

Investigation of Optimal Signal Colors on Different Computer Screen Locations

林靜華, 葉政昌

Industrial Management

Management

kate@chu.edu.tw

Abstract

This study investigated the effects of signal colors of different computer screen locations under white background and two different time stresses on human detection performance. The screen was divided into 256 cells. The signals in six different colors appeared randomly on one of the cells at a time. There was 4x4 cells near the center of the screen and there were another six concentric loops of cells which constituted a total of seven layers on the screen. Reaction time responded to randomly appeared signal was tested. According to the results of statistical tests by average simple reaction time, the seven layers were repartitioned into several significantly different responded locations. Five locations were adopted as subjects were tested without time limitation and four locations were tested under time limitation. As for the six signal colors, the performance was not different on central location when subjects operated without time limitation. When the subjects were tested under time limitation, black and green signals was the best combination on the central location, if the third color was needed, red and blue signals was recommended to be used. For the peripheral locations, black or green of signals was recommended.

Keyword : Computer screen, Signal detection, Simple reaction, Human performance