

## Experiment No. 2: 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)

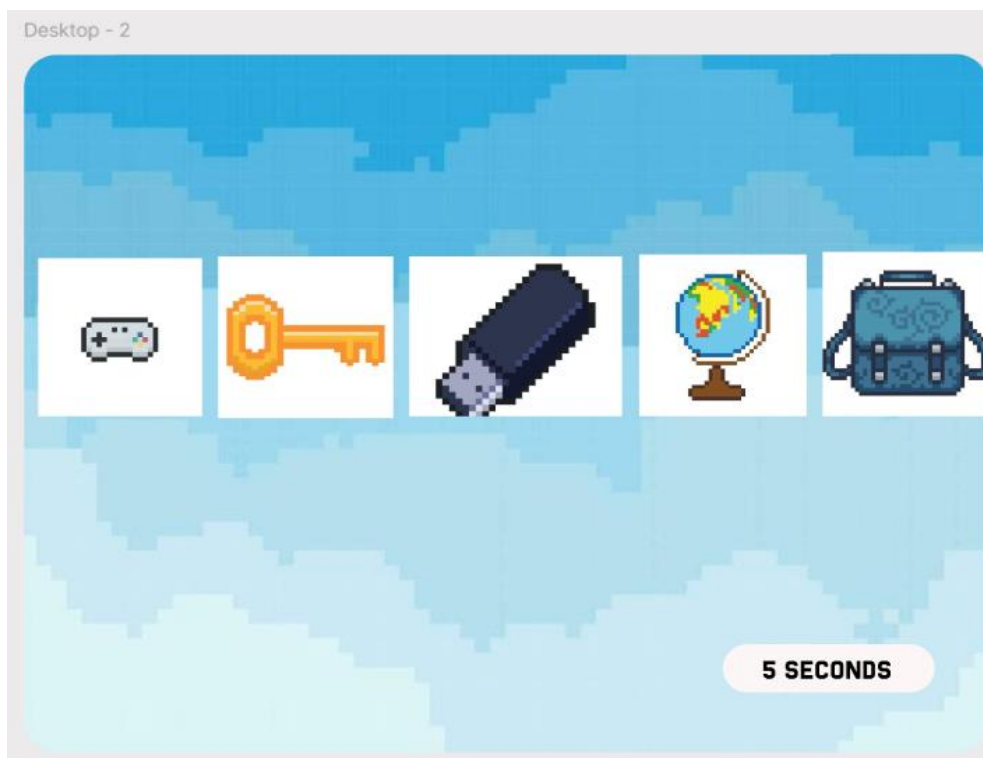
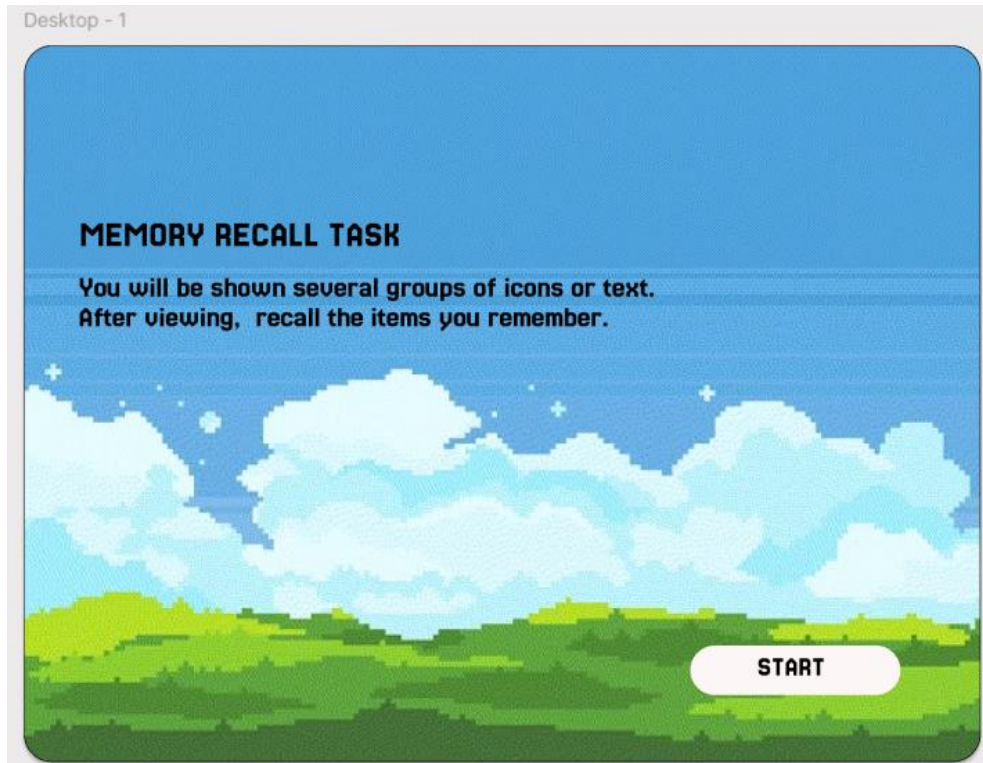
- Create a **new frame** for recall.
- Design two options for user input:
  - **Multiple-choice selection**: Users select from a set of options.
  - **Text input fields**: Users type the items they remember.
- Add a **Submit button** to move to the results screen.

