EXPERIMENT 2: User Interface Design

Design a UI where users recall visual elements (e.g., icons or text chunks). Evaluate the effect of chunking on user memory.

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FRAME 1:

INSTRUCTION PAGE

Chunking Analysis of the Instruction Page

Chunking is a cognitive technique that breaks information into smaller, manageable units, making it easier for users to understand and remember. The instruction page of the Memory Recall Task effectively applies chunking in the following ways:

1. Clear and Sequential Instructions

- Instructions are divided into numbered steps.
- Each step explains one action, reducing confusion.
- Users can easily understand the flow of the task.

2. Logical Grouping of Information

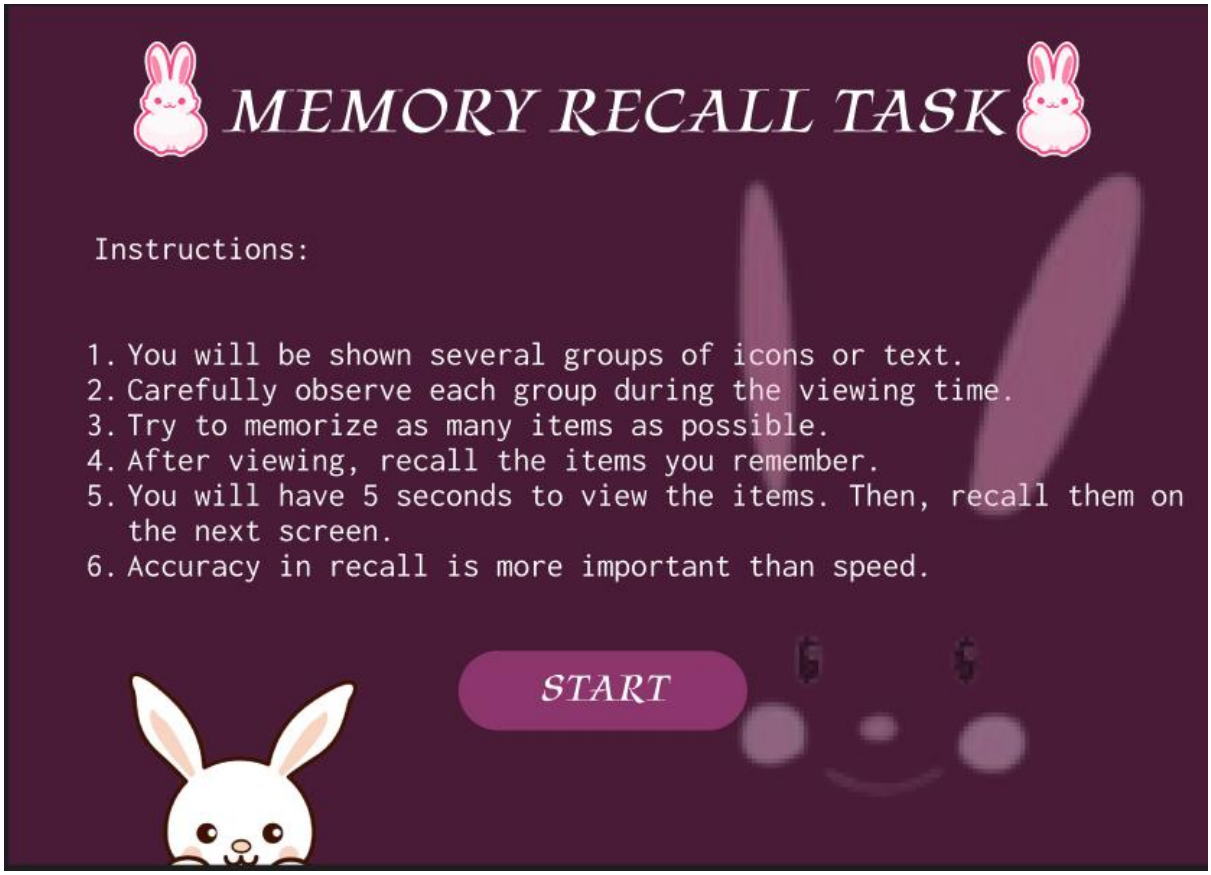
- Viewing Phase: Users are informed they will see groups of images.
- Memorization Phase: Users are encouraged to focus on remembering images.
- Recall Phase: Users are instructed to recall the images later.
- Performance Metric: Accuracy is emphasized over speed.

3. Visual Hierarchy and UI Design

- Large bold title **"MEMORY RECALL TASK"** attracts attention.
- Bunny icons add a playful and friendly theme.
- Proper spacing and alignment improve readability.
- A highlighted **START** button guides the user to begin the task.

4. Simplicity and Clarity

- Short and simple sentences are used.
- Instructions are easy to understand for all users.



