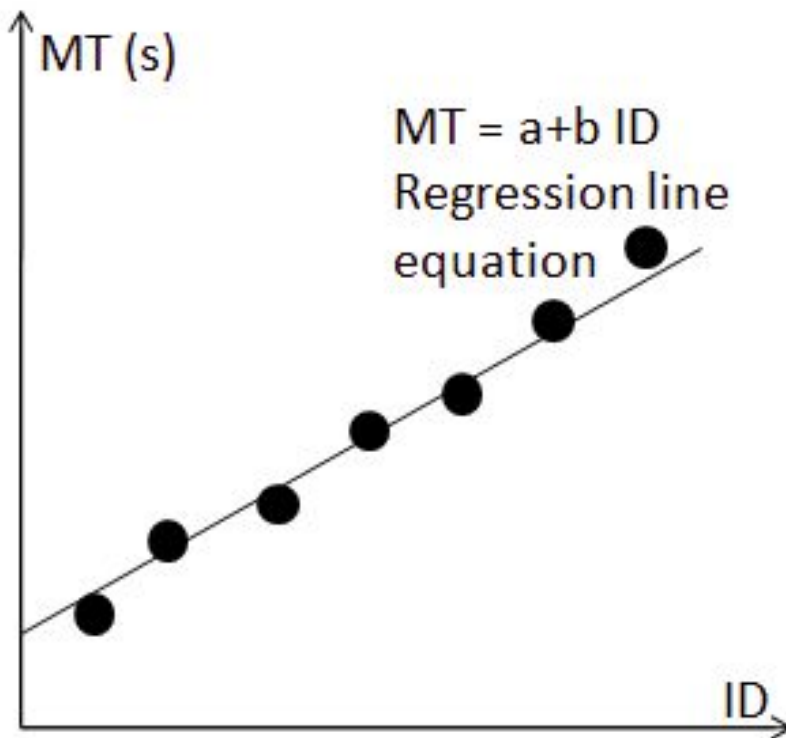


Fitts Law
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181IT244

Fitts's law is a model of speed-accuracy tradeoffs used in human–computer interaction and ergonomics. It predicts time required to acquire a target on screen as a function of the distance to the target and the size of the target.



