HCI-CA1-Notes

**Prototype/PowerPoint :** [Presentation.pptx](https://365abdn-my.sharepoint.com/:p:/r/personal/u03so24_abdn_ac_uk/Documents/Presentation.pptx?d=weab10d5de4194bf081962e58ec3316f2&csf=1&web=1&e=wt9zXF)

## Step 1 :

We need to pick as a team what application to make. We are given these examples;

* Game for students
* Training for developers
* Exercise for online marketing officers

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**Requirements :**

* Multi-user interface
* Educational
* Safe and accessible
* Consistency
* “The proof of concept should be based on the subject of Fitt’s Law”

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**Ideas :**

A game for students

Multiplayer quiz

Students compete in quiz based on the subjects they are doing; could have point system.

Maybe team-based, introduce competition.

Leaderboards

Mockup could be interactive powerpoint

Poster could incorporate a pathway to show the design process.

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### Chat GPT IDEA

### 1. **Fitts’ Whack-a-Mole**

**Concept:**  
A modern twist on the classic whack-a-mole game where targets (moles) pop up at various locations on the screen.

**Mechanics:**

* **Variable Target Sizes:** Some moles appear larger (easier to hit) while others are smaller (harder to hit).
* **Variable Distances:** The moles appear in different parts of the screen, so the distance from the previous target varies.
* **Feedback:** After each hit (or miss), the game displays statistics comparing the player’s reaction/movement time with what Fitts’ Law predicts based on the target’s width and distance.

**Educational Angle:**  
Students can see in real-time how smaller targets and longer distances increase movement time, reinforcing the concepts of Fitts’ Law.

### **New Game Mechanic Ideas**

To engage these users further:

* **"Accessibility Mode"**: Players experience simulated impairments (e.g., tremors) to understand design challenges.
* **"Corporate Leaderboards"**: Companies compete to optimize team reaction times.
* **"Research Challenges"**: Players contribute data to crowd sourced studies on Fitts’ Law.

**Fitts Law Equation**

***T = a + b \* log₂(1+d/w) ---- (total time takes to move from starting point to a target***

* T is the time taken
* a and b are constants that vary depending on the type of pointer (e.g. mouse, finger)
* D is the distance to the target that has to be moved
* w is the width of the target (measured along the axis of movement)
* c is a constant related to dimensions (we use 0.5?)

**Analysis :**

Before attempting to design a UI/UX we need think who is going to use the application, who the end users and stakeholders are.

Poster must showcase the design process. Rich picture, identify stakeholders.

**End Users**

* Students
* Public
* Rehabilitation Patients
* Gamers
* Children
* Staff

**Stakeholders**

* Students -
* Children – any organisation that promotes or seeks to improve development in young children 3-10

**Main tree:**

* Students
  + University
    - Postgraduate
    - Undergraduate
      * On-campus students
        + Disabled students
        + Abled students
      * Online Learners
        + Disabled students
        + Abled students
  + Secondary school
    - Private School
      * Specialist institutions
      * Normal schools
    - Public School
      * disability supporting institutions
      * Normal schools
    - Grammar School
  + Primary school
    - Private School
      * disability supporting institutions
      * Normal schools
    - Public School
      * disability supporting institutions
      * Normal schools
    - Grammar School
  + Nursery
    - Public Nursery
    - Private Nursery
    - Specialist institutions
* Staff
  + Lecturers
    - Course Co-ordinates
      * Individual
      * Shared
    - Tutors
    - Individual taught
    - Outside partnering organisations
    - Teaching Assistants
    - Demonstrators
      * PGTs
        + Part Time
        + Full Time
  + Facilities and support staff
    - Cleaner
    - Canteen
    - Library Staff
* Public
  + Adults
  + Children
* Rehabilitation Patients
  + Sufferers of injuries and permanent disabilities
* Gamers
  + Covers a large demographic of all ages, skills and interests

**Rich picture**

