

King Saud University

College of Engineering

IE – 341: “Human Factors”

Spring – 2016 (2nd Sem. 1436-7H)

Chapter 3. Information Input and Processing

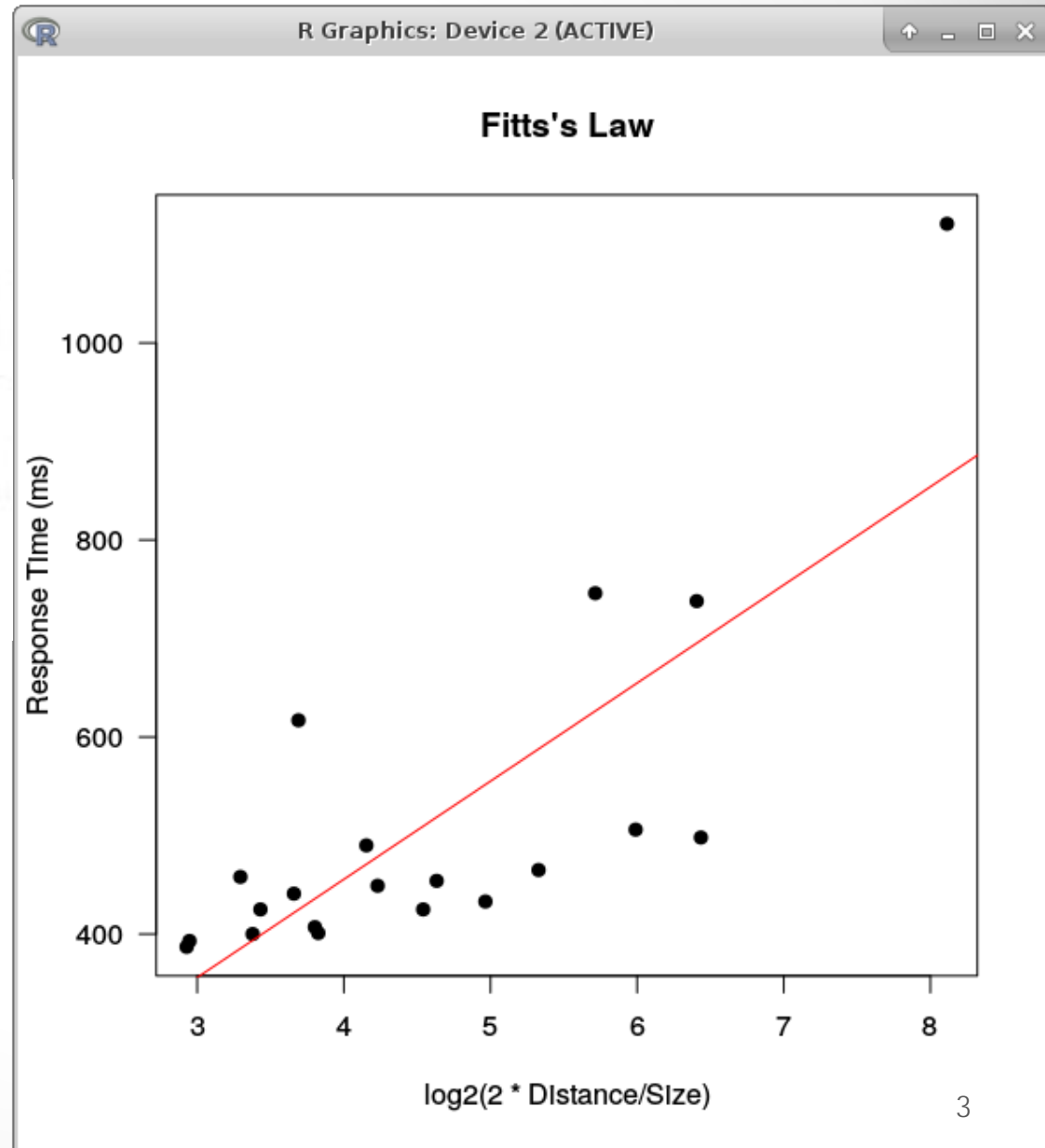
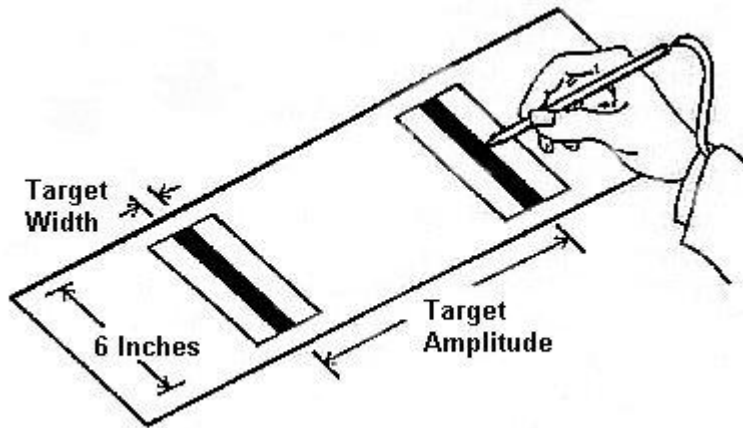
Part – 2

Prepared by: Ahmed M. El-Sherbeeny, PhD

Fitts's Law

- Fitts's Law is used to reach a relation between
 - size of as well as distance to target
 - and speed (or response time, RT) to reach target
- Target can be button on screen or break pedal, etc.
- This has many (increasing) applications in HCI (human-computer interaction)
- The most important finding: edges of a screen are easiest (i.e. shortest time) to reach: can you show how?

Fitts's Law



Fitts's Law

- Fitts's Law:

$$T = a + b \log_2 \left(\frac{D}{W} + 1 \right)$$

- D: distance to target (aka amplitude)
- W: width of target (i.e. target size, e.g. button)
- Note, there are different versions of Fitts's Law (e.g. $2D/W$ instead of $D/W + 1$)

Fitts's Law

- Link to good video on Fitts' (or Fitts's) Law
<https://youtu.be/E3gS9tjACwU>
- Interactive Exercise on *Fitts's Law*
<http://fww.few.vu.nl/hci/interactive/fitts/>
- Another interactive exercise and further explanation:
<http://www.psytoolkit.org/lessons/fitts.html>