The Effect of Blue and Yellow Colour Overlay on Reading among Autism Spectrum Disorders (ASD)

Abstract:

This article reports on the study of blue and colour overlay on reading among the ASD children. A quasi experiment pretest and posttest study were conducted between three groups where the children were divided into using Blue color, Yellow color, and Control group. Anova showed no significant difference between the two colors and the control group. However, Mean comparison showed highest mean for yellow, followed by blue and control group. The effect size was calculated using the formula of Cohens for yellow group and control group; blue group and control group respectively. The results are 0.53 for the control group with yellow group and 0.57 for the control group with blue group. 0.5 effect size is medium and 0.8 effect size Blue colour of overlays have shorter wavelength showing moderate effect. The results showed promising effect of using color overlay as suggested by the theoretical review where the blue cone inhibit magnocellular neurones. It makes the letters to keep still instead of moving. The blue light research studies believed the blue wavelength able to decrease the level of the melatonin secretion at night, which affected the suprachiasmatic clock and cause people feel awakes. Therefore the decreasing of melatonin level in the morning can increase the level of alertness