settings have
49   you changed before?
50   **User:** When to turn off the screen and put it to sleep, and what the power buttons do.
51   **Marco:** Of the settings you haven't changed before, are there any settings you would now change on your own computer?
52   **User:** Maybe turning on fast startup, but I'm not sure how the other settings could help me.
53   **Marco:** What settings were you satisfied with the process of changing?
54   **User:** Changing the settings was fine for all of them, the dropdowns or checkboxes all made sense with each setting.
55   **Marco:** Which settings were the hardest for you to change?
56   **User:** The hardest part was just finding the right setting and not having to look in each tab for the right setting.
57   **Marco:** What improvements would you suggest to the power & sleep settings?
58   **User:** Just more clarity on how everything works in case someone needs the help, like with the plugged in and on battery modes or opening the
59   tabs.
60   **Marco:** Thank you for participating in this study. This is very helpful feedback for how we can improve these settings for our project.

Feedback & Critical Incidence

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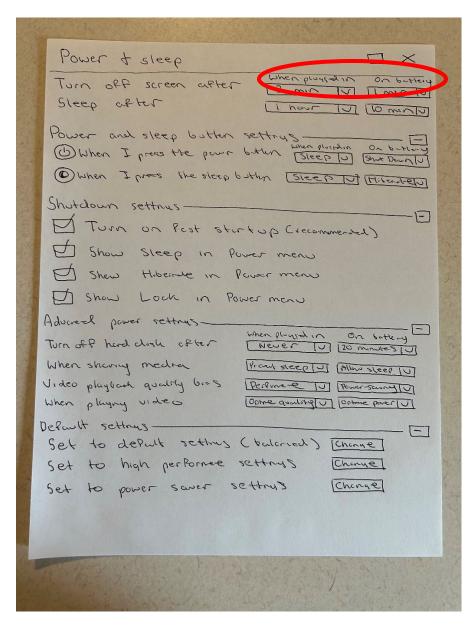
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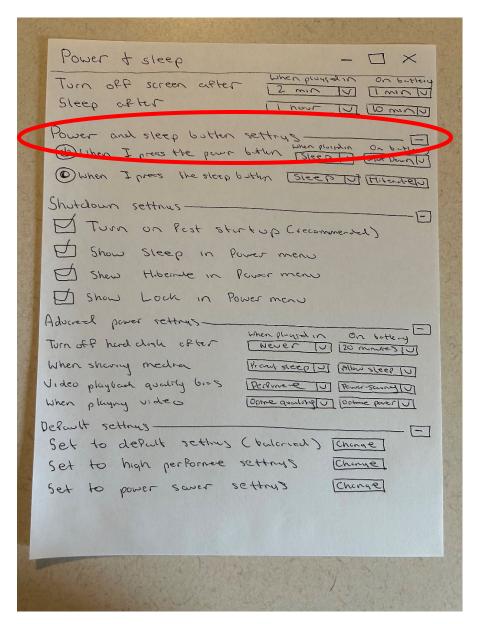
Usability Evaluation Feedback Analysis

