

The Effect of Color on Cognitive Performance and Mood

Color plays an important role in the way people view the world, and different colors can evoke different emotions (Werner, 1954). In addition, color also impacts performance on cognitive tasks, with red leading to worse performance on anagram tasks compared to green and gray (Elliot et al., 2007). The current research study will extend the work on color and human emotion and behavior by an experimental examination of the impact of color (i.e., red, blue, and gray) on cognitive performance and mood in undergraduate students at a small liberal arts college. The independent variables are 1) color presented in the room and 2) color of pen ink used to complete the study. The dependent variables are positive and negative mood and performance on the SAT/GRE questions (i.e., number of questions attempted and correct and time spent on task).

We hypothesize that red will lead to worse performance on a cognitive task and a greater anxious mood compared to the other colors. We also predict that blue will lead to the highest performance and the most relaxed mood. Grey will serve as our control group. Finally, we will explore how match or mismatch between color of the room and pen ink color affects both mood and performance. After the participants give informed consent, participants will be randomly assigned to one of the color groups or the mixed color group. Participants will then complete a series of SAT/GRE questions and rate their positive and negative mood states. The order of these measures will be counterbalanced. Last, participants will complete some demographic information. Data collection and analyses will be completed by the conference. This research can benefit teachers and students by understanding the effects of color priming in the classroom.