

The Effect of Colour Contrast on Academic Anxiety and Emotion in Online Testing Environment

Authors : Yiou Huang

Abstract : Colour information widely exists in daily life, broadly influences human emotion, and presumably affects digital learning and testing experience. In the present study, we investigated the impact of colour contrast on students' academic anxiety during online testing. In Experiment 1, we recruited 52 students and asked them to solve an array of verbal and mathematical questions in a computer-based test. The visual background was divided into two parts horizontally (left and right) with different colours. The background switched from high colour contrast (warm-cool) to low colour contrast (warm-warm or cool-cool) during the test, and we measured participants' academic anxiety levels under each colour contrast condition. Results showed that high colour contrast is associated with higher academic anxiety levels compared with low colour contrast, and the overall colour temperature (i.e., warm or cool) had no significant effect. In Experiment 2, we ruled out the confounding effect of testing order and materials by starting with low colour contrast and including only verbal questions. We replicated our finding that high colour contrast is associated with higher academic anxiety level experienced. These findings reveal a link between colour perception and emotion, guiding for designing online learning and testing environments.

Keywords : academic anxiety, colour contrast, colour temperature, emotion

Conference Title : ICBEF 2024 : International Conference on Behavioral and Educational Psychology

Conference Location : Helsinki, Finland

Conference Dates : July 18-19, 2024