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Individual Assignment #5

The video of trying the tasks myself: <https://youtu.be/9kOTs2NWhzk>

**Derivation table**

Task a

|  |  |  |  |
| --- | --- | --- | --- |
| # | Task Step Description | KLM model Derivation | Time Prediction |
| 1 | Home to keyborad and type in "Is this a dagger that I see before me?" | H+40\*K | 11.6 sec |
|  |  | Total | 11.6 sec |

Task b

|  |  |  |  |
| --- | --- | --- | --- |
| # | Task Step Description | KLM model Derivation | Time Prediction |
| 1 | Highlight “dagger” | P+2\*BB | 1.5 sec |
| 2 | Type “squirrel” | H+8\*K | 2.64 sec |
|  |  | Total | 4.14 sec |

Task c

|  |  |  |  |
| --- | --- | --- | --- |
| # | Task Step Description | KLM model Derivation | Time Prediction |
| 1 | Highlight “see” | P+2\*BB | 1.5 sec |
| 2 | Press “Ctrl + I” on keyboard | H+2\*K | 0.96 sec |
|  |  | Total | 2.46 sec |

Task d

|  |  |  |  |
| --- | --- | --- | --- |
| # | Task Step Description | KLM model Derivation | Time Prediction |
| 1 | Click the mouse at the end of the first line. | P+BB | 1.3 sec |
| 2 | Press “Enter” (for new line) | H+K | 0.68 sec |
| 3 | Type "I have thee not yet I see thee still." | 39\*K | 10.92 sec |
|  |  | Total | 12.9 sec |

Task e

|  |  |  |  |
| --- | --- | --- | --- |
| # | Task Step Description | KLM model Derivation | Time Prediction |
| 1 | Highlight the first “thee” | P+2\*BB | 1.5 sec |
| 2 | Type “you” | H+3\*K | 1.24 sec |
| 3 | Highlight the second “thee” | P+2\*BB | 1.5 sec |
| 4 | Type “you” | H+3\*K | 1.24 sec |
|  |  | Total | 5.48 sec |

Task f

|  |  |  |  |
| --- | --- | --- | --- |
| # | Task Step Description | KLM model Derivation | Time Prediction |
| 1 | Highlight “me” | P+2\*BB | 1.5 sec |
| 2 | Type “my very eyes” | 12\*K | 3.36 sec |
|  |  | Total | 4.86 sec |

Task g

|  |  |  |  |
| --- | --- | --- | --- |
| # | Task Step Description | KLM model Derivation | Time Prediction |
| 1 | Highlight “squirrel” | P+2\*BB | 1.5 sec |
| 2 | Press “Ctrl + U” on keyboard | H+2\*K | 0.56 sec |
|  |  | Total | 2.06 sec |

Task h

|  |  |  |  |
| --- | --- | --- | --- |
| # | Task Step Description | KLM model Derivation | Time Prediction |
| 1 | Click “File” Button | P+BB | 1.3 sec |
| 2 | Click “Save as” Button | P+BB | 1.3 sec |
| 3 | Click the blank area for changing file name. | P+BB | 1.3 sec |
| 4 | Type “dagger” | H+6\*K | 1.68 sec |
| 5 | Click “Save” Button | P+BB | 1.3 sec |
|  |  | Total | 6.88 sec |

**Summary table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Task step | P1 time (s) | P2 time (s) | P3 time (s) | Participant Average (s) | KLM Prediction (s) | %error |
| a | 15.5 | 13 | 11.5 | 13.33 | 11.6 | 14.91 |
| b | 6.5 | 4.5 | 3 | 4.67 | 4.14 | 12.13 |
| c | 3.5 | 3 | 3 | 3.17 | 2.46 | 28.86 |
| d | 18 | 15.5 | 10.5 | 14.67 | 12.9 | 13.69 |
| e | 6.5 | 6.5 | 7 | 6.67 | 5.48 | 21.71 |
| f | 4.5 | 5.5 | 5.5 | 5.17 | 4.86 | 6.38 |
| g | 3 | 3.5 | 3 | 3.17 | 2.06 | 53.72 |
| h | 12 | 10 | 8.5 | 10.17 | 6.88 | 47.78 |
| total | 69.5 | 61.5 | 52 | 61 | 50.38 | 21.08 |

**Discussion:**

In the results, we can see the overall error is around 20%. When we test each step, we made some mistakes at first. However, the data we can use only from the test we completed without mistakes. The speed of doing the test becomes faster after several attempts and it became closer to the prediction time.

In the above model, I did not include the time of mental preparation, so participants who did less attempts need more mental preparation time when he was doing the test. Participants who did more attempts need less mental preparetion time so the data we get from them is closer to the prediction. In addition, since the current situation, I cannot find many partipants, all of my participants had done these tests for other students before they helped me, so the data I got might not be very objectively. For the more accurate data, I should find participants who have not done this test before, and use more accurate timing tools.