FRAME 2:

CHUNKING PHASE (MEMORIZATION SCREEN)

Analysis of the Chunking Phase Screen

This screen represents the visual memory encoding phase, where users observe and memorize images using chunking principles.

1. Purpose of the Screen

- Allows users to view multiple images within a limited time.
- Encourages users to mentally group similar images for easier recall.
- Helps improve short-term memory through visual chunking.

2. Key UI Elements

- Grid layout displaying bunny images.
- Images are repeated in different patterns, helping users form memory groups.
- A friendly bunny character provides guidance and engagement.
- Instruction text informs users about the memorization time.

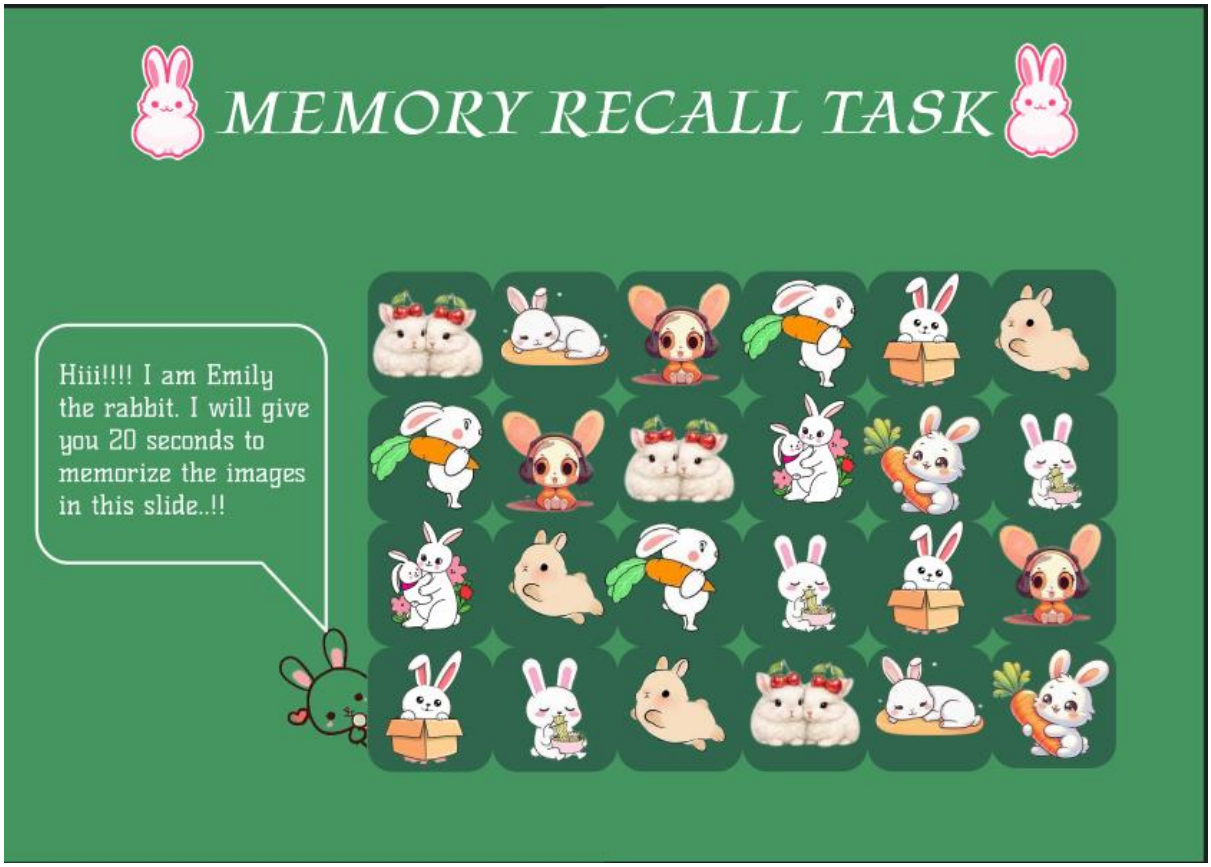
3. Chunking Strategy Used

- Grouping similar bunny images together.

- Recognizing repeated characters and poses.
- Using visual similarity to form memory chunks.

4. Cognitive Benefits

- Reduces cognitive overload.
- Improves visual recognition.
- Helps users remember images as groups rather than individual items.



FRAME 3:

RECALL PHASE (SELECTION SCREEN)

Analysis of the Recall Phase Screen

This screen represents the memory retrieval stage, where users recall and select the images they remember from the previous chunking phase.

1. Purpose of the Screen

- Tests the effectiveness of chunking on memory recall.
- Measures how accurately users remember visual elements.

2. Key UI Elements

- Title **"MEMORY RECALL TASK"** reinforces task continuity.
- Instruction text: *"Select the images you remember"*.