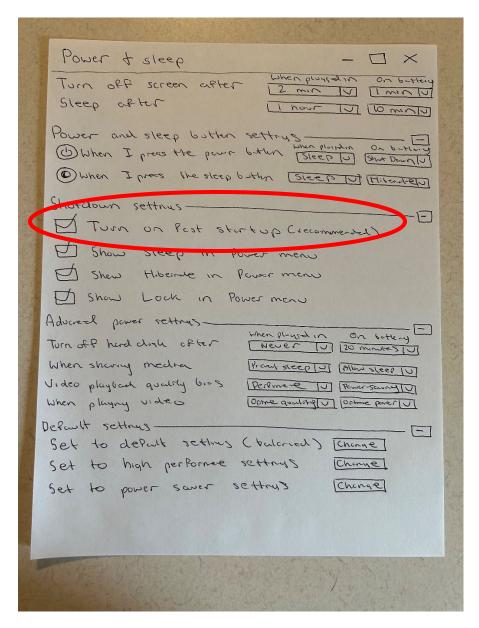| #	Prototype Screen Provide link to images and circle relevant part with optional annotations	Reference include line number(s) in specific transcript for the identified issue	User's feedback/ critical incidence/ problem	Reason for negative feedback / breakdown	Scope which interface /function is impacted	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 30-31, 58-59	User had trouble understanding the different power modes	The user didn't have any trouble changing the screen turn off time, but was initially confused on why there were two options to change and if they impacted each other.	Screen and sleep settings	Low: the user was able to find and change the settings, and just didn't understand the difference between the two dropdowns	Having some sort of explanation that settings can be set depending on power mode, or explaining what the power modes mean may help with this issue
2	See Picture 2	Line 35-36, 58-59	User didn't know how to open the settings tabs	The user noticed that the plus sign would likely expand the tab to show settings, but they weren't sure whether just clicking the name would work too.	All settings tabs	High: most of the settings are contained within the settings tabs, if a user can't figure out how to open them then they can't change a lot of settings	This problem seems to boil down to implementation, which obviously wasn't done for a prototype, when we do create an actual model of this we should ensure that the tab opens when the expand button is pressed and when any other part of the tab is clicked
3	See Picture 3	Line 38-39	User had trouble locating the fast startup setting	The user expected the fast startup setting to be in advanced settings and immediately went there, but was confused to see in the tab shutdown settings tab.	Shutdown settings tab	Medium: the user was able to find the setting after looking in another tab, but the goal is to avoid the user having to hunt or search for the settings they want to change	Either renaming the shutdown settings tab to better reflect the settings it contains, or placing the fast startup outside of a tab if there is nothing related to it to group it with

Picture 1:

Power & sleep   ▢ ✕

Turn off screen after   [When plugged in] [On battery]
    [2 min ▽] [1 min ▽]
Sleep after   [1 hour ▽] [10 min ▽]

Power and sleep button settings ———— [–]
⏻ When I press the power button   When plugged in   On battery
    [Sleep ▽] [Shut Down ▽]
◑ When I press the sleep button   [Sleep ▽] [Hibernate ▽]

Shutdown settings ————————————— [–]
☑ Turn on fast startup (recommended)
☑ Show Sleep in Power menu
☑ Show Hibernate in Power menu
☑ Show Lock in Power 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 ▽]

Default settings —————————————— [–]
Set to default settings (balanced) [Change]
Set to high performance settings [Change]
Set to power saver settings [Change]

Picture 2:

Power & sleep   — ☐ ✕

Turn off screen after | When plugged in | On battery |
                         | 2 min ▾ | 1 min ▾ |
Sleep after | 1 hour ▾ | 10 min ▾ |

Power and sleep button settings ——————————— [−]
⊙ When I press the power button | When plugged in | On battery |
                                   | Sleep ▾ | Shut Down ▾ |
⊙ When I press the sleep button | Sleep ▾ | Hibernate ▾ |

Shutdown settings ————————————————————— [−]
☑ Turn on fast startup (recommended)
☑ Show Sleep in Power menu
☑ Show Hibernate in Power menu
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Advanced power settings ————————————————— [−]
Turn off hard disk after | When plugged in | On battery |
                          | Never ▾ | 20 minutes ▾ |
When sharing media | Prevent sleep ▾ | Allow sleep ▾ |
Video playback quality bias | Performance ▾ | Power-saving ▾ |
When playing video | Optimize quality ▾ | Optimize power ▾ |

Default settings ——————————————————————— [−]
Set to default settings (balanced) [Change]
Set to high performance settings   [Change]
Set to power saver settings   [Change]

Picture 3:

CSC 310: Human Computer Interaction

Usability Evaluation Report

Dated
10/27/2022

Prepared By

NAME(S): Ella Nikitin

SIGNATURES:

Brief Description
of User

User is a 19-year old white college female. She has experience with Windows through personal use and for school, but primarily on desktop. She was chosen because while she does have experience with windows, she uses it in a way where she might be less familiar with the power and sleep settings

