Project: Fitts Law (Chapter 15)

Perception

Relationship between size and distance

Predict how long it will take the user to hit

Formula

MT = a log2(A/W + 1) + b

ID = log2(A/W + 1)

Verify log with an experiment

Efficiency = Target acquisition in respect to time

Will have to test effectiveness

Submovment

Start out fast and slow down as user gets closer to correct error

Experimenting (done in UX lab)

Ask people to perform a certain amount of task (repeating)

Learning is a problem… (randomize the tasks)

Environment must be the same…

Take average (to test performance)

Exp. Test 2 seconds (take 30 min.)

Rules:

Include consent from in the interface

15 participants needed

**Reset cursor**

Feedback

Progress bar?

Record:

**Record distance**

**Errors**

**Tuple (Diameter, Distance, Direction)**

3 sets (Small, Medium, Large)

2 distances

Left / Right

12 distinct tasks

Repeat 10 times

Report:

How, When, Where, How, Why

Relationship is liner, verify with liner regression

Can predict a and b (the r value, must be greater than 0.9)

A = Amplitude (distance from a target) Ind. Var.

W = Width (width of a target)

MT = Movement Time Dep. Var.

ID = Index of Difficulty

Error Rate

Relationship between independed variables

* **Error Rate**
* **Handedness (right/left)**
* Age
* Ability
* **Gender**
* Desktop / Laptop
* **Mouse / Track Pad**

Variables

A, w, ID, MT, Error, IP

(bits) (ms) (%) (bits/s)