Factors affecting vision and visio-spatial intelligence (VSI) in sport: a review of the literature

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Abstract:
Background: Sport has become increasingly competitive, prompting the need to determine, as far as possible, any likely performance advantage. While the focus of athletic research, testing and training focuses on the physiological and physical characteristics of the sport, visual abilities not only affect sport performance directly, but also affects the acquisition of motor skills. Vision, and visio-spatial intelligence (VSI), are a relatively new and underexplored area of athletic performance. As with physiological and physical parameters, a range of factors affect vision and VSI in sporting activities. Objectives: This review of the literature is a first attempt to summarise and compile an overview of the factors affecting vision and VSI in athletes, covering those previously connected with sport, as well as those hitherto not associated with athletic activities, but that could also play a part in sport performance.

Discussion: The evidence from this review suggests that while current research still tends to focus on single factors affecting vision and VSI, a large number of such factors have been identified that could affect vision and VSI. This offers new opportunities for researchers to investigate the effects of a combination of factors, and for conditioning and/or sports vision specialists to explore further possibilities for competitive advantage.

Keywords: Athletic performance; Decision making; Optometric intervention; Sport performance; Sports vision; Visual abilities.

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