Transcript

1 **Ella:** Hello [User], my name is Ella. Thank you for participating in our study. I am a Computer Science student at the University of Michigan
2 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
3 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
4 with the system. Before we begin, I'd like to ask you some questions about your experience with Windows power and sleep settings. Have you
5 touched the power & sleep settings in Windows 10?
6 **User:** Yes
7 **Ella:** Have you touched the power & sleep settings in a different version of Windows?
8 **User:** No
9 **Ella:** Have you touched the power & sleep settings in a different operating system?
10 **User:** No
11 **Ella:** How often do you use the power & sleep settings?
12 **User:** Not very often
13 **Ella:** When was the last time you used the power & sleep settings?
14 **User:** about a month ago
15 **Ella:** What was your experience last time?
16 **User:** A tiny bit confusing, but it wasn't that bad
17 **Ella:** What prompts you to change the power & sleep settings?
18 **User:** To learn about it
19 **Ella:** What settings do you change the most?
20 **User:** How long until it goes to sleep
21 **Ella:** What settings do you search for the most?
22 **User:** To prevent it from going to sleep
23 **Ella:** What problems did you encounter when changing the power & sleep settings?
24 **User:** Finding advanced settings

25   **Ella:** 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
26   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
27   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
28   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
29   pulled up the Windows 10 Power & sleep settings for you. First, change the screen to turn off after 1 minute.
30   [User successfully finds the setting]
31   **Ella:** Now change the computer to go to sleep after 1 hour.
32   [User successfully finds the setting]
33   **Ella:** Can you set the power button to put the computer to sleep?
34   [User successfully finds the setting]
35   **Ella:** I'd like you to turn on fast startup
36   [User finds the setting after checking advanced power settings and default settings first]
37   **User:** Startup is the absolute opposite of shutdown. Why?
38   **Ella:** Great. Can you allow the hibernate option to show up in the power menu?
39   **[**User finds the setting in the same place]
40   **Ella:** I'd like you to set the hard disk to never turn off.
41   [User successfully finds the setting]
42   **Ella:** Then, can you change playing video to optimize video quality?
43   [User finds the setting, but was unsure of difference between playing video and optimize video quality, and second guessed herself]
44   **Ella:** Now set the settings to the high performance default settings.
45   [User finds the button and clicks it]
46   **Ella:** Thank you for going through those tasks. Now I have some final questions to ask you about your experience. Which of these settings have
47   you changed before?
48   **User:** I think I did the power button thingy
49   **Ella:** Of the settings you have changed before, are there any settings you would now change on your own computer?
50   **User:** Maybe high performance for video
51   **Ella:** What settings were you satisfied with the process of changing?
52   **User:** The power button for sleep, because its easy to get to
53   **Ella:** What settings were the hardest for you to change?
54   **User:** Probably the startup thing because the shutdown is the opposite of startup. Why are they correlated?
55   **Ella:** What improvements would you suggest to the power and sleep settings?
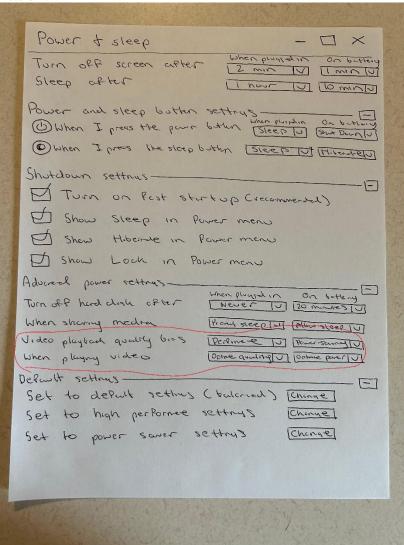56   **User:** Probably have a separate one for startup and shutdown

Usability Evaluation Feedback Analysis

#	Prototype Screen Provide link to images and circle relevant part with optional annotations	Reference include line number(s) in specific transcript for the identified issue	User's feedback/ critical incidence/ problem	Reason for negative feedback / breakdown	Scope which interface /function is impacted	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	36	User had trouble locating fast startup	User was confused on why fast startup is under shutdown when shutdown is the opposite of startup	Shutdown settings	Low: The user was able to find the setting after spending not too much additional time searching	It may be helpful to rename that section. The tradeoff here is that the name would be longer requiring the user to read more.
2	See Picture 2	43	User could not tell the difference between video quality playback bias and when playing video	The two settings seemed to have really similar effects	Advanced power settings	Low: The user was still able to change the setting	It could be helpful to merge the two settings into one. This would remove options from the user. Additional clarifying text or rewording could also work, but would affect users used to the precedent.

