

Spatial skills in grassroots athletes and athletes with functional impairments: A screening study in Latvia

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Abstract

Visuo-spatial abilities contribute to successful athletic performance (Millard et al., 2021), and the results of visio-spatial tests have a predictive and diagnostic value (Moreau et al., 2012). In our study, we test participants from grassroots sports (n=186) and adapted sports (n=30) with tests covering allocentric and egocentric cognition (Mental rotation (Shepard & Metzler, 1988), Perspective taking (Kozhevnikov & Hegarty, 2001), Santa Barbara Sense of Direction Scale (SBSOD) (Hegarty et al., 2002)) using a web application. We compare differences in spatial skills in both groups depending on demography (age, gender) and sports training characteristics (type of sport, training regularity, experience). Preliminary results suggest that (1) mental rotation performance is similar across groups; (2) participants from the grassroots sports perform better in the perspective-taking test; (3) SBSOD measurements are slightly better in the adapted sports.