



Performance errors: the result of weak concentration or ineffective coping with mistakes? ¹

Zemaityte, Aiste (1); Survila, Kristupas (1,2)

Organisation(s): 1: Lipse, Lithuania; 2: ESB Reutlingen, Germany

Abstract

Concentration is an essential component of sport and exercise. Energy, precision and function are the variables of concentration according to the theoretical model of Reulecke (1991) on which the standardized concentration test “Cognitrone” is based (Schuhfried, 1995, 2017). However, the relationship between concentration and reacting to mistakes (e.g., coping with mistakes) is not researched. The purpose of this research is to determine if the impossible to process yet understandable tasks (IPUTs) increased the overall number of mistakes. The research consisted of control and experimental groups of sports aviators (N = 46, age 18 - 40). Control group completed a standardized concentration test “Cognitrone” with a fixed 2 s processing time, version S4 - S5 and had 100 tasks. Experimental group completed the same test but 33 of the 100 tasks were replaced with IPUTs - tasks with a fixed 0.5 s time. This IPUT is like an “ace” in tennis - a serve that is not touched by the receiver and loses him a point. Answers to the IPUTs were not evaluated. The results of both groups were compared based on an incorrect / correct answer ratio. The results: $M_{(control)} = 0.1795$ vs. $M_{(experimental)} = 1.4281$, $SD = 0.127$ and $SD = 1.28$, $p < 0.001$. Conclusion: the impossible to process yet understandable tasks significantly increased the overall number of mistakes.

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