

## **CSC 310: Human Computer Interaction**

# **Usability Evaluation Report**

**Dated**  
**10/27/2022**

**Prepared By**

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**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	<a href="#">See Picture 1</a>	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	<a href="#">See Picture 2</a>	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.

Picture 1:

Power & sleep - □ X

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Turn off screen after When plugged in On battery

Sleep after 2 min ✓ 1 min ✓

Sleep after 1 hour ✓ 10 min ✓

Power and sleep button settings - □

⑥ When I press the power button When plugged in On battery

⑦ When I press the sleep button Sleep ✓ Shut Down ✓

⑧ When I press the sleep button Sleep ✓ Hibernates ✓

Shutdown settings - □

☒ Turn on Fast startup (recommended)

☒ Show Sleep in Power menu

☒ Show Hibernates in Power menu

☒ Show Lock in Power menu

Advanced power settings - □

Turn off hard disk after When plugged in On battery

When sharing media Never ✓ 20 minutes ✓

When playing 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 - □ ×

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Turn off screen after when plugged in on battery

2 min <input checked="" type="checkbox"/>	1 min <input checked="" type="checkbox"/>
---	---

Sleep after when plugged in on battery

1 hour <input checked="" type="checkbox"/>	10 min <input checked="" type="checkbox"/>
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Power and sleep button settings - □

⑤ When I press the power button when plugged in on battery

Sleep <input checked="" type="checkbox"/>	Shut Down <input checked="" type="checkbox"/>
---	---

⑥ When I press the sleep button when plugged in on battery

Sleep <input checked="" type="checkbox"/>	Hibernate <input checked="" type="checkbox"/>
---	---

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 <input checked="" type="checkbox"/>	20 minutes <input checked="" type="checkbox"/>

When sharing media when plugged in on battery

Prevent sleep <input checked="" type="checkbox"/>	Allow sleep <input checked="" type="checkbox"/>
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Video playback quality bias when plugged in on battery

Performance <input checked="" type="checkbox"/>	Power saving <input checked="" type="checkbox"/>
---	--

When playing video when plugged in on battery

Optimize quality <input checked="" type="checkbox"/>	Optimize power <input checked="" type="checkbox"/>
--	--

Default settings - □

Set to default settings (balanced) Change ☒

Set to high performance settings Change ☒

Set to power saver settings Change ☒