##### 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.

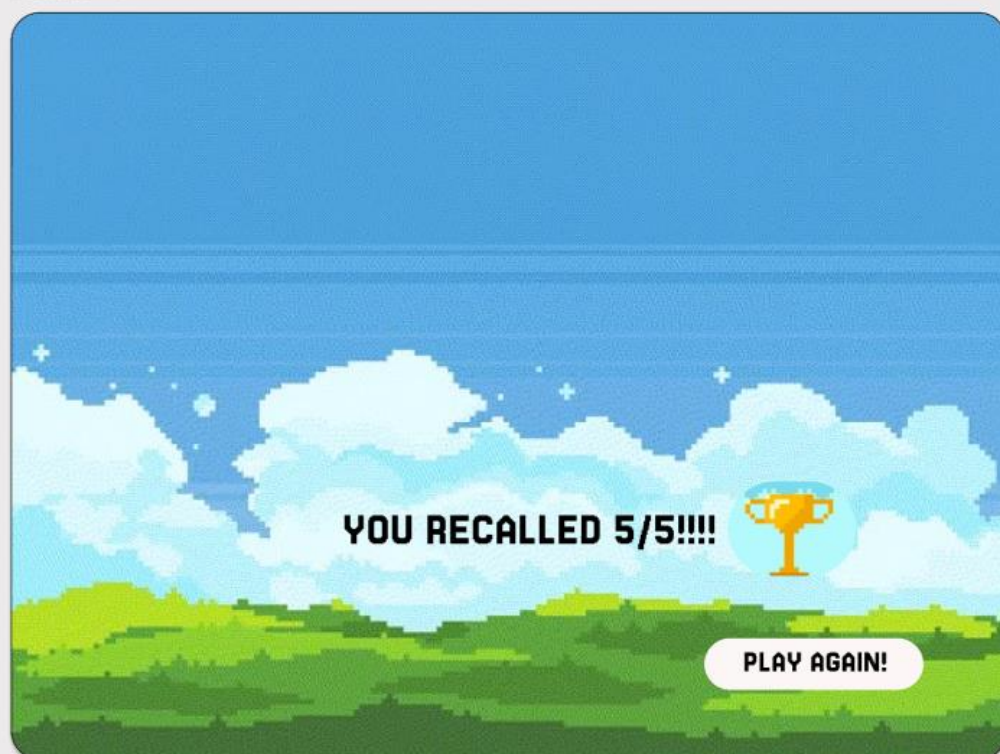
## Output



Enter the items you remember

OBJECT1- \_\_\_\_\_  
OBJECT2- \_\_\_\_\_  
OBJECT3- \_\_\_\_\_  
OBJECT4- \_\_\_\_\_  
OBJECT5- \_\_\_\_\_

RECALL!



**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/rV9LXcUBvMP6SlcDTK38e9/Excerise2?node-id=0-1&t=kegOrF0sQMpqBRzs-1>