Jinyang Ruan
011696096
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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.