17L-4202
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HCI-CS C
QUIZ

Task 1: Bold a word or letter

Scenario 1: assume that the user is pre skilled about using Microsoft Word and has the information about how to bold it using the menu bar. The general procedure is to select a word or letter the user wants to be bolded and the user do so by using the menu bar and select the 'B' from the bar which will bold the word or letter.

Operators sequence:
1. Move hand to the mouse- **H[mouse]**
2. Position mouse after the word or letter-**P[to word/letter]**
3. Press mouse button-**B[left]**
4. Drag mouse to select the word or letter and leave the mouse button after the word/letter got selected-**P[Drag]**
5. Point to the menu bar "**B**" option-**P[to option]**
6. Click the **B** button-**B[Left click]**

Total time= 1H+3P+2B=0.400+3(1.100)+2(0.200)=4.1

Applying heuristics:
There are different rules for applying heuristics as shown below:
H P B P P B
By applying rule 0 we place M before each Ks and Ps by doing so it is shown:
H M P B M P M P B
By applying rule 1 where we delete M before the fully anticipated operator and in this case after pressing the mouse button we must have to select the word. So delete it. And after selecting the word or letter must have to point to the menu bar.
H M P B P P B

Total time= 1H+ 1M+ 3P+2B=1(0.400)+(1.35)+3(1.100)+2(0.200)=5.45

Scenario 2: assume that the user is pre skilled about using Microsoft Word and has the information about how to bold it using the menu bar. The general procedure is to select a word or letter the user wants to be bolded and the user do so by using the keyboard shortcut key i.e. ctrl+B

Operators sequence:
1. Move hand to the mouse- **H[mouse]**
2. Position mouse after the word or letter-**P[to word/letter]**

3. Press mouse button-**B[left]**
4. Drag mouse to select the word or letter and leave the mouse button after the word/letter got selected-**P[Drag]**
5. Move hand to the keyboard-**H[Keyboard]**
6. Press ctrl on keyboard and hold it-**K[keystroke]**
7. Press b on keyboard-**K[keystroke]**

Total time= 2H+2P+1B+2K=0.400+2(1.100)+1(0.200)+2(0.12)=3.04

Applying heuristics:
There are different rules for applying heuristics as shown below:
H P B P H K K
By applying rule 0 we place M before each Ks and Ps by doing so it is shown:
H M P B M P H M K M K
By applying rule 1 where we delete M before the fully anticipated operator and in this case after pressing the mouse button we must have to select the word. So delete it.
H M P B P H M K M K
After applying rule 3 in which there is deletion of M between consecutive terminators:
H M P B P H M K K

Total time= 2H+ 2M+ 2P+1B=2(0.400)+2(1.35)+2(1.100)+1(0.200)=5.9

As you can see in the above scenarios the time was taken less when using keyboard shortcut keys and when applying heuristics it took more time than by bold using the menu bar.

Task 2: Change font size
Scenario 1: assume that the user is pre skilled about using Microsoft Word and has the information about how to change the font size using the menu bar. The general procedure is to select a word or letter whose font size has to be changed and do so by choosing from the menu bar's font size's drop down.

Operators sequence:
1. Move hand to the mouse- **H[mouse]**
2. Position mouse after the word or letter-**P[to word/letter]**
3. Press mouse button-**B[left]**
4. Drag mouse to select the word or letter and leave the mouse button after the word/letter got selected-**P[Drag]**
5. Point to the menu bar "**font size**" option-**P[to option]**
6. Press mouse button to select font from dropdown-**B[right click]**
7. Drag to the font size-**P[drag]**

8. Select font size user wants to enter-**B[Left click]**

Total time= 1H+4P+3B=0.400+4(1.100)+3(0.200)=5.4

Applying heuristics:
There are different rules for applying heuristics as shown below:
H P B P P B P B
By applying rule 0 we place M before each Ks and Ps by doing so it is shown:
H M P B M P M P B M P B
By applying rule 1 where we delete M before the fully anticipated operator and in this case after pressing the mouse button we must have to select the word. So delete it. And after selecting the word or letter must have to point to the menu bar.
H M P B P P B M P B

Total time= 1H+ 2M+4P+3B=0.400+2(1.35)+4(1.100)+3(0.200)=8.1

Scenario 2: assume that the user is pre skilled about using Microsoft Word and has the information about how to change the font size by typing on the bar. The general procedure is to select a word or letter whose font size has to be changed and do so by typing on the bar of the font size that is 14.

Operators sequence:
1. Move hand to the mouse- **H[mouse]**
2. Position mouse after the word or letter-**P[to word/letter]**
3. Press mouse button-**B[left]**
4. Drag mouse to select the word or letter and leave the mouse button after the word/letter got selected-**P[Drag]**
5. Point to the menu bar "**font size**" option-**P[to option]**
6. Press mouse button-**B[left click]**
7. Drag mouse to select the already written font size-**P[drag]**
8. Move hand to keyboard-**H[keyboard]**
9. Enter keystroke for "1" -**K[digit]**
10. Enter keystroke for "4" -**K[digit]**
11. Move hand to mouse-**H[to mouse]**

Total time= 3H+4P+2B+2K=3(0.400)+4(1.100)+2(0.200)+2(0.12)=6.24

Applying heuristics:
There are different rules for applying heuristics as shown below:
H P B P P B P H K K H

By applying rule 0 we place M before each Ks and Ps by doing so it is shown:

H M P B M P M P B M P H M K M K H

By applying rule 1 where we delete M before the fully anticipated operator and in this case after pressing the mouse button we must have to select the word. So delete it. And after selecting the word or letter must have to point to the menu bar.

H M P B P P B P H M K M K H

By applying rule 2: H M P B P P B P H M K K H

Total time= 3H+4P+2B+2K+2M=3(0.400)+4(1.100)+2(0.200)+2(0.12)+2(1.35)=8.94

As from the above analysis we can see that changing the font size from drop down font size is less than changing font by typing on the font size bar.