

THE EFFECT OF COLOR ON FREE RECALL: RED, BLUE, & WHITE

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ABSTRACT

- The goal of this experiment was to find a relationship between color and free recall.
- Results did not support my hypothesis that stimuli printed on red-colored paper would be the most effective for free recall.
- Results are discussed in terms of how to optimize study habits.

INTRODUCTION

- Hall and Sidio-Hall (1994) found that students who studied from color-enhanced materials recalled significantly more information than those who studied from black-and-white materials.
- Kuhbandner, Spitzer, Lichtenfeld, and Pekrun (2015) found that when objects were colored in red or yellow, color was more strongly bound to objects in memory, compared to when objects were colored in blue or green, which was the color that was most poorly bound.
- I hypothesized that stimuli printed on red-colored paper would be the most effective for free recall compared to stimuli printed on blue-colored paper or plain, white paper.

METHOD

Participants.

- Thirty (30) Penn State New Kensington undergraduate students served as the participants in this study.

Procedure.

- Participants were randomly assigned to the conditions of the experiment – 10 were given a recall test printed on red-colored paper, 10 were given the test printed on blue-colored paper, and 10 were given the test printed on plain, white paper.

Stimulus Material.

- A list of 20 nonsense syllables was developed as the recall test. Each test consisted of the same 20 nonsense syllables, the only difference was the color of the paper that tests were printed on.

Measures.

- Participants were asked to write down all of the nonsense syllables that they could remember using free recall on a separate sheet of paper, which was the same color as the original stimuli.
- Participants were then prompted to answer a question on the back of their paper, asking if they were or believed to be color-blind.

RESULTS

- The mean scores of the nonsense syllables recalled per color of paper were submitted to a one-way ANOVA statistical test.
- Results did not reveal support for my hypothesis.
- There was no difference in the amount of words recalled $F(2, 27) = .862, p = .43$, such that those who were given red-colored paper recalled no more words ($M = 4.80, SD = 2.57$) than those who were given the blue-colored paper ($M = 5.60, SD = 3.27$) or those who were given plain, white paper ($M = 6.40, SD = 2.22$).

DISCUSSION

- Studying from color stimuli may distract students from the actual content.
- To improve free recall, students should study from stimuli printed on plain, white paper.
- For future research, the effect of color on serial recall could be explored.

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