Picture 1:

Picture 2:

CSC 310: Human Computer Interaction

Usability Evaluation Report

Dated
10/27/2022

Prepared By

NAME(S): Ella Nikitin

SIGNATURES:

Brief Description
of User

User is a 56 year old male, has pretty good skill level in using computers, experience with windows XP in the past, and not as much experience with newer versions, and is mainly a Mac user, who absolutely despises Windows. He was chosen because he has assumptions based on using a different operating system that might not carry over.

Transcript

1 **Ella:** Hello [User], my name is Ella. Thank you for participating in our study. I am a Computer Science student at the University of Michigan
2 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
3 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
4 with the system. Before we begin, I'd like to ask you some questions about your experience with Windows power and sleep settings. Have you
5 touched the power & sleep settings in Windows 10?
6 **User:** no
7 **Ella:** Have you touched the power & sleep settings in a different version of Windows?
8 **User:** no
9 **Ella:** Have you touched the power & sleep settings in a different operating system?
10 **User:** Yes, with MacOS and iOS
11 **Ella:** How often do you use the power & sleep settings?
12 **User:** Well, it's kind of like set it and forget it so, I mean I set it up once per new purchase of device to my preferences and then kind of leave it
13 there. There was a period of time though when macOS had a bit of stupidity about changing the settings and I had to keep changing the settings.
14 **Ella:** When was the last time you used the power & sleep settings?
15 **User:** On my mac, about maybe 2 months ago
16 **Ella:** What was your experience last time?
17 **User:** I moved the slider and it did the thing
18 **Ella:** What prompts you to change the power & sleep settings?
19 **User:** Mostly it's a matter of how if I'm doing work where I'm not going to be moving the mouse a lot then I might change it otherwise I set it to
20 go to sleep pretty quick usually. But if I know I'm going to be doing something where I'm going to not move my mouse, but you've got the hot
21 area where you move the cursor to the upper left corner in the upper left hand corner, but sometimes I need to keep the mouse somewhere else.
22 **Ella:** What settings do you change the most?
23 **User:** The display settings
24 **Ella:** What settings do you search for the most?

25   **User:** You don't really search for them in a mac, they're all just there.
26   **Ella:** What problems did you encounter when changing the power & sleep settings?
27   **User:** None
28   **Ella:** 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
29   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
30   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
31   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
32   pulled up the Windows 10 Power & sleep settings for you. First, change the screen to turn off after 1 minute.
33   [User finds the setting]
34   **User:** Well I hit there and I imagine there's a dropdown where I can hit one minute
35   **Ella:** Now change the computer to go to sleep after 1 hour.
36   [User finds the setting]
37   **User:** Well it's already there for plugged in… Unless you want me to say also on battery then I'll pick boop and then one hour
38   **Ella:** Can you set the power button to put the computer to sleep?
39   [User finds the setting]
40   **User:** Well it's already set for that when for plugged in., so I'm assuming that for battery, hopefully there's a dropdown to hit sleep but obviously
41   because, this is Windows, I have to go 17 submenus deep
42   **Ella:** I'd like you to turn on fast startup
43   [Looks under default settings, and tries clicking all of the "change" to default settings, before finding the setting in the shutdown setting]
44   **User:** Sure, fine, what the fuck? Why would startup be under shutdown. Oh, right, this is Windows, this probably makes sense for a Windows
45   user.
46   **Ella:** Great. Can you allow the hibernate option to show up in the power menu?
47   [User finds the setting in the same place]
48   **Ella:** I'd like you to set the hard disk to never turn off.
49   [User looks in default settings first, then goes to Advanced power settings and finds the settings]
50   **User:** I guessed it was under advanced, but decided because it's windows it must be under default settings
51   **Ella:** Then, can you change playing video to optimize video quality?
52   [User finds the setting]
53   **User:** I'm assuming that says optimize quality, okay
54   **Ella:** Now set the settings to the high performance default settings.
55   [User presses the appropriate button under default settings]
56   **Ella:** Thank you for going through those tasks. Now I have some final questions to ask you about your experience. Which of these settings have
57   you changed before?
58   **User:** On Windows machine, none of them. On a Mac, I've done the display sleep, computer sleep, which is what they call hibernate, and I've done the hard
59   drive sleep and that's basically it. They really don't offer you that much.
60   **Ella:** Of the settings you have changed before, are there any settings you would now change on your own computer?
61   **User:** No

62   **Ella:** What settings were you satisfied with the process of changing?
63   **User:** The power and sleep ones, but that's the ones I'm most familiar with
64   **Ella:** What settings were the hardest for you to change?
65   **User:** That would be the fast startup that was under the shutdown menu
66   **Ella:** What improvements would you suggest to the power and sleep settings?
67   **User:** Maybe have a shutdown menu for the shutdown stuff?