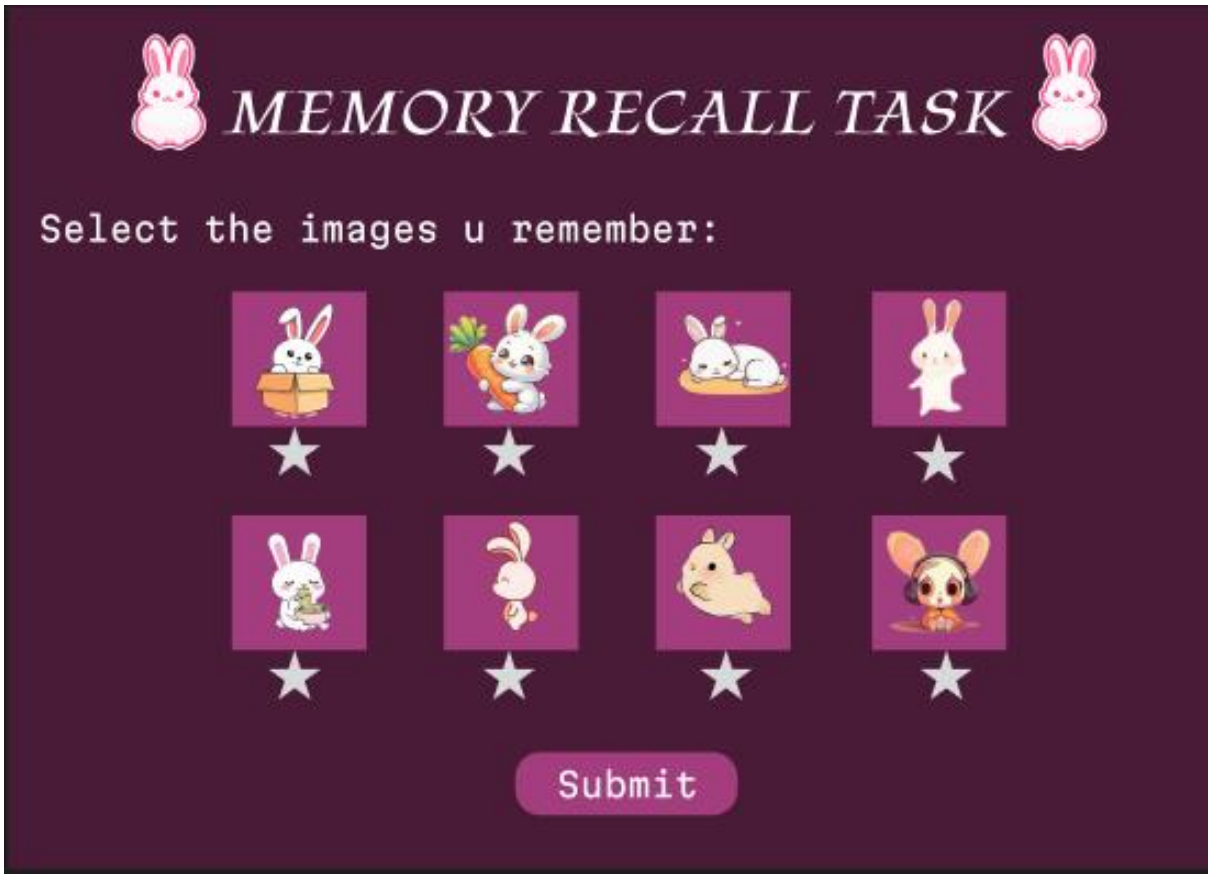
- Multiple image options including correct images and distractors.
- Star icons below each image for selection.
- **Submit** button to confirm choices.

3. How the Recall Phase Works

1. Users compare images with their memory.
2. They select images they remember seeing earlier.
3. Some images act as distractors to test accuracy.
4. Clicking **Submit** finalizes the response.

4. UX Benefits

- Simple selection mechanism.
- Clear visual feedback.
- Engaging and gamified interaction.



FRAME 4:

RESULT PAGE (SCORE & FEEDBACK SCREEN)

Analysis of the Result Screen

This screen displays the user's performance and provides feedback on memory accuracy.

1. Purpose of the Screen

- Shows recall score based on correct selections.
- Allows users to decide the next action.

2. Key UI Elements

- Score display (e.g., **0/6**) clearly shows performance.
- Bunny character holding a score board adds emotional appeal.
- Action buttons:
    - **Continue**
    - **Restart**
    - **Exit**

3. How This Phase Works

1. The system calculates the user's recall accuracy.
2. The score is displayed visually.
3. Users can retry, continue, or exit the task.

4. Cognitive and UX Benefits

- Instant feedback improves learning.
- Gamified visuals reduce stress.
- User control enhances overall experience.

PROTOTYPE LINK:

https://www.figma.com/proto/KIM9uLvtcXY68zfWtyPmqN/Untitled?node-id=2-2&p=f&t=Gv1m9nAoi2e17qrt-0&scaling=min-zoom&content-scaling=fixed&page-id=0%3A1