

THE EFFECTS OF COLOR CONTRAST TO DISCRIMINATION PERFORMANCE ON COMPUTER
SCREEN

林靜華, 翁偉倫

Industrial Management

Management

kate@chu.edu.tw

Abstract

This study analyzed the effects of color contrast to discrimination performance on computer screen. The screen was divided into 256 cells and three fields of view: peripheral, middle and central. The signal in green color appeared randomly on one cell at a time accompanied with a noise of color yellow or red on another cell on the white background. According to the average discrimination reaction time, the performance under high color contrast, i.e. green-red combination, was better than that under low color contrast, i.e. green-yellow combination. Besides, the performance on central field of view was the best, on middle field of view the next and on peripheral field the worst. Under low color contrast, the performance of the three fields of view were all significantly different; while under high color contrast, only the performance of peripheral field of view was significantly different to the others. The performance of middle field of view was as good as on central field of view under high color contrast.

Keyword : Computer screen, Discrimination reaction, Color Contrast, Human performance