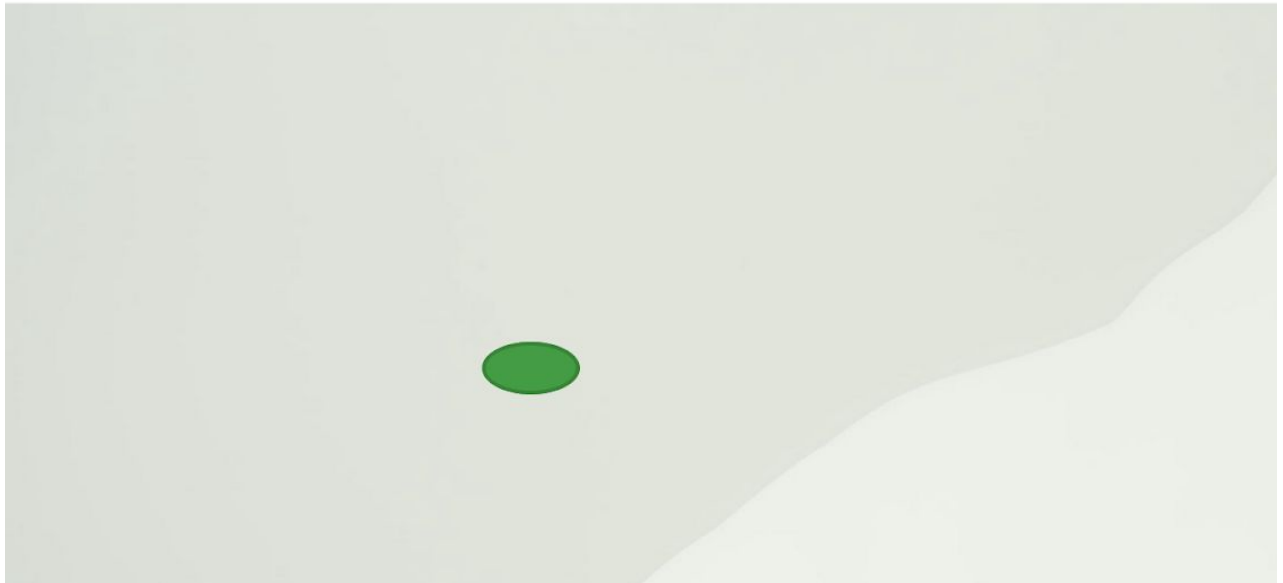
Procedure

1. Be alert. You will see a circle displayed on the screen.
2. You will have to click on the circle the very moment it appears.
3. Once you click the first circle, another circle with random size, color and position will appear on the screen.
4. Click on this next circle too the very moment you see it.
5. Repeat steps 3 and 4 as long as circles continue to appear. (around 21 circles).
6. Finally you will see a table having data of your selection time, target distances to circle and circle dimensions.

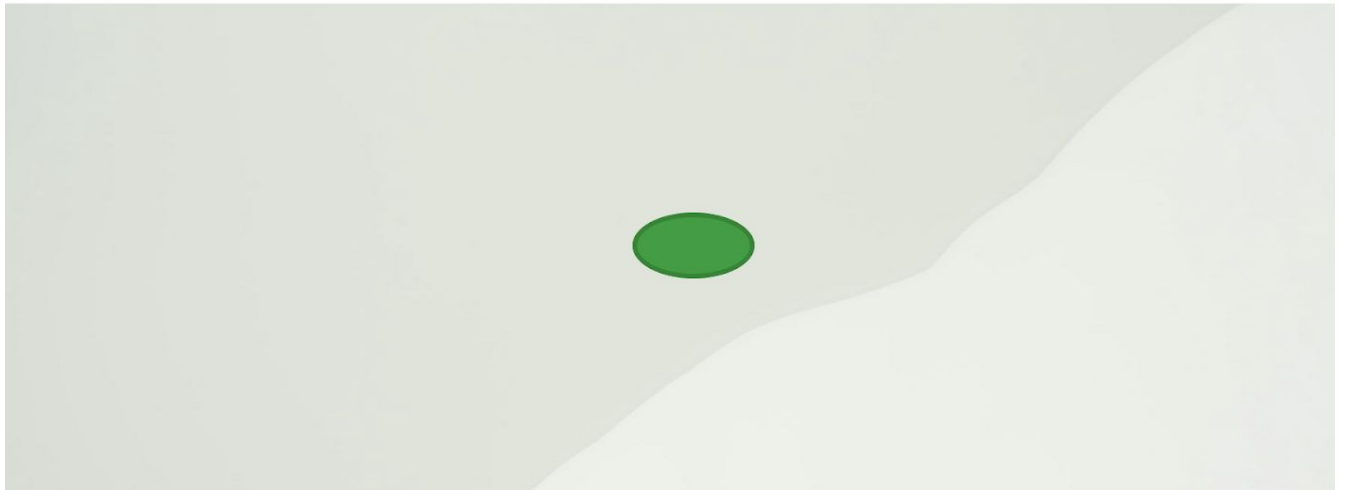
Press to start

We will see a circle displayed on the screen as soon as we click on start. We will have to click on the circle the very moment it appears. Once you click the first circle, another circle with random size, and position will appear on the screen. Click on this next circle too the very moment you see it. Keep repeating until 21 circles, in the end we can evaluate seeing the table which shows coordinates, distance between previous circle and itself and MT and ID are also calculated.

Fitt's Law



Fitt's Law



Buttons or various sizes and positions appear.