Usability Evaluation Feedback Analysis

#	Prototype Screen Provide link to images and circle relevant part with optional annotations	Reference include line number(s) in specific transcript for the identified issue	User's feedback/ critical incidence/ problem	Reason for negative feedback / breakdown	Scope which interface /function is impacted	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	43-45	User had trouble finding Fast Startup	Was confused by why fast startup would be under shutdown	Shutdown Settings	Low: The user did find the setting eventually	Rename the section, to something like "Shutdown and Startup". This has the tradeoff of adding more text.
2	See Picture 2	43,49	User clicked on all the default settings while trying to change some other setting	User did not seem to understand the purpose of the "Default Settings" section	Default Settings	Medium: Clicking the buttons not knowing what they do could result in the user having to redo all their settings	Re-word the text in the interface- possible "Reset to Default Settings" or "Presets"… could be more reading or more confusing respectively though.

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	Sleep ⌄	Hibernate ⌄

Shutdown settings —————————————————— ⊟

☑ Turn on fast start up (recommended)
☑ Show Sleep in Power menu
☑ Show Hibernate in Power menu
☑ Show Lock in Power 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	Optime quality ⌄	Optime power ⌄

Default settings ——————————————————————— ⊟

Set to default settings (balanced)   [Change]
Set to high performance settings   [Change]
Set to power saver settings   [Change]

Picture 2:

Power & sleep   — ☐ ✕

Turn off screen after   When plugged in   On battery
                               [2 min   ⌄]   [1 min ⌄]
Sleep after
                               [1 hour   ⌄]   [10 min ⌄]

Power and sleep button settings ————————————— [−]
⏻ When I press the power button   When plugged in   On battery
                                   [Sleep   ⌄]   [Shut Down ⌄]
◉ When I press the sleep button   [Sleep   ⌄]   [Hibernate ⌄]

Shutdown settings ———————————————————————— [−]
☑ Turn on fast startup (recommended)
☑ Show Sleep in Power menu
☑ Show Hibernate in Power menu
☑ Show Lock in Power menu

Advanced power settings ———————————————— [−]
Turn off hard disk after   When plugged in   On battery
                               [Never   ⌄]   [20 minutes ⌄]
When sharing media   [Prevent sleep ⌄]   [Allow sleep ⌄]
Video playback quality bias   [Performance ⌄]   [Power-saving ⌄]
When playing video   [Optime quality ⌄]   [Optime power ⌄]

Default settings ———————————————————————— [−]
Set to default settings (balanced)   [Change]
Set to high performance settings   [Change]
Set to power saver settings   [Change]

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.

