RAJALAKSHMI ENGINEERING COLLEGE

RAJALAKSHMI NAGAR, THANDALAM – 602 105

CS23A34
USER INTERFACE AND DESIGN LAB

Laboratory Observation NoteBook

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Evaluating the Effect of Chunking on User Memory in UI Design

Aim:

To examine how chunking (grouping visual elements such as icons or text) affects users' ability to recall information in a UI environment designed in Figma.

Procedure:

Step 1: Setting Up the UI in Figma

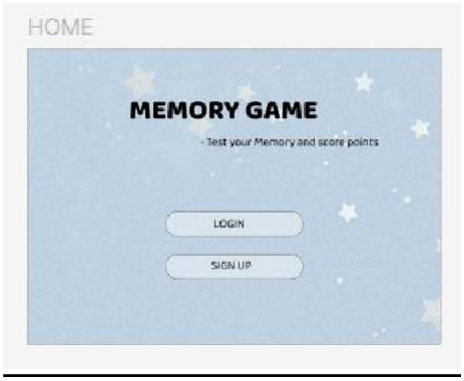
1. **Create a Home Screen (Instruction Page)**
    - Open Figma and create a **new frame** (1024x768px for desktop view).
    - Add a **heading**: "Memory Recall Task."
    - Provide **instructions** explaining that users will view grouped icons/text and recall them later.
    - Create a **Start button** using a rectangle and link it to the next screen using Figma's **Prototype feature**.
2. **Chunking Phase (Display Chunked Items)**
    - Create a **new frame** to show the items users will memorize.
    - Design two versions:
        - **Chunked Design:** Group icons or text into 3-5 item clusters using boxes.
        - **Unchunked Design:** Display items randomly without clear separation.
    - Set up a **5-second delay** to automatically transition to the next screen.
3. **Recall Phase (User Memory Test)**
    - Create a **new frame** for recall.
    - Design two options for user input:
        - **Multiple-choice selection:** Users select from a set of options.

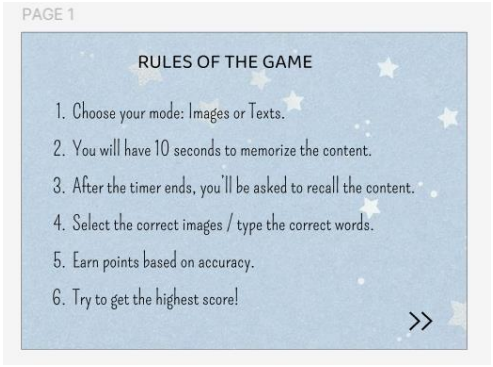
- **Text input fields:** Users type the items they remember.

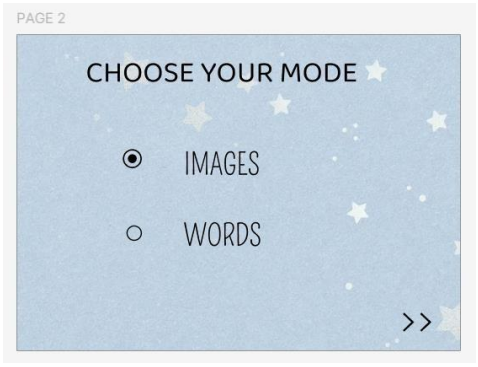
- Add a **Submit button** to move to the results screen.

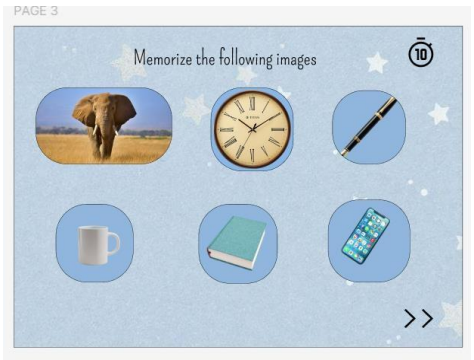
4. **Result Screen (Feedback and Analysis)**
   - Show feedback like: "You recalled 4/5 items correctly!"
   - Record user performance based on the number of correct answers.
   - Compare results for chunked vs. unchunked groups and icons vs. text-based chunks.

