

Pursuit Rotor による運動学習に関する実験的研究

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An Experimental Study of Motor Learning on a Pursuit Rotor

by

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In order to clarify the efficiency of mental practice for the pursuit-rotor tracking, results of four types of learning techniques (physical, mental, simple tracking, and visual tracking) were compared under the conditions of massing practice and distributing practice. The diameter of the surface of a pursuit-rotor was 28 cm, the target was placed on the spot seven centimeters from the center, and the speed of the rotor was 45 r.p.m..

Experiment I: Distributing vs. Massing

1. Distributing Practice

(1) Physical

30 sec. of physical practice and 15 sec. of resting—10 repetitions.

(2) Mental

30 sec. of physical practice, 15 sec. of resting, 30 sec. of mental practice, and 15 sec. of resting—5 repetitions.

(3) Control

30 sec. of physical practice and 1 min. of resting—5 repetitions.

2. Massing Practice

(1) Physical

5 min. of physical practice.

(2) Mental

2 and a half min. of physical practice and 2 and a half min. of mental practice.

(3) Control

2 and a half min. of physical practice and a half min. of resting.

Subjects rested for five minutes after finishing above tasks, and then were asked to do five more repetitions of 30 sec. of physical practice and 15 sec. of resting.

Experiment II: Distributing practice

(1) Physical

30 sec. of physical practice and 15 sec. of resting—20 repetitions.

(2) Simple Tracking (without touching)

30 sec. of physical practice, 15 sec. of resting, 30 sec. of simple tracking, and 15 sec. of resting—10 repetitions.

(3) Visual Tracking (with eyes only)

30 sec. of physical practice, 15 sec. of resting, 30 sec. of visual tracking, and 15 sec. of resting—10 repetitions.

(4) Mental

30 sec. of physical practice, 15 sec. of resting, 30 sec. of mental practice, and 15 sec. of resting—10 repetitions.

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