<u>Usability Evaluation Feedback Analysis</u>

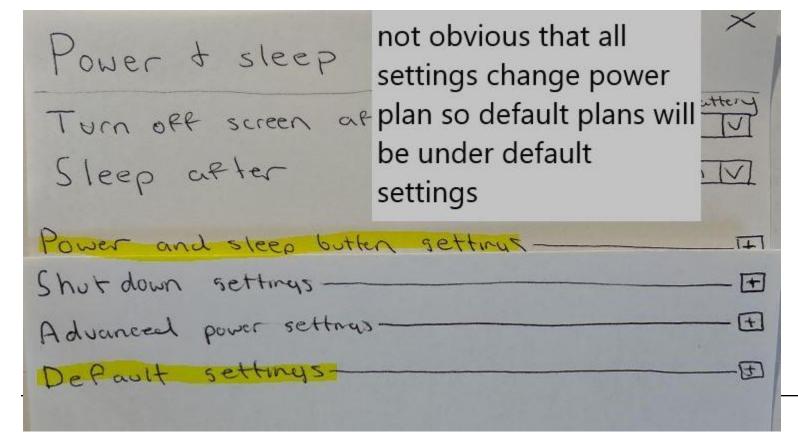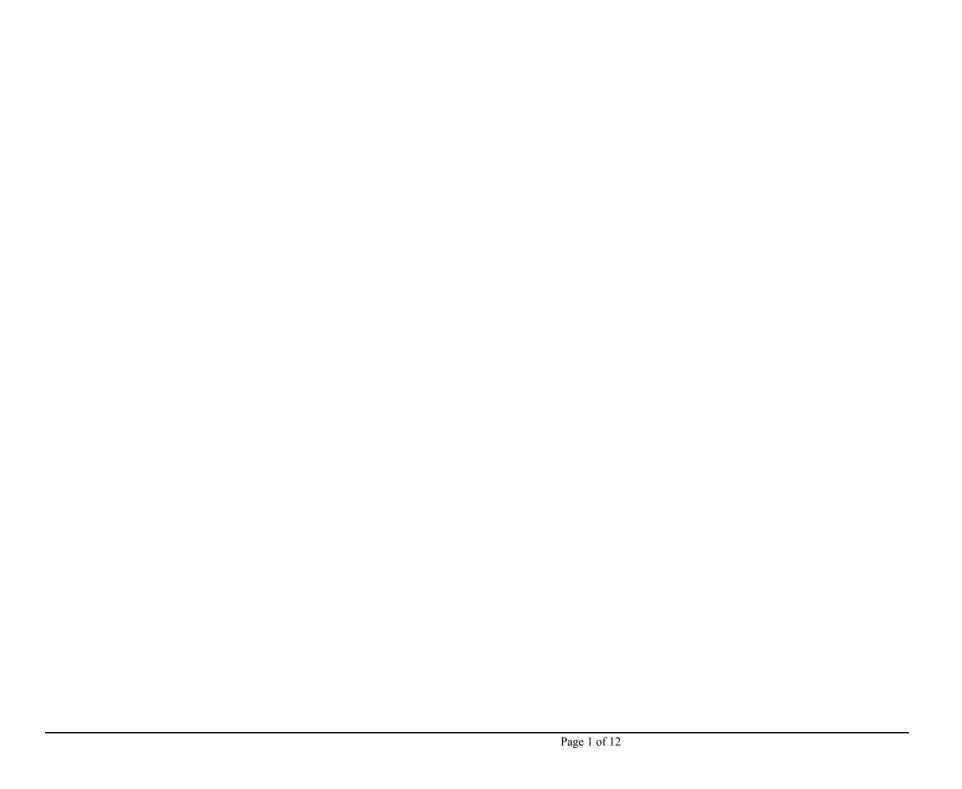| #	Prototype Screen	Reference	User's feedback/ critical incidence/ problem	Reason for negative feedback / breakdown	Scope	Severity (High/ Medium/ Low) and **Justification** for giving that rating	Way(s) to rectify and any Tradeoffs (i.e., why the fix might not work)
1	See Picture 1	Line 9	User navigated 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:

Picture 2:

Advanced power settings—

Turn off hard disk afte names too similar or not

When showing media descriptive enough

Video playback quality bias

When playing video

Performance ☑   Power-saving ☑

Optimie quality ☑   Optimie power ☑

Picture 3:

Power & sleep   not obvious that all
                     settings change power
Turn off screen af   plan so default plans will battery
                     be under default   ☑
Sleep after   settings   ☑

Power and sleep button settings ——————— [+]

Shut down settings ——————————————— [+]

Advanced power settings ——————————— [+]

Default settings ———————————————— [+]

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 mid 20s, white female. She uses Mac devices for college and windows computer for work as a receptionist.

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

Intro and questionnaire.
[User estimates they use the settings every few months to adjust wake and sleep times]
[no problems with screen sleep or pc sleep]
Okay, can you set the hard disk to never turn off?
Okay.
Okay, sleep settings and…
[User went to power button settings and needed direction to look at advanced power settings]
Okay, Now, can you change playing video to optimize video quality
Would be under default. settings.
[user looked under default settings and then had to look through every menu to find video quality.]
Oh, no, it'd be under advanced again.
can you set the power plan to the default high performance plan. Yes, i'm going to the default settings and so change.
Can you turn on fast startup?
That'd be under the advanced power settings again.
[User changed the default power plan again]
I wanted you to turn on Fast startup? Oh, sorry!
Hmm I'm not sure
[User checked shutdown settings last.]
Oh, it'd be under the shutdown settings. Right here.
Okay, Now allow hibernate option to show in the power menu.
[User found hibernate immediately in the same menu with no difficulty changing the setting]
[User commented in post questionnaire that the power settings under default settings was the most difficult to find.]