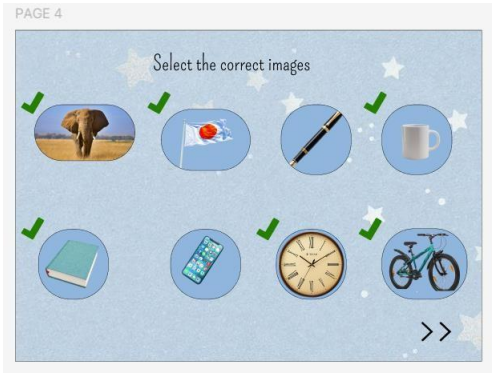
Output

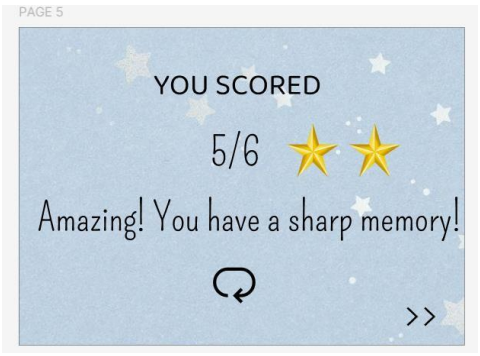


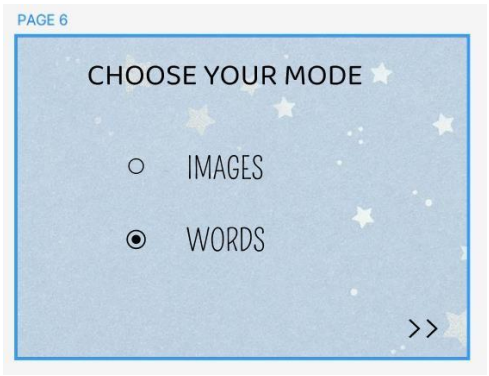




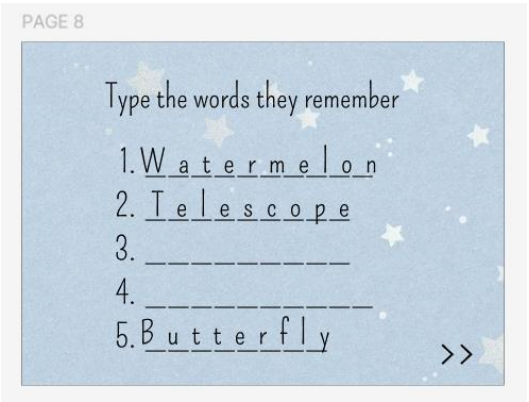


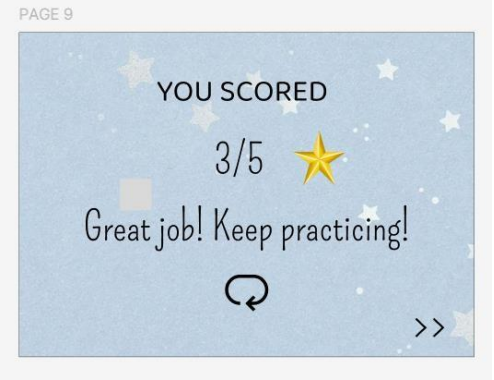

PAGE 4
Select the correct images
>>


PAGE 5
YOU SCORED
5/6
Amazing! You have a sharp memory!
>>


PAGE 6
CHOOSE YOUR MODE
IMAGES
WORDS
>>


PAGE 7
Memorize the following words
1. Watermelon
2. Telescope
3. Adventure
4. Enthusiasm
5. Butterfly
>>


PAGE 8
Type the words they remember
1. Watermelon
2. Telescope
3. _____
4. _____
5. Butterfly
>>


PAGE 9
YOU SCORED
3/5
Great job! Keep practicing!
>>


EXIT
HOME
EXIT

Results:

Users recalled chunked items better than unstructured ones, with icons being more memorable than text. The optimal chunk size was 3-5 items, as recall dropped beyond this. Multiple-choice input was easier, but text input led to better memory retention.

Link:

https://www.figma.com/design/nuZJ8HXygO5tsX8EaguDqf/230701334---SREYA-G---MEMORY-GAME?t=nEKZ0jUAHck25XSy-1