



**Practical Report 2**  
Experimental Report Writing

**Name:**

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## **Introduction:**

### **Aims/Purpose:**

The purpose of this experiment is to investigate whether colored words are remembered better than black and white words. This study aims to explore the impact of visual differentiation on memory recall.

### **Hypothesis:**

- **Directional Hypothesis:** Participants will recall more colored words than black and white words. This suggests that the added visual element of color will enhance memory retention.
- **Non-Directional Hypothesis:** There will be a difference in the number of words recalled between colored words and black and white words, without specifying the direction of this difference.

### **Variables:**

- **Independent Variable:** The color of the words (whether the words are presented in color or in black and white)
- **Dependent Variable:** The number of words recalled by the participants after studying the lists.

### **Method:**

- **Participants:**
- **Experimenter:** Hamza, Mariyam, Fasih & Mathilda
- **Subject:** Experimental Psychology
- **Age:** 24, 25, 25 & 27
- **Gender:** Male, Female, Male, Female
- **Education:** BS EE, MS Applied Physics, MS RF Design & M.Sc. Applied Psychology

### **Apparatus:**

- Two lists of words (one list of 10 colored words and one list of 10 black and white words).
- Stopwatch to measure the study time.
- Paper and pencil for participants to write down recalled words.
- Recording sheets for documenting the number of words recalled by each participant.

### **List of Colored Words**

- Multan
- Rawalpindi
- Oman
- Tiger
- Light
- Fire

- Football
- Food
- Pencil
- Juice

### **List of Black & White Words**

- Dilatory
- Car
- Enormity
- Sea-Horse
- Penthouse
- Stethoscope
- Anemone
- Centered
- Persists
- Bargain

### **Instructions:**

- The experiment's objectives and methods were explained to the participants.
- Provide each participant with two lists: "List #1" (colored words) and "List #2" (black and white words).
- Instructed participants to read both lists carefully for ten minutes.
- After exactly ten minutes, collect both lists from the participants.
- Ask the participants to recall and write down as many words as they can from both lists.
- Record the number of words each participant recalls from "List #1" and "List #2".
- On the accompanying record sheets, they were instructed to note their replies.
- Participants were advised to keep quiet and maintain a distance during the experiment

### **Procedure:**

- Participants were seated in a room that was locked
- Four volunteers with at least Matriculation level education were selected for the study.
- Each participant was given two lists: one containing 10 colored words and the other containing 10 black and white words.
- Participants are all seated side by side and listening to the instructions. Participants were instructed to study both lists for a total of ten minutes.
- After the ten minutes elapsed, the lists were collected from the participants.
- Participants were then asked to recall and write down as many words as they could remember from both lists.
- The number of words recalled from each list was recorded and documented.

- **Results:**

The following table presents the number of words recalled by each participant from both the colored and black and white word lists:

<b>Participants</b>	<b>No. of words recalled colored words</b>	<b>No. of words recalled black and white</b>
<b>1</b>	8	5
<b>2</b>	7	6
<b>3</b>	9	4
<b>4</b>	6	5
<b>Total</b>	<b>30</b>	<b>20</b>

**Discussion:**

The results indicate that participants generally recalled more colored words than black and white words. Specifically, Participant 1 recalled 8 colored words and 5 black and white words, Participant 2 recalled 7 colored words and 6 black and white words, Participant 3 recalled 9 colored words and 4 black and white words, and Participant 4 recalled 6 colored words and 5 black and white words. On average, participants recalled 7.5 colored words compared to 5 black and white words.

These findings support the directional hypothesis that colored words are remembered better than black and white words. The results align with the theory that visual differentiation, such as color, can enhance memory recall by making the information more distinctive and easier to encode and retrieve. The use of color may act as an additional cue that aids in the retrieval process.

**Conclusion:**

This experimental investigation offers that colored words are remembered better than black and white words. This suggests that incorporating color into educational materials and other memory-related tasks could enhance recall and retention. The findings support the idea that visual elements play a significant role in memory processes, making information more memorable and easier to retrieve. Future research could explore the impact of different colors and the use of color in various contexts to further understand its effects on memory.