Feedback & Critical Incidence
<< Record your observations in the table on the following page, based on your observations and notes taken during the usability evaluation

Description of columns in the table are as follows:

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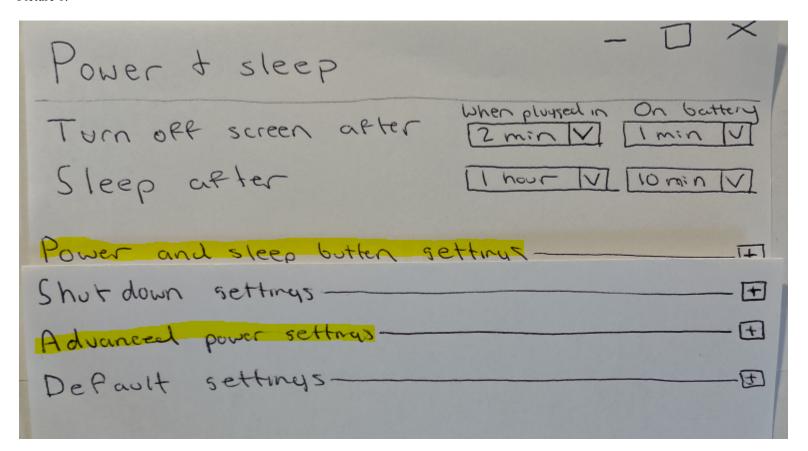
Way(s) to rectify:
Suggestion for the modifications that might be made to the user interface to address the issue or issues in this row. You MUST include trade-offs to be credible. If you can't think of some bad trade-off, say so.
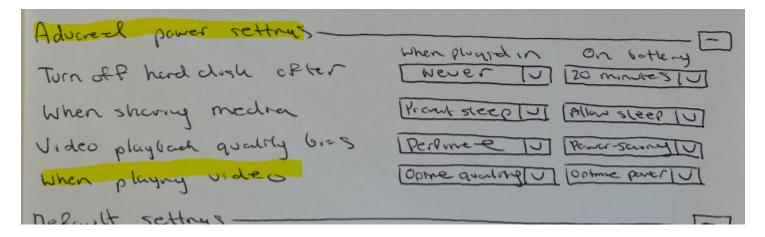
Usability Evaluation Feedback Analysis

#	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 7	Looked under power button settings for hard disk turn off time.	User seemed to lock on to first couple words of power and sleep button and not notice it was just for the buttons	Minimal scope. Specific problem with that wording	Low. It becomes quickly apparent that this setting is just for buttons and the user moves on in good time.	Finding a more explicit name could work with no trade off. Or recategorizing the settings with a risk of doing more work to end up with similar problems for other settings.
2	See Picture 2	Line 10	User looked through every menu to find video settings	Being under the generalized advanced settings does not tip the user to what settings are there.	Potentially widespread.	Medium. There are several options that are buried but couldn't have their own category because they are one offs	Maybe listing examples of the settings in each category in a parenthetical or in a dialog box on hover. No trade-off there except the risk that the top menu becomes overly verbose.

| 3 | See Picture 3 | Line 15-18 | User went to default settings before finding the setting in shutdown settings last. | User thought shutdown would be the last place to find a 'startup' option. | Minimal. | Low. This specific problem could be remedied with minimal wording change. | Changing the title to 'startup/shutdown options' might be enough to fix it with no trade-off. |

Picture 1:

Power & sleep

Turn off screen after | When plugged in [2 min ✓] | On battery [1 min ✓]

Sleep after | [1 hour ✓] | [10 min ✓]

Power and sleep button settings ———————————— [+]

Shut down settings ———————————————————— [+]

Advanced power settings ———————————————— [+]

Default settings ——————————————————————— [+]

Picture 2:

Picture 3:

Shutdown settnus ———————————————————————— [-]
☑ Turn on fast startup (recommended)
☑ Show Sleep in Power menu
☑ Show Hibernate in Power menu
☑ Show Lock in Power menu
Advanced power settnus ———