

Temperamental Determinants of Eye-Hand Coordination Formation in the Special Aerial Gymnastics Instruments (SAGI)

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Abstract : Motor activity and good health are sine qua non determinants of a proper practice of the profession, especially aviation. Therefore, candidates to the aviation are selected according their psychomotor ability by both specialist medical commissions. Moreover, they must pass an examination of the physical fitness. During the studies in the air force academy, eye-hand coordination is formed in two stages. The future aircraft pilots besides all-purpose physical education must practice specialist training on SAGI. Training includes: looping, aerowheel, and gyroscope. Aim of the training on the above listed apparatuses is to form eye-hand coordination during the tasks in the air. Such coordination is necessary to perform various figures in the real flight. Therefore, during the education of the future pilots, determinants of the effective ways of this important parameter of the human body functioning are sought for. Several studies of the sport psychology indicate an important role of the temperament as a factor determining human behavior during the task performance and acquiring operating skills> Polish psychologist Jan Strelau refers to the basic, relatively constant personality features which manifest themselves in the formal characteristics of the human behavior. Temperament, being initially determined by the inborn physiological mechanisms, changes in the course of maturation and some environmental factors and concentrates on the energetic level and reaction characteristics in time. Objectives. This study aimed at seeking a relationship between temperamental features and eye-hand coordination formation during training on SAGI. Material and Methods: Group of 30 students of pilotage was examined in two situations. The first assessment of the eye-hand coordination level was carried out before the beginning of a 30-hour training on SAGI. The second assessment was carried out after training completion. Training lasted for 2 hours once a week. Temperament was evaluated with The Formal Characteristics of Behavior – Temperament Inventory (FCB-TI) developed by Bogdan Zawadzki and Jan Strelau. Eye-hand coordination was assessed with a computer version of the Warsaw System of Psychological Tests. Results: It was found that the training on SAGI increased the level of eye-hand coordination in the examined students. Conclusions: Higher level of the eye-hand coordination was obtained after completion of the training. Moreover, a relationship between eye-hand coordination level and selected temperamental features was statistically significant.

Keywords : temperament, eye-hand coordination, pilot, SAGI

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