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Running head:colour and its impact on the picture completion: colour and its impact on the picture completion subtest in the WISC-IV

Gregory, Brett

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Abstract

Limited research exists demonstrating whether the addition of colour to psychometric measures impact an individual's performance. Previous studies have found that colour neither has an incremental or decremental effect in performance, though both empirical and theoretical evidence exists that suggests colour should be affecting performance given the enhancement effects colour has on perception. Notably, previous attempts at analysing this question are outdated and sometimes suffer from methodological flaws, and thus their findings can arguably be questioned. The present study aimed at providing a more recent attempt at examining whether colour affects psychometric performance and whether this impact changes according to an individual's educational ability. To this end, a colourised and a greyscale version of the Picture Completion subtest in the WISC-IV were randomly administered to a sample of 87 children who differed in their educational ability level determined by the type of educational assistance they required. Children's overall score in the measure and their average time taken to provide a correct response to an item were recorded to provide insight into their overall performance in the measure. A series of robust two-way analysis of variances for both participants scores and times found a single significant main effect for the type of school the participant attended on their score, with the remaining main and interaction effects for both dependent variables being non-significant. These results suggest that colour did not significantly affect participants performance on the measure. However non-statistically significant but consistent differences found between the two versions of the measure that warrants for future investigation into this matter.

Keywords: WISC-IV, Picture Completion, South Africa, visual search, perception, attention, performance.