Activities Google Chrome Mon 21:51

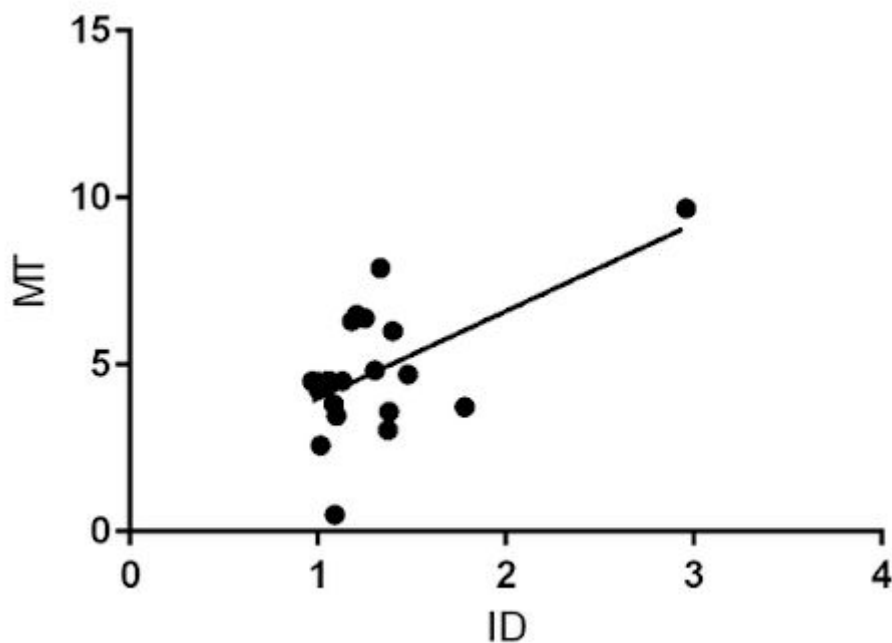
Fitt's Law 127.0.0.1:5500/fits/

Apps UML - Basic... Shadowhun... File Transfe... D. TCP File T... (15) Draw f... Gmail YouTube Maps News Programmin...

Result

X-coordinate	Y-coordinate	Distance	Scale	MT(s)	ID
1	1	1.41	2	1.009	0.50
915.00	302.00	962.29	23	1.249	6.39
479.00	292.00	436.11	11	1.182	6.31
1152.00	248.00	674.44	15	1.205	6.49
1255.00	173.00	127.41	18	1.083	3.82
1322.00	431.00	266.56	44	1.379	3.60
1252.00	325.00	127.03	23	1.099	3.47
1310.00	914.00	591.85	89	1.782	3.73
915.00	-179.00	1162.19	89	1.478	4.71
674.00	84.00	356.72	31	1.053	4.52
371.00	242.00	341.72	30	1.129	4.51
517.00	677.00	458.85	41	1.007	4.48
444.00	850.00	187.77	98	1.538	1.94
359.00	375.00	482.55	15	1.394	6.01
528.00	128.00	299.28	100	1.014	2.58
845.00	-120.00	402.48	97	1.372	3.05
898.00	673.00	794.77	70	0.97	4.51
819.00	1061.00	395.96	1	2.958	9.63
1235.00	319.00	850.66	56	1.303	4.93
383.00	742.00	951.23	8	1.333	7.89
1033.00	560.00	675.00	70	1.001	4.27

Analysis table is shown at the end of the experiment.



Regression analysis for the above experiment if we ignore special cases agrees with the law.

Interpretation and Application

- Big targets at close distance are acquired faster than small targets at long range.
- Target acquiring difficulty increases by one unit for each doubling of distance and halving of width of target.
- Fitts's Law can be used to evaluate alternative interaction methods in Graphical User Interface (GUI).
- It can also be used to predict the performance of operators in user-adaptive systems.

Conducting experiment with laptop touchpad and mouse, mouse gave a better result as it has more control than the touch pad